



UNIVERSITY  
of Prince Edward  
ISLAND

# 2015-2016 Academic Calendar

*Revised January 2016*

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## NOTES

- i.
  - (a) Contents of this calendar are subject to continuing review;
  - (b) Students, upon registering, agree to be, and shall be, bound by the regulations and policies of the University of Prince Edward Island as published in the Calendar (electronic or paper version) or otherwise enacted by the University;
  - (c) The University of Prince Edward Island reserves the right to alter anything described herein without notice, and every student registering shall be deemed to have agreed to any such alteration whether made before or after said registration. This agreement and the rights and obligations of the parties hereunder shall be governed by the laws of the Province of Prince Edward Island. Any action or proceeding for relief under this contract shall be brought in the Province of Prince Edward Island;
  - (d) The online calendar is the official version of the UPEI Calendar and is updated throughout the year.
- ii.
  - (e) The University of Prince Edward Island does not accept responsibility for any loss, damage, or interruption of classes suffered by a student as a result of strikes, lockouts, weather, or any other cause beyond the reasonable control of the University.
  - (f) UPEI reserves the right to refuse admission to any applicant.

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# 1. THE UNIVERSITY OF PRINCE EDWARD ISLAND—GENERAL

## History

The University of Prince Edward Island is located in Charlottetown, the capital city of the province of Prince Edward Island. Incorporated in 1969 by an Act of the Provincial Legislature, the University has a long-standing tradition of academic excellence dating back to the early 19th century, with roots in its founding institutions, Prince of Wales College (PWC) and St. Dunstan's University (SDU). UPEI honours this proud legacy through a growing reputation for academic achievement, research innovation, community engagement, and service—locally, nationally, and internationally.

Consistently ranked as one of Canada's top primarily undergraduate universities, UPEI offers a wide range of programs and degrees to over 4,300 undergraduate, graduate, and doctoral students from over 65 countries. The University is home to a talented community of educators and researchers including five 3M Teaching Award winners, and 15 funded research chairs—one a prestigious Canada Excellence Research Chair in Aquatic Epidemiology.

The commitment to education as a primary factor in PEI's development can be traced to debates of the colony's earliest legislative council. A particular champion was Lieutenant-Governor Edmund Fanning (1786–1805). Fanning actively promoted the view that education was central to the colony's progress, and that it should be seen as a priority, along with the enhancement of agriculture, fisheries, commerce, and population growth. In 1804, he personally donated the land on which PWC was to stand “for the purpose of laying the foundation of a College thereon.” Kent College, later to become Prince of Wales College, opened in 1820. A related predecessor institution, Central Academy, received a Royal Charter in 1834. In 1860 the Colleges were renamed for the Prince of Wales in honour of the visit of the future King Edward VII.

The predecessor of St. Dunstan's University, St. Andrew's College, was founded in 1831 under the leadership of Bishop Angus MacEachern. St. Dunstan's College was established in 1855 by Bishop Bernard MacDonald on a large farming property which today is surrounded by the expanding city of Charlottetown. This property, including the historic SDU Main Building, serves as the University of Prince Edward Island campus. The campus consists of 28 academic, administrative, residential, and athletic buildings surrounding an historic central quadrangle. UPEI is well known for its respectfully maintained historic architecture, complementary modern structures, and for its red brick, well-manicured appearance.

The University's campus is a reflection of the character of UPEI on many levels—a complementary blend of old and new, of tradition and innovation. Original SDU buildings have been renovated tastefully to retain integrity of design while meeting modern standards, and many buildings have been integrated into the campus over the years, including the Central Utility Building (1973), Blanchard Hall (1973), Robertson Library (1975), the Atlantic Veterinary College (1986), the Chi-Wan Young Sports Centre (1990), the Wanda Wyatt Dining Hall (1990), the K.C. Irving Chemistry Centre (1997), the W. A. Murphy Student Centre (2002), Bill and Denise Andrew Hall (2006), Don and Marion McDougall Hall (2008), and the Health Sciences Building (2012).

The depth of UPEI's academic heritage is reflected not only in the buildings and scholarships named in honour of education pioneers and benefactors, but also in personal, day-to-day connections. Graduates of SDU, PWC, and UPEI teach at the University, children of current and former faculty and staff attend UPEI, and many families proudly report multi-generational alumni connections to the institution. These connections span the globe. The University has a long history of welcoming students from outside the province and country. In 2014, international students from over 65 countries attend UPEI comprising over 16% of the University's student body. Over 22,000 alumni of UPEI, SDU, and PWC—whether in Prince Edward Island, elsewhere in Canada, or abroad—maintain a close sense of connection with their University.

UPEI has seen important developments in its programming over the past 46 years. The Faculty of Veterinary Medicine and the Schools of Business Administration and Nursing, were added as the University expanded. A School of Engineering, within the Faculty of Science, was added in 2014. Bachelors' programs, in many cases including honours options, are available in Arts, Science, Business Administration, Education, and Nursing. Master

and doctoral degree programs were first introduced through the Atlantic Veterinary College, and, beginning in 1999, a Master of Science degree was offered through the Faculty of Science. In that same year the first students were admitted to the University's new Master of Education program. Programs added since 1999 include: Master of Arts in 2003; Master of Applied Health Services Research in 2004; Bachelor of Integrated Studies, and Master of Business Administration in 2008; Bachelor of Business Studies, and PhD in Educational Studies in 2009; Bachelor of Wildlife Conservation, Bachelor of Science in Kinesiology, and Master of Nursing in 2010; PhD in Molecular and Macromolecular Sciences, and PhD in Environmental Sciences in 2012; 1-year Bachelor of Education in 2013; and a Bachelor of Science in Engineering in 2014. Co-op Education programs are available in Business Administration, Computer Science, and Physics.

Underlying the University's programs and activities is a commitment to rigorous study and inquiry, belief in the value of knowledge, lifelong capacity-building, and the development of the whole person—along with a sense of community at UPEI and in its local, regional, national, and international contexts. Faculty in all disciplines produce research and scholarly works of national and international calibre, while continuing to give priority to UPEI's well-earned reputation for high-quality teaching characterized by individual attention.

The University of Prince Edward Island is fortunate to have been served by a succession of outstanding Chancellors and Presidents/Vice-Chancellors, installed as follows:

**Serving as Chancellor:**

The Honourable Thane A. Campbell, CC, MA, LLD  
—May 14, 1970

Gustave Gingras, CC, MD, FRSA, LLD, FRCP(c)  
—May 12, 1974

David Macdonald Stewart, CM, CStJ, KLJ, FRSA, FHS(c), Hon LLD, Hon DBA  
—October 1, 1982

The Honourable Gordon L. Bennett, OC, BSc, MSc, LLD, DCL  
—March 9, 1985

Doris H. Anderson, OC, BA, LLD  
—October 24, 1992

Norman Webster, CM, BA, MA, DCL  
—November 2, 1996

William Andrew, Dip Eng, BEng  
—March 6, 2005

Don McDougall, BComm, MBA, LLD  
—March 30, 2014

**Serving as President and Vice-Chancellor:**

Ronald J. Baker, OC, BA, MA, LLD  
—May 14, 1970

Peter P. M. Meincke, BSc, MA, PhD  
—September 23, 1978

C. W. J. Eliot, CM, BA, MA, PhD, DCL  
—October 19, 1985



Elizabeth R. Epperly, BA, MA, PhD  
—October 14, 1995

Lawrence E. Heider, DVM  
—August 16, 1998 (acting)

H. Wade MacLauchlan, BBA, LLB, LLM, CM  
—October 3, 1999

Alaa S. Abd-El-Aziz, BSc, MSc, PhD  
—July 1, 2011

## **Mission**

The University of Prince Edward Island, founded on the tradition of liberal education, exists to encourage and assist people to acquire the skills, knowledge, and understanding necessary for critical and creative thinking, and thus prepare them to contribute to their own betterment and that of society through the development of their full potential. To accomplish these ends, the University is a community of scholars whose primary tasks are to teach and to learn, to engage in scholarship and research, and to offer service for the benefit of our Island and beyond.

## **Vision**

The University of Prince Edward Island will be a leader in delivering outstanding experiential learning opportunities that encourage our students to develop to their full potential in both the classroom and the community. Driven by discovery, UPEI will be a destination for those eager to advance our world by creating new knowledge. Together, we will foster the development of tomorrow's leaders who will emerge from their studies ready to excel and contribute to the betterment of our local and global communities.

## **Values**

Accountability and Integrity • Excellence • Respect and Collegiality • Shared Responsibility

## **Accreditation**

The University of Prince Edward Island is a member of the Association of Universities and Colleges of Canada, the International Association of Universities, and the Association of Atlantic Universities.

## **Governance and Structure**

The University is governed by a Board of Governors and a Senate, instituted under the terms of the provincial University Act. The twenty-six-member Board consists of nine members appointed by the Lieutenant-Governor-in-Council; the Chancellor of the University; the President of the University; the President of Holland College; two members elected from the Senate; two members elected from the faculty; two members elected from the alumni; two members elected from the student body; and six members elected by the Board.

The Senate is composed of the President of the University; the Vice-Presidents of the University; the Deans of Faculties and Schools; the Registrar; the University Librarian; the Director of the Office of Skills Development and Learning; six members of the student body, at least one of whom is a mature or part-time student, or both; the President of the Student Union; one member of the Board of Governors; one member of the Alumni Association; and twenty-two members elected from the full-time teaching faculty.

The courses offered by the University lead to degrees in Arts, Science, Business Administration, Education, Music, Veterinary Medicine, Nursing, and Radiography. At its Convocation Exercises in May 2015, the University conferred 731 bachelor degrees, 63 DVM degrees, 51 master degrees, 7 doctoral degrees, 39 diplomas, and 50 certificates.

In 2014–2015—UPEI’s forty-sixth academic year—the University’s teaching staff numbered approximately 260 persons, and 3,902 full-time and 481 part-time students were enrolled.

The University of Prince Edward Island is divided into four faculties: Arts, Science (including the School of Engineering), Education, and Veterinary Medicine; and two schools: Business Administration, and Nursing.

The Faculty of Arts is comprised of the Departments of Economics, English, History, Modern Languages, Music, Music Education, Philosophy, Political Science, Psychology, Religious Studies, and Sociology and Anthropology; with programs in Acadian Studies, Asian Studies, Canadian Studies, Catholic Studies, Christian Studies, Classics, Diversity and Social Justice Studies, Environmental Studies, Fine Arts, Integrated Studies, International Development Studies, Island Studies, Journalism, Public Administration, Theatre Studies, and University Writing.

The Faculty of Science is comprised of the Departments of Applied Human Sciences, Biology, Chemistry, Computer Science, Mathematics and Statistics, Physics, and Psychology; with programs in Environmental Studies, Radiography, and Wildlife Conservation. The Faculty of Science also includes UPEI’s new School of Engineering.

The Faculty of Veterinary Medicine is comprised of the Departments of Biomedical Sciences, Companion Animals, Health Management, and Pathology and Microbiology.

Undergraduate and graduate degrees are offered in all UPEI faculties.

## **University Powers**

The University of Prince Edward Island was incorporated in 1969 by an Act of the Prince Edward Island Legislature. As amended in 1998, the Act empowers the University “to establish and maintain such faculties, schools, institutes and departments, chairs and courses... as are deemed necessary to carry out its purpose... and to grant earned certificates, diplomas and degrees at all levels.”

## **Disclosure and Protection of Student Information**

### **Confidentiality**

UPEI is committed to taking every reasonable step to protect the confidentiality of the information contained in the records of students. The Registrar’s Office is responsible for the storage, management, conservation, and dissemination (within the parameters of these Student Records Management policies) of all official student records, electronic and otherwise. Any file kept in offices other than the Office of the Registrar (student services, financial aid, special needs, library services, accounting, academic departments, etc.) will also be securely maintained and managed in the strictest confidence according to UPEI’s policies. Exceptions to the policies outlined below may be made at the discretion of the Registrar.

### **Collection of Information**

An applicant provides pertinent personal information on application to the University and thereby authorizes the institution to maintain henceforth his/her record on acceptance of the offer to enrol at UPEI. (Records of applicants who are not admitted or who decline an offer of admission are destroyed at the end of the admissions cycle.)

Though not exhaustive, the following list of items are or may be contained in the Registrar’s Office files of student records:

- the application and documentation attached therewith;
- personal information (address, date of birth, Social Insurance Number, marital status, etc.);
- enrolment information (records of registration, course or program changes, advising, etc.);
- performance information (grade reports, appeals, degrees attained, transcripts, etc.);
- medical information relevant to the student’s academic performance (special needs-related information; documentation attached to an appeal for Discontinuation, etc.);

- proof of payment/student account information; and
- any correspondence submitted to/issued by the Registrar's Office deemed by the Registrar to be appropriate for inclusion.

## **Disclosure to Parties External to UPEI**

Unless compelled to do so by law or authorized by the student in writing, UPEI will not disclose the contents of student records to any party outside the University. This includes the student's name, address, and current registration status, though the Registrar's Office will verify what degrees, diplomas, or certificates have been awarded to an individual and in what year. Exceptions are noted below:

### *1. Researchers*

Non-student researchers may be given access by the Registrar on written request provided that confidentiality and anonymity of student records are guaranteed as per signed agreement.

### *2. Government agencies*

Government agencies: Information will be provided routinely to the Maritime Provinces Higher Education Commission (which works in partnership with Maritime universities and Statistics Canada) and, under Federal legislation, to Statistics Canada (for institutional and enrolment research purposes).

Maritime Provinces Higher Education Commission – The MPHEC collects the data described below on behalf of Statistics Canada. In addition, it archives these data and uses them to generate basic statistics, research products, as well as the sampling frame for its graduate survey. These activities support its mandate, which is to assist institutions and governments in enhancing the post-secondary learning. The legal authority for these activities is provided by the Maritime Provinces Higher Education Commission Act. The Act also requires that all data received by the Commission is kept confidential, and ensures the protection of personal information. More information about the MPHEC may be found at [www.mphec.ca](http://www.mphec.ca).

Regarding those students who do not wish to have their information used, Statistics Canada will notify the MPHEC of any student choosing to have their personal information removed from the national database, and their information will subsequently be removed from the MPHEC's database.

Statistics Canada – Statistics Canada is the national statistical agency. As such, Statistics Canada carries out hundreds of surveys each year on a wide range of matters, including education.

It is essential to be able to follow students across time and institutions to understand, for example, the factors affecting enrolment demand at postsecondary institutions. The increased emphasis on accountability for public investment means that it is also important to understand 'outcomes'. In order to conduct such studies, Statistics Canada asks all colleges and universities to provide data on students and graduates. Institutions collect and provide to Statistics Canada, student identification information (student's name, student ID number, Social Insurance Number), student contact information (address and telephone number), student demographic characteristics, enrolment information, previous education, and labour force activity.

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

Students who do not wish to have their information used can ask Statistics Canada to remove their identifying information from the national database. On request by a student, Statistics Canada will delete an individual's contact information (name, address, or other personal identifiers) from the PSIS database. To make such a request, please contact:

Via telephone:  
Monday to Friday  
8:30 A.M. to 4:30 P.M. EST/EDST  
1-800-307-3382 or 1-613-951-7608

Via mail:  
Institutional Surveys Section  
Centre for Education Statistics  
Statistics Canada, Main Building, SC 2100-K Tunney's Pasture, Ottawa, Ontario, K1A 0T6

Via e-mail:  
[PSIS-SIEP\\_contact@statcan.gc.ca](mailto:PSIS-SIEP_contact@statcan.gc.ca)

Further details on the use of this information can be obtained from the Statistics Canada Web site ([www.statcan.ca/english/concepts/PSIS/index.htm](http://www.statcan.ca/english/concepts/PSIS/index.htm)).

### *3. Legally Mandated Disclosure*

Specified records or portions thereof may be provided without student consent to persons or agencies pursuant to a judicial/court order, summons, or subpoena directing the University to release information.

### *4. Emergency Disclosure*

In situations involving threats to the health or safety of an individual student or employee, the Registrar reserves the right to authorize the release of relevant information without obtaining prior consent from the student(s) involved.

### *Access to Student Records by UPEI Community Members*

#### *1. Student access to own records*

- a) **Files:** Students have the right to inspect all documents contained in their files—except for letters/evaluations submitted in confidentiality by referees—upon 24 hours' notice in writing to the Registrar's Office. An appointment will be set up with an authorized official of the Registrar's Office for the viewing of their records. Copies will not be provided.
- b) **Transcripts:** Copies of student transcripts will be provided to the student or directly to an external party (employer, educational institution, etc.) upon written request submitted in person, by fax, or by e-mail (sent from a verified UPEI account). Official transcripts will not be released in sealed envelopes to students, but will be issued directly to the third party, unless documentation from that third party so instructs the Office. Requests from students with fees owing to the University will not be processed.
- c) **Release of Grades:** Final grades are posted electronically and available immediately through campus log-in. Students may access this information using their student identification and secure PIN numbers. Faculty who post evaluation results or grades, final or otherwise, for student viewing will use only student identification numbers in ascending or descending numerical order. Under no circumstances will assignments be left in a public place for student pick-up.

#### *2. Third-party access*

- a) **Student Organization Access to Student Names and Addresses:** Student organizations may request listings of student names, addresses, e-mails, or phone numbers solely for the purpose of communicating with their membership. Such requests must be made in writing, signed by the organization's authorized officer, and sent to the Registrar's Office for approval. All student organizations requesting information in this manner guarantee that the lists will not be disclosed to any other individual or group, will not be used in the context of commercial activity, and will not be used for any purpose other than that specified in the original request (except with written approval of such a request from the Registrar).
- b) **Individual Student Access to Other Students' Contact Information:** The University will not provide student phone numbers, addresses, or e-mail addresses to individual students requesting the information. Instead, the

Registrar's Office will make every effort to contact the student on behalf of the inquirer in order to communicate an urgent message.

- c) Class lists: Employees and faculty will not distribute, post, or make available to students copies of class lists that include student names with ID numbers, major, year of study, course name, timetable, or location, addresses, e-mail addresses, or phone numbers.
- d) Employee (Faculty and Staff) access: Within the University, departments and/or individuals will have access to information contained in a student file/ record on a 'need-to-know' basis. Access will be granted only to that portion of the file/record that is relevant to the employee's official purpose/function at UPEI, as decided by the Registrar. Deans and Chairs will have access to all academic grades for those students enrolled in their Faculty and department, respectively.

## **Degrees, Diplomas, and Certificates Offered at UPEI**

### **Bachelor-level Programs**

#### **Bachelor of Arts Degree**

##### **Majors**

Anthropology  
Canadian Studies  
Diversity and Social Justice Studies  
Economics  
English  
History  
Modern Languages  
    French  
    German  
    Spanish  
Music  
Music in Conjunction with Certificate in Highland Bagpipes  
Philosophy  
Political Science  
Psychology  
Religious Studies  
Sociology  
Sociology/Anthropology

##### **Minors**

Acadian Studies  
Anthropology  
Asian Studies  
Canadian Studies  
Catholic Studies  
Christian Studies  
Classics  
Diversity and Social Justice Studies  
Economics  
English  
Environmental Studies  
Fine Arts  
French  
German  
History  
International Development Studies  
Island Studies  
Music  
Philosophy

Political Science  
Psychology  
Religious Studies  
Sociology  
Social Studies of Science  
Spanish  
Theatre Studies  
University Writing

Honours & Honours Conversion

Anthropology  
English  
History  
Philosophy  
Psychology  
Sociology  
Sociology/Anthropology

Bachelor of Applied Arts in Print Journalism

Bachelor of Music

Bachelor of Music Education

Bachelor of Science Degree

Majors

Biology  
Chemistry  
Computer Science  
Computer Science—Co-operative Education  
Family Science  
Foods & Nutrition  
Kinesiology  
Mathematics  
Physics  
Physics—Co-operative Education  
Math with Engineering  
Physics with Engineering  
Psychology

Minors

Biology  
Biomedical Physics  
Chemistry  
Computer Science  
Environmental Studies  
Family Science  
Foods & Nutrition  
Mathematics  
Physics  
Statistics

Honours & Honours Conversion

Biology  
Chemistry

Computer Science  
Foods & Nutrition  
Mathematics  
Physics  
Psychology

Bachelor of Child and Family Studies

Bachelor of Wildlife Conservation

Bachelor of Environmental Studies

Bachelor of Science in Engineering (Sustainable Design Engineering)

Bachelor of Science in Nursing

Accelerated Bachelor of Science in Nursing

Business Administration

Bachelor of Business Administration  
Honours & Honours Conversion  
Co-operative Education

Minors

Business Administration  
Business Information Technology

Accelerated Bachelor of Business Administration

Bachelor of Business in Tourism & Hospitality

Bachelor of Business Studies

Bachelor of Education—Human Resource Development

Bachelor of Integrated Studies

### **“2<sup>nd</sup> Entry” Professional Programs**

Bachelor of Applied Science in Radiography

Bachelor of Education

Baccalauréat en éducation—français langue seconde

Doctor of Veterinary Medicine

Post-Diploma Degree in Radiography

### **Graduate-level Programs**

Master of Arts

Master of Applied Health Services Research

Master of Business Administration

Master of Science—Faculties of Science and Veterinary Medicine

Master of Veterinary Science

Master of Education

Master of Nursing

Doctor of Philosophy—Faculties of Education, Science and Veterinary Medicine

## **Certificates, Specializations, and Diplomas**

Accounting Certificate  
Business Certificate  
Certificate of Proficiency in Conversational Spanish  
Certificate in Inclusive Education  
Certificate in School Librarianship  
Certificate in Adult Education  
Certificate in Educational Leadership in Nunavut  
Post-Baccalaureate Certificate in Video Game Programming  
Business Specializations  
    Accounting  
    Entrepreneurship  
    Finance  
    International Business  
    Marketing  
    Organizational Management  
    Tourism and Hospitality  
Engineering Diploma  
Postgraduate Diploma in Pathology or Microbiology  
Public Administration Certificate/Diploma

## **Academic Costume**

University gowns should be of black worsted or similar material with full sleeves, and reach to within twelve inches of the floor. Graduates of the University of Prince Edward Island shall be permitted to wear the University hood, with borders coloured as follows:

Bachelor of Arts: White  
Bachelor of Applied Arts in Print Journalism: Crimson  
Bachelor of Integrated Studies: Silver  
Bachelor of Business Administration: Drab  
Bachelor of Business in Tourism and Hospitality: Burgundy  
Bachelor of Business Studies: Red  
Bachelor of Education: Light Blue  
Bachelor of Education – Human Resource Development: Forest Green  
Bachelor of Music: Pink  
Bachelor of Music Education: Mauve  
Bachelor of Science: Golden Yellow  
Bachelor of Science in Nursing: Apricot  
Bachelor of Applied Science in Radiography: Blue and Gold  
Bachelor of Child and Family Studies: Gold and Purple  
Bachelor of Wildlife Conservation: Russet  
Bachelor of Environmental Studies: To be determined  
Bachelor of Science in Engineering: To be determined  
Doctor of Veterinary Medicine: Grey  
Master of Education: Light Blue Velvet  
Master of Science: Golden Yellow Velvet  
Master of Veterinary Science: Peacock Velvet  
Doctor of Philosophy: Grey and Green Velvet  
Master of Arts: White Velvet  
Master of Applied Health Services Research: Royal Blue Velvet  
Master of Business Administration: Drab Velvet  
Master of Nursing: Apricot Velvet



## 2. FACULTY AND ACADEMIC OFFICERS

### Faculty

Abd-El-Aziz, Alaa S., BSc, MSc, (Cairo, Egypt), PhD (Saskatchewan)  
Professor of Chemistry

Aburto, Enrique, DVM, MSc (Mexico), PhD (UPEI)  
Associate Professor of Anatomic Pathology

Acharya, Bishnu, BEng (Tribhuvan), MEng (Asian Institute of Technology), PhD (Dalhousie)  
Assistant Professor of Engineering

Adeyanju, Charles, BA, (Nigeria), BA (York), MA (Guelph), PhD (McMaster)  
Associate Professor of Sociology & Anthropology

Ali, Mian Bagh, BA (Lahore), MA (Punjab), MS, PhD (Idaho)  
Associate Professor of Economics

Amsellem, Pierre, DVM (France), MSc (Colorado), Diplomate ACVS & ECVS,  
ACVS Founding Fellow in Surgical Oncology  
Assistant Professor of Companion Animals

Anderson, Doris M., BSc (HEC) (Acadia), MSc (Cornell)  
Professor Emeritus of Foods & Nutrition

Arai, Shiori, DVM (Japan), PhD (Colorado)  
Assistant Professor of Companion Animals

Arfken, Michael E., BA (Texas), PhD (Tennessee)  
Associate Professor of Psychology

Babaii, Sadegh, BSc (London), MSc, PhD (Manchester)  
Assistant Professor of Engineering

Bach, Horacio, MSc (Haifa, Israel), PhD (Tel Aviv, Israel)  
Adjunct Professor of Health Management

Badescu, Sanda, BA, BSc (Timisoara), MA, PhD (UWO)  
Associate Professor of French

Bailey, Trina, BSc, (Dalhousie), MSc (Louisiana), DVM (UPEI), Diplomate ACVS  
Adjunct Professor of Companion Animals

Baker, Joseph, BPhEd, MEd (Brock), PhD (Queen's)  
Adjunct Professor of Applied Human Sciences

Baldacchino, Godfrey, BA (Malta), MA (the Hague), PhD (Warwick)  
Professor of Sociology & Anthropology

Barabé, Denis, BSc, MSc (Montréal)  
Adjunct Professor of Biology

Baranowski, David, BSc (Concordia), PhD (McGill)  
Adjunct Professor of Chemistry

Barkema, Herman, DVM, MSc, PhD (Utrecht)  
Adjunct Professor of Health Management

Bastante, Pamela, BA, MA (Simon Fraser), PhD (British Columbia)  
Assistant Professor of Modern Languages

Bate, Luis A., BSc, MSc, PhD (Guelph)  
Professor of Physiology

Bateman, Scott, BSc (UPEI), MSc, PhD (Saskatchewan)  
Adjunct Professor of Computer Science

Berrue, Fabrice, MSc (Manchester), MSc (Montpellier), PhD (Univ. de Nice-Sophia Antipolis)  
Adjunct Professor of Chemistry

Berry, Stephanie H., BSc (Williamsburg), DVM, MVSc (Virginia Tech), Diplomate ACVAA  
Assistant Professor of Companion Animals

Bethell, Richard, BA, PhD (New Brunswick), Post-Doctoral Fellow (Calgary)  
Adjunct Professor of Chemistry

Bierenstiel, Matthias, MSc, PhD (Germany)  
 Adjunct Professor of Chemistry  
 Bissessur, Rabin, BSc (Manitoba), MSc (Rochester), PhD (Michigan State)  
 Professor of Chemistry  
 Black, Vaughan, BA (Carleton), LIB (Toronto), LIM (California), MA (Carleton)  
 Adjunct Professor of Health Management  
 Bolger, Francis W. P., BA (SDU), STL (Montreal), MA, PhD (Toronto)  
 Professor Emeritus of History  
 Boonyawiwat, Visanu, DVM, PhD (Kasetsart University)  
 Adjunct Professor of Health Management  
 Bourque, Andrea, BSc (NSAC), DVM, MVSc (UPEI), Diplomate of the American College of Veterinary Pathologists  
 Adjunct Professor of Pathology and Microbiology  
 Braithwaite, Ann, BA (Concordia), MA (McGill), PhD (Rochester)  
 Associate Professor of Diversity and Social Justice Studies  
 Brown, H. Carolyn Peach, BSc (Acadia), MSc (Guelph), PhD (Cornell)  
 Assistant Professor of Environmental Studies  
 Brown, Susan, BA (Dalhousie), MA (Guelph), PhD (Oxford)  
 Associate Professor of History  
 Bryanton, Janet, BN (UNB), MN (Dalhousie), PhD (McGill)  
 Associate Professor of Nursing  
 Buckeridge, David, MD (Queen's), MSc (Toronto), PhD (Stanford)  
 Adjunct Professor of Health Management  
 Burka, John F., BSc (Toronto), MSc, PhD (Guelph)  
 Professor Emeritus of Biomedical Sciences  
 Burke, Maxim R., BSc (Moncton), MSc, PhD (Toronto)  
 Professor of Mathematics & Statistics  
 Burton, Shelley, DVM (Saskatchewan), MSc (UPEI)  
 Professor Clinical Pathology  
 Byrne, Philip, DVM, PhD (OVC)  
 Adjunct Professor of Pathology and Microbiology

Cairns, David, PhD (Carleton)  
 Adjunct Professor of Biology  
 Campbell, Barbara, RN (PEI), BN (UNB), MN (Dalhousie), PhD (Calgary)  
 Associate Professor of Nursing  
 Câmpeanu, Cezar, MSc, PhD (Bucharest)  
 Professor of Computer Science  
 Carey, Anne Marie, DVM (UPEI)  
 Lecturer in Companion Animals  
 Carroll, Timothy E., BBA (UPEI), MBA (Saskatchewan)  
 Associate Professor of Business Administration  
 Carrothers, Andrew, BScEE (UNB), MBA, PhD (McMaster), CFA, PEng.  
 Assistant Professor of Business Administration  
 Cassidy, Mike, BComm (Saint Mary's), CA  
 Assistant Professor of Business Administration  
 Cawthorn, Richard, BSc, MSc, PhD (Guelph)  
 Adjunct Professor of Pathology and Microbiology  
 Ceballos, Alejandro, DVM (Caldas, Columbia), MSc (Austral de Chile), PhD (UPEI)  
 Adjunct Professor of Health Management  
 Chaffer, Marcelo, DVM (Republica, Uraquay), PhD (Toronto)  
 Adjunct Professor of Health Management  
 Champion, Stephen, BSc, MEng (UNB), MBA (Dalhousie)  
 Assistant Professor of Engineering  
 Chapman, Robert, BSc (UPEI), PhD (British Columbia)  
 Adjunct Professor of Chemistry

Cheverie, J. Charles, BA (SDU), MSc, PhD (CUA)  
 Professor Emeritus of Biology  
 Chilton, Lisa, BA, MA, PhD (York)  
 Associate Professor of History  
 Chisholm, Jeff, BSc (Bishop's), PhD (Dalhousie)  
 Adjunct Professor of Biomedical Sciences  
 Christensen, Jette, DVM, PhD (Royal Veterinary and Aquaculture University)  
 Adjunct Professor of Health Management  
 Chung, Edward Y. J., BA, MA, PhD (Toronto)  
 Associate Professor of Religious Studies  
 Clark, Fraser, MSc (Queen's), PhD (UPEI)  
 Adjunct Professor of Biomedical Sciences  
 Clark, Larry, BS (Florida), MA (New Hampshire), PhD (Simon Fraser)  
 Adjunct Professor of Economics  
 Cockram, Michael, BVM (London), PhD (Liverpool)  
 Professor of Health Management  
 Cohen, Annabel, BA (McGill), ARCT (Royal Conservatory of Music), MA, PhD (Queen's)  
 Professor of Psychology  
 Coll, Doreley Carolina, BA, MA (Alberta), PhD (Toronto)  
 Associate Professor of Spanish and Latin American Studies  
 Comeau, Luc, BSc (Moncton), MSc (Quebec), PhD (Dalhousie)  
 Adjunct Professor of Health Management  
 Compton, Sharon, BSc, MEd (Alabama), PhD (Alberta)  
 Adjunct Professor of Applied Human Sciences  
 Conboy, Gary A., BSc, DVM, PhD (Minnesota)  
 Professor of Parasitology  
 Cook, David, BA, MA (Dalhousie), PhD (Alberta)  
 Adjunct Professor of Political Science  
 Côté, Etienne, BSc (Rutgers), DVM (Cornell), Diplomate ACVIM and ACVIM (Cardiology)  
 Associate Professor of Companion Animals  
 Countryman, June, BA, BMus, BEd (Mt. Allison), ARCT (Royal Conservatory of Music), MMus (Western Ontario),  
 PhD (Toronto)  
 Adjunct Professor of Education  
 Couros, Alec, BEd, MEd (Saskatchewan), PhD (Regina)  
 Adjunct Professor of Education  
 Courtenay-Hall, Pamela, BA, BEd, MA (Windsor), MA (Notre Dame), PhD (Toronto)  
 Associate Professor of Philosophy  
 Couture, Anthony, BA, MA (Windsor), PhD (McMaster)  
 Associate Professor of Philosophy  
 Covey, Richard, BMus (Wilfrid Laurier), MMus, DMus (UBC)  
 Lecturer in Music  
 Cox, Ruth, BSc (Durham), MSc (Edinburg), PhD (Durham)  
 Adjunct Professor of Health Management  
 Crane, Brownyn, DVM (UPEI), MS (Florida)  
 Assistant Professor of Health Management  
 Creighton, Catherine, DVM (UPEI), MSc (UPEI), Diplomate ACVAA  
 Assistant Professor of Companion Animals  
 Critchley, Kim A., BScN, RN (St. FX), MN (Calgary), PhD (Helsinki)  
 Professor of Nursing

Dahn, Douglas C., BSc, MSc (Dalhousie), PhD (UBC)  
 Associate Professor of Physics  
 Daoust, Pierre-Yves, DVM (Montreal), PhD (Saskatchewan)  
 Diplomate of the American College of Veterinary Pathologists, Professor of Anatomic and Wildlife Pathology  
 Dasgupta, Satadal, BSc, MSc, PhD (Calcutta)

Professor Emeritus of Anthropology  
 Daveluy, Michelle, PhD (Montreal)  
 Adjunct Professor of Education  
 Davetian, Benet, BA, MA, (Concordia), PhD (Sussex)  
 Associate Professor of Sociology & Anthropology  
 Davidson, T. Jeffrey, DVM (Guelph), MSc (UPEI)  
 Professor of Health Management  
 Dawson, Susan D., BA (Rutgers), PhD (Pennsylvania)  
 Professor of Anatomy  
 Dennis, Robert H., BA (Queen's), MA (Memorial), MA (UNB), PhD (Queen's)  
 Assistant Professor of Religious Studies  
 Derksen, Darren, BSc, PhD (Alberta)  
 Adjunct Professor of Chemistry  
 Desserud, Donald, BA, MA (Dalhousie), MA (UNB), PhD (Western Ontario)  
 Professor of Political Science  
 Dohoo, Ian R., DVM, PhD (Guelph)  
 Professor Emeritus and Adjunct Professor of Health Management  
 Doiron, Jason, BA (Hons) (UPEI), PhD (New Brunswick)  
 Associate Professor of Psychology  
 Doiron, Raymond, BA, BEd (UPEI), MA, PhD (UBC)  
 Professor Emeritus of Education  
 Domike, Reuben, BSc (Georgia), PhD (MIT)  
 Assistant Professor of Business Administration  
 Doran, Gregory, BA (Western Ontario), MA, PhD (UNB)  
 Associate Professor of English  
 Doucette, Tracy, BA, PhD (UPEI)  
 Assistant Professor of Psychology  
 Dowbiggin, Ian, BA (McMaster), MA (Toronto), PhD (Rochester)  
 Professor of History  
 Doyle, Aimie, DVM (UPEI), MSc (Illinois)  
 Associate Professor of Health Management  
 Drake, M. Patrice, BSc (UPEI), Nursing Diploma (PEI School of Nursing), BN (UNB), MN (Memorial)  
 Assistant Professor of Nursing  
 Duckett, Wendy, BSA, DVM (Saskatchewan), MS (Illinois)  
 Diplomate of American College of Veterinary Internal Medicine, Professor of Health Management  
 Duffy, J. Regis, BA (SDU), MSc, PhD (Fordham)  
 Adjunct Professor of Chemistry  
 Dumas, Andre, PhD, (Guelph)  
 Adjunct Professor of Health Management

Epperly, Elizabeth, BA (UPEI), MA (Dalhousie), PhD (London)  
 Professor Emeritus of English  
 Esseghaier, Zain, BSc (UPEI), Bed, Med (St. Mary's)  
 Lecturer in Education  
 Etkin, Nola, BSc (Ottawa), PhD (Alberta)  
 Associate Professor of Chemistry  
 Evans, Gary, Dip CS, BA, HBComm, MBA (Windsor), PhD (Liverpool John Moores University)  
 Associate Professor of Business Administration

Farooque, Aitazaz, BEng (Pakistan), MSc, PhD (Dalhousie)  
 Assistant Professor of Engineering  
 Fast, Mark, BSc (Dalhousie), MSc (UPEI), PhD (Dalhousie)  
 Associate Professor of Fish Health  
 Fedak, Janos, BA, MA, PhD (Toronto)  
 Professor of Fine Arts

Fenech, Adam, BA (Hons) (Toronto), MES (York), PhD (Toronto)  
Associate Professor of Business Administration, Adjunct Professor of Biology

Fitzpatrick, Shannon, BSc (St. Mary's), MMath (Waterloo), PhD (Dalhousie)  
Associate Professor of Mathematics & Statistics

Fofana, Bourlaye, MSc, PhD (Belgium)  
Adjunct Professor of Biology

Foley, Peter, BSc (UPEI), MSc (Acadia), DVM (UPEI), Diplomate ACVIM  
Assistant Professor of Companion Animals

Foley, Vicki, RN, BN, MN (Newfoundland), PhD (Alberta)  
Assistant Professor of Nursing

Forzán, Maria, DVM (Mexico), MSc (UPEI), Residency (Connecticut)  
Adjunct Professor of Pathology and Microbiology

Frasca, Salvatore, VMD (Pennsylvania), PhD (Connecticut)  
Adjunct Professor of Pathology and Microbiology

Furlong, Anne, BA (Memorial), PhD (University College, London)  
Associate Professor of English

Gabriel, Martha, BA (Toronto), MEd (MSVU), PhD (Ottawa)  
Professor of Education

Gagnon, Julie, BEd (Quebec), MEd (Moncton)  
Lecturer in Education

Gardner, Ian, BVSc (Australia), MPVM, PhD (Davis)  
Adjunct Professor of Health Management

Gelens, Hans C. J., DVM (Utrecht), MSc (UPEI), Diplomate ACVIM  
Professor of Companion Animals

Germain, Gilbert, BA, MA (Carleton), PhD (Notre Dame)  
Associate Professor of Political Science

Giberson, Donna J., BSc (Calgary), MSc, PhD (Manitoba)  
Adjunct Professor of Environmental Studies

Gill, Daphne, BA (Hons), PhD (UPEI)  
Adjunct Professor of Biomedical Sciences

Gilroy, Cora, DVM, MVSc (UPEI)  
Assistant Professor of Clinical Pathology

Gitau, George, BVM (Nairobi), MSc (Guelph), PhD (Nairobi)  
Adjunct Professor of Health Management

Goddard, J. Tim, BEd, MEd (Saskatchewan), PhD (Calgary)  
Professor of Education

Good, Debbie L., BBA (UPEI), CFP, MBA (Athabasca), CA  
Assistant Professor of Business Administration

Gottschall-Pass, Katherine, BSc (St. FX), PhD (Saskatchewan)  
Professor of Foods & Nutrition

Graham, Susan, BBA (UPEI), MBA, MPA (Dalhousie), EdD (Phoenix)  
Assistant Professor of Business Administration

Gray, Frances M., AMus, BMus (McGill), MMus, DMus (Indiana)  
Professor Emerita of Music

Greenwood, Spencer, BSc, MSc (Guelph), PhD (Dalhousie), DVM (Guelph)  
Professor of Biomedical Sciences

Greer, Scott, BA (Memphis), MS, PhD (York)  
Associate Professor of Psychology

Groman, David B., BA (Lafayette), MSc (Connecticut), PhD (Idaho)  
Adjunct Professor of Pathology and Microbiology

Guo, Linyuan, BA (China), MEd, PhD (Alberta)  
Associate Professor of Education

Hale, Lawrence R., BSc (Simon Fraser), PhD (McMaster)  
Associate Professor of Biology

Haltli, Brad, BSc (Thompson Rivers), MSc (Dalhousie)  
Adjunct Professor of Biomedical Sciences

Hammell, K. Lawrence, BSc, DVM (Guelph), MSc (UPEI)  
Professor of Health Management

Hanna, Paul E. A., DVM, Diploma of Vet Path (Guelph), MSc (UPEI), Diplomate of the American College of Veterinary Pathologists  
Associate Professor of Anatomic Pathology

Hanic, Louis A., BA, PhD (UBC)  
Professor Emeritus of Biology

Hanson, Natasha, BA (Hons) (St. Thomas), MA (Carleton), PhD (Dalhousie)  
Adjunct Professor of Sociology & Anthropology

Hartwig, Sunny, BSc, MSc, PhD (Toronto)  
Assistant Professor of Biomedical Sciences

Heider, Lawrence E., DVM (Ohio State)  
Diplomate of the American College of Veterinary Preventive Medicine  
Professor Emeritus of Veterinary Medicine

Heider, Luke, DVM (UPEI), PhD (Ohio State), Diplomate of the American College of Veterinary Pathologists  
Assistant Professor of Health Management

Herbert, Rosemary J., BN, RN, MN (Dalhousie), PhD (McGill)  
Associate Professor of Nursing

Hogan, Natacha, BSc (UPEI), PhD (Ottawa)  
Adjunct Professor of Biology

Hori, Tiago, MSc (Sao Carlos), PhD (Memorial)  
Adjunct Professor of Pathology and Microbiology

Horney, Barbara S., DVM, PhD (Guelph), Diplomate of the American College of Veterinary Pathologists  
Professor of Clinical Pathology

Horrocks, David, G. C., BMath, MMath, PhD (Waterloo)  
Associate Professor of Mathematics & Statistics

Howard, Stephen L., BSc (Acadia), MSc (Western), PhD (Western)  
Associate Professor of Computer Science

Hsiao, Amy, BS (Massachusetts), MS, PhD (Carnegie), MBA (Memorial)  
Associate Professor of Engineering

Hurnik, Daniel, DVM (Guelph), MSc (UPEI)  
Professor of Health Management

Hurta, Robert, BA, BSc, MSc, PhD (Manitoba)  
Associate Professor of Biology

Hyndman, Nicole, BPHE (Toronto), BEd (Windsor), MEd (UPEI), PhD (Toronto)  
Assistant Professor of Applied Human Sciences

Inman-Flynn, B. Dawn, BScN (Western), Nursing Diploma (PEI School of Nursing), MN (Dalhousie)  
Assistant Professor of Nursing

Innes-Parker, Catherine, BA (Hons), MA, (McMaster), PhD (Memorial)  
Professor of English

Irvine, Gregory B., BMus (Toronto), MMus, DM (Northwestern)  
Associate Professor of Music

Islam, Shafiqul, BSc, MSc (Dhake), MSc, PhD (Concordia)  
Associate Professor of Mathematics & Statistics

Jelley, Blake, BA, MA, PhD (Western)  
Associate Professor of Business Administration

Jia, Ye, BA, MA, PhD (Western)  
Assistant Professor of Economics

Johnson, Gerald, DVM (Guelph), Diplomate of Veterinary Pathology, ACVP, Veterinary Aquatic Studies

Professor Emeritus and Adjunct Professor of Pathology and Microbiology  
Johnston, Vickie A., BEd (UPEI), MEd (Dalhousie)  
Lecturer in Psychology and University 100

Kamunde, Collins, BVM, MSc (Nairobi), PhD (Ontario)

Associate Professor of Biomedical Sciences

Kean, Terri, BA (Queen's), BN (UNB), MN (Toronto & Athabasca)

Assistant Professor of Nursing

Keefe, Gregory, BSc (NSAC), DVM (Guelph), MSc (UPEI)

Professor of Farm Service

Kelton, David, DVM, MSc, PhD (Guelph)

Adjunct Professor of Health Management

Kemp, James R., BSc, PhD (Guelph)

Associate Professor of Biology

Kerr, Russell, BSc, PhD (Calgary)

Professor of Chemistry & Biomedical Sciences

Khan, Bobby V., MD, PhD (Tennessee)

Adjunct Professor of Biomedical Sciences

Khedhiri, Sami, PhD (USC, Los Angeles)

Associate Professor of Statistics

Kibenge, Frederick S. B., BVM (Makerere), PhD (Murdoch)

Diplomate of the American College of Veterinary Microbiologists

Professor of Virology

Kibenge, Molly, BVM (Makerere), MSc, PhD (UPEI)

Adjunct Professor of Pathology and Microbiology

Kirby, Christopher, BSc (Dalhousie), MSc, PhD (Waterloo)

Adjunct Professor of Chemistry

Klassen, Greg, BSc, MSc (Guelph), PhD (Toronto)

Adjunct Professor of Biology

Koritansky, Peter, BA (The Catholic University of America), PhD (Toronto)

Associate Professor of Religious Studies

Krause, Juergen, MSc, PhD (Germany)

Associate Professor of Business Administration

Krautwurst, Udo, BA, MA (Manitoba), PhD (Connecticut)

Associate Professor in Sociology & Anthropology

Kristmanson, Helen, BA (Calgary), MA (Memorial), PhD (Manchester)

Adjunct Professor of Sociology & Anthropology

Krouglicof, Nicholas, PEng, PhD

Professor of Engineering

Kuiken, Thijs, DVM (Netherlands), PhD (Saskatchewan)

Adjunct Professor of Pathology and Microbiology

Kujundzic, Nebojsa, BA, MA (Sarajevo), PhD (Waterloo)

Associate Professor of Philosophy

Kurial, Richard G., BA (UBC), MA (Toronto), PhD (California/San Diego)

Associate Professor of History

Lacroix, Christian R., BSc, MSc (McGill), PhD (Guelph)

Professor of Biology

Lamont, Leigh, DVM (Guelph), MSc (Illinois), Diplomate ACVAA

Associate Professor of Companion Animals

Landry, Thomas, BSc, MSc (Moncton)

Adjunct Professor of Health Management

Lavoie, Carlo, BA (UMCE), MA (UQAR), PhD (UWO)

Associate Professor of French

Lawther, Derek W., BSc, MSc, PhD (Dalhousie)

Associate Professor of Physics  
 LeBlanc, David C., BSc (UNB), MSc (UBC)  
 Associate Professor of Computer Science  
 Lee, Scott, BA (MUN), MA (Western), PhD (Toronto)  
 Associate Professor of French  
 Lees, Jessie, MA (Edinburgh), MEd (Dalhousie), PhD (Toronto)  
 Adjunct Professor of Education  
 Lemm, Richard, BA (Simon Fraser), MA (Queen's), PhD (Dalhousie)  
 Professor of English  
 Lewis, P. Jeffrey, BSc (UNB), DVM (AVC), MSc (MUN), PhD (Saskatchewan)  
 Associate Professor of Bacteriology  
 Li, Sean, PhD (Queensland, Australia)  
 Adjunct Professor of Biology  
 Li, Xiang, BSc (Hua Zhong), PhD (Australia)  
 Adjunct Professor of Biology  
 Lindsay, Geoffrey, BA, BComm (Concordia), MA, PhD (Toronto)  
 Associate Professor of English  
 Ling, Kathy, BSc, DVM (UPEI)  
 Lecturer in Companion Animals  
 Linkletter, Barry, BSc (UPEI), PhD (McGill)  
 Associate Professor of Chemistry  
 Liu, Michael T. H., BSc (SDU), MA (St. FX), PhD (Ottawa)  
 Professor Emeritus of Chemistry  
 Locke, Andrea, BSc, MSc (Guelph), PhD (Toronto)  
 Adjunct Professor of Health Management  
 Lofstedt, Jeanne, BVSc (Onderstepoort), MS (Iowa State), Diplomate of the American College of Veterinary Internal Medicine  
 Professor of Large Animal Medicine  
 Lofstedt, Robert, BVSc (Onderstepoort), MS (Saskatchewan)  
 Adjunct Professor of Health Management  
 López, Alfonso, DVM (Tamaulipas, Mexico), MSc, PhD (Guelph)  
 Professor Emeritus and Adjunct Professor of Pathology and Microbiology

McAuley, Alexander, BA (UNB), BEd, MA (Queen's), EdD (Toronto)  
 Associate Professor of Education  
 McBurney, Scott, BSc Wildlife Biology (Guelph), DVM (UPEI)  
 Adjunct Professor of Pathology and Microbiology  
 McCallum, Jason, HBS (Waterloo), PhD (Guelph)  
 Adjunct Professor of Biology  
 McClure, Carol, BA (Amherst College), DVM (Cornell), MVSc (Wisconsin-Madison), PhD (UPEI)  
 Adjunct Professor of Health Management & Nursing  
 McClure, J Trenton, DVM (Louisiana State), MSc (Wisconsin-Madison), Diplomate of the American College of Veterinary Internal Medicine—Large Animal  
 Professor of Health Management  
 McConkey, Sandra, DVM (Guelph), PhD (UPEI), Diplomate American College of Veterinary Pathologists  
 Associate Professor of Biomedical Sciences  
 MacDonald, Dany, BA (Bishop's), MA, PhD (Queen's)  
 Assistant Professor of Kinesiology  
 MacDonald, Edward, BA (UPEI), MA, PhD (Queen's)  
 Associate Professor of History  
 MacDonald, Gordon W., BSc (Dalhousie), MSc, PhD (Toronto)  
 Professor of Mathematics & Statistics  
 MacDonald, Jo-Ann, BN (St. FX), MN (Dalhousie), PhD (McGill)  
 Associate Professor of Nursing  
 MacDonald, Ron, BSc (UCCB), BEd, MEd (St. FX), PhD (South Australia)



Associate Professor of Education  
 McDuffee, Laurie, B.S. (Colorado), DVM (Colorado State), PhD (California), Diplomate of the American College of  
 Veterinary Internal Medicine—Large Animal  
 Professor of Health Management  
 MacEachern, Melissa, BA (UPEI), MBA (Windsor)  
 Assistant Professor of Business Administration  
 MacEwen, Don B., BScE, MScE (UNB)  
 Professor of Engineering  
 MacFarlane, Amy, BBA (Acadia), CA (British Columbia)  
 Assistant Professor of Business Administration  
 McInnis-Perry, Gloria, BScN (St. FX), MScN (Boston College), PhD (Catholic University of America)  
 Associate Professor of Nursing  
 MacIntyre, Janet, RN (PEI), BN (New Brunswick), MN (Athabasca)  
 Assistant Professor of Nursing  
 McIntyre, John, BA (Simon Fraser), PhD (McGill)  
 Associate Professor of English  
 MacKay, Clayton, DVM (OVC)  
 Adjunct Professor of Companion Animals  
 McKenna, Peter, BA, MA, PhD (Dalhousie)  
 Professor of Political Science  
 McKenna, Shawn, BSc, DVM, PhD (UPEI)  
 Associate Professor of Health Management  
 MacKinnon, Stacey, BSc, MSc, PhD (Calgary)  
 Associate Professor of Psychology  
 MacLaine, Brent, BEd (UPEI), MA (East Anglia), PhD (UBC)  
 Professor Emeritus of English  
 MacLellan, Debbie, BSc (UPEI), MSc (Alberta), PhD (Saskatchewan)  
 Professor of Foods & Nutrition  
 MacLellan-Peters, Janice, BScN, MN (Dalhousie)  
 Assistant Professor of Nursing  
 MacMillan, Kathleen, MSc, DVM (UPEI)  
 Assistant Professor of Health Management  
 McNiven, Mary A., BScAgr (Guelph), Agr. Dr. (Swedish Univ. of Agricultural Sciences)  
 Professor of Animal Science  
 MacQuarrie, Colleen, BA (UPEI), MA (Carleton), PhD (Simon Fraser)  
 Associate Professor of Psychology  
 MacQuarrie, Stephanie, BSc (Mt. Allison), PhD (Virginia Polytechnic Inst.)  
 Adjunct Professor of Chemistry  
 Mady, Tarek, BSc (Alexandria University), MSc (Louisiana), PhD (Norfolk, Virginia)  
 Associate Professor of Business Administration  
 Markham, R.J. Frederick, BSc, PhD (Guelph)  
 Adjunct Professor of Pathology and Microbiology  
 Martin, Chelsea, DVM (UPEI), PhD (Ohio State), Diplomate of the American College of Veterinary Pathologists  
 Assistant Professor of Anatomic Pathology  
 Martinson, Shannon, BSc (UNB), DVM, MVS (UPEI)  
 Assistant Professor of Pathology and Microbiology  
 Matthews, Andrea, BSc (NSAC), DVM (UPEI), Diplomate ACVR  
 Adjunct Professor of Companion Animals  
 Menzies, Paula, DVM (Guelph), MSc (California)  
 Adjunct Professor of Health Management  
 Miller, Lisa Maag, BSc, DVM, PhD (Washington State), MEd (UNB), Diplomate of the American College of Veterinary  
 Pathologists  
 Adjunct Professor of Pathology and Microbiology  
 Miller, Tess, BSc (York), BEd (Toronto), MEd, PhD (Queen's)  
 Associate Professor of Education

Millman, Suzanne, PhD (Guelph)  
 Adjunct Professor of Health Management

Mills, Aaron, BSc (Dalhousie), MSc (UPEI), PhD (Dalhousie)  
 Adjunct Professor of Biology

Milne, David, BA (Queen's), MA, PhD (Toronto)  
 Professor Emeritus of Political Science

Mitchell, Jean, BA (UPEI), MA (Carleton), MA, PhD (York)  
 Associate Professor of Sociology & Anthropology

Moak, Peter, BSc (Massachusetts), BSc (Pennsylvania), DVM (Minnesota)  
 Assistant Professor of Companion Animals

Montelpare, William, BPHE (Lakehead), MSc (Ottawa), PhD (Toronto)  
 Professor of Applied Human Sciences

Moffatt, Lyndsay, BA (Hons), BEd (Toronto), MA, PhD (British Columbia)  
 Assistant Professor of Education

Moran, James E., BA, MA, PhD (York)  
 Associate Professor of History

Muckle, Anne, DVM, MSc, PhD (Guelph)  
 Associate Professor of Clinical Bacteriology

Muirhead, Tammy, BSc (NSAC), DVM, ACVIM, MSc (UPEI)  
 Assistant Professor of Biomedical Sciences

Munroe, Doug, BSS (Ottawa), MLitt (Scotland), PhD (Calgary)  
 Adjunct Professor of Health Management

Murnaghan, Donna, RN, BScN (UNB), MN (Dalhousie), PhD (Helsinki)  
 Adjunct Professor of Nursing

Murray, Christina, BA, BScN (UPEI), MN (Alberta)  
 Assistant Professor of Nursing

Murray, Malcolm, BA, MA, PhD (Waterloo)  
 Professor of Philosophy

Murray, Shannon, BA (Dalhousie), MA, PhD (Alberta)  
 Professor of English

Myers, Sharon, BA (Mt. Allison), MA (St. Mary's), PhD (New Brunswick)  
 Assistant Professor of History

Nagarajan, Palanisamy, BA, MA (Mysore), PhD (Kansas)  
 Professor Emeritus of Economics

Nelson, Carolanne, BSc (Alberta), PhD (UBC)  
 Adjunct Professor of Applied Human Sciences

Neudorf, Cordell, BSc, MD (Saskatchewan), MHSc (Toronto)  
 Adjunct Professor of Health Management

Nilsson, Thomy, BSc (Rensselaer), MSc, PhD (Alberta)  
 Professor Emeritus of Psychology

O'Grady, Brendan, BA (Notre Dame), MA (Columbia), PhD (Ottawa), LLD (UPEI)  
 Professor Emeritus of English

Ojkic, Davor, DVM (Croatia), MSc (Brock), PhD (OVC)  
 Adjunct Professor of Pathology and Microbiology

Opps, Sheldon, BSc (Guelph), MSc (Toronto), PhD (Guelph)  
 Associate Professor of Physics

Ortenburger, Arthur, BS (Bacteriology), BS (Vet Sci), DVM (Washington State), MS (Michigan State)  
 Associate Professor of Large Animal Surgery

Osgood, Elizabeth, BSc (Arizona), MSc (Texas)  
 Assistant Professor of Engineering

Overy, David, BSc (Carleton), MSc, PhD (Denmark)  
 Adjunct Professor of Pathology and Microbiology

Pack, LeeAnn, BSc (Arkansas), DVM (Louisiana State), Diplomate ACVR  
Associate Professor of Companion Animals

Pearson, Jason, BSc, Btech (Cape Breton), PhD (Dalhousie)  
Associate Professor of Chemistry

Penner, Audrey, BSc (Waterloo), MEd (UPEI), PhD (Calgary)  
Adjunct Professor of Education

Peters, Rick, BSc (Guelph), BEd (Western Ontario), MSc, PhD (Guelph)  
Adjunct Professor of Biology

Peters, Wayne, DipEng (UPEI), BSc, MSc, PhD (UNB)  
Associate Professor of Engineering

Phillips, Nia L., BS (Mississippi), MA, PhD (Kansas)  
Assistant Professor of Psychology

Pohle, Gerard, BSc, PhD (Toronto)  
Adjunct Professor of Biology

Poljak, Zvonimir, DVM (Mexico), MSc, PhD (Guelph)  
Adjunct Professor of Health Management

Polson, James, BSc, MSc (Guelph), PhD (UBC)  
Associate Professor of Physics

Pratt, T. K., BA, MA (Toronto), PhD (London)  
Professor Emeritus of English

Preston, Jane, BEd (Regina), MEd, PhD (Saskatchewan)  
Assistant Professor of Education

Quail, Jacqueline, BSc, MSc (Saskatchewan), PhD (McGill)  
Adjunct Professor of Health Management

Quijon, Pedro, BSc, MSc (Chile), PhD (Memorial)  
Associate Professor of Biology

Raiswell, Richard, BA (Carlton), MA, PhD (Toronto)  
Associate Professor of History

Randall, James, BA, MA (York), PhD (Washington)  
Professor of Island Studies

Rankaduwa, Wimal, BA, MSc (Peradeniya), MA, PhD (Dalhousie)  
Professor of Economics

Reed-Jones, Rebecca, BSc, MSc, PhD (Guelph)  
Assistant Professor of Applied Human Sciences

Rees, Erin, BSc (Queens), MSc (Edinburg), PhD (Trent)  
Adjunct Professor of Health Management

Reesor, F. Alan, BMus (Toronto), MMus (Eastman School of Music), AMus (Western), DCnL (KCNS), FRSA  
Professor Emeritus of Music

Reid, Gary, BSc, PhD (UNB)  
Adjunct Professor of Chemistry

Revie, Crawford, BSc (Strathclyde), MSc (Sussex), PhD (Strathclyde)  
Professor of Health Management

Richards, Judy Lynn, BASc (Guelph), MA (Western Ontario)  
Associate Professor of Sociology & Anthropology

Riley, Chris, BSc, BVSc, (Melbourne), MSc, PhD (Saskatchewan)  
Adjunct Professor of Health Management

Robb, S. Andrew, BA (UBC), MA (Simon Fraser)  
Professor Emeritus of History

Robertson, Harold A., BA, MSc (Western), PhD (Cambridge)  
Adjunct Professor of Biomedical Sciences

Rodriguez-Lecompte, Juan Carlos, DVM, MSc (Columbia), PhD (UPEI)  
Associate Professor of Immunology

Rodgers, Marianne, BScH (Mt. Allison), PhD (Simon Fraser)

Adjunct Professor of Chemistry  
 Rossiter, Misty, BSc (UPEI), MSc (MSVU), PhD (Guelph), RD (MSVU)  
 Assistant Professor of Applied Human Sciences  
 Roy, Jean-Philippe, DVM, MSc (Montreal)  
 Adjunct Professor of Health Management  
 Ryan, Catherine L., BSc (St. Mary's), MA, PhD (Carleton)  
 Professor of Psychology

Saad, Nasser, BSc (Ain Shams), MSc, PhD (Concordia)  
 Professor of Mathematics & Statistics  
 Saksida, Tina, BSc (Hons), PhD (Toronto)  
 Assistant Professor of Business Administration  
 Saleh, Tarek M., BSc, PhD (Western Ontario)  
 Professor of Physiology  
 Samis, Karen, BSc, MSc (Guelph), PhD (Queen's)  
 Assistant Professor of Biology  
 Sanchez, Javier, DVM (Rio Cuarto), PhD (UPEI)  
 Associate Professor of Health Management  
 Sanderson, Lauranne, BSc, MSc (Guelph)  
 Adjunct Professor of Health Management  
 Saunders, Travis, BSc (Calgary), MSc (Queen's), PhD (Ottawa)  
 Assistant Professor of Applied Human Sciences  
 Savidge, Christine, BSc (Cornell), DVM (Minnesota)  
 Assistant Professor of Companion Animals  
 Seeler, David C., MSc, DVM (Guelph), Diplomate ACVA  
 Associate Professor of Anaesthesiology  
 Sentance, James, BA, MA, PhD (Carleton)  
 Associate Professor of Economics  
 Shaver, Michael, BSc (Hons) (Mt. Allison), PhD (British Columbia)  
 Adjunct Professor of Chemistry  
 Shaw, Anthony, BSc (Waterloo), PhD (Calgary)  
 Adjunct Professor of Health Management  
 Shaw, Darcy H., DVM, MVSc (Saskatchewan), MBA (Royal Roads), Diplomate ACVIM  
 Professor of Small Animal Medicine  
 Shephard, G. David, BMus (UPEI)  
 Lecturer in Music  
 Shilton, Wendy, BA, MA, PhD (Toronto)  
 Associate Professor of English  
 Shin-Bouey, Sung Ha, BMus, OpDip (Toronto), MMus (Victoria)  
 Associate Professor of Music  
 Siad, Ahmed, PhD (Rimouski)  
 Adjunct Professor of Pathology and Microbiology  
 Silva-Opps, Marina, BSc, MSc, PhD (Montreal)  
 Associate Professor of Biology  
 Simon, Karem J., BMus, BEd (Mt. Allison), MMus (Northwestern), DMA (UBC)  
 Professor of Music  
 Sims, David, BA (Western), PhD (Kansas)  
 Professor of Microscopic Anatomy  
 Singh, Amreek, BVSc, AH (Col of Vet Sc, Mathura, India), MSc, PhD (Guelph)  
 Professor Emeritus of Veterinary Medicine  
 Smith, John, BA, MA (Toronto)  
 Professor Emeritus of English  
 Smith, Philip, BA (Texas at Dallas), MA, PhD (Western Ontario)  
 Professor of Psychology

Smith, Todd, BSc (Scarborough), PhD (Toronto)  
Adjunct Professor of Pathology and Microbiology

Smitheram, Verner, BA, PhilM (Toronto)  
Professor Emeritus of Philosophy

Spangler, Elizabeth, BA (Harvard), MSc, DVM (Colorado State), PhD (Ohio State), Diplomate of the American College of Veterinary Preventive Medicine  
Associate Professor of Epidemiology

Speare, David, DVSc, DVM (Guelph)  
Professor of Fish Pathology

Spears, Jonathan, BSc, DVM, MVSc (UPEI)  
Associate Professor of Biomedical Sciences

Srebrnik, Henry, BA, MA (McGill), MA (Brandeis), PhD (Birmingham)  
Professor of Political Science

Srigley, Ron, BA, MA, PhD (McMaster)  
Assistant Professor of Religious Studies

Stevens, Don, BSc (Victoria) MSc, PhD (UBC), PDF (Stanford)  
Adjunct Professor of Biomedical Sciences

Stevens, Jason, BSc (Memorial), MA (Carleton), PhD (Dalhousie)  
Assistant Professor of Economics

Stewart, Tonya, BA, DVM (North Carolina)  
Assistant Professor of Companion Animals

St-Hilaire, Sophie, DVM (UPEI), MSc (Saskatchewan), PhD (Guelph)  
Associate Professor of Health Management

Strachan, Leisha, BPed, BEd (Manitoba), MHK (Windsor), PhD (Queen's)  
Adjunct Professor of Applied Human Sciences

Stryhn, Henrik E., MA (Copenhagen), PhD (Royal Veterinary & Agricultural University)  
Professor of Health Management

Sulston, Kenneth W., BMath, MMath, PhD (Waterloo)  
Professor of Mathematics & Statistics

Sweeney-Nixon, Marva I., BSc (Mt Allison), MSc, PhD (Dalhousie)  
Professor of Biology

Sweet, Lamont, BSc (Hons) (Acadia), MDCM (McGill), MHSc (UBC)  
Adjunct Professor of Nursing

Tasker, R. Andrew, BSc, MSc, PhD (Queen's)  
Professor of Pharmacology

Taylor, Jennifer P., BSc (UPEI), MSc, PhD (Toronto)  
Professor of Foods & Nutrition

Teather, Kevin, BSc (Brock), MSc (Queen's), PhD (Carleton)  
Associate Professor of Biology

Thompson, Craig, BMus, BEd, MBA, (Western Ontario), CA (Toronto)  
Assistant Professor of Business Administration

Thorne, Carolyn, BEd, BPE (Memorial), MEd (Toronto), PhD (South Australia)  
Assistant Professor of Education

Tilleczek, Kate, BA Honours (Wilfrid Laurier), BEd (Nipissing), MA (Laurentian), PhD (Toronto)  
Professor of Education and Adjunct Professor of Nursing

Townsend, Elizabeth, BSc (Toronto), MEd (St. FX), PhD (Dalhousie)  
Adjunct Professor of Education

Trivett, Andrew, DipEng (Dalhousie), BEng (TUNS), PhD (Massachusetts)  
Associate Professor of Engineering

Tulloch, Shelley, PhD (Laval)  
Adjunct Professor of Education

Turnbull, Miles, BEd, MEd (Saskatchewan), PhD (Regina)  
Adjunct Professor of Education

Uehlinger, Fabienne, Med. Vet (Berne), PhD (UPEI)  
Adjunct Professor of Health Management

van den Heuvel, Michael R., BSc, PhD (Waterloo)  
Professor of Biology & Biomedical Sciences

Vanderstichel, Raphael, DVM, PhD (UPEI)  
Adjunct Professor of Health Management

VanKampen, Jackalina, BSc (McGill), MSc (Ontario), PhD (British Columbia)  
Adjunct Professor of Biomedical Sciences

VanLeeuwen, John, DVM, MSc, PhD (Guelph)  
Professor of Farm Service

Velaidum, Joe, BA, MA, (Wilfrid Laurier), PhD (McMaster)  
Associate Professor of Religious Studies

Veugelers, Paul, MSc (Wageningen), PhD (Amsterdam), PFD (British Columbia)  
Adjunct Professor of Health Management

Wagner, Brian D., BSc (Dalhousie), PhD (Western Ontario)  
Professor of Chemistry

Wagner, Donald M., BA, MAcct (Waterloo), PhD (UBC)  
Associate Professor of Business Administration

Walton, Fiona, BA, BEd (Ireland), MEd (Ottawa), EdD (Toronto)  
Associate Professor of Education

Wang, Yanwen, BSc, MSc (Gansu, China), PhD (Alberta)  
Adjunct Professor of Biomedical Sciences

Wang, Yingwei, BSc, MSc (Harbin, China), PhD (Waterloo)  
Assistant Professor of Computer Science  
Adjunct Professor of Pathology and Microbiology

Weeks, Lori, BSc (UPEI), MSc (Maine), PhD (Virginia Tech)  
Associate Professor of Family Science

Weese, Scott J., DVM, DVSc (Guelph), Dip ACVIM  
Adjunct Professor of Health Management

Whelan, William, BSc (UPEI), MSc, PhD (McMaster)  
Professor of Physics & Biomedical Sciences

Whyte, Shona, BSc, PhD (Aberdeen, Scotland)  
Adjunct Professor of Pathology and Microbiology

Wichtel, Jeffrey, BVSc, PhD (Massey)  
Adjunct Professor of Health Management

Witchel, Maureen, DVM (Maryland), PhD (Massey), Dip ACVIM  
Adjunct Professor of Health Management

Wiebe, Sean, BA, BEd, MA (British Columbia)  
Associate Professor of Education

Wight, Karen, BComm (Hons-Coop) (Memorial), CPA  
Assistant Professor of Business Administration

Wight Moffat, Faith, BN (Memorial), MS (Boston College), PhD (Toronto)  
Adjunct Professor of Nursing

Wills, Richard H., BA (Brown), MA (North Carolina), PhD (Northwestern)  
Associate Professor of Sociology & Anthropology

Wohlgemut, Esther, BA (McGill), MA, PhD (Ottawa)  
Associate Professor of English

Workenhe, Samuel, DVM (Addis Ababa), MSc (Norway), PhD (UPEI)  
Adjunct Professor of Pathology and Microbiology

Wright, Glenda M., BSc, PhD (Toronto)  
Professor of Anatomy

Wyeth, Russell, BSc (Victoria), PhD (Washington)  
Adjunct Professor of Biology

Xu, Huimin, MSc, PhD (Toronto)  
Adjunct Professor of Pathology and Microbiology

Yason, Carmencita V., DVM, MSc (Philippines), PhD (Cornell), Diplomate of Diagnostic Veterinary Pathologists  
Adjunct Professor of Pathology and Microbiology

Ye, Qiang, BEng, MEng (Harbin), PhD (Alberta)  
Associate Professor of Computer Science

Zerpa, Carlos, BSc, MEd, PhD (Lakehead)  
Adjunct Professor of Applied Human Sciences

Zhang, Michael, BSc (Zhejiang), MA (Xiamen), PhD (Western Ontario)  
Adjunct Professor of Applied Human Sciences

Zidichowski, Jeffrey, BSc (Ontario) PhD (Alberta)  
Adjunct Professor of Biomedical Sciences

Zinck, Andrew M., BMus (Acadia), MMus (Alberta), PhD (Toronto)  
Associate Professor of Music

## **Librarians**

Mark Leggott, BSc (SMU), MSc (Calgary), MLIS (Dalhousie)  
University Librarian

Melissa Belvadi, BA, MLS (California)  
User Experience & Collections Librarian

M. Dawn Hooper, BSc (UPEI), MLS (Dalhousie)  
Date and Research Librarian

Betty M. Jeffery, BA (Acadia), MLS (McGill)  
Instruction & Education Services Librarian

Simon Lloyd, BA (Kings College), MLS (Dalhousie)  
University Archives & Special Collections Librarian

Donald S. Moses, BA (UPEI), MLS (Western)  
Digitization Initiatives & Systems Librarian

## **Board of Governors**

The Chancellor of the University  
Don McDougall, BComm, MBA, LL.D

The President of the University  
Alaa S. Abd-El-Aziz, BSc, MSc, PhD

The President of Holland College of Applied Arts and Technology  
Brian R. MacMillan, BA, BEd, MEd, PhD

Nine members appointed by the Lieutenant-Governor-In-Council

John Buchanan  
Bertha Campbell  
Tracey Cutcliffe  
Linnell Edwards  
Scott Harper  
Duncan Shaw  
Shauna Sullivan Curley  
Margo Thompson  
Frank Zhou

Two members elected by and from the Senate of the University

Gary Conboy, BSc, DVM, PhD  
Rabin Bissessur, BSc, MSc, PhD

Two members elected by and from all the members of the teaching staff of the University

Don Desserud, BA, MA, PhD  
James Sentance, BA, MA, PhD

Two members elected by and from the Alumni of the University

Andrew Bartlett, BBA  
Ryan Bradley, BBA, MBA

Two members elected by and from the student body of the University

Dana Kenny, Student Union President  
Pierce Smith, Student Representative

Six members elected by the Board

Pat Sinnott, Chair of the Board of Governors  
Mary Best  
Ron Keefe  
Ed Lawlor  
Shawn Murphy  
Lowell Sweet

## **Senate**

The Senate of the University of Prince Edward is constituted as follows:

### **Ex Officio**

- Alaa S. Abd-El-Aziz, BSc, MSc, PhD  
President (Chair)
- Christian Lacroix, BSc, MSc, PhD  
Vice-President, Academic
- Jackie Podger, BA, MA, MIR, CMA  
Vice-President, Administration and Finance
- Robert Gilmour, AB, PhD  
Vice-President, Research Services
- Kathleen Kielly, BA  
Registrar & Director of Enrolment Services
- Nebojsa Kujundzic, BA, MA, PhD  
Dean of Arts
- Debbie MacLellan, BSc, MSc, PhD  
Dean of Science
- Ronald MacDonald, BSc, BEd, MEd, PhD  
Dean of Education
- Juergen Krause, MSc, PhD  
Dean of Business Administration
- Greg Keefe, BSc, DVM, MSc  
Dean of Veterinary Medicine
- Jo-Ann MacDonald, BN, MN, PhD  
Interim Dean of Nursing
- Patricia MacAulay, BBA, MA  
Director, Office of Skills Development & Learning
- Mark Leggott, BSc, MSc, MLIS  
University Librarian



- Dana Kenny  
President of Student Union

#### Alumni Representative

- Colleen Parker

#### Board Representative

- Linnell Edwards

#### Students

- Margaret Doyle (MAPUS)
- Luke Poirier
- Stephen Wilfeard
- John Rix
- Owen Shaw
- Zak Jarvis

#### Elected by the Teaching Faculty

##### Term expires 30 June 2016

- Ann Braithwaite, BA, MA, PhD – Diversity & Social Justice Studies
- Barb Campbell, RN, BN, MN, PhD – Nursing
- Susan Graham, BBA, MBA, MPA, EdD – Business
- Sandra McConkey, DVM, PhD, Dipl. ACVP - Biomedical Sciences
- Jane Preston, BEd, MEd, PhD - Education

##### Term expires 30 June 2017

- Greg Irvine, BMus, MMUS, DM – Music
- \*Benet Davetian, BA, MA, PhD - Sociology/Anthropology (\*replacing Sharon Myers (sabbatical) – History)
- Jim Sentence, BA, MA, PhD – Economics
- Rabin Bissesseur, BSc, MSc, PhD – Chemistry
- \*Andrew Carrothers, BScEE, MBA, PhD, CFA, P.Eng. – Business (Faculty At Large) (\*replacing Amy MacFarlane (maternity) – Business)
- Jason Doiron, BA (Hons), PhD, Psychology (Faculty at Large)

##### Term expires 30 June 2018

- Gary Conboy, BSc, DVM, PhD – Pathology & Microbiology
- Kathy Gottschall-Pass, BSc, PhD – Applied Human Sciences
- Geoffrey Lindsay, BA, BComm, MA, PhD – English
- Lisa Chilton, BA, MA, PhD – History
- Sophie St. Hilaire, DVM, MSc, PhD – Health Management
- Peter Foley, BSc, MSc, DVM, Diplomate ACVIM – Companion Animals
- Nasser Saad, BSc, MSc, PhD – Physics
- Benet Davetian, BA, MA, PhD - Anthropology (Faculty at Large)
- Cathy Ryan, BSc, MA, PhD – Psychology
- Kevin Teather, BSc, MSc, PhD – Biology replacing Michael van den Heuvel, BSc, PhD – Biology (sabbatical)
- Malcolm Murray, BA, MA, PhD - Philosophy

#### University Officials

- H. Frank Lewis  
Lieutenant Governor of the Province of Prince Edward Island—Visitor
- Don MacDougall, BComm, MBA, LL.D.  
Chancellor

- Alaa S. Abd-El-Aziz, BSc, MSc, PhD  
President and Vice-Chancellor
- Ronald J. Baker, OC, BA, MA, LL.D  
President Emeritus
- Peter P. M. Meincke, RMC, BSc, MA, PhD  
President Emeritus
- H. Wade MacLauchlan, CM, BBA, LLB, LL.M  
President Emeritus
- Norman Webster, CM, BA, MA, DCL  
Chancellor Emeritus
- J. Regis Duffy, CM, BA, MSc, PhD  
Chair Emeritus of the Board of Governors
- Christian Lacroix, BSc, MSc, PhD  
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- Jackie Podger, BA, MIR, CMA  
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- Robert Gilmour, AB, PhD  
Vice-President, Research and Graduate Studies
- Dana Sanderson, BBA, MBA  
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- Susan Connolly, BA, LL.B  
Associate Vice-President, Human Resources
- Nebojsa Kujundzic, BA, MA, PhD  
Dean of Arts
- Juergen Krause, MSc, PhD  
Dean of Business Administration
- Ronald MacDonald, BSc, BEd, MEd, PhD  
Dean of Education
- Jo-Ann MacDonald, BN, MN, PhD  
Interim Dean of Nursing
- Debbie MacLellan, BSc, MSc, PhD  
Dean of Science
- Greg Keefe, BSc, DVM, MSc  
Dean of Veterinary Medicine
- Kathleen Kielly, BA  
Registrar & Director of Enrolment Services
- Leigh Lamont, DVM, MSc  
Associate Dean of Academic & Student Affairs
- Larry Hammell, BSc, DVM, MSc  
Associate Dean of Graduate Studies & Research
- Nicholas Krouglicof, PEng, PhD  
Associate Dean, School of Sustainable Design Engineering
- Tara Judson, BBA, CA  
Comptroller
- Yuqin Gong, BA, MS, PhD  
Institutional Research Officer
- Mark Leggott, BSc, MSc, MLIS  
University Librarian
- Patricia MacAulay, BBA, MA  
Director, Office of Skills Development & Learning
- Greg Clayton, BEng  
Director, Facilities Management
- Jonathan Oliver, BA, BEd, MBA  
Director, Conference and Ancillary Services

- Blair Vessey, BSc  
Director, Information Technology Systems & Services
- Penny Walsh McGuire, BBTH, MBA  
Director, Marketing and Communications
- Zhaohui (Jerry) Wang, BA, MA, PhD  
Associate Director, International Relations
- Matt Adams, BBA  
Manager, Accounting Office
- Treena Smith, BA  
Manager, Student Affairs
- Virginia Wickstrom  
Manager, Human Resources

### 3. SUPPORT SERVICES, INSTITUTES, AND ORGANIZATIONS

For further details on any of these groups, please check their websites as noted.

#### **Ancillary Services**

<http://www.upei.ca/vpaf/ancillary-services>

#### **Bookstore**

<http://upei.ca/bookstore>

The UPEI Bookstore offers a full line of required textbooks and supplies, as well as many items of University-crested clothing and gift lines. The Bookstore hours are:

- Winter: 8:30 am – 4:30 pm (Monday to Friday)
- Summer: 8:30 am – 4:00 pm (Monday to Friday)
- Extra hours will be posted for semester start-ups.

Our phone number is 902-566-0625 and our email address is [bookstore@upei.ca](mailto:bookstore@upei.ca).

#### **Conference Services**

<http://upei.ca/conference>

Conference Services at UPEI helps to promote, recruit, and coordinate conferences and special events at the University. A variety of services are offered to faculty and staff, as well as many internal and external groups, associations and organizations, including accommodations, catering, audiovisual, special event planning and more. Through Conference Services, UPEI is a member of the PEI Convention Partnership, the Canadian University and College Conference Organizer's Association and more. The office is located in room 121 of Andrew Hall and can be contacted by email at [conference@upei.ca](mailto:conference@upei.ca) or by calling 902-566-0568.

#### **Food Services**

<http://dineoncampus.ca/upei>

UPEI manages food services across campus through a contracted service with Chartwells Campus Dining Services. There are a number of food outlets on campus including the AVC Café (located in the Atlantic Veterinary College), the Courtyard Café (located in the W.A. Murphy Student Centre) and Samuel's (located in the Robertson Library). The Wanda Wyatt Dining Hall (which is attached to Andrew Hall) is the main residence dining hall, but all students, staff, and visitors are welcome to purchase individual meals at the door. A variety of flexible meal packages are also available for non-resident students, faculty and staff, which offer prepaid meals at the Wanda Wyatt Dining Hall and retail cash which can be used at retail outlets on campus. Chartwells also provides professional Catering Services to the University and greater community.

#### **Residence Services**

<http://upei.ca/residence>

At the University of Prince Edward Island, student housing is much more than a convenient place to live. Residence Life at UPEI is designed to enhance the overall university experience. The goal is to provide an active living and learning environment, focusing on academic support and unique educational and social experiences not available inside the classroom. The residences can accommodate approximately 440 students in traditional, suite, and apartment-style buildings.

Students who live in residence must be registered part-time or full-time at UPEI or at another post-secondary institution, however, priority is given to UPEI students. Students may apply to room together, however if an individual does not have someone in mind, every effort will be made to find a compatible roommate. Students interested in applying to residence online or interested in additional information can visit the Residence website above. Students can also contact Residence Services directly by email at [residence@upei.ca](mailto:residence@upei.ca) or phone 902-566-0330.

## **Athletics and Recreation**

<http://upei.ca/athletics>

### **General**

Athletics & Recreation provides UPEI students, staff and faculty with a wide variety of physical activities from free play to high performance athletics. Go to <http://upei.ca/athletics> for more detailed information.

### **Recreation**

The recreation program provides competitive opportunities for students who enjoy structured sport, but who are not interested in intercollegiate competition. Fitness classes, fitness assessments and the services of a personal trainer are available; or drop by for free-time activities where equipment is available. There is a wealth of opportunities to get active and improve your overall health.

### **Panther Sport**

The Intercollegiate program offers high-quality sport competition within the AUS and CIS for both male and female students in the following sports Soccer (men & women) Rugby (women) Basketball (men & women) Hockey (men & women) Swimming (men & women) Field Hockey (women).

### **Facilities**

The Chi-Wan Young Sports Centre houses the indoor facilities on campus and is an excellent spectator facility for the intercollegiate program. It has a state-of-the-art fitness centre, jogging/walking track, racquetball/squash courts and basketball/volleyball courts. Outdoor facilities include the Turf Field and Alumni Canada Games Place. The University community also has access to the MacLauchlan Arena and Aquatics complex, which is managed by Capital Area Recreation Inc. (CARI).

## **Campus Kids Child Care Centre**

Campus Kids Child Care Centre Inc. is located north of the Wanda Wyatt Dining Hall. The hours of operation are Monday to Friday, 7:30 a.m. to 5:30 p.m. Two programs are available: full daycare for children four months to five years and a part-day, part-week program (mornings or afternoons) for three- and four-year-olds. Application for child care on campus should be made well in advance as space is limited, particularly for children aged two and under.

## **Office of Skills and Learning Development**

<http://upei.ca/skillsdevelopmentandlearning>

The Office of Skills Development and Learning (formerly the Centre for Life-Long Learning) was created in 2002 to develop and deliver a broad range of continuing education courses, workshops, programs, summer institutes, and other services to help meet the lifelong learning needs of Islanders. Located in Robertson Library, the Office offers short courses, credit and non-credit certificates, and customized training. In addition, the Office provides advice and supports for adult learners wishing to return to school. It also administers a number of summer institutes and English summer language programs.

## **Bachelor of Integrated Studies (BIS)**

<http://www.upei.ca/skillsdevelopmentandlearning/bachelor-integrated-studies>

New opportunities are opening for adults who have an unfinished degree or unfulfilled dreams of someday beginning and attaining a degree. The three-year Bachelor of Integrated Studies (BIS) places the unique needs of adult learners in focus, with a distinct entry point, ongoing learner supports, a broad choice of courses to meet employment requirements and personal interests, and faculty who are noted for their strength in teaching.

## **Conflict Resolution Studies**

Our program envisions a community which is based on respect, equality and justice; we believe that conflict can be dealt with in safe, mutually acceptable and healthy ways; we know the skills to manage and resolve conflict can be learned, and we aspire to contribute to healthier and safer communities by encouraging co-operation and by

valuing spiritual as well as mental, emotional, and physical well-being. With a full slate of core and optional courses for application to workplace, family, organization, and other environments, ours is one of the most comprehensive professional development programs in conflict studies in Canada.

### **E-Learning Office**

The E-Learning Office (ELO) supports the development of skills and practices necessary to create vibrant online experiences for members of the UPEI community. Through workshops, boot camps, class visits, and one-on-one consultations, the ELO offers comprehensive training and advice aimed at increasing capacity and developing lifelong learners.

### **Faculty Development Summer Institute**

Since 1984, hundreds of participants have had an opportunity to work with professors from Canadian, United States and overseas colleges and universities who believe, as we do, that teaching is both an art and a science. Participants will discover new ideas that will assist their students in learning more effectively, and make teaching even more of a joy than it already is! It is the only one of its kind in Canada and has been in existence for as long as any similar institute in North America. The overall goal of the Institute is to improve teaching and learning by enhancing the knowledge and skills of professors.

### **Prior Learning Assessment and Recognition (PLAR)**

PLAR is available to individuals who have been admitted to an undergraduate program of study at UPEI and who believe the skills and knowledge gained from their life, work, and non- formal educational experiences are equivalent to the outcomes identified in a course or program at the University. PLAR is particularly suited to adult learners, helping them gain credits for prior learning in order to avoid repetition of learning and reduce the time and costs involved in completing their degree.

### **Professional Development Certificates**

<http://www.upei.ca/skillsdevelopmentandlearning/professional-development>

Our professional development certificate programs offer participants the opportunity to learn from content experts, network and improve their skills to better perform their current job or prepare for career advancement. The Office offers certificates in a variety of different areas: management development, leadership development, conflict resolution, administrative professional's development, effective communication and public sector leadership development.

### **Seniors College of Prince Edward Island**

<http://seniorcollege.ca>

The Seniors College of Prince Edward Island is a non-profit, board-governed, volunteer, membership-based organization that provides stimulating and affordable non-credit learning opportunities for seniors in a welcoming and comfortable environment. Most instructors are seniors who have volunteered to share their time, talents, and knowledge with members of the College.

### **Spring and Summer EXPLORE English Language Program**

<http://www.upei.ca/skillsdevelopmentandlearning/explore-eal>

English as an Additional Language at the University of Prince Edward Island is a highly successful summer program offered through the Office of Skills Development and Learning. It has been developed for non-Anglophone students wanting to learn or to improve their knowledge of the English language and gain an appreciation for Prince Edward Island culture. The program provides academic instruction, workshops and socio- cultural activities that familiarize students with the local culture. Courses and activities are offered in English at the introductory, intermediate and advanced levels.

## Information Technology Systems & Services

<http://upei.ca/itss>

Our mission is to provide information technology services and assistance to members of the campus community, and to maximize the benefits this technology can bring to our clients. To fulfil this mandate we direct our energies and resources in several ways:

- By selecting, installing, configuring, maintaining, repairing, and optimizing a wide variety of IT assets including personal computer hardware and software systems, servers and the services they offer, and the campus computer network;
- By providing advice and assistance in the selection and use of information technologies;
- By developing custom software solutions to meet institutional needs;
- By investigating new and innovative ways to utilize information technology to solve the problems and meet the opportunities presented to the campus.

The department's clientele includes all members of the University community. IT Systems and Services' role within this community is multi-faceted, as reflected by the division of the department into three groups: Operations, Information Systems, and Audiovisual Services. The department is located at the south end of level 200 in the Atlantic Veterinary College.

### ***Operations Group***

This group of dedicated staff members are responsible for providing our clients with regular IT advice, support, and assistance, as well as ensuring the smooth operation of key campus IT assets, including the campus data network, servers, data storage systems, and a wide variety of services that depend on this underlying infrastructure. The initial point of contact for most clients, the Help Desk (902-566-0465, [helpdesk@upei.ca](mailto:helpdesk@upei.ca)), is part of the Operations Group.

### ***Information Systems Group***

Through their knowledge, skill, and tireless efforts, this group has developed critical software systems that support the University as a whole, as well as specialized systems to support the requirements of service areas in the Atlantic Veterinary College. They continue to support the use, maintenance, and development of these systems to maximize the benefit that IT can bring to the operation of the institution.

## Institute of Island Studies

<http://upei.ca/iis>

Under the auspices of the Faculty of Arts, the Institute of Island Studies (IIS) is a research, education, and public policy institute that encourages a deep knowledge, understanding, and expression of Prince Edward Island; serves as a bridge between the University and Island communities; contributes to the formulation of public policy in Prince Edward Island; and undertakes comparative studies of Prince Edward Island and other islands around the world. The IIS is located on the first floor of Main Building.

Since its founding in June 1985, the principal activity of the IIS has been the initiation and co-ordination of research projects. Areas of special interest have included Prince Edward Island history, culture, society, economy and environment; and models for small island governance, economic development, ocean and coastal resource management, and land use. Since 1994, the IIS has engaged in an active international program, (formerly known as the North Atlantic Islands Program, now the North Atlantic Forum) which facilitates research projects, exchanges and networking activities that are devoted to self-reliant economic development in islands of the North Atlantic.

Currently, the Institute's activities vary from year to year but often include public forums on major contemporary issues, invited speakers from many islands of the world, an island to island literary exchange with Tasmania, collaborative research with community partner organisations on a wide range of issues important to Island communities, and international internships. Currently the Institute is engaged in two major projects focused on climate change adaptation in coastal communities; and is part of the leadership team in a long-term community development project with indigenous communities on small islands of southern Chile.

The IIS is also home to Island Studies Press, which publishes, for both popular and academic audiences, books about Prince Edward Island and other islands; and of the online, freely accessible and peer-reviewed Island Studies Journal.

## **Marketing and Communications**

<http://upei.ca/communications>

Marketing and Communications advances the positive reputation of the University through proactive messaging about the work of faculty, staff, students, and alumni to its many audiences.

The department provides a diverse range of expertise and services to the UPEI community and is responsible for presenting institutional information and achievements in a timely, relevant, and consistent manner. Marketing and Communications develops and executes strategic communications plans to uphold the operational integrity and accountability of the University and offers crisis and issues management advice.

In support of UPEI's teaching, research, service, and development functions, Marketing and Communications performs communications and media relations activities; manages events; and provides visual design and production services (including videography and photography) for both print and digital media (including upei.ca).

We are located in Don and Marion McDougall Hall (lower floor).

## **International Relations Office**

<http://upei.ca/iro>

The International Relations Office (IRO) at UPEI was established in September 2012, and provides support to current international and exchange students, and domestic students, staff and faculty wishing to travel abroad. The IRO is responsible for processing international student admissions, and for fostering and sustaining university-wide partnerships with international stakeholders from Canadian and foreign governments, internationally-engaged community organizations, and post-secondary and research institutions from other regions. In addition, the IRO works in cooperation with universities worldwide to develop customized English language programs and professional development opportunities for faculty.

Also housed within the IRO is the English Academic Preparation (EAP) Program, an intensive language program for UPEI students who require assistance meeting the language requirements of the University. It is designed to enable students to gain academic skills and confidence in English, and successfully transition to university.

For more information on the services offered by the International Relations Office, including EAP, please visit the UPEI website.

## **L. M. Montgomery Institute**

<http://lmmontgomery.ca>

The L. M. Montgomery Institute (LMMI), which was established in 1993 with funding from the Social Sciences and Humanities Research Council of Canada (SSHRC), has two overall objectives: to promote scholarly inquiry internationally into the life, works, culture, and influence of L. M. Montgomery; and to encourage the informed celebration of one of Canada's best-known and best-loved authors and her works. The LMMI is supported by a committee whose members are from the UPEI campus and Island community and work from a variety of disciplines and perspectives. An international advisory board was established in 1996. More recently, the LMMI has been developing research collections of rare and valuable publications and regalia documenting Montgomery's life and work, and has implemented a Visiting Scholar's program. The LMMI collections and the Visiting Scholar's office are housed at the UPEI Robertson Library.



## **Registrar's Office**

<http://upei.ca/registrar>

### ***Academic Calendar***

UPEI's Academic Calendar is the official academic document for campus, containing information about admission requirements, courses, regulations, faculty, and more.

### ***Admissions***

Find out about admission requirements for all programs at UPEI. Some UPEI programs have specific admission requirements; requirements for these programs are sorted by undergraduate, graduate, and professional programs.

### ***Appeals***

Students have the right to appeal any academic decision. Forms are available from the Registrar's Office.

### ***Course Changes & Discontinuations***

Changes to registrations can be made under students campus login until date specified under academic calendar dates for full refunds. After this date, changes and discontinuations must be done through the Registrar's Office. Depending on the timeframe, 60% refund or a 40% refund will be applied.

### ***Enrolment***

The UPEI Enrolment staff are responsible for helping you find your way at UPEI. From first contact with the university all the way through your first year courses we are here to support you.

### ***Financial Aid***

A Financial Aid Advisor is available and can assist students with their financial aid options. Students can learn more about their federal (U.S. and Canadian) and provincial student loan processes, including application and appeal processes. PEI students who may be eligible for the George Coles Bursary and Island Student Awards should visit the Financial Aid Advisor if they have any questions. The Financial Aid Advisor also exists to inform students of other financial resources that might be available to them.

### ***First Year Advisement Centre (FYAC)***

All first year students are strongly encouraged to participate in the First-Year Advisement Centre located within the Registrar's Office. First year students can meet with an academic advisor any time to discuss their course requirements and to access early course registration. First year students can also arrange for a personal or group tour of the campus and to meet faculty members in a discipline of their interest.

### ***JUMPSTART***

JUMPSTART is an online community for incoming students. Through JUMPSTART, students can: introduce themselves and interact with other incoming students prior to arrival at UPEI; get information to help with the transition into the UPEI community; and connect with various campus services and events. Students who have received an offer from UPEI will get an invitation to join JUMPSTART through

<http://www.upei.ca/studentlife/registrar/beready>

### ***Scholarships and Awards Office***

The Scholarships and Awards Office provides students with the information necessary to learn about and apply for scholarships, bursaries, and awards. Explore our new searchable online database for Scholarships, Bursaries, and Awards. Choose your search criteria from Award Type, Student Status, Faculty, or Major; submit your query; and click on any of the linked award results for more information.

### ***Timetables***

The academic year includes two semesters: one begins in September (or "1st" semester), one that begins in January (or "2nd" semester), and two summer sessions. Timetables are continuously updated leading up to the beginning of each semester or summer session.

## **Robertson Library**

<http://library.upei.ca>

Twitter: @UPEILibrary

The Robertson Library is the major research library for Prince Edward Island. It was opened in January 1975, replacing the former Kelley Memorial Library which included collections from the former Prince of Wales College and Saint Dunstan's University.

Robertson Library provides a variety of print and electronic resources to support the curriculum and research needs of students and faculty at the University of Prince Edward Island (UPEI). Available resources include private and group study rooms, laptops loans, lockers, self-serve scanners and photocopiers, and more. The Library also offers reference and research assistance, Library tours and information literacy classes. Resources are available to UPEI users both on-site and off-campus.

Special features of the Library include a specialized PEI Collection, a Learning Commons with Mac and Windows computers, a Language Laboratory, the Media Collaboratory and Samuel's Coffee Shop. Initiatives include the development of a virtual research environment (VRE) in support of scholarly research, the [IslandScholar.ca](http://IslandScholar.ca) repository of faculty publications, and a variety of digital collections at [IslandArchives.ca](http://IslandArchives.ca).

The entire Island community is welcome to make use of the Robertson Library and its resources.

## **Student Affairs and Academic Support**

<http://upei.ca/studentlife/student-affairs>

Student Affairs is a partner in the educational mission of the University and is primarily concerned with students' personal and academic development. Students have access to a variety of professional supports and resources to assist them in reaching their full potential. Student Affairs focuses service through two branches: the Webster Centre for Teaching and Learning and Student Life. Students are encouraged to visit Student Affairs in the W. A. Murphy Student Centre, or contact the department at [stuserv@upei.ca](mailto:stuserv@upei.ca) or call 902-566-0488.

### ***Academic Advising***

Fostering academic success is at the core of the UPEI mission. As such, there are many options for academic advising. A student already committed to a faculty and/or major, especially in their upper years of study, should contact their faculty or department to talk to a faculty advisor. First-year and prospective students may find better continuity through academic advice from the First Year Advising Centre, found within Enrolment Services. Students are welcome to seek out Student Affairs staff for services that include assistance with the application and admission process, course and faculty selection, and overall system instructions. Students who are considering changing their faculty of study, modifying course registrations or suspending their studies are encouraged to contact Student Affairs to meet with an academic advisor and discuss the options available to them.

### ***Advocacy***

Staff members at Student Affairs are available to assist students in need of on-campus advocacy. Students are encouraged to self-refer for advocacy support, but others who are concerned for a student are also encouraged to contact Student Affairs. Typical advocacy cases involve providing assistance to students going through crises that are interfering with their lives as students, or those who need support in addressing some difficulty on campus. Advocacy can include help navigating through student processes, understanding campus regulatory practice, or addressing concerns over equitable treatment on campus.

## **Webster Centre for Teaching and Learning**

<http://upei.ca/studentlife/webster-centre>

The Webster Centre for Teaching and Learning is a unique facility located in the W.A. Murphy Student Centre at UPEI. With funding from The Webster Foundation, the Centre provides resources and people committed to the

academic success of students. Programs and facilities available to students, staff, and faculty at the Webster Centre include:

### ***The Writing Centre***

The Writing Centre is a free writing consultation service that is available to all students, faculty and staff at UPEI. Peer tutors and the Centre's coordinator assist writers at any stage of a writing project, and in any subject. The Centre also houses a wealth of writing resources and handouts. Writing help is available seven days a week at the Writing Centre lounge in RL 213.

### ***Mawi'omi Aboriginal Centre***

The Mawi'omi Student Centre invites aboriginal students attending UPEI to gather. Students are encouraged to come and share commonalities with other aboriginal students. For a list of support services, see <http://upei.ca/studentlife/mawiomi-centre> or drop by in person. The Centre is located in Kelley Memorial Building, room 236. All are welcome!!

### ***Pathways to Academic Success***

The aim of the Pathways to Academic Success (PAS) office is to support students in becoming active, responsible learners. Through established programs, individual student advising in study skills, and outreach student workshops, the PAS office helps students develop the skills necessary to succeed at university.

### ***Student Success Program 101 (SSP 101)***

SSP 101 is a non-credit course designed to help students succeed academically. The curriculum includes such topics as motivation, goal setting, time management, study skills, and exam preparation. Students are either referred to SSP 101 as a condition of their academic probation, or register voluntarily as a means to improve their study skills and identify their learning needs.

### ***Academic Coaching***

Academic coaching sessions can be booked through the Webster Centre for Teaching and Learning PAS facilitator at [PAS@upei.ca](mailto:PAS@upei.ca). Students can meet with an academic coach to discuss reading and note-taking strategies, presentation skills, time management, learning styles, and other topics identified by students. These sessions are available one on one, in groups, class visits or as workshops throughout the year.

### ***Accessibility Services and Adaptive Technology***

Accessibility Services and Adaptive Technology provide support for students with, and without, disabilities. Peer mentors offer students regular personalized assistance with study strategies and time management. Students can benefit from technological support for writing and reading texts, notes and articles. Students with documented disabilities are also offered a variety of academic and non-academic accommodations through Accessibility Services. For further information, please visit <http://www.upei.ca/studentlife/accessibility>.

### ***UPEI Student Tutoring***

The peer tutoring program provides academic support to all UPEI students. The program strives for student success by providing dedicated and professional tutors within all academic programs on campus. Our goal is to help students help themselves by becoming successful, independent learners. Visit <http://www.upei.ca/studentlife/service/access-student-tutor-program> for information and a list of available tutors, and email [tutorbank@upei.ca](mailto:tutorbank@upei.ca) to sign up.

## **Student Life**

Student Life services at Student Affairs complement the offerings of the Webster Centre for Teaching and Learning by supporting students in the developmental, personal and decision-making aspects of their lives. Since students can only be truly successful when academic achievements are paralleled by development and growth in the other dimensions of life—personal, emotional, social, spiritual, professional and civic (to name a few)—all students are encouraged to access these services early in their academic processes.

### ***Campus Life Program***

UPEI's Campus Life Program is here to help you build friendships, create memories and love university life! Come hang out in the lounge where you will meet our campus life advisors (CLAs), play a game, watch TV, study or just relax. Our CLAs will be planning events throughout the year. If you would like to help or have an event idea, let us know. Come out and be a part of UPEI's campus life!

Come by the campus life lounge: Student Affairs, 2nd floor, W. A. Murphy Student Centre (above the Bookstore) Tuesday, Wednesday and Thursday nights 6:00-10:00 pm; Join us on Facebook to find out what we're up to during the school year.

### ***Counselling***

Professional counsellors provide short-term personal counselling services to full- and part-time students. Students may self-refer or be referred by faculty, staff, physician, friends or family. Students can access counselling support to address personal issues/concerns such as depression, anxiety, relationship difficulties, family conflicts, current or past abuse, crisis intervention, drug and alcohol abuse, sexual orientation, eating disorders and other stressful circumstances as they arise.

Please call 902-566-0488 or stop by the Student Affairs office to make an appointment.

### ***Student Diversity Office***

Student Affairs has created the new Student Diversity Office. This office, under the leadership of a part-time student coordinator, will facilitate initiatives surrounding diversity and social justice issues pertaining to students. For more information, contact Treena Smith, Manager of Student Affairs, at [trlsmith@upei.ca](mailto:trlsmith@upei.ca) or the student coordinator at [sdo@upei.ca](mailto:sdo@upei.ca).

### ***Health Centre***

The Health Centre is located on the second floor of the W.A. Murphy Student Centre and can be reached at 902-566-0616. The Health Centre is open to students, Monday to Thursday, from September through April. The Health Centre staff promotes health education on campus and coordinates referrals to the health care system of Prince Edward Island. Students are reminded that the medical insurance plan offered by the UPEI Student Union is compulsory for students in full-time attendance, unless they present proof of being enrolled in an alternate plan. For deadlines on opting out of the insurance plan, contact the UPEI Student Union Office at 902-566-0530.

### ***Chaplaincy Centre***

The Chaplaincy Centre, located just north of the Robertson Library building, provides a location to meet, socialize, pray and hold religious services. Our UPEI campus minister provides a spiritual presence that is supportive of students, faculty, administration and staff. Spiritual accompaniment and pastoral counselling, as well as opportunities for inquiry into faith and programs designed to enhance social, intellectual and personal growth are offered. The Centre also houses the campus food bank. The Centre is student-driven and new ideas are welcome. Feel free to drop in. Regular opportunities for worship of all faiths are available at the Chaplaincy Centre.

### ***The UPEI Student Union***

<http://upeisu.ca>

The UPEI Student Union is an incorporated, non-profit organization.

### ***Mission***

The UPEI Student Union is a non-profit democratic representation of students. We are dedicated to fostering pride in the university, the betterment of university life, and enhancing the student experience at UPEI. We value our independence as an organization while maintaining effective relationships with the university and surrounding community.

### ***Core Values***

- Representation for all students
- Transparency, Honesty, and Accountability

- Fun, Participation and Engagement
- Progress (Growth, Strength, Best Practices, Creative Solutions, etc.)
- Sustainability (Triple Bottom Line - Financial, Social, and Environmental)

### ***Membership***

A member of:

1. AMICCUSC—Association of Managers in Canadian College, University, and Student Centres
2. COCA—Canadian Organization of Campus Activities
3. CUP—Canadian University Press (The Cadre)
4. CASA—Canadian Alliance of Student Associations

### ***Services***

The Student Union administers services such as the W.A. Murphy Student Centre, the UPEI Student Health Plan, The Cadre Newspaper, The Wave, Mickey's Place Coffee Smoothie and Sandwich Kiosk, The Yearbook, and is the coordinator of the UPEI Student Handbook and Special and Alternative Programming; also offers faxing and typing services.

### ***UPEI Student Health and Dental Plan Notice***

Your student identification number, name, gender, and date of birth are used by the insurance company and the Plan Administrator to determine your eligibility for benefits and are used only for this purpose while you are a member of the UPEI Student Health and Dental Plan. Without the use of this information, you are still covered for benefits; however, your claims may not be adjudicated. The personal information is stored with the utmost attention to security, and is deployed sparingly to fulfill the requirements of the Plan and the law. For further information on the use of this information or to revoke the use of this information, contact the UPEI Student Union Administrative Assistant at 902-566-0530 or [studentu@upei.ca](mailto:studentu@upei.ca).

### ***The Student Union Executive***

The Executive of the Student Union consists of a President, Executive Vice-President, Vice-President Activities, Vice-President Communications and Vice-President Finance. The duties of the Executive are outlined in the UPEI SU Constitution. In brief, the Executive is responsible for the generation and implementation of policy in regard to Student Union affairs. Ultimately, all policy decisions shall be made by the Student Union Council.

### ***The Student Union Council***

The governing body of the UPEI SU is the UPEI SU Council. Council consists of five executive officers, representatives from the Schools of Business, Nursing and Graduate Studies, the faculties of Arts, Sciences, Education and Veterinary Medicine. As well, there are student representatives to the UPEI Senate and the UPEI Board of Governors. The International student representative, residence representative, first-year representative and student Ombudsman are chosen in the fall general election. The duties of the Council are outlined in the UPEI SU Constitution. The UPEI SU Council holds regular meetings twice a month on Sunday evenings.

### ***Student Union Elections***

Positions on Council and the Executive are filled through elections run according to the Elections Procedures By-Law as established by the Student Council. Student Union General Elections are held in the spring, with a further general Election taking place in the fall to fill any vacant positions. The exact dates are determined by Council.

### ***Student Union Sub-Organizations***

There are a variety of societies and clubs representing social, academic, political, religious, athletic, and community interests. All registered societies and clubs can be found online through the Student Union website ([upeisu.ca](http://upeisu.ca)). There is an official sub-organization policy by the UPEI SU Council. All students are invited to join existing clubs or to form new ones. The UPEI Student Union shall be the only official channel for negotiations between the student body and the University administration, or any other organization or body. The UPEI SU wishes to represent its membership properly and to continue developing more services and activities.

## **Mature and Part-Time University Student Association (MAPUS)**

<http://upei.ca/mapus>

Mature and Part-Time Students Association (MAPUS) is affiliated with the Student Union and the Graduate Students Association, and has ex-officio representation at the SU. MAPUS was organized at the University of Prince Edward Island to:

1. provide a support system for Mature Full-Time and Part-Time University Students;
2. provide a framework for communications between this group of students and the University community; and
3. ensure that Mature Full-Time and Part-Time students are an integral and acknowledged part of the University.

The Association's affairs are administered by the Executives: President, Vice-President, Secretary-Treasurer, and Past President. The Association Committee consists of the Executive, Student Union Representative, Senate Representative, and the Class Representatives. All mature full- and part-time students are automatically members of MAPUS. Meetings are held monthly. MAPUS strives to assist and inform students as they pursue their education. Social events are held to bolster social life on campus and to provide a means of interacting with peers. The MAPUS office and lounge are located in the basement of Main Building. The mailing address is Box 39, c/o UPEI.

## **Graduate Student Association**

<http://upei.ca/gsa>

### ***Objectives***

The Graduate Student Association (GSA) represents the graduate student body and its members in all matters pertinent to its members. The GSA acts as a liaison between graduate students and the faculty, administration and undergraduate students of UPEI. Furthermore, the GSA promotes social, cultural and academic activities and service programs for the membership. The GSA is a member of the Canadian Federation of Students and the National Graduate Council.

### ***Membership***

Membership is available to ALL persons involved in post-graduate education at UPEI.

### ***Keeping in touch***

Join our Facebook group (UPEI Graduate Students' Association) to browse pictures and receive information about upcoming events!

### ***Location***

We are located in the Basement of Dalton Hall, Room 113. Our office hours are listed below and our phone number is 902-620-5016:

Mondays: 9-10 am

Wednesdays: 12-1 pm

## **The W. A. Murphy Student Centre**

The W. A. Murphy Student Centre houses the offices of the Department of Student Affairs and the UPEI Student Union. It is also the location of The Wave, a cafeteria, the Student Health Centre, and the UPEI Bookstore.

## 4. THE UNIVERSITY OF PRINCE EDWARD ISLAND—DATES

Note: Not all programs follow these dates. Please check with your program.

### First Academic Semester

(SEPTEMBER–DECEMBER 2015)

ALL PROGRAMS EXCEPT VETERINARY MEDICINE

#### SEPTEMBER 2015

8 Tuesday	Classes Begin
18 Friday	<b>FINAL DAY FOR LATE REGISTRATION, FOR CHANGING COURSES OR SECTIONS, FOR CANCELLATION OF COURSES OR SECTIONS, FOR CANCELLATION OF COURSES WITH FULL REFUND; FINAL DAY FOR PAYMENT OF FEES OR FORMAL ARRANGEMENT WITH THE ACCOUNTING OFFICE TO PAY LATE.</b>
30 Wednesday	Last day for discontinuing courses – 60% refund

#### OCTOBER 2015

12 Monday	Thanksgiving Day. No classes
30 Friday	Final date to apply to graduate Last day for discontinuing courses – 40% refund. <b>No discontinuation after this date.</b>

#### NOVEMBER 2015

11 Wednesday	Remembrance Day. No Classes
12 -13 (Thurs-Fri)	Student Development Days. No Classes
16 Monday	Classes Resume

#### DECEMBER 2015

4 Friday	Final Day of First Semester Classes. <b>Deadline</b> for application for second semester
9-18 (Wed-Fri)	<b>EXAMINATIONS. Note:</b> No examinations will be held during the period 23 November to 4 December inclusive without the permission of the Chair and appropriate Dean.
22 Tuesday	End of first semester. Course grades to be submitted to Registrar's Office by noon on this date.

### Second Academic Semester

(JANUARY–MAY 2016)

ALL PROGRAMS EXCEPT VETERINARY MEDICINE

#### JANUARY 2016

4 Monday	Classes Begin
15 Friday	<b>FINAL DAY FOR LATE REGISTRATION, FOR CHANGING COURSES OR SECTIONS, FOR CANCELLATION OF COURSES OR SECTIONS, FOR CANCELLATION OF COURSES WITH FULL REFUND; FINAL DAY FOR PAYMENT OF FEES OR FORMAL ARRANGEMENT WITH THE ACCOUNTING OFFICE TO PAY LATE.</b>
29 Friday	Last day for discontinuing courses – 60% refund.



## FEBRUARY 2016

15-19 (Mon-Fri)	Islander Day and Mid-semester break. No classes
16 Tuesday	<b>Registration begins for SUMMER SESSIONS 2016</b>
22 Monday	Classes resume
29 Monday	Last day for discontinuing courses – 40% refund. <b>No discontinuations after this date.</b>

## MARCH 2016

25 Friday	Good Friday. No classes/exams
28 Monday	Easter Monday. No classes/exams
29 Tuesday	Classes resume

## APRIL 2016

5 Tuesday	Final day of classes
8-19 (Fri-Tues)	<b>EXAMINATIONS. Note:</b> No examinations will be held during the period 22 March to 5 April inclusive without the permission of the Chair and appropriate Dean.
21 Thursday	End of Second Semester. Course grades for fourth year students to be submitted to the Registrar's Office by noon on this date.
26 Tuesday	Course grades for third year, second year, first year and part-time students to be submitted to Registrar's Office by noon on this date.

## MAY 2016

7 Saturday	<b>CONVOCATION</b>
9 Monday	First day of classes for First Summer Session
31 Tuesday	REGISTRATION begins for September 2016 & January 2017. Students with fourth year standing on May 31, third year on June 1, second year on June 2, all others on June 3.

## DVM Calendar Dates

### First Academic Semester (May–December 2015)

## MAY 2015

4 Monday	First day of Fourth Year Rotations - Summer Semester
18 Monday	Victoria Day - no classes

## AUGUST 2015

17 Monday	First day of Fourth Year Rotations - Fall Semester
19 Wednesday	Clinical Conference begins
28 Friday	First Year Orientation
31 Monday	Classes begin

## SEPTEMBER 2015

7 Monday	Labour Day - no classes
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## OCTOBER 2015

12 Monday	Thanksgiving Day - no classes
30 Friday	Final date to apply to graduate. Access through campus login



## NOVEMBER 2015

**11 Wednesday** Remembrance Day - no classes

## DECEMBER 2015

**4 Friday** Final Day of Fall Semester Classes

**5 - 19 (Sat-Sat)** Final Examinations

**22 Tuesday** End of First Semester. Course grades to be submitted to the Registrar's Office by noon on this date.

**NOTE:** The North American Veterinary Licensing Examination (NAVLE®) is available during a four-week testing window in November-December. For further information, please refer to [www.nbec.org](http://www.nbec.org)

## DVM Calendar Dates

### Second Academic Semester (January–May 2016)

## JANUARY 2016

**4 Monday** First day of Fourth Year Rotations - Winter Semester  
Pre-Clinical Classes begin - Winter Semester

## FEBRUARY 2016

**11-12 (Thurs-Fri)** Mid semester break (except 4th year rotations)

**15 Monday** Islander Day. No classes.

## MARCH 2016

**25 Friday** Good Friday. No classes.

**28 Monday** Easter Monday. No classes.

## APRIL 2016

**15 Friday** Final day of winter semester classes.

**17 Sunday** Final day of fourth year rotations

**16-30 (Sat-Sat)** Final Exams

**22 Friday** End of second semester. Course grades for 4th year students to be submitted to Registrar's office by noon

## MAY 2016

**2 Monday** First day of Fourth Year Rotation – Summer Semester

**4 Wednesday** Course grades for 1st, 2nd, and 3rd year students to be submitted to Registrar's Office by noon on this date

**7 Saturday** Convocation

**NOTE:** The North American Veterinary Licensing Examination (NAVLE®) dates are in April. Please refer to [www.nbec.org](http://www.nbec.org)

## Summer Session Dates for 2016

### \*First Summer Session 2016

## FEBRUARY

**16 Tuesday** **REGISTRATION** begins for Summer Sessions 2016

## **MAY**

9 Monday	First Summer Session classes begin
13 Friday	Last day to register late for First Summer Session courses; last day to cancel registration for full refund; last day for changing courses or sections; late fee is in effect for First Summer Session courses.
23 Monday	Victoria Day – No classes
27 Friday	Last day to discontinue from First Summer session courses*
31 Tuesday	REGISTRATION begins for September 2016 & January 2017. Students with fourth year standing on May 31, third year on June 1, second year on June 2, all others on June 3.

## **JUNE**

16 Thursday	Last day of First Summer Session classes
20-21 (Mon-Tues)	Exams for First Summer Session
27 Monday	First Summer Session grades must be submitted to Registrar's Office by noon

### **\*Second Summer Session 2016**

## **JULY**

5 Tuesday	Second Summer Session classes begin
8 Friday	Last day to register late for Second Summer Session courses; last day to cancel registration for full refund; last day for changing courses or sections; late fee is in effect for Second Summer Session courses.
29 Friday	Last day to discontinue from Second Summer Session courses*

## **AUGUST**

11 Thursday	Last day of Second Summer Session classes
15-16 (Mon-Tues)	Exams for Second Summer Session courses
22 Monday	Second Summer Session grades must be submitted to the Registrar's Office by noon

**\*For courses that begin on the dates prior to the regularly scheduled Summer Session dates, and for regularly scheduled summer session courses, please contact the Registrar's Office for refund schedule and late fee schedule.**

### **Senate Dates for 2015–2016**

Atlantic Veterinary College (AVC 286-287N)—Fridays at 3 pm

- September 18
- October 16
- November 6
- December 4
- January 15
- February 26
- March 18
- April 29

## 5. FEES

### UPEI Accounting Office

<http://upei.ca/accounting>

All tuition and academic fees quoted in this Calendar are for the 2015-16 year effective July 1, 2015.

This section contains tuition information and information on:

Undergraduate Programs  
Graduate Programs  
Veterinary Medicine Program  
Other Fees  
Regulations Governing Payments and Refunds  
Residence Accommodation Fees  
Campus Parking Fees  
General Regulations Governing Payment of Fees

Course registration: Students will register at the University on the dates set forth in this Calendar. For those registering late and/or paying late, late fees will apply.

### ***Undergraduate Programs***

#### **Definitions**

*Full-time*—A full-time student is one taking 9 or more semester-hours of credit in any one semester.

*Part-time*—A part-time student is one taking fewer than 9 semester-hours of credit in any one semester. NOTE: Part-time students are required to pay Mature and Part-time University Students (MAPUS) fees at the rate of \$10 per credit course (maximum \$20 per semester). This fee is used by the MAPUS organization to provide various programs for part-time and mature students.

*International Student*—An international student is one who is not a Canadian citizen or a landed immigrant of Canada at the date of registration.

#### **Undergraduate Application Fees**

This application fee is to be paid by all first-time applicants, whether for full-time or part-time studies.

1. Canadian Applicants – \$50.00
2. International Applicants – \$75.00

#### **Undergraduate Tuition**

(Canadian dollars unless otherwise specified)

1. Per three-semester-hour credit course – \$569.00
2. Per six-semester-hour credit course – \$1,138.00
3. Per three-semester-hour audit course – \$363.00
4. Per six-semester-hour audit course – \$726.00
5. International students fee per annum – \$6,622.00
6. International students fee per course (part-time) – \$662.00

Please see Other Fees Section for additional charges as applicable.

### ***Graduate Programs***

#### **Definitions**

*Full-time*— Effective September 2010, all graduate programs at UPEI are defined as full-time studies, unless otherwise designated.

*Part-time*— Where students have been admitted as part-time students prior to September 2010, as listed below, tuition is assessed on a per course basis.

*International Student*—An international student is one who is not a Canadian citizen or a landed immigrant of Canada at the date of registration.

*Special Student*— Students who are permitted to enrol in individual graduate courses are subject to tuition of \$764.00 per course. The amount of the tuition fee may be deducted from the graduate program fee if the student enrolls in the program within 12 months of registering for the single course. This option will be subject to approval by the appropriate Dean. Students auditing a graduate course can do so with permission of the instructor and the payment of \$516.00 per course.

*Notes:*

1. Fees are assessed on a per program basis, and may vary based upon the program. Fees are owing over two years/6 instalments for Master's programs and three years/9 instalments for Doctorate programs. Payments in a particular academic year are based on the program fee in effect for that year. Program fees are subject to change upon approval of the Board of Governors.
2. Graduate students continuing with their thesis and/or research work after all course requirements have been completed are required to register and pay a Maintenance of Status fee. Registration and payment of a Maintenance of Status fee is required each semester until all program requirements have been completed.
3. All students are subject to additional fees as applicable and listed under the Other Fees section.
4. Graduate and postgraduate students who enrol in courses not designated as part of their graduate/postgraduate program by their supervisory committee will be subject to the regular course tuition fees in addition to their program fees.

### **Graduate Application Fees**

1. Canadian Applicants – \$75.00
2. International Applicants – \$100.00

### **Graduate Tuition**

Please see Other Fees Section for additional charges as applicable.

*Master of Arts*

*Master of Education*

*Master of Nursing*

*Master of Science*

*Master of Veterinary Science*

*PhD programs:*

*- Education*

*- Science*

*- Veterinary Medicine*

1. Fee per instalment – \$1,273.00
2. International Fee per instalment – \$2,207.00
3. Maintenance of Status Fee per semester – \$167.00

*Master of Education—Community College Program*

1. Fee per instalment – \$2,357.00
2. International Fee per instalment – \$2,207.00
3. Maintenance of Status Fee per semester – \$167.00

*Master of Education course-based*

(only available to students who enrolled prior to September 2010)

1. Tuition per three-semester-hour credit course – \$764.00
2. Thesis Fee – \$3,056.00
3. International Student Fee per annum (full-time) – \$6,622.00
4. International Student Fee per course (part-time) – \$662.00

### *Master of Applied Health Services Research*

1. Fee per instalment – \$2,040.00
2. International Fee per instalment – \$2,207.00
3. Maintenance of Status Fee per semester – \$167.00

### *Master of Business Administration*

1. Program Deposit Fee (non-refundable) – \$1,000.00
2. Fee per instalment 2013 cohort (2 semesters) – \$8,250.00  
Fee per instalment 2014 cohort (3 semesters) – \$5,500.00
3. International Student Fee per instalment – \$2,207.00
4. Course Re-take Fees  
First re-take – \$1,000.00  
Second re-take – \$2,000.00

The MBA Program Deposit Fee is payable within 20 days of the student being offered acceptance into the program. This is a non-refundable deposit credited towards tuition. Non-payment of the deposit, within the prescribed timelines, will result in a withdrawal of the offer of acceptance.

Unless otherwise stated, MBA refunds will generally be granted as follows:

- Students accepted into year one of the program may withdraw by completing the Program Withdrawal form at least 45 calendar days before commencement of the program. In such cases, 50% of the program deposit fee will be refunded. For program withdrawals at any other time, no refunds of the program deposit fee will be provided.
- For withdrawals from the program after courses have begun, the refund of program tuition fees will be on a pro-rated basis depending on the number of courses that the applicant has registered in. This will be determined in accordance with University guidelines. Please note that fees other than tuition fees and student union dues are not refundable.

### *Veterinary Medicine Program*

Please see Other Fees Section for additional charges as applicable.

### *Canadian Students*

1. Application Fee (to be submitted with application form) – \$50.00
2. Tuition  
First Semester (see note)..... \$6,008.00  
Second Semester ..... \$6,007.00  
Total Annual ..... \$12,015.00

Note: First-Semester tuition is due on August 16 for 1st-year students; 2nd-, 3rd-, and 4th-year students' tuition is due on Registration Day.

### *International Students*

1. Application Fee  
International applicants – CDN \$75.00
2. Tuition\*\*

Note: First-Semester tuition is due on August 16 for 1st-year students; 2nd-, 3rd-, and 4th-year students' tuition is due on Registration Day.

Year of Study	1st Semester	2nd Semester	Total Yearly Tuition
1st Year	\$28,186.00	\$28,186.00	\$56,372.00
2nd Year	\$28,186.00	\$28,186.00	\$56,372.00
3rd Year	\$28,186.00	\$28,186.00	\$56,372.00
4th Year	\$28,186.00	\$28,186.00	\$56,372.00

Veterinary Medicine students are required to purchase protective clothing and textbooks for personal use. A description of requirements is contained in the Atlantic Veterinary College registration packet.

**\*\* Students in the Veterinary Medicine program must pay the International tuition unless they are Atlantic Canadian citizens or landed immigrants of Atlantic Canada of at least 12 consecutive months' duration during which time they have resided in Atlantic Canada and have not attended a university or college full-time. Those who qualify for this status after first admission by standing down for a year will be considered for readmission subject to the availability of seats in the year and in the province where they now qualify. (See Undergraduate and Professional Programs – Application and Admission Requirements – Professional Degree Programs a) Doctor of Veterinary Medicine (DVM) for residency guidelines. )**

## **Other Fees**

1. Student Union
  - Dues – \$164.00
  - CASA – \$4.00
  - WUSC – \$6.00
  - Student Centre Fund (\$20.00 per semester) – \$40.00
  - Transit Pass (\$28.00 per semester) – \$56.00
  - Total Student Union – \$270.00
2. Student Health and Dental Insurance\*\*
  - Canadian Health Insurance (Single) – \$247.00
  - Canadian Dental Insurance (Single) – \$155.00
  - Canadian Health Insurance (Family) – \$475.00
  - Canadian Dental Insurance (Family) – \$405.00
  - International Health Insurance (Single) – \$867.00
  - International Dental Insurance (Single) – \$155.00
  - International Health Insurance (Family) – \$2,001.00
  - International Dental Insurance (Family) – \$405.00
3. Athletic and Administration Fee—Full-time  
(see Note 1) – \$194.00
4. Technology Fee—Full-time – \$50.00
5. Technology Fee—Part-time per course – \$5.00
6. Library Resource Fee—Full-time – \$40.00
7. Library Resource Fee—Part-time per course – \$4.00
8. Fitness Centre Access (\$36.00 per semester) – \$72.00
9. Administration Fee—(Part-time) (see Note 1 below) – \$10.00
10. Laboratory Fee (where applicable per course) – \$50.00
11. Music Instruction Fee – \$500.00
12. Engineering Professional Fee (\$500 per semester) – \$1,000.00
13. Nursing Professional Fee (4-year Program) (\$250.00 per semester) – \$500.00
14. Nursing Professional Fee (Accelerated Program) (\$500.00 per semester) – \$1,000.00
15. BEd Program Professional Fee (\$375.00 per semester) – \$750.00
16. Business Co-operative Education Program  
Acceptance Fee – \$717.00
17. Math & Computer Science Co-operative Education  
Program Acceptance Fee – \$717.00
18. Physics Co-operative Program (Acceptance Fee) – \$717.00
19. Transition Program Fee – \$855.00
20. Student Success Program Fee – \$459.00
21. Challenge Examination – \$284.00
22. Evaluation of Special Credits (per request) – \$284.00
23. E-learning Fee (per web based course) – \$75.00
24. Transcripts  
Regular Mail or Fax Service – free of charge

Rush Service (same day service) – \$15.00

Courier Fee (within the Maritimes) – \$10.00

Courier Fee (other Canadian Destinations) – \$20.00

Courier Fee (United States) – \$30.00

Courier requests must include a street address and a phone number, including the area code.

25. Master of Science, Master of Education, or Doctor of Philosophy Program

Thesis publication fee (as determined by Library and Archives Canada)

Thesis binding (2 copies) – \$30.00

26. Reinstatement fee charged to students who are deregistered from courses for non-payment

Full-time students – \$50.00

Part-time students – \$25.00

27. Canadian Nursing Student Association Fee – \$10.00

28. UPEI Nursing Student Association Fee – \$10.00

29. Co-operative Education Program

Internship Work Term– \$569.00

30. Dietetic Internship Work Term – \$1,774.00

31. International students fee per annum – \$6,622.00

32. International students fee per course (part-time) – \$662.00

Note 1: Administration Fee includes graduation fees, letters of permission, supplemental and special examinations, rereading of examinations, and transcript fees except as specified.

Note 2: \*\*Full-time students requiring health and dental insurance family coverage must make application and pay the required premium at the Student Union Office. Single students must pay the required premium at the University Accounting Office during registration. See Item 7 under Regulations Governing Payments and Refunds—Academic Fees—Full-time.

### **Regulations Governing Payments and Refunds—Academic Fees—Full-time**

1. All tuition and items 1 to 9 under Other Fees are payable during registration for first and second semesters on the dates set forth under Calendar Dates 2015-2016. All other fees are payable when incurred.
2. Students registering for second semester only are required to pay the tuition fees as specified above but only pay one-half Student Union fees.
3. While a student is financially indebted to the University, no testimonial, diploma, certificate, or statement of examination record will be issued.
4. Students financing part or all of their education with funds from a Canada Student Loan and/or a Provincial Student Loan are required to complete the necessary arrangements before their arrival on campus for registration. Student loan application forms for Prince Edward Island students are available from the University Department of Student Services or from the PEI Department of Education. These application forms are to be completed and filed with the Provincial Government during the early summer months in order that a Certificate of Eligibility may be obtained before registration in September. Students from other provinces must apply through their applicable Provincial Government student aid office.

All Certificate of Eligibility forms must be processed at the Accounting Office and delivered to the lending institution negotiating the loan. Failure to follow this procedure will subject the student to a late fee.

5. Students who intend to finance their education with student loan funds but have not received their Certificate of Eligibility prior to registration must pay the required fees at registration time. They should, therefore, arrange the necessary temporary financing before their arrival for registration. Failure to do this will subject the student to a late fee.

6. Students whose educational costs are paid by an external organization which requires direct billing by the Accounting Office must present proof of such arrangements at the time of registration. Please note: If monies are not received from the external organization before the designated due dates the student will be subject to a late fee.
7. The UPEI Student Union-administered student medical plan is a supplement to the Canadian Provincial Medicare plans and covers the student (Canadian and International) for certain benefits not provided by Medicare. The term of coverage is from September 1 to August 31 of each registered year for students registering in the fall. All students must pay the specified premium at the time of registration. Those not requiring medical coverage and wishing refunds on the premium paid must present proof of similar coverage to the Student Union Office prior to September 30 of each registered year or during a specific period of time which will be advertised on campus bulletin boards.
8. Full-time students who withdraw from the University or from individual courses voluntarily or otherwise before October 31 in the first semester or February 28 in the second semester may be allowed a refund on part of their tuition fees, (please note that fees other than tuition fees and student union dues are not refundable) provided written notice is previously filed with the Registrar's Office and the Accounting Office. The date of withdrawal shall be the day notice is received. Refunds will be made for complete months only; any part of a calendar month attended or registered by a student constitutes a full month. Refunds are based on the following discontinuation dates:

1st Semester	Month of September	60%
	Month of October	40%
2nd Semester	Month of January	60%
	Month of February	40%

9. **Student Union Dues Refund**  
Student Union dues shall be refunded to students who discontinue courses in the following manner:
  - 100% until September 30 for fall semester
  - 80% until October 31 for fall semester
  - 100% until January 31 for winter semester
  - 80% until February 29 for winter semester

### **Regulations Governing Payments and Refunds—Academic Fees—Part-time**

1. Part-time students must pay all of their tuition and other fees at the time of registration on the dates set forth in the 2015-2016 Calendar. Registration will not be complete until all fees are paid or financial arrangements have been made with the Accounting Office.
2. While a student is financially indebted to the University, no testimonial, diploma, certificate, or statement of examination record will be issued.
3. Part-time students who withdraw from the University or from individual courses voluntarily or otherwise before October 31 in the first semester or February 29 in the second semester may be allowed a refund on part of their tuition fees (unless otherwise specified at time of registration) provided written notice is previously filed with the Registrar's Office and the Accounting Office. The date of withdrawal shall be the day notice is received. Refunds will be made for complete months only; any part of a calendar month attended or registered by a student constitutes a full month. Refunds are based on the schedule of refunds as specified under Regulations Governing Payments and Refunds for Full-Time Students. In no case will refunds be made after February 29. Please note that fees other than tuition fees are not refundable.



## Residence Accommodation Fees

The 2015–2016 residence and meal service fees are outlined below.

All students living in Bernardine or Andrew Hall are required to have a meal plan. The choices of meal plans are 7-day meal plan (unlimited) or 5-day meal plan (unlimited).

Accommodation	1st Semester	2nd Semester	Total
<b><i>Bernardine Hall</i></b>			
Single Room	\$2,886.00	\$2,886.00	\$5,772.00
Shared (double) Room	\$2,259.00	\$2,259.00	\$4,518.00
<b><i>Andrew Hall</i></b>			
One-Bedroom Suite	\$3,193.00	\$3,193.00	\$6,386.00
Two-Bedroom Suite	\$3,039.00	\$3,039.00	\$6,078.00
Three-Bedroom Suite	\$3,039.00	\$3,039.00	\$6,078.00
<b><i>Blanchard Hall</i></b>			
Semi-Private	\$2,967.00	\$2,967.00	\$5,934.00
<b><i>Meal Service</i></b>			
5-Day Meal Plan	\$2,104.00	\$2,104.00	\$4,208.00
7-Day Meal Plan	\$2,168.00	\$2,168.00	\$4,336.00

Residence accommodation fees include heat/hot water, in-room local telephone services, voice mail, high-speed wireless Internet service, cable television access (television set not supplied), House Council fees, and security services. Additional information regarding residence facilities and services can be found by visiting <http://upei.ca/residence>.

## Other Residence Fees

New Student Residence Security Deposit of \$300.00 is due as indicated in an offer letter for a space in residence.

Returning Residence Students Security Deposits are non-refundable; 1st instalment of \$50.00 is due as indicated in an offer letter. The 2nd instalment of \$250.00 is due on or before June 15th.

## Residence Regulations Governing Payments and Refunds

1. Fees for residence accommodation are payable during registration for first and second semester as specified under Calendar Dates 2015-2016. Regulations governing payments and refunds for academic fees also apply to payment of fees for residence accommodations and meal services.
2. Students living in residence during the first semester who have paid the residence security deposit are not required to pay this when paying for second semester residence accommodation.
3. The cost per semester, according to the current fee schedule, is payable in advance to the University Accounting Office prior to the date of move-in (for the first semester) and prior to the first day of classes in January (for the second semester).
4. If you are a new residence student you are required to submit a completed Residence Life Agreement and a \$300.00 security deposit by the date indicated on your letter of acceptance to the residence program. The following refund schedule applies should you inform the Residence Office by written notice of your intention to withdraw from the Residence Program.

- notification prior to July 1 qualifies for a \$100.00 refund;
- notification on and after July 1 does not qualify for a refund

If you are a returning residence student you are required to submit a completed Residence Life Agreement along with a non-refundable \$50 room deposit by the date indicated on your offer letter. A subsequent non-refundable room deposit is required as indicated below.

\$250 due on/before June 15

Once again, the paid deposits will not be refunded (unless the University does not allow you to continue because of poor academic performance) as it is expected that you will return to residence.

5. The \$300 security deposit may be used toward amounts owing the University at the end of the academic year. Any unused portion of this deposit is refundable after this time.
6. You are making a commitment to the Residence Life Program for the entire 2015-16 academic year or for as long as you are a UPEI student during this academic year. This commitment includes all financial obligations (including your \$300.00 Security Deposit), whether or not you remain in Residence for the entirety of that time period.

1st Semester (September–December): If you leave residence or are evicted at any point during the 1st semester (includes Christmas break), you will not be eligible for any refund. This includes your residence fee, meal plan fee (if applicable), and security deposit. You will also be charged for 50% of the residence and meal plan fees for the second semester.

2nd Semester (January–April): If you leave or are evicted from residence at any point in the 2nd semester, you will not be eligible for any refund. This includes your residence fee, meal plan fee (if applicable), and security deposit.

7. All fees are payable in full at the beginning of each semester. Students accepted to residence who have not paid their Residence security deposit cannot be guaranteed residence accommodation. For further information, please contact the Residence Office at 902-566-0362 or e-mail [residence@upei.ca](mailto:residence@upei.ca).
8. If you accept Residence in Andrew Hall or Bernardine Hall, you are making a commitment to the University of Prince Edward Island to purchase one of the available Residence meal plans for the duration of your stay in Residence. If you wish to change to a different Residence meal plan for the second semester, you must inform the Residence Office in writing during the first semester, prior to December 1.
9. If you accept Residence in Blanchard Hall, you have the option of purchasing one of the available Residence meal plans on a semester-by-semester basis. If you purchase a Residence meal plan, you are committing yourself to holding that meal plan for the duration of the semester. Blanchard residents also have the option of purchasing one of the available Casual meal plans.

## Campus Parking Fees

The University provides pay parking for students, faculty, staff, and visitors to the campus. Permits are required during the parking enforcement hours of 7:00 a.m. to 7:00 p.m., Monday to Friday (excluding statutory holidays).

Students may obtain parking permits by completing an application and making the required payment. Please see the website for more information: <http://upei.ca/facilities/security/parking>

Student Parking Fees (subject to change without notice):

Full-Time Student

1st Vehicle – \$118.00

Additional Vehicle – \$59.00

#### Part-Time Student

1st Vehicle – \$73.00

Additional Vehicle – \$37.00

Visitor parking during the enforcement hours at an hourly rate of \$2.00 (two hour maximum) is located at the Visitor Parking Lot at the University Avenue entrance to the campus.

A brochure outlining UPEI's traffic and parking regulations is available from the Security Services Office. Questions related to permits, fees, and enforcement matters should be addressed to Security Services. The payment of parking ticket fines can be made at the Accounting Office.

#### **General Regulations Governing Payment of Fees**

1. All payments towards academic and residence fees may be made by 24/7 online banking, telephone banking, wire transfer, direct transfer of funds, cash, Interac, cheque, money order, or Student Loan Certificate of Eligibility.
2. Payment of fees constitutes part of registration procedures. Fees not paid in full by the end of the second week of the semester (during regular business hours) are subject to late fees (subject to change):

Full-Time Students—\$60.00

Part-Time Students—\$30.00

Note: Where a student cannot pay by the end of the second week of the semester, they are asked to complete a "permission to pay later" form which can be found at <http://www.upei.ca/finance/accounting/forms> and have it approved by the Accounting Office. This does not waive the late fee but does keep the student enrolled in his/her courses.

3. Discretionary powers in exceptional circumstances will remain with the Comptroller in all cases relating to the payment of fees.
4. Students who pay their fees by cheque and subsequently have their cheque returned to the University will have the face value of the cheque plus any bank charges charged back to their account. In addition to this, a \$20 administration charge will be levied against the student and the student will be subject to late fees.
5. Proceeds from Student Loan and Bursary sources must be applied against educational debts incurred at the University of Prince Edward Island. Residual funds will go to the student after these debts have been paid.
6. Outstanding accounts with the University are subject to a .75 % interest charge per month. This rate may change from time to time as market conditions fluctuate.
7. The University reserves the right to add to, alter, or amend these regulations at any time during the academic year.
8. While a student is financially indebted to the University, no testimonial, diploma, certificate, or statement of examination record will be issued.

## 6. TRANSCRIPT INFORMATION

Student transcripts will be provided to the student or directly to an external party (employer, educational institution, etc.) upon:

- (i) written request submitted in person, by fax, or by email (sent from a verified UPEI account) to [transcripts@upei.ca](mailto:transcripts@upei.ca)
- (ii) official transcripts will not be released in sealed envelopes to students but will be issued directly to the third party, unless documentation from that third party so instructs the Office. This official transcript remains official only as long as the seal is not broken before it reaches the receiving institution. Requests from students with fees owing to the university will not be processed.

The Registrar's Office is pleased to provide regular mail and fax service for transcripts free of charge. Courier fees are an additional \$10.00 within the Maritimes, \$20.00 for other Canadian destinations, and \$30.00 for the United States. Courier requests must include a street address and a phone number, including the area code. You can pay by VISA, MasterCard, or cheque. You can fax or phone in your credit card number, or send it by e-mail to: [transcripts@upei.ca](mailto:transcripts@upei.ca).

Any request needed immediately (same-day service) is subject to a \$15.00 rush fee in addition to the costs of the particular request.

NOTE: Transcripts are prepared daily; however, during peak periods, such as the end of each academic session, at least one week of notice may be required.

## 7. SCHOLARSHIPS, AWARDS, AND BURSARIES

### Introduction

UPEI supports you and your educational goals. We offer our students competitive tuition rates and administer millions of dollars in scholarships and bursaries every year.

### Scholarships, Awards, and Bursaries

Scholarships are financial awards in various amounts and are often based on academic merit and/or extracurricular accomplishments. Some scholarships are renewable year-to-year based on academic performance, while others are non-renewable.

Awards recognize academic and/or extracurricular achievement. UPEI awards vary in amounts and can be applied for by a student, or award recipients are recommended by their Deans or Chairs.

Bursaries are offered to students based on various criteria, including financial need, residency, and community service; these types of financial support would require an application.

Further details can be found at <http://www.upei.ca/studentlife/scholarships-and-awards>

### Celebrating Student Achievement

The “Celebrating Student Achievement” scholarship program provides for two new award offerings: **Guaranteed Entrance Scholarships** for students entering UPEI directly from high school in the student’s graduating year; and **Academic Excellence Awards** for any UPEI students who meet the eligibility criteria during their second, third, and fourth years, while working towards their first undergraduate Bachelor’s degree in Arts, Business, Science and Nursing.\*

#### Guaranteed Entrance Scholarships

Canadian citizens, permanent residents and landed immigrants who complete high school in Canada or overseas are eligible for Guaranteed Entrance Scholarships; students must maintain full-time registration status (minimum of 9 s/h in each term) in both the First and Second semesters.

High School	80.00 – 84.99%		\$500	Guaranteed Entrance Scholarship
Admission	85.00 – 89.99%	=	\$1,000	
Average	90.00 – 94.99%		\$2,000	
	95.00 – 100%		\$3,000	

#### Academic Excellence Awards

Using the same scale, returning UPEI students (including International Students) entering their second, third, or fourth year of study in a first undergraduate degree in Arts, Business, Science, and Nursing\* are eligible for Academic Excellence Awards. These awards recognize the achievements of all students who meet the eligibility criteria based on their academic success while at UPEI, including those who may not have qualified for an entrance scholarship in their first year.

\*excludes students working towards a second degree or in an accelerated degree program

## When to Apply

### Entering Students

We encourage you to apply to UPEI early as possible, as you may be eligible for an automatic entrance scholarship or award. To be considered for these, your application to UPEI along with your first-term transcripts must be postmarked on or before **March 1**, and the application fee paid in full. Other scholarships and awards may require a separate scholarship application process.

### Returning Students

There are a number of scholarships, awards and bursaries available to apply for throughout the academic year; the list is online at <http://www.upei.ca/studentlife/listofscholarshipsandawards>

The two major cycles of awards during the school year include the First Semester Award Cycle (October) and the Second Semester Award Cycle (February). The application forms for each of these cycles can also be found online, on the main scholarships site: <http://upei.ca/scholarships>. These awards are based on a number of individual criteria, including: if a student is undergraduate or graduate; their program or year of study; extra-curricular or leadership activities; campus or community involvement; and financial need, based on the information provided in applications.

### International Students

International students are eligible for International Entrance Awards and International Continuing Excellence Awards, and other awards specific for international students. They are also eligible to apply for any entrance or returning student awards for which they meet the qualifying criteria.

### How to Apply

For awards that require an application, forms are available online through the List of Scholarships and Awards database, <http://www.upei.ca/studentlife/listofscholarshipsandawards>

- Read over the entire **Application Form** first and confirm the application due date
- You may be required to complete a **Personal Statement**—a paragraph or short essay describing your interest in and eligibility for the scholarship. Keep your statement clear and concise. The reader will want to know why you are the best candidate for the scholarship.
- You may also be required to complete a **Financial Need Form**—this will include your Estimated Resources and Estimated Expenses for your academic year and student information; a student's financial need will be determined on the basis of the material on this form.
- You may also be required to include **Additional Material**—this may include letter(s) of reference, a resume, or other supporting documentation that confirms your eligibility.
- Your **Application Package** should be complete, well organized, neat, and typewritten. Always keep a copy of your completed application package for your personal records.
- Submit your application package to:

University of Prince Edward Island  
Scholarships and Awards Committee  
550 University Avenue  
Charlottetown, PE C1A 4P3 Canada

Please contact the Scholarships, Awards and Financial Aid Office with any questions:  
[scholarships@upei.ca](mailto:scholarships@upei.ca) or 902-566-0358 / 902-620-5187

## 8. UNDERGRADUATE AND PROFESSIONAL PROGRAMS

### Terminology and Definitions

**Academic regulations:** general academic regulations apply to all university students, unless otherwise specified; degree regulations are academic regulations and degree requirements that apply to a particular program in addition to the general academic regulations.

**Academic standing:** at the end of the academic year, students are automatically assigned one of the following standings, based on academic performance:

- **Good Standing** – Students are deemed to be in good academic standing if they have achieved a CGPA of 1.70 or higher.
- **Academic Probation** – Academic Probation is a warning to a student that has been below the required standard and could lead to an Academic Suspension.
- **Academic Suspension** – Students will be placed on Academic Suspension if they fail to achieve a SGPA or a CGPA of 1.70 or higher after the completion of 30 semester credit hours while on Academic Probation.

**Advanced standing:** when a degree requirement has been met but credit transfer to UPEI is not possible (i.e., the course is not deemed equivalent, though the subject matter is comparable enough to waive a degree requirement), “Advanced Standing” might be granted. Advanced Standing eliminates the need for the student to take the course in question but does not reduce the number of courses required to graduate (another course must be substituted for it, instead).

**Appeal:** a challenge of, or request for review of, a judgement regarding the application of regulations.

**Audit:** to audit a course is to enrol in a regular for-credit course, but only as a “listener.” Assignments are not submitted or evaluated, and the transcript notation is AUD for “audit.”

**Certificate:** a certificate is an academic designation awarded for the completion of a specified program of study with a focused or coherent theme. The number of semester hours required to complete a certificate varies by program. Please see the specific certificate program descriptions for a complete list of requirements. A certificate has fewer semester hours than a degree or a diploma.

**Conversion:** see Honours Conversion

**Co-requisites:** courses that must be or may be taken simultaneously.

**Co-operative Education:** a degree program available in some disciplines whereby students complete a specified number of paid work-terms in addition to the course requirements for their degree.

**Core courses:** specific courses that are required as part of a degree program.

**Course:** is a unit of work in a particular subject normally extending through one semester or session, the completion of which normally carries credit toward the fulfillment of the requirements for certain degrees, diplomas or certificates. To complete a degree in 4 years, students generally take ten courses over the period September to April, five in the first semester and five in the second semester. In cases where a combination of six semester-hour courses and three semester-hour courses are followed (see definition of Semester Hour), normally a total of 120 semester hours of credit must be obtained before a student becomes eligible for a degree.

**Course load:** the number of courses (translated into semester-hours of study) undertaken in any given semester or session. For example, a student taking 3 courses weighted at 3 semester-hours each is enrolled in a 9 semester-hour course load.

**Course selection:** choosing the courses you wish to take, and selecting them either on-line through campus login or in-person via the Registrar's Office or the Advisement Centre.

**Cross-listed course:** a) a cross-listed course is a single course offered for registration under two or more departments, is taught at the same time, by the same instructor, and in the same location. The course has the same title and content/ assessment methods. Prerequisite requirements may vary and the course prefix is different, e.g. W ST 435 is cross-listed with PSY 435; or b) a cross- listed course is a single course offered for registration in the same department, e.g. at the 300/500 level or the 400/600 level, and is taught at the same time, by the same instructor, and in the same location. The courses have a different number, and the content/assessment methods vary based upon the level of course taught.

**Degree:** an academic designation awarded for the completion of all regulations and requirements for a specific program.

**De-registered:** students who have not paid course tuition and other fees by the published deadline may be de-registered and will not be permitted to write final examinations or to register in any subsequent semester.

**Degree audit:** as a "progress check," the degree audit is an activity whereby a student's academic record is reviewed in comparison to the degree requirements. An up-to-date degree audit report is available to students who log onto the UPEI website using their ID# and PIN. Students should review their audit to make decisions about degree completion options.

**Degree requirement:** specific courses in a program that must be taken in order to be eligible to graduate.

**Diploma:** a diploma is an academic designation awarded for the completion of a specified program of study with a focused or coherent theme. The semester hours required to complete a diploma varies by program. Please see the specific diploma program descriptions for a complete list of requirements. A diploma has fewer semester hours than a degree and more semester hours than a certificate.

**Directed studies:** normally, an upper level course that does not have a prescribed curriculum. In consultation with the course professor, the student chooses a specific topic and then undertakes an in-depth study of this topic. The course professor must approve all directed-study activities before registration can occur.

**Discontinuations (DISC):** students who wish to terminate their enrolment in a particular course may discontinue by notifying the Registrar's Office either on-line or via in-person services and according to published dates in the Academic Calendar. Information regarding full refund and partial refund dates is listed in the Academic Calendar for each academic year. No discontinuations are permitted after the final date posted. Students who stop attending class after the final discontinuation date will be graded on the work completed up to that date.

**Electives:** a term used for an academic course chosen by the student from a set of options, as opposed to a required course.

**Enrolled:** actively engaged in a course or program for which one has registered. See Registered and Course Selection.

**Enrolment status:** refers to current course load a student is carrying.

**Full-time status:** a student is considered full-time in a semester when he/she is enrolled in three or more credit courses (9 or more semester hours).

**Graduate certificate:** a graduate certificate is an academic designation awarded for the completion of a specified program of study for which a completed Bachelors or Professional degree is required for admission, and which involves graduate-level courses (600 or above). Graduate certificate courses can be used towards a Masters degree program as specified within that Masters program. Students in graduate certificate programs are classified as graduate students.



**Graduate diploma:** a graduate diploma is an academic designation awarded for the completion of a specified program of study for which a completed Bachelors or Professional degree is required for admission, and which involves graduate-level courses (600 or above). While the semester hours required to complete a graduate diploma are normally greater than those for a graduate certificate, some or all of this difference may be represented by a research project or other requirement for scholarly work. Graduate diploma courses can be used towards a Masters degree program as specified within that Masters program. Students in graduate diploma programs are classified as graduate students.

**Honours conversion:** students who have completed a BA, BSc or a BBA degree at UPEI may apply to complete their Honours Conversion. Students must have completed a major in their subject area or, in the case of Business students, completed the Business degree with a strong academic background, in order to undertake Honours. For further information around admission requirements, and available programs, please refer to the Academic Calendar.

**Honours degree:** an academic distinction awarded to students who achieve an honours bachelor's degree with sufficiently high academic standing and who typically fulfill a short thesis requirement. Consult the appropriate departmental offerings for details.

**Major:** a subject of study a student normally specializes in during the course of degree studies. To qualify for a major, a student must complete a minimum of 42 semester hours of credit in the major subject. This number may be higher for some majors.

**Minor:** a subject of study a student normally pursues secondary to a major. To qualify for a minor, a student must complete a minimum of 21 approved semester hours of credit. This number may be higher for some minors.

**Not-for-credit or non-credit courses:** courses that have no semester-hour weighting, and do not contribute to the credits required for a degree. These courses may be required as a condition of admission or for continuation in a program of study. Other non-credit offerings are provided through the Centre for Life-Long Learning as short courses, workshops, and seminars.

**Part-time status:** a student is considered part-time in a semester when he/she is enrolled in fewer than three credit courses (less than 9 semester hours).

**Post-baccalaureate certificate:** a post-baccalaureate certificate is an academic designation awarded for the completion of a specified program of study for which a completed Bachelors degree is required for admission. Normally, courses for these certificates will be at the 500 level. Post-baccalaureate certificate courses cannot be used towards a Masters degree program and students in post-baccalaureate programs are not classified as graduate students.

**Prerequisites:** courses that must have been successfully completed prior to registration in another course.

**Registration:** registration is the process of selecting, enrolling in, and being assessed fees for courses. On-line registration is available for summer sessions normally in March each year, and in July for the upcoming academic year. See "Academic Calendar Dates" in calendar.

**Registered:** to be officially registered, students must select their courses, enrol either on-line or in-person and have paid their tuition fees in full.

**Semester:** the duration of a study period in an academic year normally consisting of thirteen consecutive weeks. The first semester commences in early September, the second semester in early January, and the spring/summer sessions commence in early May and July respectively.

**Semester-hour:** a unit, by which course work is measured, normally defined as one hour of classroom time per week per semester. A class held three hours a week for one semester is measured as a three semester-hour course.

**Special topics:** a course that is offered by a department on a one-time only basis.

**Specialization:** a specialization is an approved selection of specific courses (15-30 semester hours) internal to a major that represents a focused subject area of study. In the case of Business, Education, Nursing and Engineering students, where specializations are available, a specialization is internal to the degree requirements. NOTE: For graduate programs, specialization refers to a focused area of study and/or research within the structure of a specific graduate program, as defined internally for that program.

**Transcripts:** a transcript is the official, permanent record of your academic history at the University. For more information on ordering a transcript please see “Transcript Information”.

**Transfer credits:** Transfer credits are credits granted to students upon admission for work completed at another institution. These credits reduce the total number of credits which must be taken at UPEI for a degree.

**Unclassified students:** persons interested in enrolling in undergraduate courses for general interest or other academic purposes without having to gain admission to a specific program.

**Waived:** is the permission granted by the appropriate authority for exemption from a particular program requirement and/or a particular university regulation.

**Writing intensive courses:** Writing-intensive (WI) courses at UPEI use writing as a major means of developing thinking and learning in the disciplines. Such courses integrate a significant amount of writing (and opportunities for revision) into the work of the course, providing a variety of formal and informal occasions for students to write and learn the goals, assumptions and key concepts of a course.

**Year of study:** is measured on the number of successful semester hours of credit completed. See Academic Regulation #3.

## **Undergraduate Application and Admission Requirements**

### **How to Apply**

All enquiries relating to admission to the University should be directed to:

The Registrar  
University of Prince Edward Island  
Charlottetown, PE C1A 4P3  
[registrar@upei.ca](mailto:registrar@upei.ca)

Undergraduate application forms may be obtained at the Registrar's Office or online at  
<https://secure.upei.ca/registrar/applyform.html>

All applicants must have official transcripts sent directly to the Registrar's Office by any high school, college, or university attended. Scholarship candidates must have all materials in by the end of February.

### **Notes:**

1. The applicant is responsible for the completeness and accuracy of the application.
2. Applicants who conceal any previous academic records are liable for dismissal from the University.
3. The University reserves the right to refuse admission to any applicant.
4. Applicants may be required to provide medical evidence of their fitness to pursue university studies.

### ***Application Deadlines***

Documentation for all applicants (except for Veterinary Medicine, Education, Nursing, Radiography, Kinesiology and Child and Family Studies—see appropriate section) should be complete by 1 August, if applying for the first semester, or by 1 December, if applying for the second.

### ***Application Fee***

These fees must accompany each first-time application for admission to the BA, BSc, BBA programs and Professional programs:

Canadian—\$50.00

International—\$75.00

### ***Residence Application Information***

Residence application forms can be obtained at <http://upei.ca/residence>. Applicants are reminded that acceptance to residence is no guarantee of acceptance to the University, nor is acceptance to the University a guarantee to acceptance to residence.

### ***English-Language Proficiency Requirements***

The language of instruction at the University of Prince Edward Island is English. All academically admissible applicants, regardless of their country of origin or citizenship status, are required to demonstrate proficiency in the English language prior to undertaking studies at the University of Prince Edward Island. Proficiency may be demonstrated by:

#### **Undergraduate programs**

1. Three years of full-time study in English in Canada or in another country where English is a principal language (as recognized by UPEI); evidence of bilingualism (English and another language) is acceptable for those applicants educated in Canada in a language other than English.
2. Submission of an official test score at or above the acceptable minimum, such as:

TEST	UNDERGRADUATE (EXCEPT NURSING, EDUCATION, DOCTOR OF VETERINARY MEDICINE & RADIOGRAPHY)	NURSING, RADIOGRAPHY, DOCTOR OF VETERINARY MEDICINE & EDUCATION
IELTS (Academic)	Overall score of 6.5 with 6.5 in writing no other band below 6	Overall score of 7 with 7 in writing and speaking; 6.5 in reading and listening
TOEFL paper-based test	550 with minimum TWE of 5.5	600 with minimum TWE of 6
TOEFL internet-based test	80 with minimum of 20 in each category	100 with a minimum of 25 in speaking and writing, 22 in reading and listening
MELAB	80	85
CanTEST	4.5	5
CAEL	60	70
Pearson Test of English	58	66
Cambridge Advanced English	CAE A-C: 176-184 after Jan 1/15	CAE A: CPE A & B; 185-190 after Jan 1/15
Eiken	Pre-1	1

Applicants without English proficiency test scores, or with scores below the minimum, may be admitted conditionally (NOT available to applicants seeking admission to Nursing, Radiography, Education or Doctor of Veterinary Medicine), and will be assessed by the EAP Coordinator upon arrival. Depending upon the assessment result, students may be placed in either full-time or part-time EAP. Part-time EAP is taken in combination with up

to three credit courses. Upon successful completion of EAP, with an acceptable test score as noted above, these students will be eligible to begin academic studies without conditions related to English language proficiency.

### **Undergraduate English Academic Preparation (EAP)**

The English Academic Preparation (EAP) program is an intensive language program for UPEI students who must upgrade their English language proficiency skills as a requirement of their admission to the University. It is designed to enable students to gain academic skills and confidence in English, and successfully transition to university.

Successful completion of EAP is demonstrated through: 1) course work, and 2) the final EAP exam. EAP students must have a passing grade of 60% in their EAP courses and 4.5 or higher in all sections of the final EAP exam to graduate from the program. Students must successfully complete EAP before progressing into second year (see: Academic Regulation 3).

### **Progress**

If a part-time EAP student has not demonstrated improvement of at least one-half a band width, (e.g., from 3.5-4) after two consecutive semesters of study, this unsatisfactory progress will be reported to the Registrar's Office, and credit course status will be reduced.

A full-time EAP student who does not show progress after 2 consecutive semesters of study will not be registered in EAP for the following semester, having failed to meet their condition of admission.

### **Definitions**

- *Undergraduate Full-Time EAP:* English language program under which a student is not permitted to enrol in any credit courses. Students are engaged in language training only.
- *Undergraduate Part-Time EAP:* English language program under which a student will be enrolled in a combination of EAP and credit courses, as determined by performance in the EAP placement exam (or official English Proficiency test score).

### **Student Appeals**

Students may appeal in writing according to the process outlined in Academic Regulation 12: Other Appeals.

### **Admission Requirements**

#### **Bachelor of Arts (BA), Bachelor of Science (BSC), and Bachelor of Business Administration (BBA)**

##### **(i) Canadian Education System**

##### ***High School Graduates***

Successful completion of Grade 12 examinations in a University Preparatory Program with an overall average of at least 70% (75% for Quebec Secondary V students) in the following subjects:

1. Arts
  - English, one Social Studies or Language, and any three other academic courses. Grade 12 math recommended. Note: Grade 12 Math is a prerequisite for some first-year Arts courses.
2. Business
  - English, Mathematics, any two Social Studies, Languages or Sciences, and one other academic course.
3. Science
  - Grade 12 Academic English
  - Grade 12 Academic Mathematics
  - Two Grade 12 Academic Science subjects (acceptable subjects: Chemistry, Biology, Physics, Computer Science, Oceanography, Animal Science, Environmental Science)

- One additional Grade 12 Academic course

Some introductory Science courses at UPEI have high school prerequisites (Biology 131—at least grade 11 Biology; Chemistry 111—at least grade 12 Chemistry; Physics 111—at least academic grade 12 Physics).

**Notes:**

- a. Social Studies electives include the following: Economics, Global Issues, Canadian and PEI History, and Advanced Political Science.
- b. Exceptional students from Grade XI may be considered for admission.
- c. Applications will be considered from students who have completed programs of study in CEGEP, Community Colleges, or CAAT. Transfer credits, if any, will be considered on an individual basis.

**Admission During Grade 11 Year**

Grade 11 students are eligible to apply to UPEI for admission to Bachelors' degrees in Arts, Business or Science to begin their University studies in the Fall after their Grade 12 year of High School. This early offer of admission is based on academic course results from Grade 11. Applicants who have a 75% average in the academic pathway subjects from their Grade 11 year are eligible to receive an offer of admission in advance of their Grade 12 year. Students are encouraged to apply after the first semester of their Grade 11 year.

Students are required to submit an updated transcript before March 1st (after the first semester) of their Grade 12 year for Scholarship review and to confirm that registration prerequisites will be satisfied.

**Admission from Grade 11**

This is for the exceptional student with at least 85% in Grades 10 and 11, who is highly recommended by the school (at least two letters), and who has written parental permission. Students with special aptitudes who may not have 85% will also be considered.

**Admission as an Unclassified Student**

Individuals are permitted to register in undergraduate courses at UPEI, without having to apply to, or be admitted to a specific program of study. This admission (permission to register) status is processed through the Unclassified application form, which is used to process a student's request to register.

A student who wishes to register as an Unclassified Student must submit a completed Unclassified Student Registration Form, accompanied by the required fee (\$100 tuition deposit), by the registration deadlines specified in the Calendar. This type of enrolment is described below:

- a. The student is permitted to register but is not admitted to a specific program of study at the University. Previously admitted students may register as Unclassified Students, but such registration does not constitute readmission to the University.
- b. Students who have been required to withdraw from this or any other post-secondary institution within the last 12 months are not permitted to register as an Unclassified Student.
- c. Transcripts of previous post-secondary work, and proof of English Language Proficiency, must be presented to the Registrar's Office if requested.
- d. Prerequisites must be met where applicable. Checking for prerequisites is the student's responsibility.
- e. The student is subject to an initial maximum registration limit of 10 three-credit courses as an Unclassified Student. To register in additional courses as Unclassified, a student must seek permission from the Registrar's Office and may be required to meet with an Academic Advisor prior to registration being processed.
- f. Summer Session Unclassified Students may enrol in a maximum of two courses (six semester-hours) per session. Fall/Winter Unclassified Students will need special permission from the Registrar's Office, to enrol in more than two courses per semester (maximum of five).
- g. An Unclassified Student may apply for admission to the Fall or Spring Semester before the published deadlines through one of the approved admission routes. If an Unclassified Student applies to a program/faculty for a specific semester (Fall/Spring), the student cannot be registered for that same semester as an Unclassified Student.

- h. Upon admission to a specific program, courses completed as an Unclassified Student may be counted toward the student's program, subject to Academic Regulations and the appropriate rules of the faculty/school.

### ***College Transfer Students***

Beginning in the 1997–98 academic year, students may receive credit for courses successfully completed at a member institution of the Colleges and Institutes Canada and for which credit is given at that institution, under the following conditions:

1. courses must be acceptable in the program to which transfer is being sought either as required courses or as electives;
2. grades must be at least 60% or, where the grading system is different than that of UPEI, at least at an equivalent level above the minimum passing grade; and
3. transfer will be allowed by the Registrar only on the recommendation of the appropriate Dean.

### ***Home-schooled Students***

The basic entrance requirements for home-schooled students are the same as for all other students. Home-schooled students can meet the requirements by:

attending a local high school for Grade 12 or the final year of schooling;  
taking the Grade 12 academic entrance subjects through a correspondence program acceptable to the University; or  
presenting Advanced Placement test scores on an official transcript for the entrance subjects.

### ***Mature applicants must be:***

1. Canadian citizens or permanent residents of Canada
2. out of school for at least three years
3. 21 years of age on or before the first day of classes.

Students must submit transcripts of any high school and/or post-secondary work completed for the purposes of prerequisite checking and a resume outlining a) academic goals and b) academic and employment activities for the past three years.

NOTE: Some programs require specific high school prerequisites for admission.

### ***University Transfer Students***

- Students who are eligible for readmission and registration at their previous institutions will be considered for admission to UPEI on an individual basis. Normally, such students should have achieved an average grade of at least 60% in their previous year of studies or not have been registered at any university for at least a year. (See Academic Regulation 14: Transfer Credits)
- Where admission to a specific academic program is sought, the applicant must meet the requirements of that program.
- Prospective transfer students must have all documentation submitted by 15 August for admission in September.

### ***Notes:***

- Professional Faculties and Schools have additional criteria that must be met before applicants from outside the University will be considered.
- Transfer students are subject to all other academic regulations of the University. Possession of the minimum requirements for transfer to UPEI does not in itself ensure that admission will be granted.

### ***Advanced Placement Program***

Acceptable Advanced Placement Program courses with scores achieved on the national level exam of 3(C) or higher may be presented for admission purposes. Acceptable Advanced Placement courses with scores achieved on the national level exam of 4(B) or 5(A), may be assessed for credit transfer. The applicability of transfer credit is subject to individual degree regulations. Students wishing to obtain transfer credit must have an official transcript

of their national AP exam results forwarded directly to UPEI from the College Board. Students will receive a notice of assessment once an assessment has been completed. A maximum of 30 semester hours of credit may be awarded for eligible AP results.

**Approved AP subjects and transfer credit equivalency:**

AP Course	Equivalent UPEI credit
Biology	BIO 131 and BIO 132
Calculus AB	MATH 191
Calculus BC	MATH 191 and MATH 192
Chemistry	CHEM 111 and 112 (subject to confirmation by the Chemistry program)
Computer Science A	Unassigned first year Computer Science elective
Computer Science AB	CSC 151 and CSC 152
English Literature and Composition	ENG 101 and ENG 192
Environmental Science	2 Unassigned first year electives
European History	2 Unassigned first year electives
French (Language)	Assigned credit by placement
French (Literature)	2 Unassigned first year French electives
Geography (Human)	2 Unassigned first year electives
German	GERM 101 and GERM 102
Greek	GR 101 and GR 102
History (US)	2 Unassigned first year History electives
History (World)	2 Unassigned first year History electives
Latin	LAT 101 and LAT 102
Microeconomics	EC 101
Macroeconomics	EC 102
Physics B	Students may challenge for 2 unassigned first year Physics electives
Physics C (Mechanics & Electricity)	Students may challenge for credit; PHYS 111 and PHYS 112
Psychology	PSY 101 and PSY 102
Spanish	SPAN 101 and SPAN 102
Statistics	MATH 221 and unassigned first year Math elective

- \* Each UPEI course is 3 semester hours
- \* Credit for AP examined subjects can only be assessed if presented on an official transcript of AP national exam results.
- \* Please note that this table is provided as a guide, and transfer credits are assessed on an individual basis and may vary depending on each students program of study.

***Applicants from Quebec College of General and Professional Education (CEGEP)***

The Diploma of Collegial Studies (DEC/DCS), with the “DEC en sciences, lettres et arts,” will qualify a student for admission to UPEI. Holders of the DEC will be considered as transfer students to second year with a maximum of 10 transfer credits, provided that they attained an average grade of 70% or better in their final year of CEGEP study. Students with less than the DEC, and a 70% average, will be considered for admission to first year with the possibility of some transfer credits from second-year CEGEP courses. Students who have completed a technical or professional DEC will be considered on an individual basis.

***Concurrent Enrolment Policy with PEI Grade 12***

Students who are enrolled in their last year of studies in a PEI secondary school may be admitted to the University of Prince Edward Island to pursue Concurrent Studies. The following conditions will apply at the University:

- the applicant must have a superior academic record;
- the applicant must be enrolled in a PEI secondary school in a program that meets regular UPEI entry requirements;
- the applicant must have the written recommendation of the secondary school principal;
- the applicant must have the written consent of the parent or legal guardian if under the legal age of majority on the opening day of classes; and

- the applicant must have the support of the Dean of the Faculty for the courses in which the applicant plans to enrol.

Admission will be initially for one three-semester-hour course but may be renewed with the continued support of the school principal and the Dean. Normally, no more than six semester-hours of credit may be obtained by Concurrent Studies, but students who continue to have superior academic records and the support of the school principal may seek permission from the Dean to enrol in a further course for a maximum of nine semester-hours of credit.

Students in Concurrent Studies will be treated as regular students in most respects, except that they may not register in a full range of courses. Standard transcripts will be issued and fees and deadlines will be as for regular students. Students who have enrolled in Concurrent Studies at other recognized post-secondary institutions prior to secondary school graduation may also be eligible for transfer credit.

### ***Transition Program***

Where applicants do not meet the requirements under any specific category of admission, application may be made to the Transition Program (TP). The TP program provides extra support and encouragement to students and is available to both recent high school graduates and mature students. Given the nature of the program, students may also opt on a voluntary basis to take the TP program where they self-identify as needing extra support.

#### **1. Admission Requirements:**

- successful completion of Grade 12 examinations in a University Preparatory program with an overall average of at least 65%-69.9%; or,
- at least 21 years of age or older and out of school for at least 3 years; or,
- satisfy regular admission requirements and self-identify as needing extra support and services.

#### **2. Transition Program students must:**

- enrol in 1, 2 or 3 academic courses in each semester of their first academic year of study,
- attend mandatory mentoring sessions,
- attend mandatory tutorial and other support programs as provided.

**Notes:** TP students are subject to the same Academic Regulations as all students at UPEI. There is an additional program fee for each semester of the TP program. Please refer to the Fees Section of the Academic Calendar for details.

### **(ii) United States Education System**

The general average in the required subjects should be at least as high as the College Recommending Mark of the school concerned. Class standing is an important consideration.

**Note:** Deadline dates for US citizens are 1 July, for consideration for September, and 1 November, for consideration for January. All application materials must be received by these dates.

### **(iii) International (other than USA) Education Systems**

#### ***International Baccalaureate - Admissions***

International Baccalaureate (IB) students are eligible for admission on the basis of successful completion of the IB Diploma. In addition, applicants must satisfy the admission criteria of the requested faculty by presenting the specific course requirements (see below). At least three subjects must be successfully completed at the Higher Level (HL), while the remaining three subjects may be successfully completed at the Standard Level (SL).

Completion of the IB Diploma with a score of 24 grants admission to UPEI. Applicants must satisfy the admission criteria of the requested faculty by presenting the specific course requirements identified for that Faculty. Grades below 3 are not accepted for admission assessment.

Students who complete a Certificate or individual IB subjects may also be assessed for admission using each HL and SL subject being considered in meeting the Faculty-specific admission requirements. For applicants who



complete both the IB subjects and senior matriculation/secondary school graduation requirements, admission will be based on the credential which is to the greatest advantage of the student.

### ***Transfer Credit***

UPEI awards a full year of credit (10 courses, each at 3 credit hours) for a completed IB Diploma with a minimum score of 28. Specific course credit for HL courses is awarded as outlined below. The balance of the credit required to bring the total to 10 three (3) credit hour course equivalents will be at the introductory unassigned elective level. Please note: Applicability of transfer credit awarded may vary depending on degree program sought.

To be awarded 10 three semester hour courses, students must achieve; a completed IB Diploma with an overall score of 28, 3 HL level subjects with grades in each subject of 4, unless otherwise noted, and above, 3 SL level subjects and satisfactory completion of the Extended Essay, Theory of Knowledge and CAS. All courses used to meet specific admission requirements must be at a score of 3 or above.

Specific higher level (HL) subjects completed with grades of 4, unless otherwise noted, or higher on the official IB (HL) exams within the International Baccalaureate program will be granted transfer credit.

Approved IB subjects (HL) and transfer credit equivalency

<b>IB (HL) Course</b>	<b>Equivalent UPEI Credit</b>
Biology	BIO 131 and BIO 132
Chemistry	CHEM 111 and 112 (subject to confirmation by the Chemistry program)
Computer Science	CSC 151 and CSC 152
Economics	EC 101 and EC 102
English A1	ENG 101 and ENG 192
English B	No credit
Environmental Systems	ENV 199 and ENV 198
French	Assigned credit by placement
Geography	Unassigned first year electives
German	GERM 101 and GERM 102
History	HIST 199 and HIST 198
Latin	LAT 101 and LAT 102
Mathematics	MATH 191 and MATH 192
Music	MUS 199 and MUS 198
Philosophy	PHIL 101 and PHIL 102
Physics* (grade of 5)	PHYS 111 and PHYS 112
Psychology	PSY 101 and PSY 102
Sociology	SOC 101 and SOC 102
Spanish	SPAN 101 and SPAN 102
Theatre	TST 199 and TST 198
Theory of Knowledge	PHIL 299 and 1 unassigned second year Elective

**Note:** Courses numbered 199 or 299 are unassigned credits in the noted subject area.

\*Students presenting Physics with a grade of 4 may challenge for credit.

### ***Each UPEI course is 3 credit hours***

Credit for IB (HL) courses will only be assessed if presented on an official IB transcript. Please note that this table is provided as a guide, and transfer credits are assessed on an individual basis.

### ***Degree specific admission requirements:***

ARTS: English, a Language or Social Studies and three other academic subjects

BUSINESS: English, Math, 2 Social Studies, Sciences or Languages, and one other academic subject

SCIENCE: Grade 12 Academic English, Grade 12 Academic Mathematics, two Grade 12 Academic Science subjects (acceptable subjects: Chemistry, Biology, Physics, Computer Science, Oceanography, Animal Science, Environmental Science); one additional Grade 12 academic course  
NURSING: English, Math, Biology, Chemistry and one other academic subject

### ***Applicants with Ordinary or Advanced Level Examinations***

Admission to first year may be on the basis of five appropriate General Certificate of Secondary Education (GCSE) subjects at the Ordinary Level, including English Language and Mathematics. Advanced Level examination results received directly from the appropriate Examination Board, which are appropriate to the intended program of studies, will be assessed for advanced standing and credit. A maximum of three Advanced Level examination results may be presented for a maximum of six transfer courses. Credit normally will be granted only for grades of "C" or higher.

**Bachelor of Business Studies (BBS), Bachelor of Child and Family Studies (BCFS), Bachelor of Education - Human Resource Development (BEd HRD), Bachelor of Integrated Studies (BIS), Bachelor of Science with a Major in Kinesiology, Bachelor of Wildlife Conservation**

## **Bachelor of Business Studies**

### **(i) Introduction**

The Bachelor of Business Studies (BBS) program is a post diploma degree. It will require a minimum of two years of academic study at UPEI, the curriculum of which will consist of a combination of core and elective courses. To be eligible for program admission, students must have already completed a two-year business diploma, including specified courses or programs, at a recognized college and have achieved an overall average of 70%.

### **(ii) Admission Requirements**

Students must meet the UPEI admission requirements for this degree. In the BBS, students must meet the same requirements as in the BBA degree of obtaining grades of at least 60% in ten of the Business courses required in this program in order to qualify for the degree. Students are subject to all of the Academic Regulations of the University.

## **Bachelor of Child and Family Studies**

### **(i) Introduction**

The Bachelor of Child and Family Studies (CFS) is a two-year post-diploma degree available to graduates of the Early Childhood Care and Education diploma program at Holland College or equivalent programs at similar post-secondary institutions. This post-diploma degree provides the opportunity for students to continue their education through a concentration in Family Science.

### **(ii) Admission Requirements**

Students must meet the UPEI admission requirements for this degree by completing the college diploma with a minimum overall average of 70%. For students who completed their diploma ten or more years previously, their application will be considered on a case-by-case basis. Students are subject to all of the Academic Regulations of the University.

### **(iii) Application Process**

All applications must be submitted to the UPEI Registrar's Office. Your complete application package will include:

- Undergraduate Application Form (two pages) or Apply online at: <https://secure.upei.ca/registrar/applyform.html>
- \$50 Application Fee (\$75 for International Applicant)
- Official transcripts from the post-secondary institution where you are enrolled or completed your diploma, and any other post-secondary institution where you have taken a course. If you are currently enrolled in a diploma program, you may be accepted into the degree program conditionally, and you will need to submit a final transcript when it is available.

## **Bachelor of Education - Human Resource Development**

The Bachelor of Education in Human Resource Development focuses on: further developing the knowledge base related to adult learning; developing Prior Learning Recognition and Assessment portfolios; and, completing academic credits from UPEI.

The BEd (HRD) is designed for mature individuals who have a combination of at least five years education and related vocational/occupational work experience. The applicants have successfully completed the Certificate in Adult Education and have met the requirements of the Faculty of Education. This degree does not certify applicants to teach in the public school system unless they are qualified to teach in an occupational or trades area.

The BEd (HRD) is jointly offered by Holland College and UPEI and each institution will offer half of the courses. The BEd (HRD) consists of four stages:

1. Completion of the Certificate in Adult Education
2. Three elective adult education courses from Holland College plus one required course: Ed 319 Career and Learning Portfolio Development; and four elective adult education courses offered by UPEI
3. Prior Learning Recognition and Assessment Portfolio and/or specific occupational courses offered by Holland College (up to an equivalent of either 10 courses or 30 semester hours).
4. Ten academic courses (30 semester hours) from UPEI including one of UPEI 101, UPEI 102, or UPEI 103 and a writing intensive course.

### ***Admission***

Students may apply for admission to the CAE through Holland College at <http://hollandcollege.com>. Tuition fees are to be paid directly to the institution that is offering the course. To continue with the BEd (HRD), students must have successfully completed all of the courses in the CAE and have submitted a written statement of intent and two references to the Faculty of Education. As this is a part-time program and there is continuous intake, students may begin study in September, January, May or July.

### ***Transcript and Credit Assessment***

Originally, the Certificate in Adult Education and BEd (Adult Education) were jointly offered by UNB and Holland College. As of September 2006, the CAE and BEd (HRD) programs are now being offered between Holland College and UPEI. Therefore, applicants who are transferring to Holland College and UPEI;

- a) will have all UNB credits which were completed in the CAE/BEd (Adult Education) programs accepted by UPEI
- b) will have until 2012 to transfer their credits to UPEI. In addition:
  - applicants may have taken academic courses from other universities. Courses will be considered for transfer credit based on both the marks achieved (not less than 60%) and the age of completed course. Courses over 10 years old may be deemed inappropriate and may require substitution. Exceptions will be made only with the permission of the Dean.
  - students who believe that they can meet, or have met, the requirements of a course, may seek UPEI credit by means of challenge for credit, Prior Assessment and Learning Recognition (PLAR), or recognition of Special Credits earned elsewhere (see Academic Regulations 15 & 16) candidates beginning the CAE or BEd (HRD) in 2006 or later must complete one-half of the required course work at UPEI (see Academic Regulation 1(e)).

## **Bachelor of Integrated Studies**

### **(i) Introduction**

New opportunities are opening for adults who have an unfinished degree or unfulfilled dreams of someday beginning and attaining a degree. The Bachelor of Integrated Studies at the University of Prince Edward Island places the unique needs of adult learners in focus, with a distinct entry point, ongoing learner supports, broad

choice of courses to meet employment requirements and personal interests, and a faculty noted for its strength in teaching.

#### (ii) Admission Requirements

Candidates must be out of high school for seven years, and may be considered under the University's Mature Student admission regulations. Please note that high school graduation is not absolutely required under the mature student policy. High school records may be requested from applicants whose formal education ended at high school. Applicants will also be required to participate in an interview with the Bachelor of Integrated Studies program coordinator.

#### (iii) Application Process

Your Complete Application will include:

- Undergraduate application form or apply online at <https://secure.upei.ca/registrar/applyform.html>
- Official transcripts from any post-secondary institution in which you have completed courses (direct to the Registrar's Office)
- Supplementary application form
- Current Resume
- Personal statement of 300-500 words (as outlined in the Supplementary application form)
- \$50.00 application processing fee (\$75.00 International applicants)

### **Bachelor of Science with a Major in Kinesiology**

#### (i) Introduction

The Bachelor of Science with a major in Kinesiology is a 120 semester hour degree program.

#### (ii) Admission to Kinesiology

##### **High school graduate**

Applicants must have successfully completed Grade 12 in a university preparatory program with a minimum of 70% overall average in five grade 12 academic subjects: English, Mathematics, Biology, Chemistry, and one other academic course. Note: High school applicants should apply by March 1 to be considered in the University's annual scholarship review process. See Undergraduate Application and Admission Requirements section of the Academic Calendar.

##### **University application**

Applicants attending or having attended a university must meet the same requirements as listed above, but can also complete the course requirements by taking degree level courses.

#### (iii) Application Process

Your complete application package should be sent directly to the Registrar's Office. The total number of students admitted will be limited in accordance with facilities and resources on campus to provide quality education.

Students are expected to complete a degree at UPEI within a 10-year period. (See Academic Regulation #2). Applicants should contact the office of the Dean of Science or the Registrar's office if they have completed any of the pre-requisite first year courses seven years prior to the anticipated start date of their second year of the Kinesiology major.

The following is required when submitting your application:

- Undergraduate Application Form
- \$50 Application Fee (\$75 for International Applicants)
- Official Transcripts from each post-secondary institution where you have taken a course, even if transfer credit(s) were given by another institution. If enrolled in courses at the time of application, a final

transcript is required for those courses as well. Final results for all courses used in the admission review process must be received by June 1.

## **Bachelor of Wildlife Conservation**

### **(i) Introduction**

The Bachelor of Wildlife Conservation (BWC) is a two-year post diploma degree available to graduates of accredited NAWTA (North American Wildlife Technology Association) programs (e.g. the Wildlife Conservation Technology diploma program at Holland College). Entry to the program will be in September each year. This post-diploma degree provides the opportunity for students to continue their education through foundational science courses, advanced analytical courses in the environmental sciences, and electives in scientific and social issues involved in conservation management. A minimum of 20 courses, 15 of which are required, must be taken at UPEI, to fulfill the requirements of this program.

### **(ii) Admission Requirements (Application deadline: June 1)**

Admission to the BWC program requires successful completion of a NAWTA (North American Wildlife Technology Association) accredited diploma program with a minimum average of 70%. For students who completed their diploma ten or more years previously, their application will be considered on a case-by-case basis. Students who are accepted to the program must be able to demonstrate that they have already been vaccinated for Rabies, or obtain a rabies vaccination during the first year of their program. Students are subject to all of the Academic Regulations of the University.

### **(iii) Application Process**

The application Deadline is June 1st and all applications must be postmarked or hand delivered to the UPEI Registrar's Office by this date. Your complete application package will include:

- Undergraduate Application Form
- \$50 Application Fee (\$75 for International Applicant)
- Official transcripts from the post-secondary institution where you are enrolled or completed your diploma, and any other post-secondary institution where you have taken a course. If you are currently enrolled in a diploma program, you may be accepted into the degree program conditionally, and you will need to submit a final transcript when it is available.

## **Bachelor of Science in Engineering (Sustainable Design Engineering)**

Students wishing to pursue the sustainable design engineering degree option at UPEI must first complete the UPEI Engineering Diploma or the equivalent level of training from another institution. Students with a GPA of 3.0 or greater in the common Associated University diploma requirements (years one and two) and a minimum grade of 70% in Engineering 222 Design 4: Engineering Projects II (or AU equivalent) are guaranteed placement in the third year of the Bachelor of Science in Engineering (Sustainable Design Engineering). Students with a GPA of between 2.0 and 2.9 in the common core and/or a minimum grade of 70% in Engineering 222 Design 4: Engineering Projects II (or AU equivalent) can be admitted to the sustainable design engineering program based on competitive placement and availability of seats.

Students with a GPA of less than 2.0 and/or a grade of less than 70% in Engineering 222 Design 4: Engineering Projects II (or AU equivalent) should contact the head of the School of Engineering for advice on academic upgrading.

Consistent with the Dalhousie's placeholder system, students must request a place in the sustainable design engineering degree program at the end of their first diploma year. Requests for placement will be managed by the UPEI School of Engineering (see [www.upei.ca/science/engineering](http://www.upei.ca/science/engineering) for more information). Final grades in the common first-year courses are required to be eligible for placement in the degree program. Students will be notified of their placement status prior to the end of June after first year. Degree places are "conditional" and will allow students to select their three discipline specific courses in second year. Once a place is assigned, and provided that the student completes the diploma and any other admission requirements (i.e. minimum grade in

Engineering 222 or equivalent), their place and admission to the third year will be confirmed. Students who fail to meet the entrance requirements for the requested placement year must request a new placement by the end April of the year prior to expected entry.

Placements for students taking more than two years to complete foundational diploma requirements will be based on ALL common core course requirements completed to date. Final grades in repeated courses will be the basis for GPA calculations and placement assignments.

Please see [www.upei.ca/science/engineering/placement](http://www.upei.ca/science/engineering/placement) to confirm your interest in joining UPEI's new degree program. Choose the option that corresponds with the year that you intend to complete your Engineering diploma studies (and would join the degree program in the Fall of that same year).

September 2015: For students completing their Engineering Diploma studies in 2015 (or who have already completed the diploma) and interested in joining UPEI's new degree program in September 2015.

September 2016: For students intending to complete their Engineering Diploma studies in 2016 and interested in joining UPEI's new degree program in September 2016.

If you have any questions about the new degree program, please contact the School of Engineering at [upeiengineer@upei.ca](mailto:upeiengineer@upei.ca)

## **Bachelor of Environmental Studies**

### **(i) Introduction:**

The objective of the Bachelor of Environmental Studies program at the University of Prince Edward Island (UPEI) is to equip students as global citizens, with the tools to understand the environmental connections across academic fields, to critically analyze complex environmental issues, and to lead the way in innovation toward sustainable solutions. Environmental issues typically do not respect traditional academic boundaries and require scientific, technical, human and social perspectives to address. As an interdisciplinary liberal arts and science program, the Bachelor of Environmental Studies will provide students with the opportunity to integrate knowledge across faculties of Arts, Science, and Business. In the classroom, in the field and in the community, students will explore how they can make a positive impact toward sustainability in their personal lives, communities and globally.

### **(ii) Admission Requirements:**

Successful completion of Grade 12 examinations in a University Preparatory Program with an overall average of at least 70% (75% for Quebec Secondary V students) in the following subjects:

English;  
one Social Studies or Language;  
any 3 other academic courses.

Please note that the BES requires students to take Biology 131-132 which require Grade XI or XII Biology or UPEI Biology 001 as prerequisites. Grade 12 Mathematics and High school Chemistry are recommended.

## **Other**

### **Seniors' Bursaries**

To recognize the contribution of seniors to the classroom, Seniors' Bursaries are available to residents of Prince Edward Island aged 60 and over by the beginning of the semester. One Seniors' Bursary per year is available to all PEI seniors for the tuition costs of one undergraduate course. Additional Seniors' bursaries will be available based on financial need.

## **Readmission**

### **(i) To UPEI**

Students who have been absent from study for a period of more than 12 months are required to seek readmission. A letter of activities, resumé, and transcripts for the time away are required for the application to be considered. Students readmitted to the original or another program of study normally will follow the regulations in force at the time of original admission to UPEI. (See Regulation #2 on age of credits and validity for inclusion in degrees.) In addition, the Admissions Committee may attach specific and binding conditions to a student's performance to ensure that the normal standards of the degree requirements are met.

Students who have been required to withdraw from UPEI or any other university or college may be considered for readmission or admission after they have spent at least 12 months away from university and can provide satisfactory letters of recommendation from employers and/or others. A student readmitted after being required to withdraw from UPEI or any other university will automatically be on academic probation.

### **(ii) Students Dismissed from Other Institutions**

Students who have been academically dismissed from any other university or college will not be admitted to UPEI during the year following their dismissal or, if already admitted, will have their admission cancelled. Students may reapply for admission after one year away from formal academic study.

## **Professional Degree Programs**

### **Doctor of Veterinary Medicine**

DVM program admissions information is organized into five (5) sections:

1. Admissions Overview
2. DVM Academic Requirements
3. DVM Non-Academic Requirements
4. DVM Application Procedure
5. General DVM Applicant Information

### **Admissions Overview**

The Atlantic Veterinary College (AVC) at the University of Prince Edward Island (UPEI) is a regional institution that serves the needs of Atlantic Canada. The college is funded by the four Atlantic provinces, Prince Edward Island, Nova Scotia, New Brunswick, and Newfoundland and Labrador, and approximately two thirds of the seats in the program are reserved for Atlantic Canadian residents. These seats are divided into four distinct applicant pools and the remaining seats are allocated to international applicants (including those from the United States), constituting a fifth applicant pool.

The admissions process strives to select applicants most likely to succeed in the veterinary curriculum with the potential to become competent, responsible veterinarians, dedicated to a lifetime of productive public service and continued learning.

### **Eligibility to Apply**

#### **Atlantic Canadian Applicant Pools:**

Only those Canadian citizens or permanent residents who meet the Atlantic Canadian residency requirements for Prince Edward Island, Nova Scotia, New Brunswick, or Newfoundland and Labrador can apply to these pools. See the Determining your Atlantic Canadian Province of Residence section for more information.

#### **International Applicant Pool:**

Anyone who is a citizen or permanent resident of a country other than Canada can apply to the International pool.

Canadians with dual citizenship are eligible to apply to the international applicant pool but, if accepted, must remit international student tuition and fees for the duration of their program.

Canadian citizens or permanent residents that do not meet the Atlantic Canadian residency requirements and are not dual citizens are not eligible to apply to our program and should contact the Canadian veterinary college that serves their region.

### **Selection Criteria**

Applicants are advised that there have been changes to academic course work requirements for the 2016-2017 admissions cycle. For more details, please refer to the academic requirements pages.

Applicants to AVC's DVM Program are evaluated on both academic achievement and non-academic achievement and aptitude as follows:

Academic Achievement (60% of overall admissions score)

50% = Academic Average

10% = Graduate Record Examination score

Non-academic Aptitude (40% of overall admissions score)

20% = Interview based on animal and veterinary experiences

20% = Work and School Approach and Behaviour test score

### **Determining your Atlantic Canadian Province of Residence**

#### **Residency Requirements**

Canadian citizens or permanent residents who qualify as residents of one of the four Atlantic Canadian provinces (Prince Edward Island, Nova Scotia, New Brunswick, or Newfoundland and Labrador) according to criteria defined by the Maritime Provinces Higher Education Commission (MPHEC) are eligible to apply as domestic students.

The full MPHEC Definition of Resident is provided here:

A resident of the Province is an individual lawfully entitled to be or remain in Canada, who makes his or her home and is ordinarily present in New Brunswick/Nova Scotia/Prince Edward Island/Newfoundland for twelve consecutive months prior to the student's request for admission, including a student living out of Province for the purpose of furthering his or her education, but not including a tourist, transient or visitor to the Province.

For independent students, a student is considered a resident of New Brunswick/Nova Scotia/Prince Edward Island/Newfoundland by living in the Province for twelve consecutive months prior to the student's request for admission, excluding time spent as a full-time student at a post-secondary institution.

For dependent students, a student is considered a resident of New Brunswick/Nova Scotia/Prince Edward Island/Newfoundland whose parents, guardian or sponsors resided in the Province for twelve consecutive months prior to the student's request for admission;

If one of the parents works in another province, the student is a resident of New Brunswick/Nova Scotia/Prince Edward Island/Newfoundland if the family home was in the Province for twelve consecutive months prior to the student's request for admission;

If the parents are separated or divorced, the province of residence is the province where resides the parent with whom the student normally lives or receives principal support for twelve consecutive months prior to the student's request for admission. If there is no custody agreement, the province of residence is that of the parent with whom the student has normally resided for twelve consecutive months prior to the student's request for



admission, or if the student lives with neither parent, the province of residence is that of the parent who has been the student's principal support for twelve consecutive months prior to the student's request for admission;

If the parents leave New Brunswick/Nova Scotia/Prince Edward Island/ Newfoundland after having resided there for twelve consecutive months prior to the student's request for admission but the student remains in New Brunswick/Nova Scotia/Prince Edward Island/Newfoundland to begin or continue post-secondary studies, New Brunswick/Nova Scotia/Prince Edward Island/ Newfoundland will continue to be the province of residence;

If the parents reside outside Canada, the province of residence will be that where the parents last resided during the twelve consecutive months prior to the student's request for admission prior to their departure from Canada.

In the event that an applicant appeals a decision made by the Admissions Committee regarding interpretation of the MPHEC Definition of Resident, the final ruling will be made by MPHEC or a designate of the province involved.

Determination of the province of residency for admission to the DVM program is a two-step process.

1. Determine if you are a dependent or an independent student according to the criteria given below.

- After graduating from high school;
  - A student who enrolled immediately in a post-secondary institution and has never had at least one 12 consecutive month period where he/she was not a full-time student at a post-secondary institution would be considered a "dependent student".
  - A student who has a 12 consecutive month period where he/she was not a full-time student at a post-secondary institution would be considered an "independent student".
  - Once a student has met the criteria to be an independent student, he/she will remain an independent student for the purposes of residency determination; however, for the first 12 month period after the move from dependent to independent status, the student may apply as either a dependent or independent student.

**Definitions:**

A "full-time student" is defined as having a course load of at least three courses (nine semester hours of credit) per semester, excluding laboratories.

A "post-secondary institution" is defined as an institution authorized to confer post-secondary certificates, diplomas, or degrees.

2. Provide information about your address or your parents'/guardians' address according to the criteria below.

- A dependent student's provincial residency is determined by the home address of the parent/guardian during the 12 consecutive month period prior to the application deadline.
- An independent student's provincial residency is determined by the student's home address during the most recent 12 consecutive month period prior to the application deadline in which he/she was not a full-time student at a post-secondary institution.

To facilitate determination of residency, all Atlantic Canadian applicants will be required to submit the following documents:

- Official finalized post-secondary institution transcript
- Official finalized secondary/high school transcript
- Photocopy of your current driver's license
- Photocopy of your current health card

In addition, dependent Atlantic Canadian students must also provide the following additional documents:

- Photocopy of your parents' or guardians' driver's license(s)

- Photocopy of your parents' or guardians' health card(s)

## **DVM Academic Requirements**

### **Secondary/High School Requirements**

While the Admissions Committee does not specifically evaluate high school course work, students interested in pursuing a career in veterinary medicine should take courses at the highest level offered at their high school in the areas of Biology, Chemistry, Physics, Mathematics, and English to ensure acceptance into a post-secondary undergraduate degree program that will allow them to complete the DVM prerequisites. Students are encouraged to contact the Registrar at the post-secondary institution that they plan to attend to inquire about specific high school prerequisites for their intended degree program.

### **Post-Secondary Requirements**

Twenty post-secondary undergraduate courses must be completed prior to being accepted to the DVM program as shown below. In general, these prerequisites can be completed within two years (four semesters) in the context of an undergraduate Bachelor's degree program. While most applicants elect to complete more than two years of their degree program, or even complete their degree prior to applying to the DVM program, no preference is given to applicants who do so. Applicants are encouraged to work toward a degree in a field of study that is of particular interest to them in the event that they are not accepted into the DVM program. While the prerequisite courses can be completed within a pre-veterinary medicine program, this is not a requirement and no preference will be given to applicants who do so.

### **Academic Requirements**

Consideration for admission to the DVM Program requires completion of at least 20 prerequisite courses and the General Graduate Record Examination (GRE). All applicants are advised to complete course work within an undergraduate degree program at an institution that has rigorous entrance requirements and a reputation for academic quality. Applicants must be in good academic standing at and be eligible to return to their home institution(s) without any restrictions in order to be considered.

For Atlantic Canadian applicants, prerequisite courses must be completed at an institution that is a member of the Association of Universities and Colleges of Canada (AUCC) and must meet the requirements outlined below. Course work completed at a non-AUCC member institution will require review by the Admissions Committee to determine acceptability. In some cases, applicants may be required to provide documentation confirming that their home institution is affiliated with or recognized by one of the primary science degree-granting institutions in that province and/or provide independent confirmation that one or more courses taken to satisfy the DVM Program requirements qualify for direct transfer credit as a core science course at such an institution. Applicants may also be asked to provide additional independent information to facilitate grade comparison.

For United States applicants, prerequisite courses must be completed at an institution that is accredited by the United States Department of Education and must meet the requirements outlined below. In some cases, applicants may also be required to provide documentation confirming that their home institution is affiliated with or recognized by one of the primary science degree-granting institutions in that state and/or provide independent confirmation that one or more courses taken to satisfy the DVM Program requirements qualify for direct transfer credit as a core science course at such an institution. Applicants may also be asked to provide additional independent information to facilitate grade comparison.

Applicants outside of North America will be evaluated on a case-by-case basis to determine acceptability of both the institution and individual courses. A foreign transcript evaluation report may be required. Fees associated with this service are the responsibility of the applicant. For applicants whose first language is not English, the UPEI English Language Proficiency Requirement must be satisfied for admission consideration.

### **Course Work**

At least 20 prerequisite courses must be completed or in progress at the time of application in order to be considered and course work must include at least one course satisfying each of the following requirements:

Animal Biology 1  
Animal Biology 2  
Animal Biology 3  
Genetics  
Mathematics 1  
Mathematics 2 (Statistics)  
Chemistry 1  
Chemistry 2  
Chemistry 3 (Organic Chemistry)  
English (Composition)  
10 Electives

Academic achievement will be evaluated based on performance in the 10 prescribed courses, performance in all courses taken during the most recent full time academic year (September - April), and GRE scores. Note that GRE scores must be forwarded to UPEI directly from the test centre and the institutional code is "0941".

### **Course Work Criteria**

Applicants must ensure that all 10 prescribed courses, as well as all courses taken during the most recent full time academic year, meet the following criteria.

1. Courses must be at the undergraduate degree level at a post-secondary institution. Course work will not be acceptable if taken during graduate programs.
2. Courses must be completed while taking a course load of at least 3 courses and 9 credit hours, excluding laboratories, during any fall or winter semester, or in any two consecutive summer semesters.
3. Courses will not be acceptable if they are repeats of previously passed courses taken within the last six years, or if they cover similar material to previously passed courses taken within the last six years.
4. Courses reporting grades as Honours, Pass-Fail, or Satisfactory-Unsatisfactory cannot be evaluated.
5. Courses completed in the context of International Baccalaureate (IB) or Advanced Placement (AP) programs will only be accepted if credit has been granted from the home post-secondary institution and in situations where the applicant would not otherwise meet the prerequisites for the DVM program.
6. Any of the prescribed courses will not be acceptable if they were completed more than six full academic years before the date of application.
7. All of the prescribed science courses must be considered "core" science courses and be eligible to fulfill requirements for an undergraduate science degree at the home post-secondary institution in order to be accepted.
8. The following prescribed Science courses must have a laboratory component in order to be accepted: Animal Biology 1, Animal Biology 2, Animal Biology 3, Chemistry 1, Chemistry 2, Chemistry 3 (Organic Chemistry).
9. Courses may be completed via distance education online, but only if they comply with all of the other regulations stated above.
10. Examples of acceptable prescribed Animal Biology courses include the following: general first year biology, animal diversity, vertebrate anatomy, vertebrate histology, vertebrate physiology, vertebrate zoology, microbiology, molecular biology, cell biology, developmental biology, ornithology, biology of fishes, mammalogy, and wildlife biology. Please note that Animal Behaviour courses are not acceptable.

Applicants who have completed the course prerequisites but, due to exceptional circumstances, do not meet all of the criteria specified above must submit a detailed letter outlining these circumstances and providing just cause as to why their application should be considered by the Admissions Committee.

### **Academic Average (50% of overall admissions score)**

All applicants will have an academic average calculated based on their prerequisite course work. When more than one course is available to satisfy a particular requirement, the highest grade will be used to calculate the academic average.

Academic Average Calculation = 50% (Average of 10 prescribed courses) + 50% (Average of most recent two full time semesters; September through April)

While there is no minimum academic average that is required for acceptance into the DVM program, applicants should note that competition is intense and significant academic achievement must be demonstrated. Please refer to the table below for a summary of academic averages of applicants recently accepted into AVC's DVM program. Applicants applying after fall 2015 should note that these averages were calculated based on the previous formula and are not directly comparable to those calculated during the 2016/2017 admissions cycle and beyond.

AVC Class	Mean Academic Average	Range of Academic Averages
2019	85.3	74.1 – 92.7
2018	84.7	74.2 – 92
2017	86.2	77.1 – 93
2016	86.0	77.9 – 92.5
2015	85.4	79.0 – 92.1

### **Graduate Record Examination (10% of overall admissions score)**

The Graduate Record Examination (GRE) is a standardized test recognized worldwide that assesses fundamental academic knowledge and skills. Performance on the GRE General examination is considered along with the academic average of the twenty prerequisite courses when evaluating academic achievement. GRE test scores must be submitted directly to AVC from the testing site. Please quote the UPEI institutional code "0941" when registering for the GRE. For more information about the GRE please go to:  
[http://www.etscanada.ca/gre/graduate\\_record\\_exam](http://www.etscanada.ca/gre/graduate_record_exam) or <http://www.ets.org/gre>

### **Non-Academic Requirements**

All applicants are required to submit structured descriptions of their veterinary and animal experiences prior to application to the DVM program. The goal of these experiences is to provide applicants with insight into the breadth of the veterinary profession and assist them in making an informed career choice.

Veterinary experience must be obtained under the supervision of a qualified veterinarian working in the field of veterinary medicine. It may be paid or voluntary. Experiences may involve general or referral clinical practice and/or provision of veterinary care to animals in research laboratories, zoos, animal shelters, and animal rehabilitation facilities. Experience with veterinarians working in non-clinical capacities including regulatory or public health agencies is also acceptable. Veterinary experience should involve direct interactions with one or more veterinarians working in the field and should not be restricted to reception or administrative duties only. Applicants should be advised that there is no minimum number of hours required for application; however, it is advised to attain as many hours with as many different species (e.g., swine, cows, horses, exotic pets, dogs, cats, etc.) as possible. In most cases, veterinary experience within North America is recommended.

Animal experience may involve working with livestock, breeding or showing animals, working in a pet store, participating in equestrian activities, or any other animal related hobby or experience where a veterinarian is not always present and/or does not provide direct supervision. It may be paid or voluntary. Please note that animal experience for the purposes of application to the DVM program does not include pet ownership.

### **Selection Criteria**

As the number of applicants exceeds the number of seats available, completion of the academic requirements is no guarantee of admission to the DVM Program. In addition to academic achievement, the Admissions Committee also

assesses non-academic achievement and aptitude. Information for this assessment will be obtained from an interview and the Work and School Approach and Behaviour Test (W-SAB Test). Only those applicants who rank highly based on academic requirements will be invited to interview and complete the W-SAB test on site at the Atlantic Veterinary College.

### **Interview (20% of overall admissions score)**

The interview will draw on the applicant's veterinary and animal experiences submitted as part of the application process. Applicants will be asked to expand upon the details they provided regarding their experiences and discuss how they have contributed to their understanding of the veterinary profession. Applicants should be advised that a failing score (less than 50%) in the interview will result in their removal from further consideration in the admissions process.

### **Work and School Approach and Behaviour Test (20% of overall admissions score)**

The Work and School Approach and Behaviour Test (W-SAB Test) is a personality inventory that has been designed, validated and standardized with a population of candidates applying to professional academic programs. Each scale in the test was designed to evaluate critical approaches and behaviours found in daily academic and professional situations. Applicants should be advised that it is not possible to study or prepare for the W-SAB.

### **Interview and W-SAB Testing**

All interviews and W-SAB testing occur onsite at the Atlantic Veterinary College on the following dates:

- International applicants: Saturday November 19, 2016
- Atlantic Canadian applicants: Monday, May 1, 2017

### **Essential Skills and Abilities Required for the Study of Veterinary Medicine**

Applicants must be aware that, in addition to the requirements outlined above, there are a number of attributes that are necessary for admission to the DVM Program. These are presented below to assist prospective students preparing for admission.

1. *Observation:* Students must be able to participate in learning situations that require observational skills. In particular, students must be able to accurately observe animals of all common domestic species and acquire visual, auditory and tactile information.
2. *Communication:* Students must be able to adequately speak, hear, and observe patients and clients to effectively and efficiently elicit information, describe activity and posture, and perceive non-verbal communication. Students must be able to communicate effectively and sensitively with clients and other members of the veterinary health care team. Students must be able to coherently summarize an animal patient's condition and treatment plan verbally and in writing.
3. *Motor Skills:* Students must demonstrate sufficient motor function to safely perform a physical examination on patients of all common domestic species including palpation, auscultation, and percussion. Examinations must be done independently and in a timely fashion. Students must be able to use common diagnostic aids or instruments including a stethoscope, otoscope, and ophthalmoscope. Students must be able to execute motor movements required to provide general and emergency medical and surgical care to animal patients in a variety of settings.
4. *Intellectual Conceptual, Integrative and Quantitative Abilities:* Students must demonstrate the cognitive skills and memory necessary to measure, calculate, analyze, integrate and synthesize large quantities of information from various sources. Students must be able to comprehend dimensional and spatial relationships. Students must be able to execute complex problem-solving activities in a timely fashion.
5. *Behavioural and Social Attributes:* Students must manage the intellectual challenges of the program. Students must apply good judgment and promptly complete all responsibilities attendant to the diagnosis and care of animal patients. Students must cultivate mature, sensitive, and effective relationships with clients and other members of the veterinary health care team. Students must be able to tolerate the

physical, emotional, and psychological demands of the program and function effectively under stress. Adaptability to changing environments and the ability to function in the face of uncertainties inherent in the care of animal patients are necessary skills. Personal qualities exemplified by members of the veterinary profession such as compassion, integrity, concern for others, effective interpersonal skills, initiative, and motivation are also expected of students.

The AVC is committed to facilitating the integration of students with disabilities. Students with a disability will receive reasonable accommodation that will assist them in meeting the requirements for graduation from the DVM program. Such accommodation however cannot compromise animal well-being or the safety of people involved. Consequently, it may not be possible to accommodate all disabilities and facilitate successful completion of the DVM program. For additional information regarding support, contact UPEI Accessibility Services.

## **DVM Application Procedure**

### **International Applicants**

International Applicants (including applicants from the United States) must first apply online through the Veterinary Medical College Application Service (VMCAS) operated by the American Association of Veterinary Medical Colleges at <http://www.aavmc.org/Students-Applicants-and-Advisors/Veterinary-Medical-College-Application-Service.aspx> by the VMCAS deadline (September 15). Applicants will be contacted to remit the \$75 (CAD) processing fee. GRE scores must be received by September 15 and fall and winter transcripts must be received by February 1 and June 1, respectively, where applicable.

#### **International Applicant Requirements and Deadlines:**

##### **September 15**

- completion of VMCAS application
- receipt of GRE scores (institutional code is "0941");
- applicants will be contacted by UPEI regarding payment of the processing fee

##### **November 19, 2016**

- interview and W-SAB testing for applicants ranking highly based on academic achievement occurs onsite at the Atlantic Veterinary College

##### **February 1**

- receipt of fall semester transcripts for courses in progress, if applicable

##### **June 1**

- receipt of winter semester transcripts for courses in progress, if applicable

International Applicant Contact: Sharon Gotell, [sgotell@upe.ca](mailto:sgotell@upe.ca) - (902) 566-0781

### **Atlantic Canadian Applicants**

Atlantic Canadian Applicants must submit the UPEI Undergraduate Application (online) and the Atlantic Canadian Supplementary Application (MS Word), and the processing fee by October 15. GRE scores should be received by October 15 where possible, and fall and winter transcripts must be received by February 1 and June 1, respectively, where applicable.

#### **Atlantic Canadian Applicant Requirements and Deadlines:**

##### **October 15**

- receipt of the UPEI Undergraduate Application Form by UPEI
- receipt of transcripts by UPEI
- receipt of GRE scores (institutional code is "0941"); note that while scores will be accepted past this deadline, receipt by October 15 will facilitate early evaluation of the application

- receipt of the Atlantic Canadian Supplementary Application and all supporting documentation
- receipt of \$75 processing fee to UPEI

### **February 1**

- receipt of fall semester transcripts for courses in progress, if applicable

### **May 1, 2017**

- interview and W-SAB testing for applicants ranking highly based on academic achievement occurs onsite at the Atlantic Veterinary College

### **June 1**

- receipt of winter semester transcripts for courses in progress (only those invited to interview)

Atlantic Canadian Applicant Contact: Jack MacDougall, jrmacdougall@upei.ca - (902) 566-0608

All applicants are responsible to ensure that required materials are on file by the appropriate deadline; incomplete applications will not be reviewed. While the provisions of this document will ordinarily be applied as stated, UPEI reserves the right to change any provision listed herein, including but not limited to residency and academic requirements for admission, without notice to individual applicants. Every effort will be made to inform applicants of any changes.

### **Submit all materials postmarked by the dates indicated above to:**

Professional Schools Admissions, Office of the Registrar  
University of Prince Edward Island  
550 University Avenue  
Charlottetown, PE  
C1A 4P3

**Please be aware that materials submitted after these deadlines will not be accepted. If you anticipate a problem in meeting a deadline, please contact the UPEI Registrar's Office as soon as possible.**

### **Advanced Standing and Transfer Applicants**

Advanced Standing applicants are students who have completed all of a veterinary medical program from a school not accredited by the Canadian Veterinary Medical Association and/or the American Veterinary Medical Association but "listed" by the American Veterinary Medical Association. Transfer applicants are students who have completed at least one year of a veterinary medical program at a college accredited by the Canadian Veterinary Medical Association and/or the American Veterinary Medical Association or "listed" by the American Veterinary Medical Association.

Colleges "listed" by the American Veterinary Medical Association include foreign colleges recognized by the World Health Organization and colleges officially recognized by their national governments as professional schools of veterinary medicine. Graduates of "listed" colleges are eligible to practice veterinary medicine in their home country and may qualify for entrance into the Educational Commission for Foreign Veterinary Graduates (ECFVG) certification program in the United States or the Clinical Proficiency Exam (CPE) in Canada.

Advanced standing or transfer applicants may apply to the second or third year of the DVM program. Places for advanced standing or transfer applicants are limited and depend on vacancies. Advanced standing applicants normally must have graduated from a veterinary program within six years of the date of application. Transfer applicants normally must have completed at least the first year of a veterinary program immediately preceding acceptance to the second year of the AVC DVM program.

Advanced standing or transfer applicants who do not meet the requirements mentioned in the previous paragraph are invited to submit a letter explaining why the Admissions Committee should consider their application. For advanced standing applicants the explanation must provide details of further veterinary-related study or work.

Applicants are considered for admission on a competitive basis. The deadline for applications is January 1 for classes that would begin in September. Those offered a seat in the second year of the program may need to complete program requirements that were not taken at the institution previously attended to ensure that students successfully transferring into the program are as equally well prepared as their peers starting the second-year cohort of the program.

International students will be assessed International Student fees, if accepted. Canadian citizens or permanent residents will be assessed Regional Student fees, if accepted. Please contact the Accounting office for current information on tuition and fees.

Please note that the transfer/advanced standing admission policy only allows for an offer of admission to the second or third year of the program if the Admissions committee deems the program can accommodate any additional students. It has been five years since the program has been able to accommodate a transfer/advanced standing applicant, but applications are always considered in the event that a space may become available.

Transfer Applicants must submit all of the following by January 1:

- UPEI Undergraduate Application Form and the \$100 application fee to UPEI
- Three (3) reference letters from individuals with whom the applicant has been associated within the last five years to be sent directly in a sealed, signed envelope. Suggested sources for letters include veterinarians, teaching faculty, or other employers. Letters should emphasize veterinary-related studies or work-experience. Foreign trained veterinarians who are applying for advanced standing are encouraged to request references from relevant Canadian referees where possible.
- Documentation of English language proficiency scores if English is not first language
- Documentation of citizenship or residence status.
- Program Calendar and full course outlines (in English) for all DVM studies completed
- Current Curriculum Vitae
- Personal statement explaining why you wish to complete your veterinary medicine training at UPEI
- Official transcripts from all academic institutions attended or currently attending; those in a language other than English must be accompanied by a certified, official translation. For those currently enrolled, please send a list of courses which you are or will be taking. Once there are any updated grades available, please have your University send these results to us immediately. Your file cannot be assessed without these updated marks.
- Letter of explanation (if required)

Applications will not be processed until ALL supporting materials have been received by the Registrar's Office. It is the responsibility of the applicant to ensure all materials are submitted by the deadline. If you have any questions, please contact Jack MacDougall by email at [jrmacdougall@upei.ca](mailto:jrmacdougall@upei.ca), or by telephone at (902) 566-0608.

Professional Schools Admissions  
Office of the Registrar  
University of Prince Edward Island  
Charlottetown, PEI  
C1A 4P3

### **Requests for Deferrals**

Requests for deferral of admission to the DVM program will be considered by the Admissions Committee on a case-by-case basis.

### **General DVM Applicant Information**

#### **Rabies Immunization Program**

Admission to the DVM program is contingent upon agreeing to participate in a rabies immunization program including blood titre evaluation. Exemption from this condition may be granted in exceptional circumstances if the



student concerned provides compelling reasons as to why they are unable to participate and signs a waiver absolving UPEI and AVC of further liability.

### **Role of Teaching Animals in the DVM Curriculum**

The humane use of animals in teaching is an integral part of the DVM program at the AVC and a necessary component of veterinary medical education. All students admitted to the DVM program must accept and agree to this tenet. All teaching animal use at the AVC is approved by the UPEI Animal Care Committee and conforms to the principles and guidelines of the Canadian Council on Animal Care.

### **Tuition and Fees**

Tuition costs vary depending on whether the seat is for an Atlantic Canadian student or an International student. For current DVM program tuition and fees, please visit the UPEI Accounting Office webpage. Select “Veterinary Medicine”, “Canadian” or “International”, “Full-Time”, “Undergraduate”, and then filter. International students should note that all tuition and fees are posted in Canadian dollars.

### **Financial Aid**

UPEI's Financial Aid Office can assist you in finding the best way to finance your education. For US DVM students, UPEI is able to offer Direct Stafford Loans and Direct Plus Loans using the Direct Loan Program.

For more information regarding financial aid for both Canadian and US students please contact the UPEI Financial Aid Office at (902) 628-4382.

### **Student Health Insurance**

All full time students at UPEI, including international students, are automatically enrolled in the UPEI Student Health Plan when they register for classes. If you already have an extended health plan, you may choose to opt out of the UPEI Student Health Plan and receive a refund of the premium cost.

For more information regarding the UPEI Student Health Insurance Plan for both Canadian and international students please contact the UPEI Student Union at (902) 566-0530.

### **Student Visas for International Students**

International students will need to obtain a Canada Study Permit (Student Visa) in order to attend UPEI. Accepted applicants can apply for Study Permits once they have received their letters of offer. A Temporary Resident Visa (TRV) may also be required depending on your citizenship. A Temporary Resident Visa is not required for citizens of visa exempt countries, including the United States.

For more information about Study Permits please visit the Citizenship and Immigration Canada website or contact the UPEI International Relations Office at (902) 566-0443.

### **Online Payment of Tuition and Fees**

Canadian students can pay fees and tuition online through their financial institution and international students can pay directly through the UPEI website using StudentPay. For more information about online payment options, contact the UPEI Accounting Office at (902) 566-0534.

### **Bachelor of Education (BEd)**

#### **(i) Introduction**

The Bachelor of Education (BEd) is a 12-month post-degree program consisting of 20 three-hour credit courses in education with the program commencing in May of each year. This program is designed to provide the variety of courses and extended field experiences through which students can develop the knowledge and skills needed to teach in the modern classroom. It provides the opportunity for students to focus their studies in Primary/Elementary Years (K–6) or Intermediate/Senior Years (grades 7–12), and in International, Indigenous, or Adult and Workplace Education.

#### **(ii) Admission Requirements**

1. Applicants must have completed the requirements for their undergraduate degree from an approved registered university and have that degree conferred before June 30.
2. Applicants must have an overall average of not less than 70% (at least between C+ and B-) computed on the 20 highest grades of the last 22 courses (3 semester hour of credit). Applicants who have an average of less than 70% may be considered on a case-by-case basis. Graduate study may be taken into consideration for admission requirements.
3. Applicants must have at least 6 semester hours of credit in English or equivalent (at least 3 of which are recommended to be in Composition);
4. Applicants must have at least 6 hours of credit in Mathematics or Statistics, with either 6 credit hours as part of the undergraduate program OR 3 credit hours as part of the undergraduate program AND Ed 422 Math for Teachers taken above and beyond the 20 courses required for the BEd.
5. completed academic courses in subjects taught in the school system which satisfy the requirements for the program level (Primary/Elementary or Intermediate/Senior) into which they seek admission, as follows:

**(a) Primary/Elementary (K - 6)**

1. 6 credit hours in Social Studies (as listed below);
2. 6 credit hours in Science (as listed below); (3 of which must be a lab-based science); and a
3. course in Developmental Psychology or equivalent.

**Note 1:** Applicants are strongly encouraged to take Education 211 or 213 (Introduction to Education) at UPEI (or equivalent at other universities) prior to beginning the BEd program. Courses in Fine Arts or Music will also be considered assets.

**(b) Intermediate/Senior (7 - 12):**

Applicants must have appropriate coursework in two defined teachable areas as outlined below:

1. at least 42 credit hours of university coursework in a first teachable area as listed below; and
2. at least 18 credit hours of university coursework in a second teachable area as listed below, preferably in a teachable area different from the first.

The following courses\* relate to teachable areas:

**English** (includes Communications, Creative Writing, Drama, Journalism, linguistic, Media Studies, and Theatre);

**Social Studies** (includes Acadian Studies, Anthropology, Canadian Studies, Economics, Environmental Studies, Family Science, Geography, Global Studies, History, Indigenous Studies, Law, Philosophy, Political Science, Religious Studies, Sociology, and Diversity and Social Justice Studies);

**Science** (includes Chemistry, Biology, Foods and Nutrition, Forestry, Geology/Earth Sciences, Health Sciences, Kinesiology, Oceanography, Environmental Science, Agriculture, and Physics);

**Mathematics** (includes Mathematics, Physics, Statistics, and Computer Science);

**French;** and **Music** (offered through the Bachelor of Music Education program in the Faculty of Arts).

\*Courses not listed may be evaluated on a case-by-case basis.

**(iii) Application Process**

Prior to completing the application package, candidates should read the requirements for the Bachelor of Education Application at <http://www.upei.ca/education>

Apply before February 15 to be considered for entrance scholarships. The program begins in May and applications will be accepted until the program has reached the full complement of students. Applications received after the full complement of students will only be considered if a seat becomes available or for the following academic year. Applicants are encouraged to apply early to be considered for the program.

The completed application package must include the following:

1. Undergraduate Application Form (two pages).
2. \$50 Application Fee (\$75 for International Applicants)
3. Faculty of Education Supplementary Information Form and Personal Statement. Save the form to your computer and work on it at your leisure. When complete, print, sign, then submit with the remainder of your package.
4. Two copies of official transcripts are required from each post-secondary institution where you have taken a course. Original transcripts are required even if transfer credits were given by another institution.

(iv) Assessment of Applications

Every completed file is examined and students are ranked according to:

- Academic background, strongly recommended courses, and contact information for three references
- Supplementary Information Form (Experience Profile) and Personal Statement (50%)

Candidates will be admitted on the basis of this ranking. Acceptance letters, conditional offers, letters indicating that the applicant is on the waiting list, or letters indicating that the application will not be considered at this time, will be issued by the Registrar's Office.

The successful applicant who receives either an unconditional or a conditional offer must confirm his/her acceptance in writing and include a non-refundable deposit of \$500. This confirmation must be received by the Registrar's Office (for transmittal to the Accounting Office) by the date specified in the letter.

Final official transcripts for students who have either received conditional offers or have been placed on the waiting list must be received by the Registrar's Office by June 15. The Faculty may request an interview with any potential candidate.

## **Bachelor of Education—Français Langue Seconde**

(i) Introduction

The Bachelor of Education—français langue seconde is a 12-month post-degree program consisting of 20 three-hour credit courses in Education. This program is designed to provide the variety of courses and extended field experiences through which students can develop the knowledge and skills needed to teach in the modern classroom. It provides the opportunity for students to focus their studies in Primary/Elementary (grades K-6), or Intermediate/Senior (grades 7-12), and International, Indigenous, or Adult Education.

(ii) Admission Requirements

The general requirements for admission to the Bachelor of Education-français langue seconde are:

- Applicants must have completed the requirements for their undergraduate degree from an approved registered university and have the degree conferred before June 30.
- Applicants must have an overall average of not less than 70% (at least between C+ and B-) computed on the 20 highest grades of the last 22 courses (3 semester hours of credit each). Applicants who have an average of less than 70% may be considered on a case-by-case basis. Graduate study may be taken into consideration for admission requirements.
- Applicants must have completed at least 6 semester hours in French (at least 3 semester hours in a writing-intensive course in any discipline).
- Applicants whose first language is not English must also satisfy the UPEI English Language Proficiency requirements.
- Applicants must pass an oral and written proficiency test in French before admission to the specialization is confirmed.
- At least 6 semester hours of credit in Mathematics or Statistics, with either 6 credits hours as part of the undergraduate program OR 3 credit hours as part of the undergraduate program AND Ed 422 Math for Teacher taken above and beyond the 20 courses required for the B.Ed.

- Applicants must have completed academic courses in subjects taught in the school system which satisfy the requirements for the program level (Primary/Elementary or Intermediate/Senior) into which they seek admission, as follows:

### **Primary/Elementary (grades K-6)**

1. 6 credit hours in Social Studies (as listed below);
2. 6 credit hours in Science (as listed below) (3 of which must be a lab-based science); and a
3. course in Developmental Psychology or equivalent.

Note 1: Applicants are strongly encouraged to take Education 213 (Introduction to Education) at UPEI (or equivalent at other universities) prior to beginning the Bed program. Courses in Fine Arts or Music will also be considered assets.

### **Intermediate\Senior (grades 7-12)\***

Applicants must have appropriate coursework in two defined teachable areas as outlined below:

1. at least 42 credit hours of university coursework in a first teachable area as listed below; and
2. at least 18 credit hours of university coursework in a second teachable area as listed below, preferably in a teachable area different from the first.

The following courses\* relate to teachable areas:

English (includes Communications, Creative Writing, Drama, Journalism, linguistic, Media Studies, and Theatre);

Social Studies (includes Acadian Studies, Anthropology, Canadian Studies, Economics, Environmental Studies, Family Science, Geography, Global Studies, History, Indigenous Studies, Law, Philosophy, Political Science, Religious Studies, Sociology, and Diversity and Social Justice Studies);

Science (includes Chemistry, Biology, Foods and Nutrition, Forestry, Geology/Earth Sciences, Health Sciences, Kinesiology, Oceanography, Environmental Science, Agriculture, and Physics);

Mathematics (includes Mathematics, Physics, Statistics, and Computer Science);

French; and Music (offered through the Bachelor of Music Education program in the Faculty of Arts).

\*Courses not listed may be evaluated on a case-by-case basis.

Please note: Preference will be given to:

- Candidates who have completed a first degree in any relevant discipline from a French language university
- Candidates who have completed a major in French from an English university;
- Candidates who have at least a minor in French studies at a recognized university
- Applicants who have significant professional and or life experiences in a French environment are also encouraged to apply. Successful applicants may be required to complete French language course requirements during the two-year education program.

### **(iii) Application Process**

Apply before February 15 to be considered for entrance scholarships. The program begins in May and applications will be accepted until the program has reached the full complement of students. Applications received after the full complement of students will only be considered if a seat becomes available or for the following academic year. Applicants are encouraged to apply early to be considered for the program.

The completed application package must include the following:

1. Undergraduate application form (two pages)
2. \$50 Application Fee (\$75 for International Applicants).
3. Faculty of Education Supplementary Information Form and Personal Statement, which may be completed in French or English. Save the form on to your computer. Work on at your leisure. When complete, print, sign, and send with the remainder of your package.
4. Two copies of official transcripts are required from each post-secondary institution where you have taken a course. Original transcripts are required even if transfer credits were given by another institution.

#### (iv) Assessment of Applications

The successful applicant who receives either an unconditional or conditional offer must confirm his/her acceptance in writing and include a non-refundable deposit of \$500. This confirmation must be received by the Registrar's Office (for transmittal to the Accounting Office) by the date specified in the letter.

Final official transcripts for students who have either received conditional offers or are placed on the waiting list must be received by the Registrar's Office by August 15. The Faculty may request an interview with any potential candidate. Contact the Registrar's Office if you have any questions. Every completed file is examined and students are ranked according to:

- Academic background, strongly recommended courses, and contact information for three references
- Supplementary Information Form (Experience Profile) and Personal Statement (50%)
- Candidates will be admitted on the basis of this ranking. Acceptance letters, conditional offers, letters indicating that the applicant is on the waiting list, or letters indicating that the application will not be considered at this time, will be issued by the Registrar's Office.

### **Bachelor of Science in Nursing (BScN)**

The Bachelor of Science in Nursing (BScN) is a four-year program. Graduates are eligible to write licensure examinations to practice nursing, and to hold membership in the Association of Nurses of Prince Edward Island.

### **Admission Requirements**

#### **High School Applicant**

A high school applicant must have achieved a mark of at least 65% in each of the following academic courses: English, Mathematics, Chemistry, Biology and one other grade 12 academic course, with an overall average in these courses of at least 70%.

#### **University Applicant**

Applicants attending or having attended a University must meet the same requirements as listed above but can also complete the course requirements by taking degree level courses. A minimum mark of 60% is required in degree level courses.

#### **Mature Applicant**

In addition to the general admission requirements for mature students, the following regulations apply: a student of mature years may be admitted to the School of Nursing without fulfilling all the entrance requirements specified for the high school graduates. A mature applicant must have achieved a mark of 65% in each of Grade 12 academic English, Mathematics, Chemistry, and Biology or a mark of 60% for 3 semester hours in the same subjects at the university level.

### **Selection criteria**

The total number of students admitted will be limited in accordance with facilities and resources on campus and in health care agencies.

Approximately sixty-five (65) seats are available in the four year Nursing Program each year. All students who meet the minimum requirements will be considered. All eligible first year candidates are ranked on their average in Biology, Chemistry, English and Math. University Applicants completing one or more of the core courses listed above will have 10% added to each university course for ranking purposes. University applicants must have a “satisfactory semester” as defined in the UPEI calendar in the semester directly preceding admission to Nursing. For intake to Fall 2016 only, applicants will also be scored on experience related to Nursing.

Applicants whose average in Biology, Chemistry, English and Math is 88% and above when final results for first semester grades are obtained, will receive an “Early Offer” of admission. All other applicants will be ranked. The majority of offers will be made by April. Further offers are made in May and July. Applicants deemed as alternates and enrolled in courses are to have all prerequisite courses completed by June 30. Final official transcripts must be received at the Registrar’s Office no later than July 15th.

**Note:** Former UPEI Nursing students who withdrew in good academic standing during first year may be given priority for readmission to the program.

### **Application Process**

Application Deadline is 15 February (must be postmarked by this date). The application and application fee must be received by February 15th. Other documents may follow, but applicants are not considered until all documents have been received. The application package includes the following:

- A completed undergraduate application Form (online version) or two-page (PDF printable version);
- \$50 Application Fee (\$75 for International Applicant);
- A completed School of Nursing Supplementary Application Form. Available as Word or PDF (for Fall 2016 intake only);
- A current Curriculum Vitae (resume) if you are a mature student (21 years of age or older);
- Official transcripts are required from all high school and post-secondary institutions attended. If enrolled in courses, transcripts are to be submitted when final results of the first semester are available. Transfer credits received at another institution will not negate the requirement for original transcripts;
- An official English Language Proficiency Test result (if required).

Submit complete application package (transcripts can follow) to:

The Registrar’s Office  
550 University Avenue  
Charlottetown, PE C1A 4P3

### **PLEASE NOTE:**

- The School of Nursing requires certification of CPR (HCP level), First Aid, immunization record, and a certified criminal record and vulnerable sector check from your local law enforcement agency.
- Accepted applicants must forward this documentation directly to the School of Nursing no later than August 15. (Note: if any of the required documentation is not received by the deadline, this offer may be withdrawn).
- If a second choice is indicated, applicants will be considered for admission to another faculty when nursing seats have been finalized. If applicants meet the minimum admission requirements for the Nursing program, they will be admissible to the Faculty of Science, School of Business or Arts.
- Letters of recommendation are not required nor accepted.
- After receiving an offer of admission to the BScN, a non-refundable tuition deposit of \$500.00 is required. The deadline for providing this deposit will be stated in the acceptance letter. Extensions to this deadline will not be granted.

## **Transfer Credit for Licensed Practical Nurses (LPN)**

LPNs accepted into the 4 year Nursing program will receive the following transfer credits:

- Graduates from the Holland College LPN program since 2009 may transfer 27 credit hours.
- Graduates from the Holland College LPN program prior to 2009 will receive 9 credit hours of electives.
- Graduates from other LPN programs will receive 9 credit hours of electives with the possibility of further transfer credit upon review of LPN course syllabi

Any student accepted to the first year of the Nursing program and potentially receiving transfer credit for NURS 101 and NURS 102, will be required to complete a Math competency test before transfer credit is granted.

## **HOLLAND COLLEGE ARTICULATED AGREEMENT**

Graduates of the Holland College LPN program since 2009 have two options for applying to the BScN program at UPEI.

### **Option 1 – Admission to 2nd Year of BScN**

#### **Admission Criteria**

- received at least a 80% average in the LPN program;
- have evidence of a strong clinical performance during the LPN program. A letter from a clinical nursing instructor from Holland College documenting clinical performance in the LPN program. The letter is to be sent directly to the Registrar's Office at UPEI;
- have completed academic grade 12 English, Math, Chemistry and Biology (Final high school transcript and upgrades if applicable);
- complete a pre-admission math competency test and receive at least 85%;
- have successfully completed the following UPEI courses (or equivalents): Human Anatomy (Bio 121), Human Physiology (Bio 122), Microbiology (VPM 101), Introductory Psychology (Psy 101 & 102).

Potential applicants who have met the admission criteria, with the exception of the five degree level university courses, may complete these courses at UPEI. Special permission from the Chair of Biology is required to enrol in Microbiology (VPM 101). Permission is subject to availability of space in the course.

After completing all the requirements, students applying under the articulated agreement are considered along with transfer applicants for seats available in the 2nd year of the program. Applicants are ranked according to the relative strength of their application. Seats are offered depending upon availability and the applicant rank. There is no guarantee that a seat will be available.

#### **Holland College Articulated Agreement applicants must submit:**

- A completed undergraduate application Form (online version) or two-page (PDF printable version);
- \$50 Application Fee (\$75 for International Applicants);
- A completed Transfer Supplementary Application (2 pages). Available as Word or PDF (Eligible transfer and Holland College Articulated Agreement applicants only; for Fall 2016 intake only);
- official high school and post-secondary transcript(s) for any post-secondary study taken. For those enrolled in courses, arrange to have transcripts sent when 1st semester final results can be reported;
- if not currently enrolled (out one semester or more), a resume outlining a list of current activities is required;
- if required, an acceptable English Language Proficiency Test result;
- A letter from a clinical nursing instructor from Holland College documenting clinical performance in the LPN program.

## **Option 2 – Admission to 1st Year of BScN**

The second option is to apply directly to the first year of the 4 year Nursing program. In this case the admission requirements are exactly the same as other applicants applying to the first year of the program. If accepted, students start in the 1st year of Nursing, receive the same transfer credit as under the articulated agreement, but complete the 1st year courses (Psy 101, Psy 102, Bio 121, Bio 122, and VPM 101) that have not yet been taken.

### **Transfer Applicants (Applicants who wish to transfer must apply by February 15)**

Transfer Applicants currently in a Nursing program, or having completed part of a Nursing program at another university, may apply to transfer to the 2nd or 3rd year of the BScN program. Applicants cannot be considered until all of the courses (or equivalent courses at another university) required of UPEI 1st year Nursing students have been completed. Those applicants not able to complete all of the courses required of 1st year UPEI Nursing students must apply as a first year student, but if accepted, may receive transfer credit. Students dismissed from a Nursing program as a result of a clinical failure, or students who have failed two Nursing courses, are not eligible to apply as a transfer applicant.

#### **Transfer students must submit:**

1. A completed undergraduate application Form (online version) or two-page (PDF printable version);
2. \$50 Application Fee (\$75 for International Applicants);
3. a completed Transfer Supplementary Application (2 pages). Available as Word or PDF (Eligible transfer and Holland College Articulated Agreement applicants only; for Fall 2016 intake only);
4. official post-secondary transcript(s) for any post-secondary study taken. For those enrolled in courses, arrange to have transcripts sent when 1st semester final results can be reported;
5. if not currently enrolled (out one semester or more), a resume outlining a list of current activities is required;
6. a course syllabus for all Nursing courses taken or currently in-progress, including details of any clinical portion;
7. a letter from the Nursing school where applicant is currently enrolled or has previously attended, which states the applicant is in good academic and clinical standing with no restrictions;
8. if required, an acceptable English Language Proficiency Test result.

#### **Please Note:**

1. The University of Prince Edward Island nursing program is based on the “PEI Conceptual Model of Primary Health Care”. Students whose previous Nursing program did not include Primary Health Care must apply to the first year of the program. If accepted students may receive transfer credit.
2. Transfer seats are subject to availability of space in the nursing program.

## **Accelerated Bachelor of Science in Nursing**

### **(i) Introduction**

The Accelerated Bachelor of Science in Nursing Program is intended for applicants with a university degree who wish to become professional nurses. Students apply through the Registrar’s Office and must submit the UPEI Undergraduate Application Form. Students in the Accelerated Program are required to take the same courses and have the same number of clinical hours as students in the four-year BScN program. They are governed by the academic regulations for Nursing as outlined in the Calendar.

### **(ii) Admission Requirements**

To be eligible for the Accelerated BScN Program, applicants must have:

- successfully completed Grade 12 or equivalent courses in English, Math, Chemistry, and Biology;
- completed an undergraduate degree with a minimum average of 75% (GPA 3.0 or B) in the last 20 courses of the degree and normally registered as a full-time student;



- students who have completed courses after being granted a degree must have a minimum 75% average based on the best 20 courses of the last 22 courses taken;
- completed courses for credit in Human Anatomy, Physiology, Microbiology, Developmental Psychology, Statistics, an introductory Nutrition course, two introductory Psychology courses, and two English courses. Students missing any of these courses are provided the opportunity to complete the courses before the start of the program in January.

**Note:** Required courses in Pathophysiology and Pharmacology can be taken during the Accelerated Program.

Enrolment is limited to 14 students per year. Applicants receive conditional acceptance into the Accelerated Program based on completion of the required prerequisites.

### (iii) Application Process

Application deadline is 15 February (must be postmarked by this date). Your complete application package should be sent directly to the Registrar's Office and should include:

1. Undergraduate Application Form (two pages)
2. \$50 Application Fee (\$75 for International Applicant)
3. A current Curriculum Vitae (resume) if you are a mature student (21 years of age or older)
4. Final Official High School transcripts
5. Official transcripts are required from all post-secondary institutions attended. Transfer credits received at another institution will not negate the requirement for original transcripts. If enrolled in courses, transcripts are to be submitted when final results of your current first semester can be reported.

**Note:** The Admissions Committee of the School of Nursing will make an early offer to applicants whose average for admission has been determined to be 83% or greater. For those completing a degree this would be a conditional offer.

The average would be calculated up to the start of their final semester of study and final transcripts would have to indicate that this average has been maintained.

Note: Applicants currently completing a first degree are expected to have their first degree conferred no later than June 30, and must submit a final transcript no later than July 15. Applicants completing one or more of the minimum high school requirements are required to submit a final official transcript which indicates successful completion of the requirement(s) no later than July 15.

All applicants who apply for the Accelerated Nursing program may be considered for the 4-year program as well if they complete the supplementary application.

If accepted to both, applicants can choose which program they would like to enrol in. Applicants should make it clear if they wish to only be considered for the Accelerated program. Should an Accelerated Nursing applicant not complete the supplementary application for the four-year Nursing program, the Nursing Admissions Committee assumes that the applicant is only interested in the Accelerated Nursing Program.

## **Bachelor of Applied Science in Radiography (BScR)**

### (i) Introduction

This four-year degree program requires students to obtain approximately half their academic credits at the University of Prince Edward Island and the Queen Elizabeth Hospital. Admission is by competition, following the process set out below, after the completion of a required set of courses in at least one year of university studies. A limited number of students are admitted each year.

### (ii) Admission Requirements

## Minimum Course Requirements

Ten three-semester-hour courses or equivalent are required. For students who have completed a total of 20 three semester-hour courses or less, these must include (required UPEI course numbers in brackets):

- Two courses in introductory Biology (Bio. 131/132)
- Two courses in introductory Physics (Phys. 111/112 or 121/122)
- Two courses in introductory Chemistry (Chem. 111/112)
- One course in Mathematics (Math. 112) (alternatively, Math. 151/152)
- One Composition course (UPEI 101 or UPEI 102 if taken at UPEI)
- 1 or 2 free electives (depending on Math requirement)

Students who have completed more than 20 3-semester-hour courses may, with the permission of the Dean, be allowed to enter the program without having completed the full suite of required courses listed above. Nevertheless, courses not done prior to admission must be completed as a program requirement before graduation. All required courses must have a passing grade identified by letter or numerical grade. Biology, Physics, and Chemistry courses will normally have a laboratory component. Details of course content may be required for any course proposed for admission purposes.

Students are expected to complete a degree at UPEI within a 10-year period. (See Academic Regulation #2). Applicants who have completed any of the prerequisite first year courses 7 years prior to the anticipated start of their radiography program should contact the co-ordinator of the program or the Dean of Science.

### (iii) Application Process (deadline December 1)

The following is required when submitting your application:

1. Application Form (2 pages)
2. \$50 Application Fee (\$75 for International Applicants)
3. Radiography Supplementary Application Form
4. Official Transcripts from each post-secondary institution where you have taken a course, even if transfer credit(s) were given by another institution.
5. A Vulnerable Sector Check
6. A current resume if you are over the age of 21 and/or not presently enrolled in courses.
7. English Language Proficiency Test (if required).

Successful applicants will be required to make a \$500 non-refundable deposit on or before May 31st, to hold their seat in the program. The deposit will go toward first semester tuition costs. Your application package must be hand delivered or postmarked no later than December 1, with a copy of the most current transcript to be submitted no later than February 1st. Interviews will be held the last week in March and successful applicants must accept by April 30.

### ***Deadlines***

All application materials, including transcripts and accompanied by the application fee, must be received in the Office of the Registrar not later than December 1 of the year for which admission is sought. No extensions will be permitted.

### ***Assessment of Applications***

Students must achieve an average of 70% in the minimum course requirements to be considered for an interview. A higher-level course may be used as a substitution for a minimum course requirement providing it is in a related field of study.

The highest academic ranked applicants are interviewed for the available seats. Offers of admission are based on results of the interview as well as academic achievement. A minimum score of 50% must be achieved in the interview to be eligible for admission. Normally, at least twice as many eligible applicants will be interviewed as there are number of seats available. Successful applicants will be notified in writing within two weeks of their interview.

## **Reapplication**

If a previously denied applicant wishes to reapply, he/she follows the same process as that described above.

## **Bachelor of Science in Engineering (Sustainable Design Engineering)**

Students wishing to pursue the sustainable design engineering degree option at UPEI must first complete the UPEI Engineering Diploma or the equivalent level of training from another institution. Students with a GPA of 3.0 or greater in the common Associated University diploma requirements (years one and two) and a minimum grade of 70% in Engineering 222 Design 4: Engineering Projects II (or AU equivalent) are guaranteed placement in the third year of the Bachelor of Science in Engineering (Sustainable Design Engineering). Students with a GPA of between 2.0 and 2.9 in the common core and/or a minimum grade of 70% in Engineering 222 Design 4: Engineering Projects II (or AU equivalent) can be admitted to the sustainable design engineering program based on competitive placement and availability of seats.

Students with a GPA of less than 2.0 and/or a grade of less than 70% in Engineering 222 Design 4: Engineering Projects II (or AU equivalent) should contact the head of the School of Engineering for advice on academic upgrading.

Consistent with the Dalhousie's placeholder system, students must request a place in the sustainable design engineering degree program at the end of their first diploma year. Requests for placement will be managed by the UPEI School of Engineering (see [www.upei.ca/science/engineering](http://www.upei.ca/science/engineering) for more information). Final grades in the common first-year courses are required to be eligible for placement in the degree program. Students will be notified of their placement status prior to the end of June after first year. Degree places are "conditional" and will allow students to select their three discipline specific courses in second year. Once a place is assigned, and provided that the student completes the diploma and any other admission requirements (i.e. minimum grade in Engineering 222 or equivalent), their place and admission to the third year will be confirmed. Students who fail to meet the entrance requirements for the requested placement year must request a new placement by the end April of the year prior to expected entry.

Placements for students taking more than two years to complete foundational diploma requirements will be based on ALL common core course requirements completed to date. Final grades in repeated courses will be the basis for GPA calculations and placement assignments.

## **Diploma in Engineering**

Students wishing to pursue engineering at UPEI apply to the Faculty of Science and MUST indicate a preference for engineering. Minimum academic requirements for admission to the Engineering Diploma include an overall average of 70% in Grade 12 Academic English, Mathematics, Chemistry, Physics and one other Grade 12 academic subject with no grade lower than 65%. Students are encouraged to apply by March 1 to take advantage of scholarship opportunities.

## **Radiography Post-Diploma Degree Program**

### **(i) Introduction**

The University of Prince Edward Island in conjunction with the Queen Elizabeth Hospital, offer a post diploma degree in Radiography. This conversion program allows practising technologists the opportunity to attain a Bachelor of Applied Science Degree in Radiography through the equivalence of two years of university study (20 courses). Information on required courses is available in the UPEI Calendar under Radiography.

The program was designed to meet the needs of technologists who wish to expand their credentials and education. The role of a medical radiation technologist is changing rapidly in response to evolving technologies and the dynamics of the Canadian Health Care system. This advanced education will enhance a technologist's knowledge base and provide opportunities for career advancement.

**Note:** Students must be members in good standing of the CAMRT to apply for this program.

## (ii) Admission Requirements

Minimum requirements for admission are registration with the Canadian Association of Medical Radiation Technologists and three years of full time equivalent work experience (5850 hours) in Radiography.

## (iii) Application Process

The following is required when submitting your application:

1. Application Form (2 pages)
2. \$50 Application Fee (\$75 for International applicants)
3. A current resume
4. Official Transcripts from all universities attended, even if you have taken only one course. Transcripts submitted with the package are to be in official sealed envelopes. If enrolled in courses, transcripts should also include a list of courses you are taking from Sept/2011–April/2012.
5. A certified criminal record check in a sealed, unopened envelope from your local law enforcement agency.
6. Proof of at least 3 years of consecutive, full-time work experience (or equivalent part-time) in the form of a letter from your Human Resource Management Office.
7. The applicant must be a member in good standing of The Canadian Association of Medical Radiation Technologies (CAMRT) to apply to this program.

**Please note:** There is not an application deadline for this program. Applicants normally begin their program in the semester proceeding acceptance.

## Transcript and Credit Assessment for All Applications

Transcripts from post-secondary institutions are assessed for Transfer Credits at the time of admissions consideration by the Registrar's Office. Students who have been admitted to the University and who believe that they can meet, or have met, the requirements of a course, may seek UPEI credit by means of challenge for credit, or recognition of "Special Credits" earned elsewhere (see Academic Regulations 15 & 16).

## Pre-Professional Studies

The University of Prince Edward Island offers preparatory course work to enable students to apply to a wide variety of professional programs at this and other institutions, including Agriculture, Architecture, Dentistry, Law, Medicine, Occupational Therapy, Physiotherapy, and Veterinary Medicine. Students are advised to consult the admissions requirements for the universities and programs of their choice, and to select their UPEI courses accordingly, with due regard to the content and course-sequencing of their UPEI program in the event that a UPEI degree is to be completed before admission elsewhere. The following website and mail addresses may be helpful to students seeking further information:

### Agriculture

McGill University (Macdonald College)

<http://mcgill.ca/macdonald>

Nova Scotia Agricultural College

<http://dal.ca/faculty/agriculture.html>

### Architecture

Dalhousie University

<http://architectureandplanning.dal.ca/architecture/>

### Dentistry

Dalhousie University

[www.dal.ca/faculty/dentistry.html](http://www.dal.ca/faculty/dentistry.html)

### Law

Dalhousie University  
<http://law.dal.ca/index.html>

University of New Brunswick  
<http://law.unb.ca>

### **Medicine**

Dalhousie University  
<http://medicine.dal.ca>

Memorial University of Newfoundland  
[www.med.mun.ca/medicine/home.aspx](http://www.med.mun.ca/medicine/home.aspx)

### **Occupational Therapy**

PEI Provincial Fieldwork Co-ordinator  
Occupational Therapy Manager  
Queen Elizabeth Hospital  
P.O. Box 6600, Charlottetown, PE C1A 8T5  
Phone: 902-894-2062

Dalhousie University  
<http://occupationaltherapy.dal.ca/index.html>

### **Physiotherapy**

PEI Clinical Co-ordinator  
Physiotherapy Department  
Queen Elizabeth Hospital  
P.O. Box 6600, Charlottetown, PE C1A 8T5  
Phone: 902-894-2062

Dalhousie University  
<http://physiotherapy.dal.ca/index.html>

### **Veterinary Medicine**

University of Prince Edward Island  
(Atlantic Veterinary College)  
<http://upei.ca/avc>

### **Pre-Veterinary Medicine Stream**

The Faculty of Science is pleased to offer a pre-veterinary stream in collaboration with the Atlantic Veterinary College, one of Canada's five veterinary schools. Located on the UPEI campus, the collaboration takes advantage of the best programs, facilities, and teaching that UPEI has to offer. The pre-veterinary stream offers students an opportunity to meet the course requirements for admission to the Doctor of Veterinary Medicine (DVM) program, a four-year program that has graduated over 1,000 veterinarians since it opened in 1986.

The pre-vet stream is an advising structure that helps guide future applicants to the DVM program and supports progress toward a Bachelor of Science degree with a major from one of the disciplines available in UPEI's Faculty of Science. In addition, a variety of activities such as information sessions and presentations by professors who teach at the Atlantic Veterinary College are also organized for pre-veterinary stream students.

**Please note:** Admission to the DVM program is competitive. Each year many students apply for one of the seats available in the program. Students who enter the pre-veterinary stream are not guaranteed entry into the DVM program. As well, since a student's application to the DVM program is assessed on other criteria besides grades, potential DVM applicants are strongly encouraged to consult the veterinary admissions section of the calendar for a complete description of DVM admission requirements.

## General Academic Regulations

The following regulations pertain to all undergraduate-level programs of study at UPEI. Most programs have additional, specific academic regulations that must also be followed and course requirements that must be met (see the relevant Department in the Academic Programs section of the Calendar for details). Students are responsible for learning which regulations and requirements apply, and for abiding by them throughout their course of study. Students are encouraged to discuss course and degree requirements with Academic Advisors in Student Services, the academic department Chair, and/or the Dean of the Faculty concerned. Normally, the regulations in effect at the time of a student's first entry to UPEI will govern the student's academic requirements until graduation.

Note: The University reserves the right to add to, alter, delete, or amend these regulations at any time.

### 1. Requirements for a Degree

- a) **Bachelor of Arts and Bachelor of Science degrees**—120 semester-hours of credit with a major subject in which at least 42 semester-hours of credit are taken. This figure is higher in some departments. Another 42 semester-hours of credit may be required in other subjects.
- b) Beginning with first-year students in 1993–94, in order to graduate with a major, a student must pass at least 30 semester-hours of credit of the 42 defined in 1(a) in the major subject with grades of at least 60%.
- c) **Maximum Number of Introductory-Level Courses**—No more than 48 semester-hours of credit may be taken at the introductory level in any degree or diploma program, except in a Bachelor of Music program, in which 49 semester-hours of credit at the introductory level may be taken.
- d) Students may declare to the Registrar's Office their major area of study at any time up to the end of their second year (after completing 48 to 60 semester-hours of course work). Forms are available from the Registrar's Office. However, in the Faculty of Science, students are required to declare a major by the beginning of their second year (after completing 21 to 45 semester hours of course work). Students can change their major at any time by submitting the appropriate form to the Registrar's Office, but they are encouraged to speak to an academic advisor in the appropriate department before doing so.
- e) A candidate for a degree must complete at least one-half of the required course work at UPEI; normally, these will be the final 60 semester-hours of the degree. Exceptions will be made only with the permission of the Dean.
- f) In the last 60 semester-hours of work toward a UPEI degree, students will receive credit for no more than 12 semester-hours of study completed at another university; exceptions may be made only with the permission of the Dean.
- g) Beginning September 2013, all students working toward an undergraduate degree or diploma will be required to take one of the following three courses, recommended to be taken within the first three semesters of registration, to fulfill graduation requirements:
  - UPEI 101 – Writing Studies: Engaging Writing, Rhetoric, and Communication;
  - UPEI 102 – Inquiry Studies: Engaging Ideas and Cultural Contexts; or
  - UPEI 103 - University Studies: Engaging University Contexts and Experience; **AND** One Writing Intensive Course
- h) Special regulations apply to Honours degrees (not available in all program areas). See the relevant academic department section of the Calendar for details.
- i) **Second Undergraduate Degree Regulations**—Students who have earned a first Bachelor-level degree may pursue a second Bachelor-level degree as long as no more than 18 semester-hours of study in the subject area of interest have been completed in the first degree, and as long as at least 60 semester-hours of credit will be completed

toward the second degree at UPEI. All program requirements for the second degree must be met within these 60 semester-hours of study, the program for which will be approved by the Dean. Exceptions will be made only with the permission of the Dean.

## **2. Time Limit to Complete Degrees**

Students are strongly urged to complete their degree requirements within 10 years from the date of their first registration. (See also Nursing and Radiography Sections.) Students who have not completed their degree(s) within a 10-year period from the time they begin their university studies will have transcripts re-evaluated, and are cautioned that some courses over 10 years old may be deemed inappropriate by the Dean of the program to which the student has applied and may require substitution.

## **3. Year of Study**

For purposes of registration and statistical analysis of the student body, all full-time students are categorized as First-, Second-, Third-, or Fourth-Year students. The categories are based on completed semester-hours of study, as follows:

First Year:	0-18
Second Year:	21-48
Third Year:	51-78
Fourth Year:	81+

This designation does not mean that all degree requirements for a given year of a program have necessarily been met; nor does it refer to the number of years a student has studied at UPEI.

## **4. Enrolment Status**

To qualify as a full-time undergraduate student in any given semester, one must be registered:

- a) in nine or more semester-hours of study (usually three courses taken for credit);
- b) as a full-time English Academic Preparation (EAP) program student; or
- c) as a co-op, internship, or practicum student on a full-time work placement (equivalent to 15 semester-hours of study).

## **5. Course Load**

Fall/Winter semesters: except for DVM & Engineering students, the full course load for a full-time student is five courses (15 semester-hours) in each semester. An overload of three semester-hours is automatically approved for students with an average of at least 70% on five or more courses taken in the previous semester. The minimum course load for full-time student status is three courses (nine semester-hours) per semester.

Spring/Summer semesters: except for DVM & Engineering students, the full course load for a full-time student is three courses (nine semester-hours) in each semester. The minimum course load for full-time student status in these semesters is two courses (six semester-hours).

## **6. Course Registration**

- a) The registration process consists of two steps:
  - i) preregistration or course selection, available from the dates specified in the calendar; and
  - ii) payment of fees by the published deadline.
- b) Double-scheduling: students are not permitted to register in two courses that are offered during the same time period or during time periods that overlap.
- c) Course changes: students may make changes to their course selections as follows:

- (i) adding: changes are made online, up to the “last day to register”; after this date, or at any time for classes that are “closed” by the Registrar’s Office, permission of the instructor and Chair (Arts and Science) or instructor and Dean (Professional programs) is required;
- (ii) dropping: changes are made online, up to the “last day to register”; after this date, and up to the deadline for discontinuation as published in the Calendar, changes must be made in person at the Registrar’s Office;
- (iii) non-credit status: changes from “for credit” registration to “audit” status are made in person until the final day for 100% refund. Note: courses taken as non- credit audits may not be changed to “for credit” status at any point in the semester; and
- (iv) “audit” status: registration as an auditor requires the permission of the instructor and Chair or Dean, as appropriate.

## **7. De-registration**

Students who have not paid course tuition and other fees by the published deadline may be de-registered and will not be permitted to write final examinations or to register in any subsequent semester. Reinstatement of registration on appeal will be made for exceptional cases only, at the discretion of the Registrar in consultation with the Manager of Accounting.

## **8. Letters of Permission**

Students enrolled at UPEI and wishing to take courses at other institutions for credit towards their UPEI degree or diploma are advised that a “Letter of Permission” must be obtained from the Registrar’s Office in advance. The Registrar’s Office is responsible for assessing the equivalency of the courses for which permission to register is sought, in consultation with the department and/or Dean as appropriate, and will provide the necessary documentation to the host institution. Students are responsible for requesting transcripts from the host institution to be sent directly to the Registrar’s Office at UPEI on completion of their course(s).

**Note:** As per Academic Regulation #17 - Letters of Permission will not be given to students on academic probation.

## **9. Directed Studies**

- a) A student may credit up to 18 semester-hours of Directed Studies towards a degree.
- b) Any student in Third or Fourth Year may apply to take Directed Studies.
- c) A student must have at least 12 hours of credit in a department as a prerequisite to Directed Studies courses.
- d) A student may take up to six semester-hours of Directed Studies in any one semester.
- e) A student may take up to 12 semester-hours of Directed Studies in one department.
- f) For each Directed Studies course, a proposal approved by the instructor, the Department Chair, and the appropriate Dean will be sent to the Registrar no later than the last day for course change for the semester. The proposal must include a course title, a description of the content and of the method of evaluation, the names of the instructor and the student(s), the semester and year the course is offered.
- g) At the conclusion of the course, if there have been substantial changes from the original proposal, the instructor will submit a report to the Department Chair, the appropriate Dean, and the Registrar.

## **10. Grading**

Each course taken for academic credit is assigned a final grade at the end of the semester\*. The final grade for each course will be indicated by a percentage grade, and a grade point on the student’s transcript. A Grade Point (GP) is a method of expressing a student’s academic performance in an individual course.



**Note:** Courses taken over two semesters will be assigned a final grade at the end of the second semester. \*The letter grade of 'P', Pass, is not assigned a numerical value and is not used in calculating the grade point average.

**Grade Point:** Grade Point (GP) is a method of expressing a student's academic performance as a numerical value. Each letter grade is assigned a numerical equivalent, which is then multiplied by the credit hour value assigned to the course to produce the grade point.

**Semester Grade Point Average:** Semester Grade Point Average (SGPA) is computed by dividing the total number of grade points earned by the total number of credit hours taken in a semester. See Academic Regulation 10(f) Course Repetition for the treatment of repeated courses in GPA calculations.

**Cumulative Grade Point Average:** The UPEI Cumulative Grade Point Average (CGPA) expresses performance as a numerical average for all UPEI courses for all semesters completed. The CGPA is calculated by dividing the total number of grade points earned to date by the total number of credit hours undertaken to date. See Academic Regulation 10(f) (Course Repetition) for the treatment of repeated courses in GPA calculations. The CGPA provides the numerical value used to determine academic standing.

### **Sample calculation of Grade Point**

1.	Subj 1	74% (B)	3.0	3 credit hours x 3.0 = 9.00
2.	Subj 2	72% (B-)	2.7	3 credit hours x 2.7 = 8.10
3.	Subj 3	67% (C+)	2.3	3 credit hours x 2.3 = 6.90
4.	Subj 4	93% (A+)	4.3	3 credit hours x 4.3 = 12.90
5.	Subj 5	DISC		

**TOTAL**

**12 credit hours = 36.90**

**Semester GPA:  $36.9/12 = 3.08$**

Grade	GP	% Range	Verbal descriptor	Comments
A+	4.3	91-100	Exceptional	
A	4.0	85-90	Excellent	
A-	3.7	80-84	Extremely good	
B+	3.3	77-79	Very good	
B	3.0	74-76	Good	
B-	2.7	70-73	Fairly good	
C+	2.3	67-69	More than adequate	Transfer credits: for core courses, must be minimum of C- to count as requirement
C	2.0	64- 66	Adequate	
C-	1.7	60- 63	Minimum for good Academic standing	
D+	1.3	57-59	Below good standing	
D	1.0	54-56	Minimally acceptable	
D-	0.7	50-53	Barely acceptable	
F	0.0	0-49	Below university requirements	

a) Course outlines/syllabi: These are distributed by instructors to the class during the first week of each semester, and must include details regarding methods to be used in evaluating student work and the value as well as timing of each assessment as a percentage of the final course grade respecting any existing restrictions (See Academic Regulation #13).

b) Attendance: Instructors may count student attendance/participation in calculating final standing in a course, if noted in the course outline. Professional programs may require 100% attendance. See Departmental Regulations in the relevant section of the Calendar.

c) Passing grade: The minimum final grade required to earn course credit is 50%.

Note: Professional programs and some other departments have exam-, course-, and program-specific minimum grade requirements, which supersede this minimum. See Departmental Regulations in the relevant section of the Calendar.

d) Some labs, tutorials, field placements, and professional-program courses are graded as Pass or Fail and, as such, are not included in any academic-standing, academic-award, or Deans' Honours calculations. See Departmental Regulations in the relevant section of the Calendar.

e) Incomplete courses: under exceptional circumstances, students may request temporary "Incomplete" standing in a course for which they have not completed all requirements. If the instructor approves the request, the Department Chair must notify the Registrar that an Incomplete (INC) will be submitted as an interim final grade, and the student will be given up to three months to complete the course work (some program requirements, such as DVM, would dictate shorter extension periods). A request for an extension of up to six months must be approved by the Dean. "Incompletes" automatically become "0" at the end of the approved extension period, if the work is not completed and a grade submitted. Requests for Incomplete Standing are subject to appeal.

f) Course repetition:

- (i) While University policy permits passed courses to be repeated, students should be aware that marks obtained in such instances shall not be used in the determination of awards or scholarships administered by the University; and, where enrolment restrictions apply, preference will be given to those taking the course for the first time. Both grades are recorded on the transcript, and the higher grade of either attempt will be calculated into the GPA. In the case of more than one failed attempt, the result of the later attempt will be calculated into the GPA. Students considering repeating a passed course are advised to consult first with the Chair of the department concerned.
- (ii) No course, once taken, passed, and applied for credit towards a degree or diploma may, if retaken, be applied for credit towards any other degree or diploma earned at the University;
- (iii) Except as otherwise stated in program regulations, no student will be allowed to take the same course more than three times unless by permission of the Dean of the Faculty or School in which the course is offered.

**Note:** Professional program regulations on academic performance will supersede this regulation.

g) Access to Examinations and Papers:

- (i) A copy of all written assignments and examinations not returned to students must be retained by the instructor for a minimum of 60 days after submission of marks;
- (ii) Final examinations and/or final submissions of course work must be retained by instructors for a minimum of 60 days after the date of the final examination, unless the work is returned to the students;
- (iii) Professors must make available to students, at least temporarily, all papers and examinations with grades affixed to them. See the Disclosure of Student Information Policy.

## 11. Transcript Abbreviations

AUD—audit

CGPA—Cumulative Grade Point Average

DE—Deferred Exam

DISC—Discontinued with permission

DIST—distinction

DNW—Did not write

E—Excluded course from GPA

EAP—English Academic Preparation Program

EP—Exceptional Performance

F—Fail

FNS—Fail no supplemental

FP—Failing Performance

GP (A) —Grade Point (Average)

I—Included course in GPA

INC—Incomplete (an extension has been approved)

IP—In progress  
LECT/LAB HRS—Hours per week per semester  
MP—Marginal Performance  
NC—No credit  
NGS—No grade submission  
P—Passed  
PD—Passed with Distinction  
QEH—Courses taken at Queen Elizabeth Hospital, Charlottetown  
SAT—Satisfactory  
SEM. HRS—Credit equivalent one hour per week per semester  
SGPA—Semester Grade Point Average  
SP—Satisfactory Performance  
TP—Transition Program  
TR—Transfer  
UNS—Unsatisfactory

## **12. Academic Appeals**

a) In the application of all academic regulations, students shall have access to a fair and just hearing subject to appeal. In every case, it is the student appellant's responsibility to ascertain the time allowed for filing a notice of appeal (see below).

### **i) Appeals on Grades**

a) An informal appeal must first be made to the instructor within four weeks of receipt of the grade. For Professional Programs, see internal policy/procedures, which may be more specific than these general regulations, and may include different information/requirements. Professional program regulations override this academic regulation in these cases.

b) A formal appeal must be made in writing within one week of the instructor's decision. This appeal must be submitted to the Chair, who will consult within the Department before arriving at a decision. The Department will provide the student with a copy of the internal policy/procedure on appeals on receipt of the written submission.

c) The Department Chair's decision may be further appealed, in writing, within two weeks of the decision being rendered to the Dean of the Faculty, who shall name a committee to hear the appeal. The Dean will provide the student with a copy of the Faculty's internal policy/procedure on appeals on receipt of the written submission.

d) Decisions on final course grades may be further appealed, in writing, within one month of being rendered, through the Registrar to the Senate Academic and Student Discipline Appeals Committee.

### **(ii) Other Appeals**

Appeals of decisions on academic matters other than grades are to be directed to the Senate Academic and Student Discipline Appeals Committee through the Registrar. All formal appeals must be made in writing, and with supporting documentation, within 15 working days of the student receiving notification of the decision in question. All decisions of the committee shall be final unless appeal is made to the Board of Governors in keeping with the terms of the University Act.

## **13. Examination Regulations**

a) Restrictions on Testing: No quizzes, tests or examinations of any kind are to be held during the two-week period preceding the final day of classes, nor during any reading period, without the permission of the Chair and the appropriate Dean. In-class presentations and practical laboratory examinations scheduled on the course outline are exempted.

- b) Special [final] examinations: Under exceptional circumstances [severe illness, jury duty, personal or family tragedy], students may request a “special examination” outside of the final examination period. Students must make application to the Registrar within 48 hours of a missed examination. Appropriate documentation must be submitted with the application. The Registrar will consult with the instructor, department chair, and Dean on receipt of any such application and will communicate the decision to the student [as per Senate decision, Sept 2001]. Decisions on applications for Special Examinations are subject to appeal (see Regulation #12).
- c) Quizzes, tests and examinations taking place outside of regularly scheduled classes during the teaching semester must be identified, approved by the Dean, and listed on the course outline. The course outline will inform students that they must identify any conflicts with other regularly scheduled classes, laboratory periods, or tutorials in a timely fashion so that accommodations can be made by the course instructor.
- d) Students will be required to present their valid UPEI ID card and sign a control sheet at each examination session.
- e) No articles such as books, papers, or other materials may be taken into the examination room unless provision has been made by the examiner. Specifically, without such permission, no laptops, electronic computing, data storage or communications devices may be in the possession of a student in the examination room. Calculators may be used at the discretion of the instructor. Any jackets, hats, bags, knapsacks, etc., are to left at the front or back of the examination room and may be picked up at the end of the examination. Students are discouraged from bringing any valuable to examination rooms as they may not be secure. The University is not responsible for lost or stolen items.
- f) At the discretion of the course instructor, students who speak English as a second language may be allowed to use one bilingual dictionary (paper) to assist them in writing quizzes, tests and examinations. The use of electronic translators is not permitted under any circumstances.
- g) The only time students may leave the examination room with the intention of returning is to use the washroom. Students must sign out, and back in, on a sheet provided.
- h) No students are permitted to enter the examination room to write an examination after the first 30 minutes and no students are permitted to leave an examination room within the first 30 minutes. Students still in the examination room during the last 10 minutes of the examination must remain seated until all examination materials have been collected and accounted for.
- i) Food is not permitted in the examination room.

## **14. Transfer Credits**

Transfer of credit from post-secondary institutions is available to students who have been admitted to the University and meet the following conditions:

- a) Students shall receive credit for courses successfully completed at another recognized\* Canadian university and for which credit is given at that university, under the following conditions:
- (i) courses must be acceptable in the program to which transfer is being sought either as required courses or as electives; and
  - (ii) grades must be at least 50% or, where the passing grade for the equivalent UPEI course is different than 50%, at least that passing grade, however, students must obtain a grade of at least C- (60%) in any courses used to fulfill prerequisite requirements. Similarly, students may receive credit for courses completed at universities outside of Canada. Requests will be considered on a case-by-case basis.
- b) Students may receive credit for courses successfully completed at a member institution of the Colleges and Institutes Canada (CICan) or a recognized college outside of Canada, and for which credit is given at that institution, under the following conditions:

- (i) courses must be acceptable in the program to which transfer is being sought either as required courses or as electives;
- (ii) grades must be at least 60% or, where the grading system is different than that of UPEI, at least at an equivalent level above the minimum passing grade;
- (iii) transfer will be allowed by the Registrar only on the recommendation of the appropriate Dean.
- (iv) transfer credits may be granted through existing transfer and articulation agreements established between UPEI and a partner College.
- (v) UPEI and Holland College have a number of transfer and articulation agreements with defined transfer recognition. For more information visit: <http://www.upei.ca/programsandcourses/undergraduate-admissions/transfer-arrangements>

c) Application of Certain Professional Courses—Normally, professional courses taken at UPEI or other universities may not be applied to other degree programs at UPEI. Nevertheless, within the Faculty of Science and with the approval of both the Department Chair and Dean, certain courses in the DVM program at UPEI and in accredited programs in the health professions at other universities may be accepted for credit toward the baccalaureate degree in Science. Applications for degrees under this Regulation will be considered on a case-by-case basis. Not more than 30 semester-hours of professional courses may be so credited.

d) Evaluation of Transcripts—The evaluation of transcripts shall be the responsibility of the Registrar's Office in consultation with the appropriate Department and Dean.

e) All courses transferred to UPEI will be noted as "TR" on the transcript with a grade of "P."

#### **Notes:**

1. A candidate for a degree must complete at least one-half of the required course work at UPEI (normally the final 60 semester hours of the degree).
2. Transfer credit normally will not be awarded for courses completed in excess of ten academic years prior to the date of registration at UPEI.
3. Normally, no more than 48 semester-hours of credit may be taken at the introductory level in any degree or diploma program.
4. Transfer students are subject to all other academic regulations of the University. Possession of the minimum requirements for transfer to UPEI does not in itself ensure that admission will be granted.

\* A recognized Canadian degree-granting institution is an institution that is a member of the Universities Canada. The University of Prince Edward Island will also consider granting transfer credit from those Canadian institutions that are not AUCC members, but have been given degree-granting powers through provincial legislation within the Canadian province in which they are located.

## **15. Challenge for Credit**

Challenge for credit by examination is available, by permission of the relevant Chair, to people who have been admitted to the University and who believe that they can meet the requirements of a course, under the following conditions:

- a) The course(s) for which credit is sought must be among those identified by the relevant academic unit as being open to challenge for credit (challenge for credit does not apply to Business Administration and Modern Languages).
- b) No challenge for credit will be accepted when any attempt has been made within the previous 10 years to earn credit in the course, or an equivalent course, whether by challenge or otherwise.
- c) Not more than 10 credits (30 semester-hours of credit) towards any degree may be earned by the challenge route.

d) Application to the Registrar's Office must be made, and the appropriate non-refundable fee paid, for each course in which examination is sought (see section on "Fees"), at least one month before the start of the examination period or, for examinations to be held in late August or early September, by 15 July. Challenge for credit examinations normally are taken during the scheduled examination periods but, where appropriate, may be taken at a time to be scheduled during late August or early September.

e) Challenge for credit examinations are special examinations that test the student on the content of the entire course. They are not necessarily the same as final examinations written by regular students. In certain courses, completion of laboratory/practical components may be required.

f) A successful challenge results in a credit on the student's transcript with the notation "P." An unsuccessful challenge is not recorded on the transcript.

## **16. Special Credits**

a) Academic credentials obtained in settings other than credit programs in universities and CICA member colleges may be recognized in certain cases. Credentials are evaluated after admission to the University, and upon payment of the appropriate non-refundable fee (see Calendar section on "Fees").

b) Applicants are required to provide, during the first academic year of registration at the University, documentation which, in the applicants' opinion, demonstrates the successful completion of academic work commensurate with the credit(s) being sought. The academic units evaluating the documentation may require detailed program and course descriptions and other information necessary to evaluate the learning acquired. At their discretion, the academic units may interview the applicant or seek supplementary information by way of an oral or written examination.

c) Credit, if granted, is on the recommendation of the academic unit offering the equivalent UPEI course(s), with the endorsement of the Dean of the Faculty or School in which each course is offered.

d) Recognition of special credits by other institutions does not in itself indicate that UPEI will recognize such credits.

e) A Special Credit is recorded on a student's transcript with the notation "P" and a notation of the source of the Special Credit.

## **17. Academic Standing**

At the end of second academic semester, students are automatically assigned one of the following standings based on academic performance:

Good Standing  
Academic Probation  
Academic Suspension

### **Definitions:**

For the purposes of this policy, "Academic Year" is defined as September 1 to August 31

### **Academic Standing**

Academic standing is determined on the basis of a cumulative grade point average (CGPA), defined in Academic Regulation 10, that is the average of grades earned in all courses. Students are expected to meet the necessary minimum standards for performance while attending UPEI. Those who fail to meet the minimum standard will be placed on academic probation. The minimum standard is defined as an academic average on nine or more semester credit hours of UPEI course work that produces a CGPA of at least 1.70 (excludes "P" grades).

## Conditions of Academic Standing

a) **Good Standing:** Students are deemed to be in good academic standing if they have achieved a CGPA of 1.70 or higher.

b) **Academic Probation:** Academic Probation is a warning to a student that has been below the required standard and could lead to an Academic Suspension.

Student records are reviewed for academic progress at the end of each academic session. Students' academic standing is assessed once per year when the second semester results become available. Courses completed in the previous First and Second Summer Sessions, if applicable, will be reviewed as part of a student's academic progress at the end of the second academic semester.

Students will be placed on Academic Probation if they have a UPEI cumulative grade point average of less than 1.70 at the end of the second academic semester. While on probation, students will have restrictions placed on their course loads; and, be required to enrol in an academic support program.

Students who have been placed on Academic Probation who achieve a Semester GPA (SGPA) of 1.70 or higher in subsequent semesters will be permitted to continue their studies at UPEI while on Academic Probation. Students are considered to have returned to good academic standing once their CGPA is 1.70 or higher. \*Students are not permitted to graduate while on Academic Probation. Letters of Permission will not be given to students on academic probation.

\*Students who entered UPEI prior to September 2013 when the GPA system was introduced, and who maintain continuous registration will be grandfathered under this clause, and not subject to the condition on graduation.

c) **Academic Suspension:** Students will be placed on Academic Suspension if they fail to achieve a SGPA or a CGPA of 1.70 or higher after the completion of 30 semester credit hours while on Academic Probation. Students on Academic Suspension are not permitted to take academic courses at UPEI for a full academic year. Any post-secondary studies completed during the period of academic suspension are not eligible for credit toward a degree or other credential at UPEI.

d) **Conditions of Academic Standing** will be noted on a student's academic transcript.

Following an Academic Suspension, in order to apply for re-admission to the University, students must submit an Undergraduate Application Form to the Registrar's Office. Students who are permitted to return to studies at UPEI return on academic probation, and are subject to the University's policy on academic standing.

Students under Academic Suspension a second time will not normally be considered for re-admission for at least two full calendar years following the suspension.

Appeal: The conditions of academic probation and academic suspension are subject to appeal to the Senate Academic and Student Discipline Appeals Committee.

**NOTE:** Individual programs may have a higher standard for good academic standing and progression. Please refer to the appropriate degree requirements in the Academic Calendar.

## 18. Deans' Honours List

Standing for inclusion on the Deans' List is calculated annually at the end of the academic year based on a minimum of 30 semester-hours of credit or 10 courses taken between the 1 September–31 August academic year with an average of at least 80% required and no courses failed. The only exception to the semester-hour requirement is for Fourth year students who require fewer than 30 semester-hours of work to graduate, provided that they obtain a minimum of 24 semester-hours of credit during the September-April year, and that they were on the Deans' List the previous academic year.

A notation will be placed on the student's transcript indicating that the student has been named to the Dean's Honours List.

## **19. Degree Standing**

When it has been certified that a student has met all of the requirements for a degree, the degree standing is determined on the basis of academic performance in the final 60 semester hours of credit. The grades obtained in the final 60 semester-hours of credit required for the degree are averaged, with degree standing accorded as follows:

- 80% or higher: first-class standing
- 70-79.9%: second-class standing
- 50-69.9%: pass standing

After a degree has been awarded, the recipient's transcript will indicate if first-class or second-class degree standing was achieved.

## **20. Academic Dishonesty**

As a community of scholars, the University of Prince Edward Island is committed to the principle of academic integrity among all its participants. Academic dishonesty as defined in this Regulation will not be tolerated and, within the constraints of this Regulation and Academic Regulation 12, the University supports instructors in their efforts to deal effectively with cases as they may arise from time to time.

- a) Actions which constitute academic dishonesty are considered an offence within the University and include:
- (i) plagiarism, which occurs when a student submits or presents work of another person in such a manner as to lead the reader to believe that it is the student's original work; self-plagiarism is the submission of work previously submitted for academic credit without prior approval of the professor;
  - (ii) cheating on tests or examinations, including giving false reasons for absence;
  - (iii) falsifying records or submitting false documents, including falsifying academic records, transcripts, or other University documents, or misrepresenting one's credentials; (iv) other academic misconduct such as the unauthorized use of recording devices or the unauthorized acquisition of computer software or other copyright material.
- b) When there is reasonable evidence to support an allegation of academic dishonesty, the matter shall be discussed with the student at the earliest opportunity. A written record of the incident and the response of the University will be sent to the student and to the appropriate Chairperson and Dean, and will be placed by the Dean on the student's file in the Office of the Registrar.
- c) One or more of the following sanctions may be imposed, depending on the seriousness of the offence:
- (i) the instructor, within his/her authority for assignment of course grades, may impose:
    - a) a reprimand;
    - b) assignment of a mark of zero or a percentage failure for the piece(s) of work under review;
    - c) assignment of a grade of "F" in the course in which the offence was committed; the instructor will provide the Registrar with a percentage failure grade for posting on the student transcript;
    - d) suspension of privileges in cases where the offences have involved misuse and/or abuse of the library, computer, or other University resources;
  - (ii) the Dean, in consultation with the Department where appropriate, may recommend to the President suspension or expulsion from the University;
  - (iii) the President may impose suspension or expulsion from the University;
  - (iv) the Senate may withhold or revoke a degree, diploma, or certificate.
- d) The student has the right to appeal through the provisions of Academic Regulation 12.



## **21. Application to Graduate**

Candidates for degrees, diplomas, and certificates must make formal application to graduate by using their campus login and choosing the option “apply to graduate” which is available in August. The deadline for making such application is 31 October of the academic year in which students expect to complete their program requirements. It is the students’ responsibility to monitor their program standing by reviewing their degree audit report and degree requirements/regulations on the UPEI website throughout their studies, and well in advance of submitting an application to graduate.

## 9. ACADEMIC DEPARTMENTS / PROGRAMS

### Acadian Studies

<http://upeil.ca/programsandcourses/acadian-studies>

#### Co-ordinator

Carlo Lavoie (Modern Languages)

The Minor in Acadian Studies aims to provide a better understanding of the place and importance of the French language and the Acadian community on Prince Edward Island and in Maritime Canada. The program consists of an immersion in general cultural subject areas and of an analysis of specific literary and cultural topics. The study of Acadian culture may pave the way to graduate school and/or education programs or simply be complement to one's University study. On the one hand, UPEI's Minor in Acadian Studies offers students the opportunity to develop both their analytical and the practical skills in French and will provide its students with the foundational skills with which they can pursue their interest in the practice of French. On the other hand, the Minor in Acadian Studies aims to link in a common thematic different courses offered in English which propose a reflection on the Acadian as part of a cultural and linguistic minority.

#### REQUIREMENTS FOR A MINOR IN ACADIAN STUDIES

A Minor in Acadian Studies consists of twenty-one (21) semester hours of credit taken from the list of approved courses. The language requirements are French 241 and French 242 (both courses could be counted in the Minor in Acadian Studies if they are not counted for the Major in French). Acadian Studies 201 plus three courses among Acadian Studies 491/492, Special Topics 209, 309, and 409, and French 443/444, are compulsory for the Minor. Prospective students should note, however, that Acadian Studies 491 and 492 require students to make a significant contribution to the study of Acadie which will be approved by the Instructor. One of these four courses will, typically, be only offered in the Winter Term of the academic year. In addition, students must select three elective courses. Students using any of the approved courses to complete the Minor in Acadian Studies may not use them to complete a Major or another Minor.

#### REQUIREMENTS IN FRENCH

241 FRENCH

(See French 241)

242 FRENCH

(See French 242)

#### ACADIAN STUDIES CORE COURSES

##### 201 INTRODUCTION TO ACADIAN STUDIES

This course is designed to provide an opportunity to examine the development of Acadian culture through the oral tradition, songs and folk tales. The themes of colonialism, regionalism, folklore and oral traditions will provide the basis for this examination. The object of the course is to develop an awareness of the complex patterns of development in Acadian culture from the French period to the present. The course will consist of seminars and lectures conducted in French.

PREREQUISITES: French 241 and French 242 or the permission of the Coordinator of Acadian Studies.

Three hours a week.

##### 209 SPECIAL TOPICS

Creation of a course code for special topics offered by Acadian Studies at the 200 level.

##### 309 SPECIAL TOPICS

Creation of a course code for special topics offered by Acadian Studies at the 300 level.

#### 409 SPECIAL TOPICS

Creation of a course code for special topics offered by Acadian Studies at the 400 level.

#### 443 CULTURE ET LITTÉRATURE ACADIENNES I

(See French 443)

#### 444 CULTURE ET LITTÉRATURE ACADIENNES II

(See French 444)

#### 491/492 DIRECTED STUDIES

The purpose of the course is to provide an opportunity for intensive interdisciplinary research in an area to be determined by the student and the coordinator of the program. Readings and research on the course will be supervised and the student is expected to present the results of the research in the form of an extended essay. This is a tutorial and seminar course.

PREREQUISITE: Acadian Studies 201 or the permission of the Coordinator of Acadian Studies.

Three hours a week

(See Academic Regulation 9 for Regulations Governing Directed Studies)

#### **ELECTIVES**

Note: Students who are enrolled in the Major in French and the Minor in Acadian Studies can take at least two electives outside the Department of Modern Languages.

#### CANADIAN STUDIES

301/302 The Canadian Experience

#### EDUCATION

213 Introduction à l'éducation en français au Canada

#### ENGLISH

331 The Literature of Atlantic Canada

#### HISTORY

231/232 The Atlantic Region

424 History of Canadian Nationalism and the Canadian Identity

#### MODERN LANGUAGES (French)

252 Le français des affaires

339 Théâtre canadien-français

#### SOCIOLOGY & ANTHROPOLOGY

312 Rural Society in Canada

431 Minority/Ethnic Groups and Canadian Multiculturalism

#### DIVERSITY AND SOCIAL JUSTICE STUDIES

311 Identity and Popular Culture

#### DIRECTED STUDIES

With the approval of the Coordinator, the Dean of Arts, and the relevant Department, a student may credit three hours of Directed Studies in any subject linked to Acadian Studies towards the Minor.

#### **Anthropology**

(see *Sociology and Anthropology*)

## **Applied Human Sciences**

<http://upei.ca/ahs>

### **Applied Human Sciences Faculty**

Doris M. Anderson, Professor Emeritus

Kathy Gottschall-Pass, Professor, Chair

Jennifer Taylor, Professor

Debbie MacLellan, Professor

William Montelpare, Professor

Lori Weeks, Associate Professor

Nicky Hyndman, Assistant Professor

Dany MacDonald, Assistant Professor

Rebecca Reed-Jones, Assistant Professor

Misty Rossiter, Assistant Professor

Travis Saunders, Assistant Professor

Joseph Baker, Adjunct Professor

Sharon Compton, Adjunct Professor

Carolanne Nelson, Adjunct Professor

Leisha Strachan, Adjunct Professor

Carlos Zerpa, Adjunct Professor

Michael Zhang, Adjunct Professor

The mission of the Department of Applied Human Sciences is to promote the health and optimal development of individuals, families and communities by:

- Preparing students to be leaders in their chosen discipline or profession
- Generating new knowledge through outstanding scholarship
- Forming strong links with the community and engaging in professional service

The overall aim of the Department is to provide a liberal university education which draws from a broad academic base: the biological, physical and social sciences; humanities; and professional studies. The curriculum reflects current scientific knowledge in Foods and Nutrition, Family Science, and Kinesiology, disciplines which are concerned with improving the life conditions of individuals, families, and communities.

### **DEGREE PROGRAMS**

The Department of Applied Human Sciences offers several programs of study.

#### **Family Science Programs/Certifications:**

Bachelor of Science with a Major in Family Science

Bachelor of Child and Family Studies

Provisional Certified Family Life Educator (CFLE)

Minor in Family Science

#### **Foods and Nutrition Programs:**

Bachelor of Science with a Major in Foods and Nutrition

Bachelor of Science with an Honours in Foods and Nutrition

Minor in Foods and Nutrition

Integrated Dietetic Internship Program

#### **Kinesiology**

Bachelor of Science with a Major in Kinesiology

## Family Science

### REQUIREMENTS FOR A MAJOR IN FAMILY SCIENCE

Students following this degree program must complete 42 semester hours of required courses in Family Science and 9 additional semester hours of credit in Foods and Nutrition.

### REQUIRED COURSES FOR THE FAMILY SCIENCE MAJOR

#### Family Science

114 - Families in Contemporary Society  
221 - Family Resource Management  
241 - Human Development  
242 - Dynamics of Family Living  
261 - Communications  
331 - Introduction to Research Methods  
381 - Professional Practice with Children and Families  
382 - Program Planning and Evaluation  
411 - Field Placement I  
412 - Field Placement II  
Four Family Science electives at the 2<sup>nd</sup>, 3<sup>rd</sup> or 4<sup>th</sup> year level

#### Foods and Nutrition:

Foods and Nutrition 111 - Introductory Foods  
Foods and Nutrition 211 - Introductory Nutrition I  
Foods and Nutrition 212 - Introductory Nutrition II

### REQUIRED COURSES FROM OTHER DEPARTMENTS

#### Mathematics

111 - Finite Mathematics  
221 - Introductory Statistics I

#### Chemistry

111 - General Chemistry I  
112 - General Chemistry II

#### Biology

122 - Human Physiology  
131 - Introduction to Cell and Molecular Biology

#### UPEI courses and Writing Intensive Course

##### One of:

UPEI 101 – Writing Studies – Engaging Writing, Rhetoric, and Communication,  
UPEI 102 – Inquiry Studies – Engaging Ideas and Cultural Contexts, OR  
UPEI 103 – University Studies - Engaging University Contexts and Experience  
AND one writing intensive course

#### Social Sciences

Two 3-semester hour courses from Psychology, Sociology or Anthropology

Students are advised to consult with the Department Chair or their Faculty Advisor prior to registration.

## COURSE SEQUENCE

Following is the usual sequence for completion of courses:

### First Year

Foods and Nutrition 111 - Introductory Foods  
Family Science 114 - Families in Contemporary Society  
Biology 131 - Introduction to Cell and Molecular Biology  
Chemistry 111 - General Chemistry I  
Chemistry 112 - General Chemistry II  
One of UPEI 101, 102 or 103  
Math 111 - Finite Mathematics  
Two Social Sciences  
One free elective

### Second Year

Foods and Nutrition 211 - Introductory Nutrition I  
Foods and Nutrition 212 - Introductory Nutrition II  
Family Science 221 - Family Resource Management  
Family Science 241 - Human Development  
Family Science 242 - Dynamics of Family Living  
Family Science 261 - Communications  
Math 221 - Introductory Statistics I  
Biology 122 - Human Physiology  
Two free electives

### Third Year

Family Science 331 - Introduction to Research Methods  
Family Science 381 - Professional Practice with Children and Families  
Family Science 382 - Program Planning and Evaluation  
Two Family Science electives  
Five free electives

### Fourth Year

Family Science 411 - Field Placement I  
Family Science 412 - Field Placement II  
Two Family Science electives  
Six free electives

## Child and Family Studies

The Bachelor of Child and Family Studies is a two-year post-diploma degree available to graduates of diploma programs in Early Childhood Education at Holland College or similar post-secondary institutions. Successful completion of a grade 12 math course (or an equivalent course) is strongly recommended. Students in the Bachelor of Child and Family Studies must complete a total of 60 semester hours at UPEI.

### REQUIRED COURSES FOR THE CHILD AND FAMILY STUDIES DEGREE

Family Science 221 - Family Resource Management  
Family Science 241 - Human Development  
Family Science 242 - Dynamics of Family Living  
Family Science 261 - Communications  
Family Science 331 - Introduction to Research Methods  
Family Science 381 - Professional Practice with Children and Families  
Family Science 382 - Program Planning and Evaluation  
Family Science 411 - Field Placement I

Family Science 471 - Parent-Child Interaction  
One Family Science elective at the 200, 300 or 400 level  
Math 101 or 111 - Elements of Mathematics or Finite Mathematics  
Math 221 - Introductory Statistics I  
One of UPEI 101, 102 or 103  
One writing intensive course  
Six free electives

#### NOTES:

Suggested electives for those planning to apply to the Bachelor of Education Program at UPEI are found under the Admissions for Bachelor of Education.

#### COURSE SEQUENCE

##### First Year

Family Science 221 - Family Resource Management  
Family Science 241 - Human Development  
Family Science 242 - Dynamics of Family Living  
Family Science 261 - Communications  
Family Science 381 - Professional Practice with Children and Families  
Family Science 382 - Program Planning and Evaluation  
Math 101 or 111 - Elements of Mathematics or Finite Mathematics  
Math 221 - Introductory Statistics I  
One of UPEI 101, 102 or 103 and a writing intensive course  
One free elective

##### Second Year

Family Science 331 - Introduction to Research Methods  
Family Science 411 - Field Placement I  
Family Science 471 - Parent-Child Interaction  
One Family Science Elective at the 300 or 400 level  
Six free electives

#### PROVISIONAL CERTIFICATION— NATIONAL COUNCIL ON FAMILY RELATIONS

The Department of Applied Human Sciences is approved by the National Council on Family Relations to offer the course work in order for graduates from the Family Science and Child and Family Studies programs to apply for provisional certification as a Certified Family Life Educator (CFLE). CFLEs work in a variety of health and social service positions. In particular, CLFEs are prepared to work with individuals and families in the areas of prevention and education. Students interested in becoming a CFLE need to ensure that they have completed all of the required course work for their major in addition to completing the following Family Science electives:

Family Science 383 - Issues in Family Law and Social Policy  
Family Science 471 - Parent-Child Interaction  
Family Science 491 - Human Sexuality

#### FAMILY SCIENCE MINOR

Students in the Minor Program in Family Science must complete a total of 21 semester hours of Family Science. This consists of 9 semester hours of required core courses and 12 semester hours of Family Science electives.

#### Required:

Family Science 114 - Families in Contemporary Society  
Family Science 221 - Family Resource Management  
Family Science 242 - Dynamics of Family Living

12 additional hours of electives at the 200, 300 or 400 level excluding:

Family Science 331  
Family Science 381  
Family Science 411  
Family Science 412

Students intending to complete a Minor in Family Science are advised to consult with the Chair of the Department of Applied Human Sciences to ensure that they have the required course prerequisites. A student majoring in Foods and Nutrition is eligible to pursue the Family Science Minor.

## **Foods and Nutrition**

### **REQUIREMENTS FOR A MAJOR IN FOODS & NUTRITION**

Students following this degree program must complete 42 semester hours of required courses in Foods and Nutrition and 9 semester hours in Family Science.

### **REQUIRED COURSES FOR FOODS AND NUTRITION MAJOR**

#### **Foods and Nutrition**

111 - Introductory Foods  
211 - Introductory Nutrition I  
212 - Introductory Nutrition II  
223 - Determinants of Dietary Behaviour  
261 - Communications  
302 - Advanced Foods  
331 - Introduction to Research Methods  
351 - Nutritional Assessment  
352 - Clinical Nutrition I  
382 - Program Planning & Evaluation  
412 - Human Metabolism  
434 - Community Nutrition  
461 - Clinical Nutrition II  
One Foods and Nutrition elective at the 300 or 400 level

#### **Family Science**

114 - Families in Contemporary Society  
Two Family Science electives excluding 381, 411, and 412

In addition to the courses required for the Foods and Nutrition major, students interested in applying for either the Integrated Dietetic Internship Program or a graduate dietetic internship must take Foods and Nutrition 321 (Foodservice Systems Management), Foods and Nutrition 422 (Quantity Food Production), Foods and Nutrition 431 (Evidence-Based Practice in the Health Sciences), and Foods and Nutrition 483 (Professional Practice in Dietetics).

### **REQUIRED COURSES FROM OTHER DEPARTMENTS**

#### **Mathematics**

111 - Finite Mathematics or 112 Calculus  
221- Introductory Statistics I

#### **Chemistry**

111 - General Chemistry I  
112 - General Chemistry II



243 - Organic Chemistry for the Life Sciences  
353 - Biochemistry

#### Biology

122 - Human Physiology  
131 - Introduction to Cell and Molecular Biology  
206 - Microbial Diversity

#### UPEI courses and Writing Intensive Course

One of:

UPEI 101 – Writing Studies – Engaging Writing, Rhetoric, and Communication,  
UPEI 102 – Inquiry Studies – Engaging Ideas and Cultural Contexts, OR  
UPEI 103 – University Studies - Engaging University Contexts and Experience AND one writing intensive course

#### COURSE SEQUENCE

Following is the usual sequence for completion of courses:

##### First Year

Foods and Nutrition - 111 Introductory Foods  
Family Science 114 - Families in Contemporary Society  
Biology 131 - Introduction to Cell and Molecular Biology  
Chemistry 111 - General Chemistry I  
Chemistry 112 - General Chemistry II  
One of UPEI 101, 102 or 103  
Math 111 - Finite Mathematics OR  
Math 112 - Calculus  
Three free electives

##### Second Year

Foods and Nutrition 211 - Introductory Nutrition I  
Foods and Nutrition 212 - Introductory Nutrition II  
Foods and Nutrition 223 - Determinants of Dietary Behaviour  
Foods and Nutrition 261 - Communications  
Biology 122 - Human Physiology  
Biology 206 – Microbial Diversity  
Chemistry 243 - Organic Chemistry for the Life Sciences  
Math 221 - Introductory Statistics I  
One Family Science elective  
One free elective

##### Third Year

Foods and Nutrition 302 - Advanced Foods  
Foods and Nutrition 331 - Introduction to Research Methods  
Foods and Nutrition 351 - Nutritional Assessment  
Foods and Nutrition 352 - Clinical Nutrition I  
Foods and Nutrition 382 - Program Planning & Evaluation  
Chemistry 353 - Biochemistry  
One Family Science elective  
Three free electives

##### Fourth Year

Foods and Nutrition 412 - Human Metabolism  
Foods and Nutrition 434 - Community Nutrition  
Foods and Nutrition 461 - Clinical Nutrition II

One Foods and Nutrition elective at the 300 or 400 level  
Six free electives

## REQUIREMENTS FOR HONOURS PROGRAM IN FOODS AND NUTRITION

The Honours program in Foods and Nutrition is designed to provide research experience at the undergraduate level within the BSc Program. It is available to students with a strong academic background who intend to continue studies at the post graduate level in Foods and Nutrition or related field, or to students who intend to pursue a career where research experience would be an asset.

The Honours program differs from the major in requiring a two-semester research course with thesis report and one additional advanced Foods and Nutrition course for a total of 126 semester hours for the degree. The research component is to be completed within the BSc program and would normally require one summer (four months) preceding the graduating year. Evaluation of the research data and writing of the thesis would normally be done during the fall and/or spring session in Foods and Nutrition 490: Advanced Research and Thesis. The following are the course requirements for the Honours program in Foods and Nutrition.

### First Year

Foods and Nutrition 111 - Introductory Foods  
Family Science 114 - Families in Contemporary Society  
Chemistry 111-112 - General Chemistry I and II  
Math 111 or 112 - Finite Mathematics or Calculus  
Biology 131 - Introduction to Cell and Molecular Biology  
One of UPEI 101, 102 or 103  
Three free electives

### Second Year

Foods and Nutrition 211-212 - Introductory Nutrition I and II  
Foods and Nutrition 223 - Determinants of Dietary Behaviour  
Foods and Nutrition 261 - Communications  
Biology 122 - Human Physiology  
Chemistry 243 - Organic Chemistry for the Life Sciences  
Math 221 - Introductory Statistics I  
One Family Science elective  
Two free electives

### Third Year

Foods and Nutrition 302 - Advanced Foods  
Foods and Nutrition 331 - Introduction in Research Methods  
Foods and Nutrition 351 - Nutritional Assessment  
Foods and Nutrition 352 - Clinical Nutrition I  
Foods and Nutrition 382 - Program Planning and Evaluation  
Chemistry 353 - Biochemistry  
Biology 206 - Microbial Diversity  
One Family Science elective  
Two free electives

### Fourth Year

Foods and Nutrition 412 - Human Metabolism  
Foods and Nutrition 434 - Community Nutrition  
Foods and Nutrition 461 - Clinical Nutrition II  
Foods and Nutrition 490 - Advanced Research and Thesis  
Two Foods and Nutrition electives at the 300 or 400 level  
Three free electives

NOTE: Honours students are advised to take an advanced statistics course and consult with their advisor for assistance in choosing electives that will support their research projects.

## ENTRANCE REQUIREMENTS

For admission to the Honours program, students must have a minimum average of 75% in all Foods and Nutrition courses combined and an overall average of 70% in all previous courses. Permission of the Department is also required and is contingent on the student finding an advisor and on acceptance of the research project by the Department of Applied Human Sciences. Students interested in completing an honours should consult with the Department Chair as early as possible and not later than March 31st of the student's third year.

To graduate with Honours in Foods and Nutrition, students must maintain a minimum average of 75% in all Foods and Nutrition courses combined and an overall average of 70%.

## REQUIREMENTS FOR A MINOR IN FOODS AND NUTRITION

Students in the Minors Program in Foods and Nutrition must complete a total of 21 semester hours of credit in Foods and Nutrition.

These consist of 9 semester hours of required core courses as follows:

Foods and Nutrition 111 - Introductory Foods  
Foods and Nutrition 211 - Introductory Nutrition I  
Foods and Nutrition 212 - Introductory Nutrition II

Twelve additional hours of electives must be chosen at the 200, 300 or 400 level.

Students intending to do a Minor in Foods and Nutrition are advised to consult with the Chair of the Department of Applied Human Sciences to ensure that they have the required course prerequisites. A student majoring in Family Science is eligible to pursue the Foods and Nutrition Minor.

## **Kinesiology**

### REQUIREMENTS FOR A MAJOR IN KINESIOLOGY

Students following this degree program must complete 42 semester hours of required courses in Kinesiology and 6 semester hours of required courses in Foods and Nutrition.

### REQUIRED COURSES FOR THE KINESIOLOGY MAJOR

Kinesiology courses

101 - Introduction to Kinesiology  
202 - Introduction to Sport and Exercise Psychology  
221 - Introduction to Exercise Physiology  
232 - Introduction to Motor Learning and Control  
241 - Human Development  
312 - Introduction to Biomechanics  
331 - Introduction to Research Methods  
343 - Physiological Assessment and Training  
382 - Program Planning and Evaluation  
481 - Advanced Biomechanics  
Four Kinesiology electives at the 300 or 400 level

Foods and Nutrition

211 - Introductory Nutrition I

## 212 - Introductory Nutrition II

### REQUIRED COURSES FROM OTHER DEPARTMENTS

#### Mathematics

112 - Calculus

221 - Introductory Statistics I

#### Chemistry

111 - General Chemistry I

112 - General Chemistry II

#### Physics

121 – Physics for Life Sciences I

#### Biology

121 - Human Anatomy

122 - Human Physiology

#### UPEI courses and Writing Intensive Course

One of:

UPEI 101 – Writing Studies - Engaging Writing, Rhetoric, and Communication,

UPEI 102 – Inquiry Studies – Engaging Ideas and Cultural Contexts, OR

UPEI 103 – University Studies - Engaging University Contexts and Experience AND One writing intensive course

#### Psychology

101-102 - Introductory Psychology I and II

Students are advised to consult with the Department Chair or their Faculty Advisor prior to registration.

### COURSE SEQUENCE

Following is the usual sequence for completion of courses

#### First Year

Kinesiology 101 - Introduction to Kinesiology

Biology 121 - Human Anatomy

Biology 122 - Human Physiology

Chemistry 111 - General Chemistry I

Chemistry 112 - General Chemistry II

One of UPEI 101, 102 or 103

Math 112 - Calculus

Psychology 101 - Introductory Psychology I

Psychology 102 - Introductory Psychology II

One free elective

#### Second Year

Kinesiology 202 - Introduction to Sport and Exercise Psychology

Kinesiology 221 - Introduction to Exercise Physiology

Kinesiology 232 - Introduction to Motor Learning and Control

Kinesiology 241 - Human Development

Foods and Nutrition 211 - Introductory Nutrition I

Foods and Nutrition 212 - Introductory Nutrition II

Math 221 - Introductory Statistics I

Physics 121 – Physics for Life Sciences I

Two free electives

### Third Year

Kinesiology 312 - Introduction to Biomechanics

Kinesiology 331 - Introduction to Research Methods

Kinesiology 343 - Physiological Assessment and Training

Kinesiology 382 - Program Planning and Evaluation

One Kinesiology elective at the 300 or 400 level

Five free electives

### Fourth Year

Kinesiology 481 - Advanced Biomechanics

Three Kinesiology electives at the 300 or 400 level

Six free electives

## QUALIFICATION FOR PROFESSIONAL CERTIFICATION

To be eligible to meet the required core competencies necessary for professional certification with the College of Kinesiologists of Ontario, students must complete the following courses in addition to those required for the Kinesiology major:

Kinesiology 262 - Introduction to the Sociology of Sport and Exercise

Kinesiology 421 - Ergonomics

To be eligible to meet the required core competencies to obtain professional certification with the Canadian Society for Exercise Physiology as a certified personal trainer, students must complete the following courses in addition to those required for the Kinesiology major:

For Certified Personal Trainer Designation:

Kinesiology 332 - Principles of Strength and Conditioning

To be eligible to meet the required core competencies to obtain professional certification with the Canadian Society for Exercise Physiology as a certified exercise physiologist, students must complete the following courses in addition to those required for the Kinesiology major:

For Certified Exercise Physiologist Designation:

Kinesiology 262 - Introduction to the Sociology of Sport and Exercise

Kinesiology 332 - Principles of Strength and Conditioning

Kinesiology 421 - Ergonomics

Kinesiology 432 - Movement Disorders

Kinesiology 443 - Advanced Physiological Assessment and Training

Kinesiology 462 - Clinical Exercise Physiology and Fitness Assessment Practicum

## **Integrated Dietetic Internship Program**

Students in Foods and Nutrition may apply for admission to the optional Integrated Dietetic Internship Program. The integrated approach to professional training enables students to build upon and apply theoretical knowledge gained from their academic program. On successful completion of the Integrated Dietetic Internship Program, students will have fulfilled the competencies required to reach entry-level professional dietetic competence as determined by the Partnership for Dietetic Education and Practice and will be eligible to apply for admission to the dietetics profession.

Internship levels and their results will be recorded on students' transcripts. Upon successful completion of both the degree program (meeting internship requirements) and the required internship levels, students will be

granted a University certificate attesting to their successful completion of the Integrated Dietetic Internship Program.

## ADMISSION REQUIREMENTS

All Foods and Nutrition students who have completed the following required courses and achieved a grade of at least 75% in all Foods and Nutrition courses, and an overall average of 75%, will be eligible to apply for the program:

Foods & Nutrition 111 - Introductory Foods  
Family Science 114 - Families in Contemporary Society  
Foods & Nutrition 211 & 212 - Introductory Nutrition I & II  
Foods & Nutrition 223 - Determinants of Dietary Behaviour  
Foods & Nutrition 321 - Food Service Management  
Foods & Nutrition 331 - Research Methods  
Foods & Nutrition 351 - Nutritional Assessment  
Chemistry 111 - General Chemistry I  
Chemistry 112 - General Chemistry II  
Chemistry 243 - Organic Chemistry  
Biology 131 - Introduction to Cell and Molecular Biology

Interested candidates are encouraged to consult the Department Chair early in their program to discuss admission and course scheduling. Students interested in pursuing this option are also encouraged to seek relevant paid or unpaid work experience in the summer preceding application. A formal application for admission to the Integrated Dietetic Internship Program is required. Students are eligible to apply following the first semester of their third year of the Foods and Nutrition program. Application forms are available from the department.

A selection panel will determine student admissibility based upon academic performance, paid and unpaid work experience, motivation and personal suitability. Students meeting the admission criteria will be ranked and the top candidates will be interviewed. By the first week of February, the Program Coordinator will notify, in writing, all students interviewed as to the outcome of the process.

Students accepted into the dietetic internship program must show evidence of all immunizations being up to date prior entering the program. As well, each student will be required to show proof of a criminal record check completed within the past year.

## CONTINUANCE REQUIREMENTS

Once admitted to the program, students must continue in full-time enrolment between internship levels. An academic review of students' performance will take place at the end of each semester. Students are required to maintain an average overall grade of 75% and achieve a grade of no less than 75% in nutrition courses. Students who fail to meet these standards or who fail a required course(s) will not be permitted to begin the next internship level until standards are met.

Internship students must complete all of the regular requirements for a Bachelor of Science (Foods and Nutrition) degree. Foods and Nutrition 321 (Food Service Systems Management), and Foods and Nutrition 422 (Quantity Food Production), Foods and Nutrition 431 (Evidence Based Practice in the Health Sciences), and Foods and Nutrition 483 (Professional Practice in Dietetics) must be included within their degree program. It is recommended that internship students take Foods and Nutrition 371 (Lifespan Nutrition) as an elective.

In addition to the above requirements, students must successfully complete two internship levels.

## INTERNSHIP SCHEDULE

Students must complete two internship levels in the Integrated Dietetic Internship Program. The first internship level DIET 100 is scheduled in the spring and summer months between the third and fourth academic years. The second internship level DIET 200 is completed following graduation. The first internship level will include a one-week professional practice course, followed by an eight-week placement, for a total of 9 weeks. This will be followed by a second internship level of 28 weeks in length, for a total of 35 to 37 weeks.

Satisfactory fulfilment of the Integrated Dietetic Internship levels requires:

1. A satisfactory evaluation from the Preceptor at the placement site.
2. Completion of the minimum number of required competencies as indicated on the appropriate evaluation form.

## WITHDRAWAL CONDITIONS

Students will be required to withdraw from the Integrated Dietetic Internship Program if:

1. They are dismissed from, resign, or fail to achieve the required competencies during the program, or
2. They do not achieve a passing grade in required courses or do not maintain the standards for nutrition courses and overall average necessary for continuance in the Integrated Dietetic Internship Program, or
3. They fail to abide by the policies and procedures set out by the Advisory Committee for the Integrated Dietetic Internship Program and/or those of the placement organization.

Students who voluntarily withdraw from or who are required to withdraw from the Integrated Dietetic Internship Program may remain in and continue with the regular Foods and Nutrition majors program.

## REGISTRATION AND FEES

Students are required to register for both internship levels at the Registrar's Office, according to normal registration procedures. Internship levels will officially be designated on students' transcripts as pass or fail. Students pay for their internship levels as they are taken. Students accepted to the Integrated Dietetic Internship Program are required to pay an Internship Fee (see Calendar section on fees). This amount is to be paid to the Accounting Office prior to the start date for the specified internship level.

Additional information on policies and procedures related to the Integrated Dietetic Internship Program are available from the Department.

## DIETITIANS OF CANADA GRADUATE INTERNSHIP

The Foods and Nutrition majors program is an accredited undergraduate dietetic education program. To be eligible to apply for a position in an approved graduate dietetic internship program, students must meet the academic requirements of the Dietitians of Canada and should have a minimum average grade of 70% in their last 30 courses. In addition to the courses required for the Foods and Nutrition major, students interested in applying for a graduate dietetic internship placement must take Foods and Nutrition 321 and Foods and Nutrition 422. Foods and Nutrition 223 is recommended but not required.

Students should consult with the Dietetic Course Director for details and counselling by the end of second year.

## NOTES REGARDING 100-LEVEL FAMILY SCIENCE AND FOODS AND NUTRITION

Foods and Nutrition 111 and Family Science 114 are introductory courses required for, but not restricted to, Foods and Nutrition and Family Science majors. A grade of at least 60% in Foods and Nutrition 111 and Family Science 114 is a prerequisite for all Foods and Nutrition and Family Science courses above the 100 level. However, this course prerequisite may be waived with the permission of the Chair for individual courses.

Foods and Nutrition 101 is a course designed primarily for non-Foods and Nutrition or Family Science majors who will not be taking advanced courses in Nutrition, however it will be accepted for credit as an elective in the Foods and Nutrition or Family Science majors programs. Credit will NOT be allowed for Foods and Nutrition 101 if completed after Foods and Nutrition 211.

## **FAMILY SCIENCE COURSES**

### **114 FAMILIES IN CONTEMPORARY SOCIETY**

This course is an introduction to the study of families and contemporary issues facing today's families. Topics include changing family structures, current trends in Canadian families, the interaction of families with other systems, and theories used to study families. The course also includes an introduction to family life education including the philosophy, nature and purpose of family education.

Three lecture hours

Note: BCFS students are not able to credit FS 114 as an elective.

### **221 FAMILY RESOURCE MANAGEMENT**

This course is a study of the management process and how it relates to decision making and resource use by individuals and families. Topics include management history and theories; values and goals; resources; planning and decision making. The management of stress and fatigue, time, finances and environmental resources are also discussed. Students gain experience in the application of theory to a variety of individual and family managerial situations.

PREREQUISITE: Family Science 114 or a student in the Bachelor of Child and Family Studies

Three lecture hours

### **241 HUMAN DEVELOPMENT**

This course explores human development from conception to old age, including physical, cognitive, and psychological aspects. Topics include attachment across the lifespan; various theories used to study human development; gender; the aging process; and societal factors affecting human development. The reciprocal relationship between human development and their environments is emphasized.

Cross-listed with Kinesiology (cf. Kinesiology 241)

PREREQUISITE: Family Science 114, a student in the Bachelor of Child and Family Studies or Kinesiology 101 and admission to BSc Kinesiology program

Three lecture hours

NOTE: Credit will not be allowed for Family Science/Kinesiology 241 if a student has already received credit for Psychology 201

### **242 DYNAMICS OF FAMILY LIVING**

This course examines the multiple realities of living in families. Using current theory and research in family science, it focuses on family diversity extending across history, gender, nationality, culture, and age. The course covers crucial issues such as family stress, later-life families, family violence, the work-family interface, parenting, and other areas of family living. The effects of legislation, and social economics and technical change on families are discussed.

PREREQUISITE: Family Science 114 or registration in the Child and Family Studies Program

Three lecture hours

### **243 SOCIAL PSYCHOLOGY**

(See Psychology 242).

### **244 PHILOSOPHIES OF LOVE AND SEXUALITY**

(See Philosophy 242).

### **261 COMMUNICATIONS**

This course is an introduction to the basic principles of communication. The course balances communication theory and research with skills acquisition and practice to help students communicate more effectively in a variety of professional settings. Students are provided with an opportunity to develop skills in interpersonal and group communication, public speaking, and interviewing.

Cross-listed with Foods and Nutrition (cf. Foods and Nutrition 261)

PREREQUISITE: At least second year standing in Family Science, Foods and Nutrition, Radiography, or a student enrolled in the Bachelor of Child and Family Studies program or permission of the instructor



Three lecture hours

### 305 ADOLESCENT DEVELOPMENT AND ADJUSTMENT

(See Psychology 305).

### 308 CHILD DEVELOPMENT

(See Psychology 308).

### 310 ADULT DEVELOPMENT

(See Psychology 309).

### 309 SPECIAL TOPICS

Creation of a course code for special topics offered by Family Science at the 300 level.

### 331 INTRODUCTION TO RESEARCH METHODS

This course is an introduction to research intended to enable students to read critically and evaluate current research. Students are introduced to various types of research designs, research terminology, and the components of the research process.

Cross-listed with Foods and Nutrition/Kinesiology (cf. Foods and Nutrition/Kinesiology 331)

PREREQUISITE: Math 221. Preference for admission will be given to students registered in the Family Science, Foods and Nutrition, Child and Family Studies, Kinesiology or Radiography programs

Three lecture hours

### 344 INTIMATE RELATIONSHIPS

(See Psychology 342).

### 354 KINSHIP AND FAMILY

(See Anthropology 352).

### 353 PROGRAMS AND SERVICES FOR OLDER ADULTS AND CAREGIVERS

This course is an examination of the diverse array of programs and services designed for older adults, and caregivers of older adults, from a legislative, consumer, and provider perspective. Students will gain insight into these programs and services including their place in the array of services for older adults and the implications of such programs and services for older adults, caregivers, and society.

PREREQUISITE: Family Science 114

Three lecture hours

### 361 CURRENT ISSUES IN CHILDREN'S HEALTH AND DEVELOPMENT

This course is an advanced study of current issues and research in children's health and development in a family context. Emphasis is placed on the promotion of healthy behaviours and development of children by exploring the linkages between research, policy, and practice.

PREREQUISITE: Family Science 241 or permission of the instructor

### 362 FAMILY VIOLENCE

This course will examine the history and various definitions and theories used in investigating the problem of family violence across the life span (i.e. children in abusive families, dating violence, intimate partner violence, the abuse of older adults). Emphasis will be placed on violence against women and violence in diverse family forms. A particular emphasis will be placed on examining strategies for the prevention of family violence over the life course.

PREREQUISITE: Family Science 242 or permission of the instructor.

Three lecture hours

### 381 PROFESSIONAL PRACTICE WITH CHILDREN AND FAMILIES

This course is designed to inform students of the range of professional practice issues confronted by helping professionals working with children, youth, adults and their families. The complexities of working with diverse

populations with regard to professional ethics, standards of practice and advocacy are examined. Additional topics include: managing the field placement experience, professional roles, peer learning, reflective practice and portfolio development. Students gain experience in areas of professional practice with children, youth, adults of all ages, and their families through a field placement experience.

PREREQUISITE: Third year standing in Family Science or Child and Family Studies

Three lecture hours for first 4 weeks; for balance of semester, 1 lecture hour per week and 32 hours field placement.

### 382 PROGRAM PLANNING AND EVALUATION

In this course, students develop competency in planning, implementing, and evaluating programs for health promotion and family education. Topics include theories and models commonly used for program planning and behaviour change, assessing needs, selecting appropriate intervention strategies, identification and allocation of resources, the marketing process, and evaluation models and design.

Cross-listed with Foods and Nutrition/Kinesiology (cf. Foods and Nutrition/Kinesiology 382)

PREREQUISITE: Family Science 381 or permission of the instructor

Three lecture hours per week and the development, implementation and evaluation of a program.

### 383 ISSUES IN FAMILY LAW AND SOCIAL POLICY

This course is a study of how public policy shapes the context in which families live, and, in turn, influences human and family development. Topics include the relationship between family functioning and public policies at the local, provincial, and federal levels; the influence of demographic changes, values, attitudes, and perceptions of the well-being of children and families on public policy debates; the effectiveness of policies and programs from a family perspective; the policy making process; and the different roles professionals play in influencing policy development. Special attention is given to the consequences of various policies on current family issues.

PREREQUISITE: Family Science 242 or permission of the instructor

Three lecture hours

### 384 WOMEN, ECONOMICS AND THE ECONOMY

(See Economics 381).

### 395 GENDER AND VIOLENCE

(See Psychology 395).

### 409 SPECIAL TOPICS

Creation of a course code for special topics offered by Family Science at the 400 level.

### 411 FIELD PLACEMENT I

This course provides an opportunity for students to integrate theory into practice through practical use of the knowledge and skills acquired in the classroom. Students participate in service provision at a community agency where they will test their attitudes and abilities to work with people, grow in self-awareness, as well as learn and develop helping and administrative skills. Through observation, practice, and reflection, students study and write about family science and professional practice issues relevant to their field placement.

PREREQUISITES: Family Science 381, 382 and fourth year standing in Family Science or Child and Family Studies.

Two lecture hours per week and 80 hours of field placement

### 412 FIELD PLACEMENT II

This course is a continuation of Family Science 411 and provides an opportunity for students to integrate theory into practice through practical use of the knowledge and skills acquired in the classroom. Students participate in service provision at a community agency where they will test their attitudes and abilities to work with people, grow in self-awareness, as well as learn and develop helping and administrative skills. Through observation, practice, and reflection, students study and write about family science and professional practice issues relevant to their field placement.

PREREQUISITE: Family Science 411

Two lecture hours per week and 80 hours of field placement

#### **431 EVIDENCE-BASED PRACTICE IN THE HEALTH SCIENCES**

(See Foods & Nutrition 431).

#### **440 SENIOR UNDERGRADUATE RESEARCH PROJECT**

This course allows senior students majoring in Family Science to carry out a full-year research project under the supervision of a faculty member. Entry to this course is contingent upon the student finding a departmental faculty member willing to supervise the research and permission of the department. **PREREQUISITE:** Fourth year standing in the Family Science or Child and Family Studies programs.

Six semester hours of credit

#### **441/442 DIRECTED STUDIES IN FAMILY SCIENCE**

(See Academic Regulation 9 for Regulations Governing Directed Studies.)

#### **451 WOMEN AND AGING**

This course examines older women's diverse experiences in today's families and in the world as homemakers, wives/partners, mothers, caregivers, and as paid and unpaid workers. Family studies scholarship is examined critically for various themes such as the social construction of gender and validation of family diversity. The contradictory nature of the family as source of venue for control and oppression versus support, validation, and empowerment is also explored.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 451)

**PREREQUISITE:** Family Science 242 or at least one introductory Diversity and Social Justice Studies course.

Three lecture hours

#### **471 PARENT-CHILD INTERACTION**

This course is a study of the developmental nature of parenting throughout the life cycle from birth through aging, with emphasis on the reciprocal nature of parent-child interactions. It includes parenting in various family structures, in various lifestyles, in high-risk families, in families with exceptional children, and in families from diverse cultures. Alternative approaches to parenting (e.g. adoption and assisted reproduction) are discussed. Contemporary strategies for parent guidance and education are introduced.

**PREREQUISITE:** Family Science/Kinesiology 241

Three lecture hours

#### **491 HUMAN SEXUALITY**

This course is an examination of the psychological, social, and physiological aspects of sexual development throughout life. Aspects of human sexuality including reproduction, influence on relationships, gender issues, sexual orientation, sexually transmitted diseases, sexual values and decision-making are covered. Students examine current sexuality education methodologies. Implications for future trends in human interaction are analyzed.

**PREREQUISITE:** Family Science 242 or permission of the instructor

Three lecture hours

### **FOODS AND NUTRITION COURSES**

#### **101 NUTRITION FOR LIVING**

This course is an introduction to the study of nutrition as it relates to health and health promotion. Topics include factors influencing food use; personal dietary assessment and selection of a healthy diet; nutrition labels; nutrition and physical activity; nutrition throughout the life cycle; and prevention of chronic disease.

Three lecture hours

**NOTE:** This course is designed primarily for non-Foods and Nutrition or Family Science majors who will not be taking advanced courses in Nutrition. Credit will NOT be allowed for F-N 101 if completed after F-N 211 and credit will NOT be allowed for F-N 101 if a student has already received credit for F-N 102.

#### **102 NUTRITION FOR NURSING PRACTICE**

This course is an introduction to the science of nutrition specifically designed for nursing students. Topics discussed include: the nutrients, role of these nutrients in chronic disease prevention, diet therapy for specific disease conditions, nutritional needs across the lifespan and the selection of a healthy diet.

PREREQUISITE: Biology 121

COREQUISITE: Biology 122

Three lecture hours

NOTE: Credit will NOT be allowed for F-N 102 if a student has already received credit for F-N 101.

### 111 INTRODUCTORY FOODS

This course is a study of the physical, chemical, and nutritive properties of food; the changes that occur during food preparation, storage, and handling; the factors affecting food acceptability and quality.

PREREQUISITE: Grade XII Chemistry or the permission of the Chair in special cases

Three lecture hours, three-hour laboratory

### 211 INTRODUCTORY NUTRITION I

This course is a study of applied human nutrition with a focus on carbohydrates, lipids, proteins, and select micronutrients; requirements and food sources of these nutrients and their role in chronic disease prevention; digestion, absorption and metabolism; and assessment of nutritional status.

PREREQUISITE: Chemistry 112, or permission of instructor

Three lecture hours

### 212 INTRODUCTORY NUTRITION II

This course is a continuation of FN 211 with a focus on water, major minerals and trace minerals; requirements and food sources of these nutrients; role of these nutrients in chronic disease prevention; nutritional needs across the lifespan, and the selection of an adequate diet.

PREREQUISITE: Foods and Nutrition 211 or permission of instructor

Three lecture hours

### 223 DETERMINANTS OF DIETARY BEHAVIOUR

This course studies the factors influencing human dietary behaviour and ultimately nutritional health. Topics include the food system, development of food preferences, food and culture, school food issues, food insecurity, food and the media, and sensory influences on dietary behaviour.

PREREQUISITES: Foods and Nutrition 101 or 211 or permission of the instructor

Three lecture hours

### 231 FOOD AND CULTURAL STUDIES

(See Diversity and Social Justice Studies 212)

### 261 COMMUNICATIONS

(See Family Science 261)

### 302 ADVANCED FOODS

This course is an advanced study of the physical, chemical, and biological properties of foods through food experimentation; objective and subjective testing of food attributes with emphasis on sensory analysis; and principles of research methodology as applied to foods. Current trends are discussed. A product development project is required.

PREREQUISITES: Chemistry 112, Foods and Nutrition 111, and Foods and Nutrition/Family Science 331 or permission of instructor

Three lecture hours, three-hour laboratory

### 309 SPECIAL TOPICS

Creation of a course code for special topics offered by Foods and Nutrition at the 300 level.

### 321 FOOD SERVICE SYSTEMS MANAGEMENT

This course is a study of food service management with emphasis on concepts and theories of organizational behaviour; safety, sanitation and hygienic practices in food service; quality and cost control; personnel management, staffing, physical design and delivery systems and the process of management in an institutional setting and in other food service operations. Other topics include menu planning, marketing, management information systems, budgeting, and the role of computers in food service management.

PREREQUISITE: Foods and Nutrition 111 or permission of the instructor

Three lecture hours

### 331 INTRODUCTION TO RESEARCH METHODS

(See Family Science/Kinesiology 331)

### 351 NUTRITIONAL ASSESSMENT

This course is an advanced study of current issues in nutrition assessment. Topics include dietary, anthropometric, laboratory and clinical methods currently in use to assess nutritional status at the population and individual level; challenges in interpreting nutritional assessment data; and nutrition counselling.

PREREQUISITES: Foods and Nutrition 212 or permission of the instructor

Three lecture hours

### 352 CLINICAL NUTRITION I

This course introduces the fundamentals of the pathophysiology and nutritional management of disease and monitoring of nutritional status and the development, implementation, and evaluation of nutritional care plans. Specialized nutrition support techniques and drug-nutrient interactions are also studied.

PREREQUISITES: Foods and Nutrition 351 and Biology 122

Three lecture hours

### 371 LIFESPAN NUTRITION

This course builds on Introductory Nutrition by exploring in depth the nutritional foundations necessary for growth, development, normal functioning, and disease prevention at various stages of the life cycle. The impact of nutritional deficiencies and excesses on the body at various life stages will also be studied.

PREREQUISITES: Foods and Nutrition 101 or 102 or 211, or permission of the instructor

Three semester hours

### 373 NUTRITION AND AGING

This course is a comprehensive overview of the unique nutrition issues associated with aging. Topics include nutrient requirements of the older adult; the physiological basis of aging; nutrition interventions for chronic diseases, diet and cultural diversity; nutrition and disease prevention in the older adult.

PREREQUISITES: Foods and Nutrition 101 or 102 or 211, or permission of the instructor

Three lecture hours

### 375 NUTRITION FOR FITNESS & SPORT

(See Kinesiology 375)

### 382 PROGRAM PLANNING AND EVALUATION

In this course, students develop competency in planning, implementing, and evaluating programs for health promotion and family education. Topics include theories and models commonly used for program planning and behaviour change, assessing needs, selecting appropriate intervention strategies, identification and allocation of resources, the marketing process, and evaluation models and design.

Cross-listed with Family Science/Kinesiology (cf. Family Science/Kinesiology 382)

PREREQUISITES: Completion of the required second year Family Science courses

Three lecture hours and the development, implementation and evaluation of a program.

### 401 ETHICAL ISSUES IN FITNESS & HEALTH

(See Kinesiology 401)

### 409 SPECIAL TOPIC

Creation of a course code for special topics offered by Foods and Nutrition at the 400 level.

#### 412 HUMAN METABOLISM

This course is an advanced study of the role of macronutrients in physiological and biochemical processes, their regulation in the human body, and their involvement in human health and disease. Application of current nutrition research findings and the rationale for current recommendations will also be discussed.

PREREQUISITES: Biology 122, Math 221, Chemistry 353, and Foods and Nutrition 212 or permission of the instructor

Three lecture hours

#### 422 QUANTITY FOOD PRODUCTION

This course is a study of food service production and management. Topics include quantity food purchasing and preparation, food safety and HACCP, sanitation, human resource planning and supervision. Practical experience in quantity food production and food service administration is gained by running a food catering operation using a team approach to management.

PREREQUISITES: Foods and Nutrition 321

Two lecture hours, six hours laboratory

#### 431 EVIDENCE-BASED PRACTICE IN THE HEALTH SCIENCES

This course focuses on the development of skills and knowledge required to find, appraise, use and communicate evidence in the health sciences. It provides students with the opportunity for the continued development of reasoning and decision making skills allowing them to integrate research evidence and critical thinking into professional practice.

Cross-listed with Family Science/Kinesiology (Family Science/Kinesiology 431).

PREREQUISITE: Family Science/Foods and Nutrition/Kinesiology 331 or permission of the instructor

#### 434 COMMUNITY NUTRITION

This course is an introduction to the field of community nutrition, which is the study of the prevention of nutritional problems and the promotion of health through organized community efforts. Students develop an increased awareness of the theory and practice of community nutrition, including how it fits within the population health framework. Topics include nutrition programs and policies at the provincial, national, and international levels; food insecurity; and working with diversity.

PREREQUISITES: Foods and Nutrition/Family Science/Kinesiology 382 or permission of instructor

Three lecture hours

#### 440 SENIOR UNDERGRADUATE RESEARCH PROJECT

This course allows senior students majoring in Foods and Nutrition to carry out a full-year research project under the supervision of a faculty member. Entry into this course is contingent upon the student finding a departmental faculty member willing to supervise the research and permission of the department.

PREREQUISITE: Fourth year standing in the Foods and Nutrition program

Six semester hours of credit

#### 441/442 DIRECTED STUDIES IN FOODS AND NUTRITION

(See Academic Regulation 9 for regulations Governing Directed Studies.)

#### 461 CLINICAL NUTRITION II

This course is a continuation of Foods and Nutrition 352 with emphasis on the pathophysiology and nutritional management of gastrointestinal disorders, food sensitivities, liver diseases, hypermetabolic states, renal disease, and AIDS.

PREREQUISITE: Foods and Nutrition 352

Three lecture hours

#### 472 CURRENT ISSUES IN NUTRITION

This course is an advanced study of current issues in nutrition research. Students use independent research and problem-solving skills to critique literature, present seminars, and write a scientific paper.

**PREREQUISITES:** Foods and Nutrition 212, or permission of the instructor  
Three lecture hours

#### **483 PROFESSIONAL PRACTICE IN DIETETICS**

This course is designed to prepare students for dietetic practice. It covers three main topic areas: issues in professional practice, nutrition education and counselling; and evidence-based practice. Students will apply theories of teaching and learning relevant to dietetics and further develop their critical-thinking and decision-making skills allowing them to integrate research evidence into professional practice to assist clients to make dietary behaviour changes.

**PREREQUISITE:** Foods and Nutrition 321, 352 and 382  
Three lecture hours

#### **490 ADVANCED RESEARCH AND THESIS**

The objective of this course is to provide research experience for the student who intends to take up further studies at a post graduate level or who is planning on entering a career where research experience in foods and nutrition would be an asset. Students are provided with the opportunity to design, carry out, evaluate and write up a research project in an approved scientific format, while working under the direction of an advisor. Some of this work may be carried out in the summer months.

**PREREQUISITE:** Acceptance to the Honours Program  
12 semester hours of credit

### **KINESIOLOGY COURSES**

Please note: Kinesiology 101 is an introductory course required for, but not restricted to, Kinesiology majors. A grade of at least 60% in Kinesiology is a prerequisite for all Kinesiology courses above the 100 level.

#### **101 INTRODUCTION TO KINESIOLOGY**

This course will provide students with an introduction to the study of human movement, and explore the physical, social, and psychological aspects of development as they relate to physical activity. Topics include: exercise physiology, biomechanics, sport psychology, sport sociology and exercise psychology.

**PREREQUISITE:** None  
Three hours a week

#### **202 INTRODUCTION TO SPORT & EXERCISE PSYCHOLOGY**

The purpose of this course is to provide insight into the theories, subject matter, and empirical research concerning the psychological processes that influence performance in sports, exercise, and other physical activities.

**PREREQUISITE:** Kinesiology 101, Psychology 102 and admission to BSc Kinesiology program  
Three hours a week

#### **221 INTRODUCTION TO EXERCISE PHYSIOLOGY**

This course discusses the physiological response to exercise, examining both acute and chronic adaptations to an exercise stress. Discussed from a physiological systems perspective, this course will examine the functional capacity of individual physiological systems, including the muscular, cardiovascular, respiratory, and nervous systems, and discuss the system's response to submaximal and maximal exercise and its impact on human performance. The environmental impact on physical performance will also be discussed.

**PREREQUISITE:** Kinesiology 101, Biology 122 and admission to the BSc Kinesiology program.  
Three hours lecture

#### **232 INTRODUCTION TO MOTOR LEARNING AND CONTROL**

This course will introduce students to the basic principles of motor behaviour and motor control. Included will be considerations of the physical changes during growth and motor developmental while considering the role of feedback and practice on skilled behaviour.

**PREREQUISITE:** Kinesiology 101, Biology 122 and admission to BSc Kinesiology program  
Three hours a week

### 241 HUMAN DEVELOPMENT

(See Family Science 241).

NOTE: Credit will not be allowed for Family Science/Kinesiology 241 if a student has already received credit for Psychology 201.

### 262 INTRODUCTION TO THE SOCIOLOGY OF SPORT AND EXERCISE

This course will explore the significance of sport across society and culture. Students will gain an understanding of the role of sport in culture and how sport is structured within society. Different sociological theories will be presented and discussed throughout the class to explain the intersection of sport and society.

Cross-listed with Sociology (cf. Sociology 221)

PREREQUISITES: Kinesiology 101 and admission to the Kinesiology program, or Sociology 101

Three lecture hours

### 309 SPECIAL TOPICS

A course in which topics or issues are explored outside the core area.

### 312 INTRODUCTION TO BIOMECHANICS

This course introduces kinesiology students to the biomechanical basis of fundamental human movement. Topics include: skeletal, muscular and neural considerations for movement; functional anatomy; and essential mechanics and mathematics for the analysis of human motion.

Cross-listed with Physics (cf. Physics 242)

PREREQUISITE: Kinesiology 101 and Math 112 or Math 151/152, Physics 121 and admission to BSc Kinesiology program.

NOTE: Prerequisites for Physics 242 - Kinesiology 101 or Physics 111 or Physics 121; and Math 112 or Math 151/152

Three hours lecture, three hours laboratory a week

### 331 INTRODUCTION TO RESEARCH METHODS

(See Family Science/Foods & Nutrition 331).

### 332 PRINCIPLES OF STRENGTH AND CONDITIONING

This course will explore general planning theories as well as specific methods used to enhance physiological performance in exercise. This includes training methods for endurance, speed, strength, power, and flexibility. The role of legal and banned ergogenic aids in performance will be discussed. Students will learn appropriate program design, safe exercise technique, and applied coaching practice from a physiological perspective.

PREREQUISITE: Kinesiology 221

Three lecture hours

### 342 INTRODUCTION TO PHYSICAL ACTIVITY AND CHRONIC DISEASE EPIDEMIOLOGY

This course will explore the relationship between physical activity, sedentary behaviour, and chronic disease. Students will be introduced to epidemiological concepts as they relate to physical activity and chronic disease, and will discuss other important modifiable and non-modifiable risk factors that influence the prevention of common chronic diseases.

PREREQUISITE: Kinesiology 221

Three lecture hours

### 343 PHYSIOLOGICAL ASSESSMENT AND TRAINING

This course will equip students with theoretical concepts and applied experience regarding fitness assessment, physical activity prescription and client management. Content is tailored to focus on training with low-risk healthy adult populations with an emphasis on the relationships between physical activity, physical fitness, and various health-related outcomes.

PREREQUISITE: Kinesiology 221 and admission to BSc Kinesiology Program

Three lecture hours, three hours laboratory a week



### 351 (Formerly 401) ETHICAL ISSUES IN FITNESS & HEALTH

This course explores philosophical issues related to fitness and health. Students will discuss and evaluate arguments focused on important ethical issues arising in practice.

Cross-listed with Foods & Nutrition (cf. Foods & Nutrition 401)

PREREQUISITE: Third year standing in Kinesiology or Foods & Nutrition, Kinesiology 202 or FN 212

Three hours lecture a week

### 352 CARE & PREVENTION OF ATHLETIC INJURIES

This course is an introduction to the prevention and recognition of injuries from accidents in athletic activities.

Analysis of the incidence of these athletic injuries, assessment techniques and therapeutic aids, support methods, conditioning and reconditioning exercises are discussed.

PREREQUISITE: Kinesiology 221

Three hours lecture a week

### 375 NUTRITION FOR FITNESS & SPORT

This course will focus on the role of nutrition in athletic performance and fitness. Topics include energy expenditure, macro- and micro-nutrients, hydration and dietary supplementation. Eating strategies for optimal performance and other current topics in sports nutrition will also be discussed.

Cross-listed with Foods & Nutrition (cf. Foods & Nutrition 375)

PREREQUISITE: Foods & Nutrition 212

Three hours lecture a week

### 382 PROGRAM PLANNING AND EVALUATION

In this course, students develop competency in planning, implementing, and evaluating programs for health promotion and family education. Topics include theories and models commonly used for program planning and behaviour change, assessing needs, selecting appropriate intervention strategies, identification and allocation of resources, the marketing process, and evaluation models and design.

Cross-listed with Family Science/Foods & Nutrition (cf. Family Science/Foods & Nutrition 382)

PREREQUISITES: Kinesiology 232 and 241 or permission of the instructor

### 409 SPECIAL TOPICS

A course in which topics or issues are explored outside the core area.

### 411 FIELD PLACEMENT I

This course provides an opportunity for students to integrate theory into practice through practical use of the knowledge and skills acquired in the classroom. Through observation, practice, and reflection, students study and write about Kinesiology and professional practice issues relevant to their field placement.

PREREQUISITES: Fourth-year standing in the Kinesiology program or permission of the instructor

Two lecture hours per week and 80 hours of field placement

### 412 FIELD PLACEMENT II

This course is a continuation of Kinesiology 411.

PREREQUISITES: Kinesiology 411

### 421 ERGONOMICS

This course will take an occupational biomechanics approach to ergonomics. This course will emphasize the knowledge and skills required to perform biomechanical analyses of workplace tasks, identify occupational ergonomic issues and use ergonomic assessment tools to modify physical demands to prevent work-related musculoskeletal disorders (WMSDs). Interdisciplinary approaches to human factors, the study of human-machine interfaces, will also be discussed. Skill development will be achieved through practical experiences

PREREQUISITE: Kinesiology 312

Three lecture hours

### 431 EVIDENCE-BASED PRACTICE IN THE HEALTH SCIENCES

(See Foods & Nutrition 431).

#### 432 MOVEMENT DISORDERS

This course is a study of movement disorders associated with a range of special populations from healthy older adults to those with neurological, degenerative or developmental disorders. Students will be provided with hands-on experiences using state-of-the-art techniques in motion analysis to understand the kinematics, kinetics, and neural control of standing posture, stepping, walking, and other activities of daily living.

PREREQUISITE: Kinesiology 312

Three lecture hours

#### 433 PSYCHOLOGICAL ASPECTS OF SPORT PERFORMANCE

This course integrates theory, research, and applied perspectives to the area of sport psychology. Discussions will focus on theoretical constructs related to sport performance and provide students with a broad understanding of how athletes mentally train to reach high levels of proficiency in sport. Mental skills such as imagery, positive self-talk, goal setting, and other psychological skills will be introduced.

PREREQUISITE: Kinesiology 202

Three semester hours of credit

#### 435 PRINCIPLES OF POSITIVE YOUTH DEVELOPMENT THROUGH SPORT

This course will explore the different aspects related to positive youth development through sport and investigate the most current research available to understand how positive experiences in sport can be achieved. Topics that will be addressed in the course include, but are not limited to, the multiple definitions of positive development in sport (life skills, developmental assets, 5 Cs, initiative), sport as a vehicle for positive development, and characteristics associated with a positive sport environment.

The graduate component of the course will require students to lead a number of seminars throughout the semester, write a reflective journal, and prepare a grant application related to a topic of interest within the area of positive youth development.

Cross-listed with Human Biology 835

PREREQUISITES AND/OR CO-REQUISITES: Kinesiology 202; Graduate students need permission of the instructor

Three semester hours of credit

#### 440 SENIOR UNDERGRADUATE RESEARCH PROJECT

This course allows senior students majoring in Kinesiology to carry out a full-year research project under the supervision of a faculty member. Entry to this course is contingent upon the student finding a departmental faculty member willing to supervise the research and permission of the department.

PREREQUISITE: Fourth-year standing in the Kinesiology program

Six semester hours of credit

#### 442 DIRECTED STUDIES IN KINESIOLOGY

These courses may be offered at the discretion of the department to advanced students. Conditions under which they are offered and entry will be subject to the approval of the Chair of the Department and the Dean of Science. (See Academic Regulation 9 for rules governing Directed Studies.)

#### 443 (Formerly 441) ADVANCED PHYSIOLOGICAL ASSESSMENT AND TRAINING

This course combines theoretical background with applied learning experiences in advanced fitness appraisal methods and techniques, physical activity/exercise prescription, and lifestyle assessment. Attention will be given to exercise management and counselling across a variety of populations as well as the role and effects of pharmaceuticals. Students will complete assessments of their own health or performance related fitness and implement a personalized program to track their progress toward a goal.

PREREQUISITE: Kinesiology 343

Three lecture hours, three hours laboratory

#### 452 PHYSICAL ACTIVITY AND AGING

This course is an exploration of the benefits and risks of physical activity for older adults, as well as the physiological changes that occur with normal aging. The role of physical activity to promote quality of life as we age is a key perspective. This course includes an examination of guidelines for physical activity for older adults.

PREREQUISITE: Kinesiology 221  
Three semester hours of credit

#### 462 CLINICAL EXERCISE PHYSIOLOGY AND FITNESS ASSESSMENT PRACTICUM

This course explores the role of physical activity and exercise in the prevention and management of various chronic conditions. The course will help prepare students to work with clients/patients in a variety of multidisciplinary environments through a combination of supervised and independent work experience, and shared classroom theory. Emphasis is placed on integrating and applying an understanding of exercise physiology and disease pathophysiology to support exercise interventions.

PREREQUISITE: Kinesiology 443 and permission of the Department Chair  
One lecture hour/week and 60 hours of field placement

#### 481 ADVANCED BIOMECHANICS

This course is a continuation of KIN 312 and provides students with in-depth case studies of how physics concepts explain the optimal biomechanics for fundamental human movements and sports activities. Topics include: the physics of balance, falling, jumping, landing, running, throwing, striking, and catching.

Cross-listed with Physics (cf. Physics 351)

PREREQUISITE: Kinesiology 312. Note: Prerequisite for Physics 351 - Physics 242  
Three hours lecture, three hours laboratory a week

### Arts Seminars

<http://upei.ca/artsseminar>

#### Co-ordinator

Philip Smith

First-year students seeking the challenge of in-depth examination of a theme in the humanities and social sciences, and enhancement of academic reading, writing, thinking, and oral presentation skills in a supportive seminar environment, are invited to consider enrolling in Arts 101. These first-year seminars are led by selected third- and fourth-year students who are well prepared in the content area and with skills in seminar leadership. Both Arts 101 and Arts 400 are graded on a pass/fail basis.

#### 101 FIRST-YEAR ARTS SEMINAR

In this course, first-year students explore a theme in the humanities and social sciences in seminars led by pairs of selected third- or fourth-year Arts students. Theme topics vary from section to section of the course and are available on the University website and from the Co-ordinator. Multiple opportunities are presented for careful reading, participation in class discussions, oral presentations, and written work. Enrolment is limited to a maximum of 14 students to enhance prospects for full engagement in the academic content of the seminar, in development of academic skills, and in community-building.

PREREQUISITE: Permission of the Co-ordinator

Three hours a week

Three semester hours of credit

#### 105 BIG IDEAS IN ARTS

Taught by faculty members from across the Faculty of Arts, this course offers students the opportunity to explore topics and controversies that define our contemporary world. Students will learn about and draw upon various fields of study within the Faculty of Arts. The instructors will determine the focus for each course, for example utopias and dystopias, prisons and prisoners, revolutions, travel and migration, sports and entertainment, science fiction/science fact, social media, celebrities and scandals, environmental challenges, good courts and famines, love and labour, religious faith and scientific knowledge, money and power, the future of work and play.

Limited to first-year Arts students and an enrolment of twenty-five.

Three semester hours of credit

#### 400 LEADING A FIRST-YEAR ARTS SEMINAR

In this course, pairs of selected third- or fourth-year students lead seminars for first-year students, exploring a theme in the humanities and social sciences. Seminar leaders propose to the Co-ordinator a theme for their semester-long seminar; develop, with appropriate faculty consultation, a proposed seminar syllabus, including reading lists, assignments, and class activities; lead a first-year seminar of 12 to 14 students; provide feedback on assignments; and assign a grade to students. Seminar leaders participate in workshops prior to the first semester, and, during the first semester, in a one-hour-per-week seminar with other student leaders and a faculty member, to address integration and analysis of the subject matter under consideration and to develop pedagogical skills in seminar design, active learning, responding to oral and written presentations, and shaping the classroom environment.

**PREREQUISITE:** Third-or fourth-year standing in Arts and permission of the instructor

Three-hour seminar a week

Six semester hours of credit

#### **401 CAPSTONE IN ARTS**

This course for graduating Arts students examines the principles, purpose, and history of a liberal arts education. Students examine the place of the liberal arts outside the university setting and complete a career portfolio.

Cross-listed with English (English 401)

**PREREQUISITES:** Fourth-year standing in Arts or permission of the instructor

### **Asian Studies**

<http://upei.ca/asianstudies>

#### **Co-ordinator**

Edward Y. J. Chung

Asia is the home of the most ancient and longest-lived civilizations the world has witnessed and of most of the world's present population. Moreover, recent history would be impossible to write without frequent reference to Asia. Many of the momentous events of modern times can be evoked by the names of Asian countries: Japan, China, Israel, India, Pakistan, Korea, Vietnam, Afghanistan, Iran, and Iraq. The resolution of many of today's pressing issues requires an understanding of the needs and interests of the Asian peoples.

#### **REQUIREMENTS FOR A MINOR IN ASIAN STUDIES**

A minor in Asian Studies consists of twenty-one (21) semester hours of credit taken from the list of approved courses. Either Asian Studies 201 or 202 is compulsory for the Minor. At least three semester hours of credit must be taken from any two of the four groups of Asian Studies electives. Students must take at least six semester hours of elective credit outside of their major area of study.

#### **ASIAN STUDIES CORE COURSES**

##### **201 INTRODUCTION TO WEST ASIA**

This course is an historical introduction to the peoples and cultures of West Asia. It explores the major cultural, intellectual, institutional, social, and religious features of the Middle East, central Asia, and the Indian subcontinent, covering each region's traditions and historical development. The course also deals with modernization and the impact of Western ideas, values, and institutions on modern West Asia. This is a required course for the Minor in Asian Studies.

Cross-listed with History (cf. History 291)

Three hours a week

##### **202 INTRODUCTION TO EAST ASIA**

This course is an historical introduction to the peoples and cultures of East Asia. It explores the major cultural, intellectual, institutional, social, and religious features of China, Japan, and Korea, covering each region's traditions and modern developments. This course also introduces Taiwan, Hong Kong, and the impact of Western ideas and institutions on modern East Asia. This is a required course for the Minor in Asian Studies.

Cross-listed with History (cf. History 292)

Three hours a week

#### 209 SPECIAL TOPICS

Creation of a course code for special topics offered by Asian Studies at the 200 level.

#### 309 SPECIAL TOPICS

Creation of a course code for special topics offered by Asian Studies at the 300 level.

#### 409 SPECIAL TOPICS

Creation of a course code for special topics offered by Asian Studies at the 400 level.

#### 451-452 DIRECTED STUDIES

These courses may be offered to meet particular student needs or take advantage of special faculty expertise.

Three hours a week per course

NOTE: Directed Studies courses from other disciplines with an Asian focus may be accepted for credit towards the Minor with the approval of the Co-ordinator of Asian Studies. (See Academic Regulation 9 for Regulations Governing Directed Studies.)

### **ASIAN LANGUAGE COURSES**

#### 101 INTRODUCTION TO [A SELECTED LANGUAGE] I

This course is intended for students with no proficiency in the language. This course provides an introduction to the language in question, through the study of pronunciation, vocabulary and grammar. It includes numerous oral drills, frequent written exercises, short oral presentations and simple readings.

Cross-listed with Modern Language (cf. Modern Languages 101)

Three hours a week

#### 102 INTRODUCTION TO [A SELECTED LANGUAGE] II

This course is a continuation of 101. It provides further study of vocabulary and grammar and introduces aspects of civilization.

Cross-listed with Modern Languages (cf. Modern Languages 102)

Three hours a week

### **ASIAN STUDIES ELECTIVES**

Language Courses (see above 101 and 102)

Peoples and Cultures

Sociology/Anthropology 212 Peoples of South Asia

Religion and the Arts

Religious Studies 221 Buddhism East and West

Religious Studies 242 The Hindu Religious Tradition

Religious Studies 251 Japanese Religion and Culture

Religious Studies 261 Religion and Philosophy in China

Religious Studies 321 Women in Eastern Religions

History and Politics

Political Science 343 Comparative Politics of South Asia

Political Science 363 Comparative Politics of the Middle East

PREREQUISITES: The Departments of Political Science, Religious Studies, and Sociology/Anthropology accept Asian Studies 201/202 as substitute prerequisites for any of their courses on this list.

## Biology

<http://upei.ca/biology>

### Biology Faculty

J. Charles Cheverie, Professor Emeritus  
Louis A. Hanic, Professor Emeritus  
Marva I. Sweeney-Nixon, Professor, Chair  
Christian R. Lacroix, Professor  
Michael R. van den Heuvel, Professor  
Lawrence R. Hale, Associate Professor  
Robert Hurta, Associate Professor  
James R. Kemp, Associate Professor  
Pedro Quijon, Associate Professor  
Marina B. Silva-Opps, Associate Professor  
Kevin L. Teather, Associate Professor  
H. Carolyn Peach Brown, Assistant Professor  
Karen Samis, Assistant Professor  
Denis Barabé, Adjunct Professor  
David Cairns, Adjunct Professor  
Adam Fenech, Adjunct Professor  
Bourlaye Fofana, Adjunct Professor  
Natacha Hogan, Adjunct Professor  
Xiang Li, Adjunct Professor  
Jason McCallum, Adjunct Professor  
Aaron Mills, Adjunct Professor  
Rick Peters, Adjunct Professor  
Gerhard Pohle, Adjunct Professor  
Russell Wyeth, Adjunct Professor

### REQUIREMENTS FOR A MAJOR IN BIOLOGY

A student enrolled in the Majors program in Biology will complete a minimum of 42 semester hours in Biology, and additional courses in Chemistry, Physics and Mathematics according to the program outlined below. Students may choose to take a general Biology degree or to obtain a Life Sciences or Environmental Biology specialization. The Life Sciences specialization will focus on cell & molecular biology as well as the biomedical sciences, and may be of interest to students who intend to pursue careers or graduate opportunities related to the health professions, or research/innovation in biomedical or biotechnological sciences. The Environmental Biology specialization will focus on the interaction of plants and animals with the environment and may be selected by students interested in careers or graduate studies related to conservation, wildlife biology or ecology. The General Biology stream will give students a broad background in biology, with good preparation for all areas of Biology.

### COURSE REQUIREMENTS FOR THE AREAS OF SPECIALIZATION

Students may apply for a particular specialization any time before the end of their third year. Those that have not specified a specialization must meet the requirements for the General Biology Stream.

### GENERAL BIOLOGY STREAM

	Hours Credit
Eight Core Biology Courses	
Biology 131-132	6
Two of Biology 202, 204 and 206	6
Two of Biology 221, 222 and 223	6
Biology 326 or 382	3
Biology 331	3
at least six additional Biology electives that fit the following criteria	18
• at least two must be at the 400 level	

- four must have a lab component (**Note:** Your 8 core courses with labs DO NOT count for this requirement, ONLY additional electives. (e.g. if you take 202, 204 and 206, two will count as core and one can count as an elective with a lab).

Required courses in other departments, and electives as listed in the section “All Specializations (required courses from other departments)” below 78

### **LIFE SCIENCES SPECIALIZATION**

	<b>Hours Credit</b>
Eight Core Biology Courses	
Biology 131-132	6
Two of Biology 202, 204 and 206	6
Biology 221 and 223	6
Biology 326	3
Biology 331	3
at least six additional Biology electives at or above the 200 level that fit the following criteria	18

- at least two must be at the 400 level and be from Life Sciences
- four must have a lab component (**Note:** Your 8 core courses with labs DO NOT count for this requirement, ONLY additional electives. (e.g. if you take 202, 204 and 206, two will count as core and one can count as an elective with a lab).
- at least four must be selected from the Life Sciences Specialization list
- at least 2 must be selected from the Environmental or General Biology lists

Required courses in other departments, and electives as listed in the section “All Specializations (required courses from other departments)” below 78

### **ENVIRONMENTAL BIOLOGY SPECIALIZATION**

	<b>Hours Credit</b>
Eight Core Biology Courses	
Biology 131-132	6
Two of Biology 202, 204 and 206	6
Biology 222 and 223	6
Biology 331	3
Biology 382	3
at least six additional Biology electives at or above the 200 level that fit the following criteria	18

- at least two must be at the 400 level and from the Environmental Biology list
- four must have a lab component (**Note:** Your 8 core courses with labs DO NOT count for this requirement, ONLY additional electives. (e.g. if you take 202, 204 and 206, two will count as core and one can count as an elective with a lab).
- at least four must be selected from the Environmental Biology Specialization list
- at least two must be selected from the Life Sciences or General Biology lists

Required courses in other departments, and electives as listed in the section “All Specializations (required courses from other departments)” below 78

### **ALL SPECIALIZATIONS (required courses from other departments)**

	<b>Hours Credit</b>
One of UPEI 101, 102, or 103 Chemistry:	3

Chemistry 111 and 112	6
Chemistry 241-242 or Chemistry 243 (credit will not be given for both Chemistry 243 and Chemistry 241 or 242)	3 or 6
Chemistry 353 is required for the General Stream and Life Sciences; Chemistry 353 or 202 for Environmental Biology	3
Physics: Physics 121 (or 111) and Physics 122 (or 112)	6
Mathematics and Statistics: Math 112 or Math 151/152	3 or 6
Math 221	3
Note: Some students may wish to take upper level Mathematics, Chemistry, or Physics courses for which Mathematics 151-152 is required: therefore Mathematics 151-152 may be taken in place of Mathematics 112 but the statistics requirement of Mathematics 221 remains. Credit will not be given for both Mathematics 112 and Mathematics 151 or 152.	
Other electives	45, 48 or 51

The remaining number of semester hours required to complete the requirements for the Biology major will be made up from courses selected by the students.

Note: Please see Academic Regulation 14(3): Application of Certain Professional Courses.

The suggested sequence of courses is listed below:

### **ALL STREAMS**

#### **First Year**

	<b>Hours Credit</b>
Biology 131-132	6
Chemistry 111-112	6
Mathematics 112 or 151-152	3 or 6
Physics 121 (or 111) and Physics 122 (or 112)	6
One of UPEI 101, 102, or 103	3
Electives	3 or 6

### **GENERAL BIOLOGY STREAM**

#### **Second Year**

Two of Biology 202, 204, 206	6
Two of Biology 221, 222, 223	6
Chemistry 241-242 or 243	3 or 6
Electives	12 or 15

#### **Third Year**

Biology 326 or 382 and 331	6
*Four Biology electives from any of the three lists	12 (200 level or above)
Chemistry 353	3
Math 221	3
Electives	6

#### **Fourth Year**

* Two Biology electives at 400 level	6
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Electives	24
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### **LIFE SCIENCES SPECIALIZATION**

#### Second Year

Two of Biology 202, 204, 206	6
Biology 221 and 223	6
Chemistry 241-242 or 243	3 or 6
Electives	12 or 15

#### Third Year

Biology 326 and 331	6
*Two Biology electives from the Life Sciences list	6 (200 level or above)
*Two Biology "alternate" electives (from the Environmental or General Biology lists, 200 level or above)	6
Chemistry 353	3
Math 221	3
Electives	6

#### Fourth Year

* Two Biology electives from Life Sciences list at the 400 level	6
Electives	24

### **ENVIRONMENTAL BIOLOGY SPECIALIZATION**

#### Second Year

Two of Biology 202, 204, 206	6
Biology 222 and 223	6
Chemistry 241-242 or 243	3 or 6
Electives	12 or 15

#### Third Year

Biology 331 and 382	6
*Two Biology electives from the Environmental Biology list (200 level or above)	6
*Two Biology "alternate" electives (from the Life Sciences or General Biology lists, 200 level or above)	6
Chemistry 202 or 353	3
Math 221	3
Electives	6

#### Fourth Year

* Two Biology electives from the Environmental Biology list at 400 level	6
Electives	24

\* in all streams, at least four of the required Biology electives must have a laboratory or field component. The list of electives that can count toward each stream is given in the table provided below. Biology 440 may not be used to meet this requirement for Biology courses at the 400 level.

List of Courses that may be used towards the specialization areas in Biology.

- \*Lab courses are indicated with an asterisk.
- Courses in the "General Biology" section may be used as "alternate electives" in any stream

- Certain Biology 441 (Directed studies) or 442 (Special Topics) courses, or courses transferred from other universities for Biology credit, may be credited to one stream or the other with prior permission of the Chair.
- Courses that are required components for one stream or the other (e.g. Biology 221 and 326 for the Life Sciences specialization; Biology 222 and 382 in the Environmental Biology specialization) can be counted as “alternate” electives for the other specialization. Bio 202, 204 and 206 may also be counted as alternate electives when not used to satisfy core requirements for either specialization in the second year.

**Life Sciences Specialization** (includes health and biosciences courses):

- \*Biology 304—Vertebrate Zoology
- Biology 322—Bioinformatics
- \*Biology 323—Genetics II
- \*Biology 324—Comparative Vertebrate Anatomy
- \*Biology 353—Human Anatomy and Histology
- Biology 375—Medical Microbiology
- \*Biology 401—Human Physiology and Pathophysiology
- \*Biology 402—Comparative & Environmental Vertebrate Physiology
- \*Biology 403—Developmental Biology
- \*Biology 444—Investigative Plant Anatomy
- Biology 471—Molecular Biotechnology
- \*Biology 472—Biology of Cancer and Other Diseases
- Biology 475—Basic and Clinical Immunology

**Environmental Biology Specialization**

- \*Biology 304—Vertebrate Zoology
- \*Biology 314—Plant Community Ecology
- \*Biology 327—Field Coastal Ecology
- \*Biology 335—Animal Behaviour
- \*Biology 351—Ornithology
- \*Biology 361—Biology of Fishes
- \*Biology 366—Plant-Animal Interactions
- \*Biology 371—Life of Mammals
- \*Biology 391—Marine Biology
- \*Biology 411—Wildlife Biology
- \*Biology 413—Conservation Genetics
- \*Biology 452—Biogeography and Macroecology
- \*Biology 454—Biodiversity and Conservation Ecology
- \*Biology 462—Watershed Ecology
- \*Biology 465—Marine Community Ecology
- \*Biology 485—Environmental Toxicology

**General Biology Courses** (can be used as “alternate” stream courses)

- \*Biology 202—Botany
- \*Biology 204—Zoology
- \*Biology 206—Microbiology
- \*Biology 311—Plants and People
- Biology 312—History of Biology
- \*Biology 421—Design and Analysis of Biological Studies
- Biology 435—Biology of Sex

**REQUIREMENTS FOR HONOURS IN BIOLOGY**

The Honours program in Biology is designed to provide research experience at the undergraduate level within the BSc program. It is available to students with a strong academic background who intend to continue studies at the postgraduate level in Biology or some related field, or to students who intend to pursue a career where research experience would be an asset. Students may also carry out a less intensive research project by registering for Biology 440.

The Honours program differs from the BSc Major program in having a research and thesis component. The total number of courses is the same, five courses per semester for eight semesters, but the honours thesis course counts as 12 credits, so the total semester hours of credit for the Honours is 126, compared to 120 hours for the BSc Major. The research component is to be completed within the BSc program and would normally require the equivalent of one summer (four months) preceding the graduating year. Evaluation of the research data and writing of the thesis would normally be done during the fall and/or spring session in Biology 490: Advanced Research and Thesis.

#### COURSE REQUIREMENTS OF THE HONOURS PROGRAM

Students may complete an Honours Degree in any of the three Biology streams (General, Life Sciences, Environmental Biology). The program is the same as the Majors program for the first three years, with the addition of two other Biology electives (taken from any stream, though students specializing in the Life Sciences or Environmental Biology streams may have to choose electives in those areas) and Biology 490. These would normally be completed in the student's fourth year.

#### FOURTH YEAR: HONOURS BIOLOGY

	<b>Hours of Credit</b>
*Two Biology electives at 400 level	6 (these must be in the Life Sciences or Environmental Biology lists if students have declared a specialty)
*Two additional Biology electives at the 200 level or above	6
Biology 490 (Advanced Research and Thesis)	12
Electives	6
* at least four of the required Biology electives must have a laboratory component in all streams.	

#### ENTRANCE REQUIREMENTS

For admission to the Honours program or Honours Conversion program, students should have a combined minimum average of 75% in all previous courses taken in the second and third years of study; and a combined minimum average of 75% in all previous biology courses taken. Permission of the Department is also required and is contingent on the student finding a thesis advisor, on being assigned an advisory committee, on acceptance of the research project by the Biology Department, and on general acceptability. Students interested in doing Honours should consult with the Departmental Chair as early as possible and apply to the program no later than 31 March of the student's third year.

#### PERFORMANCE

To graduate with a BSc Honours in Biology, students must complete 126 semester hours of credit which includes 12 semester hours of credit for the research and thesis, attain a minimum average of 75% in all Biology courses combined, and achieve a minimum overall average of 70% in all courses submitted for the degree. Students failing to meet these requirements may transfer their program to the BSc Biology Program or to other degree programs. Note: Detailed information to students on the Honours Program is available from the Department.

#### REQUIREMENTS FOR MINOR IN BIOLOGY

To qualify for a minor, students must complete a total of 21 semester hours of credit in Biology, 6 semester hours of which are required courses.

The requirements for a minor in Biology are:

Biology 131-132 (6 hours of credit) and any 5 Biology electives at 200 level or above (15 semester hours)

Total Semester Hours = 21

## **Bachelor of Wildlife Conservation**

This program combines the practical, theoretical and analytical strengths of courses provided by accredited NAWTA (North American Wildlife Technology Association) programs, and by the University of Prince Edward Island, for students interested in obtaining rigorous training in wildlife conservation. Foundational science courses (e.g. General Chemistry) as well as senior analytical courses in the environmental sciences at the university level (e.g. Biodiversity and Conservation Biology, Marine Biology) complement the strong field training acquired during the college diploma program.

Students graduating from an accredited NAWTA college with a minimum 70% average are eligible to apply to UPEI for formal entry into the Bachelor of Wildlife Conservation degree program. Entry to the program is restricted to September of each year and applications must be received by June 1st. Once accepted to UPEI, students will undertake a rigorous program of 20 courses, 15 of which will be required, with an additional 5 courses to be chosen from a list of acceptable electives. Students who are accepted to the program must be able to demonstrate that they have been immunized for the prevention of Rabies, or obtain a rabies vaccination during the first year of their program. Students are subject to all of the Academic Regulations of the University.

### **Required Biology courses:**

Biology 131—Introduction to Cell and Molecular Biology

Biology 206—Microbiology

Biology 222—Ecology

Biology 331—Research Methods and Communications in Biology

Biology 391—Marine Biology

Biology 413—Conservation Genetics

Biology 415—Wildlife Health

Biology 452—Biogeography and Macroecology OR Biology 454—Biodiversity and Conservation Biology

Biology 462—Watershed Ecology (Ecology)

### **Other science requirements:**

Chemistry 111—General Chemistry I

Chemistry 112—General Chemistry II

Chemistry 202—Environmental Chemistry OR Biology 485—Environmental Toxicology

### **Environmental Studies requirements:**

Environmental Studies 201—Introduction to Environmental Studies

One of Environmental Studies 202—Sustainability and Sustainable Development OR 212—Earth's Physical

Environment OR 301—Integrating Environmental Theory and Practice OR 311—Understanding Climate Change

Students complete the degree requirements by choosing four science and two non-science electives (one needs to be UPEI 101, 102 or 103) from the following lists. At least three of the science electives must be at the third or fourth year level. Specific electives may not be available during certain semesters or years; other electives may be taken if approved by the program coordinator. In some cases, prerequisites may be required for taking courses. Students are responsible for obtaining information concerning the availability of chosen electives.

### **Non-science Electives:**

Anthropology 105—Introduction to Anthropology I

Anthropology 106—Introduction to Anthropology II

Anthropology 107—Introduction to Physical Anthropology and Archaeology

Canadian Studies 101—Imagining Canada

Economics 101—Introductory Microeconomics

Economics 102—Introductory Macroeconomics

Philosophy 101—Introduction to Philosophy

Philosophy 102—Introduction to Ethics & Social Philosophy

Philosophy 105—Technology, Values, & Science

Philosophy 111—Critical Thinking

Philosophy 203—Environmental Philosophy  
Political Science 101—Introductory Politics I  
Political Science 102—Introductory Politics II  
Psychology 101—Introduction to Psychology: Part I  
Psychology 102—Introduction to Psychology: Part II  
Sociology 101—Introduction to Sociology I  
Sociology 102—Introduction to Sociology II  
Sociology 105—Civility and Society

**Science Electives:**

Biology 304—Vertebrate Zoology  
Biology 312—History of Biology  
Biology 324—Comparative Vertebrate Anatomy  
Biology 326—Introductory Physiology of Cells and Organisms  
Biology 327—Field Coastal Ecology  
Biology 335—Animal Behaviour  
Biology 351—Ornithology  
Biology 361—Biology of Fishes  
Biology 366—Plant Animal Interactions  
Biology 371—Life of Mammals  
Biology 375—Medical Microbiology  
Biology 382—Evolutionary Biology  
Biology 411—Principles of Wildlife Biology  
Biology 485—Environmental Toxicology (if not taken as a required course)  
Biology 441—Directed Studies in Biology  
Chemistry 202—Environmental Chemistry (if not taken as a required course)  
Environmental Studies 212—Earth's Physical Environment  
Environmental Studies 301—Integrating Environmental Theory and Practice  
Environmental Studies 311—Understanding Climate Change  
Mathematics 222—Introductory Statistics II  
Physics 261—Energy, Environment and the Economy

**BACHELOR OF SCIENCE IN BIOTECHNOLOGY**

This program combines practical and applied courses provided by the Bioscience Technology diploma program at Holland College with strong theoretical science courses at the University of Prince Edward Island. It is designed for students interested in obtaining a rigorous and broad training in biotechnology, such as gaining experience in research, laboratory procedures and safety, scientific ethics, and regulatory affairs, while increasing access to post-graduate opportunities (e.g. Master's degree programs). Students are provided with foundational science courses as well as senior specialized courses in the life sciences at the university level to complement the strong hands-on technical training acquired during the college diploma program. On-the-job training is provided for all students.

There are two paths into this program, so students can either start at Holland College or UPEI, and end up with the same articulated degree. The technical lab-based content is covered at Holland College in the Bioscience Technology diploma program, either during the first two years of the degree (for students who start at Holland College; Path 1) or in year 3 (for students who start at UPEI; Path 2).

**Path 1, starting at Holland College ('2+2'):**

If students have received a Bioscience Technology diploma and achieved a minimum 70% average at Holland College, they are eligible to apply to UPEI for formal entry into the BBT degree program. Once accepted to UPEI, students will undertake a rigorous program of 20 courses, 13 of which will be required, 3 will be upper level science electives, and 4 will be general electives. Once accepted, students are subject to all of the Academic Regulations of the University.

## **Path 2, starting at UPEI ('2+1+1'):**

Students apply to start at UPEI in the Faculty of Science directly out of high school, following standard application procedures at UPEI. Once accepted, students undertake one year of science courses similar to a first year biology or chemistry student (8 required courses, 2 electives). Then students apply to Holland College to do the Bioscience Technology diploma program by the deadline of May 1st. Once accepted, they complete their second year of science at UPEI (7 required courses, 3 electives), and then one full year at Holland College in the Bioscience Technology diploma program (includes 2 intersessions). Students then finish back at UPEI in their final year (4 required courses, 3 upper level science electives, 3 general electives).

For students who already have received a Bioscience Technology diploma, the recommended sequence of courses for the 2 years of Path 1 at UPEI is:

### **Year 1, Semester 1 at UPEI:**

Biology 221 - Cell Biology  
Chemistry 243 - Organic Chemistry for Life Sciences  
Mathematics 112 - Calculus for the Managerial, Social, and Life Sciences  
Physics 121 - Physics for the Life Sciences I  
One Humanities or General Elective

### **Year 1, Semester 2 at UPEI:**

One of UPEI 101 or 102 or 103  
Chemistry 231 - Physical Chemistry I  
Chemistry 353 - Biochemistry  
Physics 122 - Physics for the Life Sciences II  
One Humanities or General Elective

### **Year 2, Semester 1 at UPEI:**

Biology 326 - Introduction to Physiology of Cells and Organisms  
Mathematics 221 - Introductory Statistics I  
One Science Elective at the 300 level  
One Science Elective at the 400 level  
One Humanities or General Elective

### **Year 2, Semester 2 at UPEI:**

Biology 322 - Introduction to Bioinformatics  
Biology 471 - Molecular Biotechnology  
Chemistry 322 - Analytical instrumentation  
One Science Elective at the 300 or 400 level  
One Humanities or General Elective

For students who have not received a Bioscience Technology diploma, the recommended sequence of courses for the 4 years of Path 2 is:

### **Year 1, Semester 1 at UPEI:**

Biology 131 - Introduction to Cell and Molecular Biology  
Chemistry 111 - General Chemistry I  
Mathematics 112 - Calculus for the Managerial, Social, and Life Sciences  
Physics 121 - Physics for the Life Sciences I  
One Humanities or General Elective

### **Year 1, Semester 2 at UPEI:**

Biology 132 - Introduction to Organisms  
Chemistry 112 - General Chemistry II  
Physics 122 - Physics for the Life Sciences II

One of UPEI 101 or 102 or 103  
One Humanities or General Elective

**Year 2, Semester 1 at UPEI:**

Biology 221 - Cell Biology  
Chemistry 243 - Organic Chemistry for Life Sciences  
Mathematics 221 - Introductory Statistics I  
One Science Elective  
One Humanities or General Elective

**Year 2, Semester 2 at UPEI:**

Biology 206 - Microbiology  
Biology 223 - Genetics  
Chemistry 231 - Physical Chemistry I  
Chemistry 353 - Biochemistry  
One Humanities or General Elective

**Interession between years 2 and 3 at Holland College:**

Chemistry 1200 - Introduction to Chromatography  
Biology 1310 - Immunology

**Year 3, Semester 1 at Holland College:**

Bios 2000 - Analytical Techniques in Bioscience  
Bios 2100 - Industrial Bioproducts: Production and Purification  
Biology 2300 - Cell Culturing  
Biology 2310 - Molecular Biology  
Mathematics 2000 - Calculus  
Bios 2300 - Research Preparation: Bioscience Technology

**Year 3, Semester 2 at Holland College:**

Bios-2010 - Ethics and Professional Practice  
Chemistry 2300 - Advanced Biochemistry  
Bios-2050 - Research Project: Bioscience Technology

**Interession between years 3 and 4 at Holland College:**

Bios 2310 - Research Project: Bioscience Technology

**Year 4, Semester 1 at UPEI:**

Biology 326 - Introduction to Physiology of Cells and Organisms  
One Science Elective at the 300 level  
One Science Elective at the 400 level  
Two General Electives

**Year 4, Semester 2 at UPEI:**

Biology 322 - Introduction to Bioinformatics  
Biology 471 - Molecular Biotechnology  
Chemistry 322 - Analytical instrumentation  
One Science Elective at the 300 or 400 level  
One General Elective

**BIOLOGY COURSES:** (\*Lab courses are indicated with an asterisk)

**NOTES REGARDING 100-LEVEL BIOLOGY COURSES**

Biology 101 and 102 are courses designed for non-science students who will not be taking advanced courses in Biology and are not accepted for credit in the Biology Majors or Honours programs.

Biology 121 and 122 are restricted to students enrolled in programs offered by the School of Nursing and the Department of Applied Human Sciences.

Biology 131 and 132 are introductory courses required for, but not restricted to, Biology Majors and Honours. A combined average of at least 60% is a prerequisite for all Biology courses above the 100 level. However, this course prerequisite may also be met by the successful completion of a qualifying examination to be offered each year on the first Tuesday after Labour Day. This examination, which shall cover material from both Biology 131 and 132 is open to those who have passing grades for both Biology 131 and 132, but who do not have a combined average of at least 60%. To be admitted to Biology courses above the 100 level, students must achieve a score of 65% on the qualifying examination. The score on the qualifying exam will not replace those attained in Biology 131 and 132, nor shall it be factored into any calculation of grades for graduation, scholarships or other purposes. This course prerequisite may also be waived with the permission of the Chair for individual courses.

#### 001 INTRODUCTION TO THE ESSENTIALS OF BIOLOGY

This is a non-credit course designed primarily for students needing an introduction to biological principles, as preparation for first year biology. Basic biological principles are introduced in relation to everyday applications, including industry and the environment. Topics include: components of cells, principles of metabolism, principles of genetics, principles of evolution and natural selection, plant and animal structure. Classes will be augmented by laboratory demonstrations. This course is required for those students planning to take Biology 131 and/or 132, and who did not take either Biology 11 or Biology 12 in high school.

#### 101 CURRENT ISSUES IN ENVIRONMENTAL BIOLOGY

This course considers environmental problems from a biological perspective. Human ecology, populations, pollution, resource use and other topics are discussed critically.  
Lectures and field trips to the equivalent of six hours a week

#### 102 HUMAN BIOLOGY

An introductory course dealing with the structure and function of the human body. Course topics will include discussions on human sexuality, sexually transmitted diseases, human development, genetic disorders, integumentary, musculoskeletal, digestive, respiratory, excretory, circulatory and nervous system design and function.

Three hours lecture, two hours laboratory a week

#### 121 HUMAN ANATOMY

This course deals with structural levels of organization of the human body. The gross anatomy and histology of the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, respiratory, lymphatic, digestive, urinary and reproductive system of humans is surveyed.

PREREQUISITE: Restricted to students in the Nursing and Kinesiology programs

Three hours lecture, 2.5 hours laboratory a week

#### 122 HUMAN PHYSIOLOGY

This course deals with the functioning of the human body. The physiology of the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems is surveyed.

PREREQUISITE: Restricted to students in the Nursing, Kinesiology, Foods and Nutrition, and Family Science programs

Three hours lecture, 2.5 hours laboratory a week

#### 123 ESSENTIALS OF HUMAN PHYSIOLOGY

This lecture-only course deals with the functioning of the human body and is designed for students applying to post-graduate health science degrees where a prerequisite human physiology course is required. The physiology of the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems is surveyed.

PREREQUISITE: Restricted to Science majors in third and fourth year of study with permission of the instructor



Three hours lecture a week

NOTES: Students will not get credit for both BIO 122 and BIO 123

**\*131 INTRODUCTION TO CELL AND MOLECULAR BIOLOGY**

This course provides an introduction to the science of Biology, with emphasis on life processes at the cellular and molecular level. The course covers the cellular nature of life, the physical basis of heredity, development and the chemistry of life. Part of the laboratory component involves training in microscopy and molecular techniques.

PREREQUISITES: Grade XI or XII Biology, or UPEI Biology 001 or the permission of the Chair in special cases

Three hours lecture, three hours laboratory a week

**\*132 INTRODUCTION TO ORGANISMS**

This course provides an introduction to the science of Biology, with emphasis on organismal biology and unifying themes. The course deals with evolution, the diversity of life, form and function, and ecology. Part of the laboratory component involves training in dissection techniques.

PREREQUISITE: Biology 131 or permission of the instructor

Three hours lecture, three hours laboratory a week

**\*202 BOTANY**

A survey of bacteria, fungi, algae, and major plant groups (bryophytes, vascular cryptogams and seed plants) emphasizing morphology, life histories and evolutionary relationships.

PREREQUISITE: A combined average of at least 60% in Biology 131-132

Three hours lecture, three hours laboratory a week

**\*204 ZOOLOGY**

A survey of the major groups of animals, beginning with the sponges and ending with the mammals. Topics emphasize evolutionary relationships, development, structure and function, and ecology. Laboratory work includes the study of selected representatives from each of the major groups.

PREREQUISITE: A combined average of at least 60% in Biology 131-132

Three hours lecture, three hours laboratory a week

**\*206 MICROBIOLOGY**

This course deals with basic microbial biology including discussion of industrial, ecological, environmental and medical microbiology, and other relevant topics. Laboratory sessions provide training in relevant microbiology techniques/approaches.

PREREQUISITE: A combined average of at least 60% in Biology 131-132 or permission of the instructor. Students registered in the Bachelor of Wildlife Conservation Program or students majoring in Foods & Nutrition may take this course after completion of Biology 131

Three hours lecture, three hours laboratory a week

NOTE: Additional lab time may be required outside of scheduled laboratory periods.

**209 SPECIAL TOPICS**

Creation of a course code for special topics offered by Biology at the 200 level.

**221 CELL BIOLOGY**

This course examines the structure and function of living cells. Topics include cellular membranes, respiration, the cytoskeleton and nucleus, cell division, intercellular interactions, the cell in its environment, differences between plant and animal cells, different cell types, and special topics in biomedical cell biology.

PREREQUISITE: A combined average of at least 60% in Biology 131-132

Three hours lecture, one hour tutorial a week

**\*222 ECOLOGY**

This course introduces and discusses the basic themes and concepts of Ecology. Students examine the hierarchy of Ecology by investigating individual organisms, populations, communities, and ecosystems. Topics covered in the course include: natural selection, energy flow, nutrient cycling, population growth, plant/animal interactions and

biodiversity. The course involves reading and discussion of current and classical literature in the field. Laboratories will primarily consist of field investigations and analysis of field data.

**PREREQUISITE:** A combined average of at least 60% in Biology 131-132

Three hours lecture, three hours laboratory a week

### 223 GENETICS I

The principles of genetics are considered in the context of the molecular biology of the gene, with attention to factors affecting gene expression. Topics covered are simple Mendelian inheritance, genes as part of biochemical pathways, inheritance of linked genes, probability and statistics, DNA replication and mutation, chromosomal structure and behaviour, and recombinant DNA. There is a strong emphasis on problem solving.

**PREREQUISITE:** A combined average of at least 60% in Biology 131-132

Three hours lecture, one hour tutorial a week

### \*304 VERTEBRATE ZOOLOGY

This course focuses on the taxonomy and evolution of vertebrates. Coverage of taxonomic orders and families may include discussion of systematics, taxonomy, evolution, palaeontology, zoogeography, and unique morphological, physiological, ecological, and behavioural characteristics. The laboratory component is dedicated to learning basic vertebrate morphology and taxonomic relationships among and within vertebrate groups using preserved specimens and dissections.

**PREREQUISITE:** Biology 204. Students registered in the Bachelor of Wildlife Conservation Program may take this course after completion of Biology 131 and Biology 222.

Three hours lecture, three hours laboratory a week

### 309 SPECIAL TOPICS

Creation of a course code for special topics offered by Biology at the 300 level.

### \*311 PLANTS AND PEOPLE

This course surveys in detail the major current uses of plants, their history, morphology, and chemistry. Laboratory periods consist of demonstrations of plant structures and products derived from plant sources, practical exercises, and field trips.

**PREREQUISITE:** Biology 202

Three hours lecture, three hours laboratory a week

### 312 HISTORY OF BIOLOGY

This course surveys the major advances in the biological sciences from prehistory to modern times. Emphasis is placed on the effect which past ideas have had on the evolution of Biology.

**PREREQUISITE:** A combined average of at least 60% in Biology 131-132 or department permission. Students registered in Bachelor of Wildlife Conservation Program may take this course after completion of Biology 131.

Three hours lecture and one hour discussion group a week

### \*314 PLANT COMMUNITY ECOLOGY

A study of algae, fungi and major plant groups such as bryophytes, vascular seedless and seed plants. Emphasis will be placed on identification of common species, plant taxonomy and ecology.

**PREREQUISITE:** Biology 222

Three hours lecture; three to four hours laboratory a week, some of which consist of field trips

### \*322 INTRODUCTION TO BIOINFORMATICS

(See Computer Science 322)

Note: No student can be awarded more than one course credit among HB 885, VPM 885, CS 322, and BIO 322

### \*323 GENETICS II

The principles of genetics at a more advanced level are considered in the context of practical laboratory investigation, on-line genetic data resources, and examination of current scholarly literature. Laboratory work will be conducted with fruit flies (*Drosophila*) and yeast (*Saccharomyces*), and will include molecular biological techniques.

**PREREQUISITE:** Biology 223

Three hours lecture, three hours laboratory a week

**\*324 COMPARATIVE VERTEBRATE ANATOMY**

This course builds upon some of the material presented in Biology 204, providing students with a much more detailed look at the structure and function of various organs and organ systems of the vertebrate body. Dissections and display material are used during laboratories to allow students to compare and contrast these systems in representative vertebrates.

**PREREQUISITE:** Biology 204. Students registered in the Bachelor of Wildlife Conservation Program may take this course after completion of Biology 131 and Biology 222.

Three hours lecture, three hours laboratory a week

**\*326 INTRODUCTORY PHYSIOLOGY OF CELLS AND ORGANISMS**

This course introduces students to basic themes and concepts in physiology. Students explore mechanisms underlying regulatory processes in cells, and the ways organisms function. Topics include feedback systems, signalling, membrane potentials, muscle and nerve function, endocrine, cardiopulmonary and osmoregulatory form and function in animals, carbohydrate synthesis and transport in plants, and plant responses to stress.

**PREREQUISITES:** Biology 221 and six semester hours of core Biology courses at the 200 level

Three hours lecture, three hours laboratory a week

**\*327 FIELD COASTAL ECOLOGY**

Field coastal ecology is an intensive field-oriented course designed to provide 3rd-4th year students of the Biology program with knowledge and experience surveying and monitoring the organisms and habitats best represented in coastal Prince Edward Island. Using a hands-on approach, students are expected to learn and apply the sampling protocols that are most useful to each type of habitat. Although the course will have a broad theoretical component (early daily lectures on community types and sampling design), its main focus will be on activities to be developed in the field and subsequently in the laboratory. These activities include sampling, processing, and identification of organisms collected in the most typical benthic habitats of the island.

**PREREQUISITES:** Biology 202, 204 and 222. Students registered in Bachelor of Wildlife Conservation Program may take this course after completion of Bio 131 and Bio 222.

Four hours lecture, four hours laboratory/field trips per day for two weeks (summer intensive course)

**\*331 RESEARCH METHODS AND COMMUNICATIONS IN BIOLOGY**

This course is an introduction to research methods and the basic principles of scientific communication, as expressed in the Biological Sciences. Lectures, exercises and assignments focus on science writing, critical reading, the principles of study design, and the analysis, interpretation, and presentation of biological data.

**PREREQUISITES:** Biology 131 and 132, and 6 semester-hours of core Biology courses. Students registered in the Bachelor of Wildlife Conservation Program may take this course after completion of Biology 131.

Three hours lecture, Two hours laboratory a week

**\*335 ANIMAL BEHAVIOUR**

This course explores various aspects of animal behaviour, primarily from an evolutionary perspective. Topics covered include the development and expression of behaviour, animal communication, predator-prey interactions, reproductive and parental strategies of males and females, and the application of an evolutionary approach to the study of human behaviour. Laboratories focus on how behavioural data are collected and interpreted.

**PREREQUISITES:** Biology 204 and 222. Students registered in the Bachelor of Wildlife Conservation Program may take this course after completion of Biology 131 and Biology 222.

Three hours lecture, three hours laboratory a week

**\*351 ORNITHOLOGY**

A study of avian biology with particular emphasis on identification, behaviour, breeding biology and ecology of birds. Laboratory periods will include field trips to major habitats.

**PREREQUISITE:** A combined average of at least 60% in Biology 131-132. Students registered in the Bachelor of Wildlife Conservation Program may take this course after completion of Biology 131 and Biology 222.

Two hours lecture, four hours laboratory a week

NOTE: With the permission of the instructor and the Chair, the prerequisite for this course may be waived for students not majoring in Biology.

#### **\*353 HUMAN ANATOMY AND HISTOLOGY**

This course covers human anatomy at both the macroscopic and microscopic levels and gives the student a thorough and detailed overview of the various human tissues and organs. This is an upper level course designed for students who want intensive preparation in for health-related disciplines. While both anatomy and histology will be integrated throughout the course, lectures will focus on gross human anatomy while laboratories will emphasize the structure of tissues (histology). Beginning with the integument, the course progresses through the various organ systems including skeletal, muscular, nervous, endocrine, circulatory, respiratory, digestive, urinary, and reproductive.

PREREQUISITE: A combined average of at least 60% in Biology 131-132

Three hours lecture, three hours laboratory a week

#### **\*361 BIOLOGY OF FISHES**

An introductory course on the Biology of fishes outlining classification, comparative structure and function of the systems of major fish groups. Emphasis will be placed on the diversity, distribution, ecology and evolution of freshwater and marine fishes of the Atlantic region. Laboratory periods will involve field and laboratory studies.

PREREQUISITE: A combined average of at least 60% in Biology 131-132 or completion of Biology 131 and 251 and registration in Bachelor of Wildlife Conservation Program.

Three hours lecture, three hours laboratory a week

#### **\*366 PLANT-ANIMAL INTERACTIONS**

This course examines evolutionary and ecological themes in plant-animal interactions by presenting some of the complex interactions that have arisen between plants and animals. The course will consist of lectures on various topics such as plant communities as animal habitats, pollination and seed dispersal by animal, ant and plant interactions, insect herbivore and host-plant interactions, seed predation, and carnivorous plants and insects, and the pivotal role of plant-animal interactions in conservation biology. The course requires presentations and discussions of the primary literature, and includes some laboratory and field projects.

PREREQUISITES: Biology 202, 204, and 222 or completion of Biology 131 and 251 and registration in Bachelor of Wildlife Conservation Program

Three hours lecture a week, three hours laboratory every other week

#### **\*371 LIFE OF MAMMALS**

This course is an introduction to the study of the animals that constitute the class Mammalia. Topics include taxonomic classification, zoogeography, reproductive strategies, ecology, behaviour, and economic considerations. Laboratory exercises include several projects involving field work with the mammalian fauna of Prince Edward Island.

PREREQUISITES: Biology 204 and 222 or completion of Biology 131 and 251 and registration in Bachelor of Wildlife Conservation Program

Three hours lecture, three hours laboratory a week

#### **375 MEDICAL MICROBIOLOGY**

The basic principles of microbiology, biochemistry, molecular biology/genetics are used to discuss aspects of microbial diseases with a particular focus on the specific mechanisms whereby disease occurs. Topics include drug-resistance development, resistance mechanisms, issues in infection prevention and control, and emerging pathogens.

PREREQUISITE: Biology 206 or equivalent or permission of the instructor

Three hours lecture a week

#### **\*382 EVOLUTIONARY BIOLOGY**

This course is designed to provide students with a better understanding of evolution and how it applies to other biology courses and to their lives in general. We first trace the rise of evolutionary thought, examining the evidence for different evolutionary processes. We then more closely examine the mechanisms that result in evolutionary change. Subsequently, we look at the history of life and examine topics such as speciation, great moments in

evolution, human evolution and extinction. Lastly, we deal with the diverse areas of study that benefit from an understanding of evolution.

PREREQUISITE: Biology 222 or Biology 223. Students registered in the Bachelor of Wildlife Conservation Program may take this course after completion of Biology 131 and Biology 222.

Three hours lecture, three hours laboratory a week

#### **\*391 MARINE BIOLOGY**

An introduction to the principles of Marine Biology emphasizing marine environments and organisms of P.E.I. and the Eastern Atlantic region. Laboratory periods will involve field and laboratory studies.

PREREQUISITES: Biology 202 and 204. Students registered in the Bachelor of Wildlife Conservation Program may take this course after completion of Biology 131 and Biology 222.

Three hours lecture, three hours laboratory a week

#### **\*401 HUMAN PHYSIOLOGY & PATHOPHYSIOLOGY**

This course is an in-depth overview of the function of human organ systems emphasizing the effects of disease states. It is designed for students interested in human health professions, such as Nurse Practitioners. The course covers nervous & endocrine systems and disorders; cardio-pulmonary, blood, immune & exercise physiology and related diseases; fluid and metabolic balance and related disorders; and pregnancy. Laboratories focus on physiological principles, diseases and application of knowledge in case studies.

Cross-listed with Nursing (cf. Nursing 601)

PREREQUISITES: Biology 326 or entry to the Master of Nursing, Nurse Practitioner stream, or permission of instructor

Three hours lecture, three hour laboratory a week

NOTE: Credit will not be given for both Biology 401 and Nursing 601

#### **\*402 COMPARATIVE & ENVIRONMENTAL VERTEBRATE PHYSIOLOGY**

A study of animal function emphasizing complex regulatory and metabolic mechanisms, the relationships between organ systems, and interactions between animals and their environment. Weekly laboratory exercises and a mini-research project will demonstrate experimental physiologic principles.

PREREQUISITES: Biology 204 and 326 or permission of instructor

Three hours lecture, three hours laboratory a week

#### **\*403 DEVELOPMENTAL BIOLOGY**

This course provides a comprehensive overview of the main processes involved during the development of an organism. The primary focus of the course is the shared genetic and biochemical events that underlie the development of all organisms. Model systems are studied in order to highlight general principles of ontogeny.

These principles are then examined in the development of other organisms, including humans. During laboratories students are exposed to basic techniques in modern developmental chemistry.

PREREQUISITE: Biology 221

Three hours lecture, three hours laboratory a week

#### **\*411 PRINCIPLES OF WILDLIFE BIOLOGY**

This course focuses on the basic principles of wildlife biology, wildlife management, and contemporary wildlife issues. The laboratory/field component includes an introduction to techniques used in wildlife research, habitat assessments and debates on local wildlife issues.

PREREQUISITE: Biology 202 and 204 or completion of Biology 131 and 251 and registration in Bachelor of Wildlife Conservation Program

Two hours lecture, four hours laboratory a week

#### **\*413 CONSERVATION GENETICS**

An introduction to the guiding principles of conservation biology and genetics, and their application to the preservation of biodiversity. Students will explore current research topics, such as ecological and landscape genetics, invasion biology, and genomics for endangered species through lectures, extensive discussion and a major paper. Laboratories may involve field trips and molecular techniques.

**PREREQUISITES:** Biology 222 and Biology 223 (Biology 382 is a recommended co-requisite, but is not essential). Students registered in the Bachelor of Wildlife Conservation Program may take this course after completion of Biology 131 and Biology 222.

Three hours lecture, three hours laboratory a week

#### **415 WILDLIFE HEALTH**

This course examines the relationship between the health of free-living wild animals and their environment. The laboratory component of the course familiarizes the student with techniques of necropsy of a wide variety of mammalian and avian species, emphasizing comparative anatomy, recognition of basic macroscopic abnormalities, and harvesting techniques and basic identification of macroparasites.

**PREREQUISITE:** Registration in the Bachelor of Wildlife Conservation Program and completion of Biology 131 and Biology 222. Note: students must be vaccinated for rabies

Four hours lecture, four hours laboratory per day for 2 weeks (summer intensive course)

Three semester hours of credit

#### **\*421 DESIGN AND ANALYSIS OF BIOLOGICAL STUDIES**

This course provides students who have a previous statistics course and research methods course with experience in the practical application of analytical techniques for the ecological and life sciences. Topics include design of field and laboratory studies and examination of biological data using advanced parametric, non-parametric, and multivariate methods.

**PREREQUISITE:** Math 221 and Biology 331 or permission of the instructor

Three hours lecture and three hours lab per week

#### **435 THE BIOLOGY OF SEX**

This course explores the various aspects of sexual reproduction, focussing on evolutionary questions. The course compares various modes of reproduction (asexual and sexual) and examines the important questions of why sex evolved and why it is so common among plants and animals today. Topics include sexual selection, mating strategies of males and females, sperm competition, sex ratios, and various potentially controversial aspects of human sexuality from a biological perspective. The course involves extensive discussion (including student-led discussions), reading, writing, and a major paper.

**PREREQUISITE:** Biology 223 (other useful courses are Biology 335 and Biology 382)

Three hours lecture, one hour discussion weekly

#### **\*440 SENIOR UNDERGRADUATE RESEARCH PROJECT**

This course allows senior students majoring in Biology to carry out a full-year research project. The project may be lab or field based, or some combination of the two. Students work under the supervision of a faculty member and write a thesis describing the work.

**PREREQUISITE:** Students should be at least third year Biology Majors and have completed their second year core Biology courses. Entry to this course is contingent upon the student finding a departmental faculty member willing to supervise the research and permission of the department, no later than March 31 of their third year.

Six semester hours of credit (Credit in this course will be given only when both semesters have been completed successfully.)

#### **441 DIRECTED STUDIES IN BIOLOGY**

Available to third year Biology Majors, preferably those who have completed their second year Biology courses. Entry to the course, and the conditions under which the course may be offered will be subject to the approval of the Chair of the Department and the Dean of Science. (See Academic Regulation 9 for Regulations Governing Directed Studies)

Three semester hours of credit

#### **442 SPECIAL TOPICS IN BIOLOGY**

An upper year course typically designed to reflect an issue of current interest in Biology. Available to third and fourth year Biology Majors, preferably those who have completed their second year core Biology courses. The conditions under which the course may be offered will be subject to the approval of the Chair of the Department and the Dean of Science.

Three semester hours of credit

**\*444 INVESTIGATIVE PLANT ANATOMY**

In this course students examine the simple and complex tissues of plants throughout their life cycles. Basic and advanced concepts pertaining to microscopy are taught. Students prepare material for both light and scanning electron microscopy. Innovative techniques in microscopy and preparation of photographic plates suitable for publication are also covered.

PREREQUISITE: Biology 202

Two hours lecture, four hours laboratory a week

**\*452 BIOGEOGRAPHY AND MACROECOLOGY**

This course examines the patterns of distribution, species richness, and abundance of organisms in space and time with emphasis on animal communities, as well as ecology of insular biotas. Historical, ecological, geographical, and anthropological factors affecting these patterns are examined.

PREREQUISITES: A combined average of at least 60% in Biology 131-132. Students registered in the Bachelor of Wildlife Conservation Program may take this course after completion of Biology 131 and Biology 222.

Three hours lecture, three hours laboratory a week

**\*454 BIODIVERSITY AND CONSERVATION BIOLOGY**

This course examines fundamental concepts, ideas, and approaches used in conservation biology. Different philosophies and perspectives on setting priorities for preserving and managing biodiversity are also discussed.

PREREQUISITE: Biology 222. Students registered in the Bachelor of Wildlife Conservation Program may take this course after completion of Biology 131 and Biology 222.

Three hours lecture, three hours laboratory a week

**\*462 WATERSHED ECOLOGY**

The focus of this course is the study of watersheds, with emphasis on those found on Prince Edward Island.

Lectures focus on the physical, chemical, and biological characteristics of streams and their surrounding riparian zones, and labs will include practical application of stream sampling methods.

PREREQUISITES: Biology 222 or equivalent or completion of Biology 131 and 251 and registration in Bachelor of Wildlife Conservation Program

Three hours lecture, three hours laboratory a week

**\*465 MARINE COMMUNITY ECOLOGY**

This course constitutes a critical review of the dynamics and the rules of assembly that are distinctive to marine biological communities. Its main goal is the exploration of the organizing mechanisms behind spatial and temporal patterns exhibited by planktonic and benthic communities. Although the focus is on general principles and broad ideas, specific problems and practical work relate primarily to communities and habitats from Atlantic Canada.

PREREQUISITES: Biology 222 and Biology 391 or permission of instructor. Students registered in the Bachelor of Wildlife Conservation Program may take this course after completion of Biology 131 and Biology 222.

Three hours lecture, three hours laboratory a week

**471 MOLECULAR BIOTECHNOLOGY**

This course examines principles of gene manipulation, and the application of molecular biology in biotechnology. Recent developments in medicine, agriculture, industry and basic research are considered. Emphasis is placed on reviewing current literature in the field.

PREREQUISITE: Biology 223

Three hours lecture a week

**\* 472 BIOLOGY OF CANCER AND OTHER DISEASES**

This course presents the basic principles of pathobiology with emphasis on specific candidate human diseases. The focus of the course is on aspects of the basic biochemistry and cell biology associated with certain disease paradigms. The majority of this course will focus on the biology of cancer. The biology of heart disease, Alzheimer's disease, diabetes, and AIDS, as well as, other current topical disease paradigms will be presented.

PREREQUISITE: Biology 206 and Biology 221  
Three hours lecture a week, three hours laboratory a week

#### **475 BASIC AND CLINICAL IMMUNOLOGY**

This course presents the basic principles of immunology, its role and impact on specific mechanisms pertaining to human health. Topics include the immune system, antigen-antibody reactions, T & B cell biology and chemistry, cytokines, complement system, hypersensitivity, immune-physiology, cell mediated immunity, vaccines, AIDS and other immunodeficiencies, autoimmunity, transplant immunology and cancer.

PREREQUISITE: Biology 206 or equivalent or permission of the instructor  
Three hours lecture a week

#### **\*485 ENVIRONMENTAL TOXICOLOGY**

This course introduces the basic toxicological principles with respect to environmental toxicology, including a survey of major environmental pollutants and the statutes governing chemical release. Environmental effects on biota and methods of detection of environmental pollutants will be examined using endpoints at multiple levels of biological organization from biochemical to community.

PREREQUISITE: A combined average of at least 60% in Biology 131-132 and Chemistry 111-112. Students registered in the Bachelor of Wildlife Conservation Program may take this course after completion of Biology 131 and Chemistry 111-112.

Three hours lecture, three hours laboratory a week

#### **\*490 ADVANCED RESEARCH AND THESIS**

This is a 12 semester-hour course required of all Honours students. It is intended to provide the student with an opportunity to design, carry out, evaluate and write up a research project in an approved scientific fashion, while working under the direction of a chief advisor assisted by an advisory committee. Normally the research will be done during the summer session preceding the student's graduating year, and the thesis written during the final academic year. The objective of this course is to provide research experience for the student who intends to take up further studies at a post-graduate level or for the student who is planning on entering a career where research experience in Biology or related areas would be an asset.

PREREQUISITE: Acceptance to the Honours Program in Biology

### **School of Business Administration**

<http://upei.ca/business>

#### **Business Faculty**

Juergen Krause, Associate Professor, Dean

Timothy E. Carroll, Associate Professor

Gary Evans, Associate Professor

Adam Fenech, Associate Professor

Blake Jelley, Associate Professor

Tarek Mady, Associate Professor

Donald M. Wagner, Associate Professor

Andrew Carrothers, Assistant Professor

Mike Cassidy, Assistant Professor

Reuben Domike, Assistant Professor

Debbie Good, Assistant Professor

Susan Graham, Assistant Professor

Melissa MacEachern, Assistant Professor

Amy MacFarlane, Assistant Professor

Tina Saksida, Assistant Professor

Craig Thompson, Assistant Professor

Karen Wight, Assistant Professor



The School of Business Administration is committed to providing students with a high quality, integrated business education in a personalized learning environment. It is structured to provide the broad-based, cross-functional business education required for leaders of business, government, and not-for-profit organizations. The School's personalized learning environment provides opportunities for extensive interaction between students, faculty and practitioners.

The School of Business Administration holds a unique position within the province's education system. As the only university school of business, it is committed to intellectual leadership, and to excellence in developing new knowledge and conveying that knowledge to its students and to the public. In order to attract, develop and retain students, faculty and staff, the School recognizes that it must sustain an intellectually stimulating environment.

The School views its students not as customers, but rather as partners in the development of a high quality business education. Graduates are expected to have developed competency in integrating the core functional business disciplines; ethical, social, historical and global awareness; critical thinking and problem solving; quantitative analysis; communication skills and leadership; team work as well as personal initiative; technological application in business; and using business research to support evidence-informed practice.

The degree program in the School of Business Administration is designed to fulfill this mission and to provide the educational breadth and depth needed by business leaders.

### **ACCOUNTING AND BUSINESS ADMINISTRATION**

The School of Business maintains a close liaison with the Chartered Professional Accountants of Prince Edward Island, and students who satisfactorily complete designated university courses are given broad exemptions by this professional organization. Students interested in pursuing a professional accounting designation should contact the Dean's office prior to enrolling in their third year. These students should not enrol in Business electives other than those that are designated as accounting exemptions. Students not pursuing a Bachelor of Business Administration degree may register for the Certificate in Accounting.

### **Bachelor of Business Administration Degree**

The Bachelor of Business Administration degree (BBA) is a four-year degree consisting of 120 semester hours.

### **REQUIRED COURSES**

#### **100-Level Courses:**

Accounting 101 (Introduction to Financial Accounting)  
Business 141 (Marketing)  
Business 171 (Organizational Behaviour)  
Economics 101 (Introductory Microeconomics)  
Economics 102 (Introductory Macroeconomics)  
Math 111 (Finite Mathematics)  
UPEI 101 (Writing Studies) (see note 3)

#### **200-Level Courses:**

Accounting 221 (Managerial Accounting)  
Business 212 (Business Presentations and Communications)  
Business 231 (Corporate Finance)  
Business 241 (Management Information Systems)  
Business 251 (Introduction to Management Science)  
Business 272 (Human Resource Management)  
Business 288 (Research and Evidence-Based Management)  
[Though English 381 is a 300-level course, it is recommended that students take this course in their second year.]

#### **300-Level Courses:**

Business 301 (Business Law – Part I)

Business 333 (Integrated Cases in Corporate Finance)  
Business 343 (Integrated Cases in Marketing)  
Business 351 (Operations Management)  
Business 371 (Entrepreneurship and New Ventures)  
Business 391 (Strategic Management)  
English 381 (Professional Writing) [recommended to be taken in Year 2]

#### **400-Level Courses:**

Business 485 (Developing Management Skills)  
Business 495 (Business Research I)

### **ELECTIVE COURSES**

In addition to the 23 required courses, students must take 17 elective courses. At least three electives must be business courses and at least eight electives must be non-business courses. The other six electives (“free electives”) may be either business or non-business courses.

For students pursuing one of the seven specializations, the courses prescribed for the particular specialization will fulfill electives on the degree.

Students must obtain at least 60% in at least 14 of the 18 required business courses in order to qualify for the degree of Bachelor of Business Administration.

#### **NOTES:**

1. Accounting courses are considered to be business courses.
2. All courses will not necessarily be offered each year. Students should consult the current timetable before registration.
3. The completion of UPEI 101 is a required course for the BBA, but the course also meets the general UPEI requirement of taking UPEI 101, 102 or 103.

### **SPECIALIZATIONS**

The specializations in the BBA Program are designed to provide students with a deeper level of expertise within a discipline, to improve students’ competitiveness upon entering the workforce.

#### **Specialization in Accounting**

A specialization in accounting is intended for business students wishing to pursue a Chartered Professional Accountant (CPA) designation after graduation. In addition to the core courses required to fulfill the BBA requirements, the following additional courses will be required to obtain the specialization:

- Accounting 202 (Introductory Financial Accounting – Part II)
- Accounting 301 (Intermediate Accounting – Part I)
- Accounting 302 (Intermediate Accounting – Part II)
- Accounting 401 (Advanced Financial Accounting – Part I)
- Accounting 402 (Advanced Financial Accounting – Part II)
- Accounting 412 (Cost Accounting)
- Accounting 415 (Auditing)
- Accounting 416 (Auditing, Accounting and Society)
- Accounting 431 (Income Taxation)

To qualify for a specialization in accounting, students are required to have an overall average of 70% in the required courses above. Students who already hold a certificate in accounting will not receive additional recognition for a specialization in accounting.

## Specialization in Entrepreneurship

The courses and experiences related to specializing in entrepreneurship provide students with the knowledge and the experiential learning to start up a business or manage one in an entrepreneurial manner. Students will study the various types of entrepreneurship including business, social, and innovation within existing organizations. The key learning outcomes for students will be to gain knowledge, confidence, skills, and practice in both entrepreneurial thinking and leading entrepreneurial initiatives. They will think analytically, ask questions, research the market, solve problems, start a new venture, launch new products/services/ideas, and develop other entrepreneurial skills.

In addition to the core BBA program, completion of the specialization in entrepreneurship requires successful completion of the following courses:

### Required:

- Business 265 (Introduction to Small Business and Entrepreneurship)
- Business 365 (Small Business Management: Opportunity Analysis & Development)
- Business 366 (Entrepreneurial Finance)
- Business 468 (Self-Employment – Behind the Scene)
- Business 421 (Personal Finance)

Any **FOUR** of the following courses:

- Business 287 (International Business)
- Business 461 (Communications)
- Business 465 (Project Management)
- Business 471 (Organizational Development and Change)
- Business 475 (E-commerce)
- Business 476 (Intercultural Management)
- Philosophy 111 (Critical Thinking)
- Psychology 331 (Creativity)
- Sociology 311 (Small Groups)

Some of the above-listed courses have prerequisites, such as Sociology 101 and 102, or Psychology 101 and 102. Students are advised to plan ahead accordingly.

To qualify for a specialization in entrepreneurship, students are required to have an overall average of 70% in the nine courses of this specialization.

## Specialization in Finance

Management of financial resources is critical to the success and sustainability of both private and public organizations. An understanding of financial concepts, qualitative and quantitative problem-solving skills, and rational decision-making practices are important learning outcomes of the courses in the specialization in finance. The courses in this specialization focus on both corporate finance and personal finance with the intent of preparing the student for a career or further education related to finance. In addition to the core BBA program, completion of the specialization in finance requires successful completion of the following courses:

### Required:

- Math 112 (Calculus for Managerial, Social and Life Sciences) (It is recommended that students take this course before they begin their third year of studies.)
- Accounting 202 (Introductory Financial Accounting – Part II)
- Business 366 (Entrepreneurial Finance)
- Business 421 (Personal Finance)
- Business 439 (International Finance)

Any **FOUR** of the following courses:

- Business 287 (International Business)
- Business 302 (Business Law – Part II)
- Business 432 (Applied Investment Management)
- Economics 203 (Intermediate Microeconomics)
- Economics 204 (Intermediate Macroeconomics)
- Economics 231 (Mathematical Economics)
- Economics 242 (Economics of Tourism)
- Economics 371 (Economics of Sports)
- Economics 283 (Agricultural Economics)
- Economics 291 (Managerial Economics)
- Economics 412 (Public Finance)
- Math 222 (Statistics II)

To qualify for a specialization in finance, students are required to have an overall average of 70% in the nine courses of this specialization.

### **Specialization in International Business**

The international opportunities in today's world are vast. Doing business internationally is also challenging. The specialization in international business includes four business courses that provide an overview of those opportunities and challenges, as well as five electives to be chosen from a large multi-disciplinary set of courses that can enrich a student's understanding of the world beyond our borders. The specialization also includes an international exchange term or an international work term. In addition to the core BBA program, completion of the specialization in international business requires the successful completion of the following:

1. Completion of an approved international academic or international co-op work term. To document that they have completed this requirement of the specialization, students must register in Business 386 (a zero-credit hour course) for an academic exchange term, or Business 394 (also a zero-credit hour course) for an international co-op work term. International students are deemed to have already met this requirement by virtue of having travelled from their home country to study at UPEI, but they too should register for Business 386 to document that they have met this requirement.
2. Completion of the following four required courses:
  - Business 287 (Introduction to International Business)
  - Business 476 (Intercultural Management)
  - Business 477 (International Marketing)
  - Business 439 (International Finance)
3. Completion of any **FIVE** of the following courses:
  - any course designated as Business 387 (International Business Elective)
  - any courses offered by the Department of Modern Languages
  - any courses offered by Asian Studies
  - any History courses listed under the US, British, European, Global or Greek & Roman streams
  - any Political Science courses listed in the Comparative Politics field of courses or the International field of courses
  - Anthropology 105 (Introduction to Anthropology I)
  - Anthropology 106 (Introduction to Anthropology II)
  - Anthropology 201 (Cultural Anthropology)
  - Economics 331 (International Trade)
  - Economics 332 (International Monetary Economics)
  - Economics 341 (Economic Development Theory)
  - Economics 342 (Economic Development Policy)
  - Religious Studies 101 (Religions of the World – Western Traditions)
  - Religious Studies 102 (Religions of the World – Eastern Traditions)

- Sociology/Anthropology 212 (Peoples of South Asia)
- Sociology/Anthropology 242 (Peoples of Oceania)
- Sociology/Anthropology 251 (Peoples of Africa)
- Sociology/Anthropology 263 /Diversity and Social Justice Studies 263 (Global Youth Cultures)
- Sociology/Anthropology 355 /Diversity and Social Justice Studies 355 (Globalization)

Many of the above-listed courses have prerequisites, such as Economics 203 or 204, Sociology 101 and 102, Anthropology 105 and 106 (or 107). Students are advised to plan ahead accordingly.

To qualify for a specialization in international business, students are required to have an overall average of 70% in the nine courses of this specialization.

### **Specialization in Marketing**

The Bachelor of Business Administration degree with a specialization in marketing is designed to introduce students to the core marketing function within the spectrum of business and further develop students' theoretical and practical understanding of a full range of marketing activities. In addition to the core business curriculum, students pursuing a marketing specialization will take courses dedicated to marketing communications, brand management, market research, consumer behaviour, personal selling and sales, and international marketing. The marketing specialization is intended to help prepare students for entry-level positions in both small and large organizations ranging from account managers to marketing coordinators to brand managers and much more.

In addition to the core BBA program, completion of the specialization in marketing requires the successful completion of the following:

#### **Required:**

- Business 481 (Integrated Marketing Communications)
- Business 443 (Consumer Behaviour)
- Business 444 (Market Research)
- Business 445 (Brand Management)
- Business 446 (Personal Selling and Sales)
- Business 477 (International Marketing)

Any **THREE** of the following courses:

- Business 465 (Project Management)
- Psychology 222 (Psychology of Personal Experience)
- Psychology 242 (Introduction to Social Psychology)
- Psychology 303/Diversity and Social Justice Studies 303 (Psychology of Aging)
- Psychology 305 (Adolescent Development and Adjustment)
- Psychology 308 (Child Development)
- Psychology 309 (Adult Development)
- Psychology 321 (Learning and Motivation: Basic Processes)
- Psychology 331 (Creativity)
- Psychology 351 (Theories of Personality)
- Psychology 391/Diversity and Social Justice Studies 391 (Psychology of Women)
- Sociology 392 (Media and Society)
- Anthropology 310/Diversity and Social Justice Studies 310/English 314 (Identity and Popular Culture)
- Family Science 221 (Family Resource Management)
- Family Science 241 /Kinesiology 241 (Human Development)
- Theatre Studies 244 (Introduction to Theatre Study)
- Sociology/Anthropology 261/Diversity and Social Justice Studies 261 (Sex, Gender and Society)

Many of the above-listed courses have prerequisites, such as Psychology 101 and 102, Sociology 101 and 102, Anthropology 105 and 106 (or 107), or Family Studies 114. Students are advised to plan ahead accordingly.

To qualify for a specialization in marketing, students are required to have an overall average of 70% in the nine courses of this specialization.

### **Specialization in Organizational Management**

The leadership and management of organizations can promote or undermine organizational effectiveness, the well-being of organizations' members, and outcomes for other stakeholders. Management-related courses such as organizational behaviour, human resource management, and leadership and management skills are important components of the core BBA program. The specialization in organizational management allows students to delve deeper into the broad, interdisciplinary domain of management and organizational studies by combining additional management courses with relevant courses in social science and liberal arts. Substantive issues relating to organizations as well as social and behavioural research methods are features designed to help students take an evidence-based approach to management. This specialization promotes development of thoughtful, ethical, and productive members, managers, and leaders of organizations.

In addition to the core BBA program, completion of the specialization in organizational management requires successful completion of the following courses:

**THREE** courses from the following list of business courses ("List A"):

- Business 372 (Industrial Relations)
- Business 461 (Communications)
- Business 465 (Project Management)
- Business 471 (Organizational Development and Change)
- Business 476 (Intercultural Management)
- Business 488 (Management in Perspective)
- Business 407 (Special topics in Organizational Management)

**TWO** courses from the following list of non-business research courses ("List B"):

- Anthropology 321 (Field Methods)
- Anthropology 404 (Applied and Public Interest Anthropology)
- Information Technology 371 (Applied Databases)
- Philosophy 111 (Critical Thinking)
- Philosophy 371/Diversity and Social Justice Studies 371 (Community-Based Ethical Enquiry I)
- Psychology 371 (Advanced Statistics)
- Psychology 374 (Advanced Qualitative Research)
- Sociology 401 (Doing Social Research)
- Sociology 409 (Evaluation)
- Sociology 462 (Approaches in Applied Sociology)
- Sociology/Anthropology 208 (Developing the Socio-Cultural Imagination)

**FOUR** courses from the following list of other non-business courses ("List C"):

- Economics 324 (Labour Economics)
- Education 309 (Introduction to Learning in the Workplace)
- History 426 (A History of the Canadian Working Classes)
- Philosophy 102 (Introduction to Ethics and Social Philosophy)
- Psychology 242 (Introduction to Social Psychology)
- Psychology 331 (Creativity)
- Psychology 351 (Theories of Personality)
- Psychology 362 (Ergonomics)
- Psychology 381 (Human Learning and Memory)
- Psychology 382 (Cognitive Psychology)
- Sociology 105 (Civility and Society)
- Sociology 275/Diversity and Social Justice Studies 275 (Social Inequality)
- Sociology 292/Diversity and Social Justice Studies 292 (Work and Society)
- Sociology 311 (Small Groups)

- Sociology 391 (Sociology of Organizations)

Many of the above-listed courses have prerequisites, such as Sociology 101 and 102, Anthropology 105 and 106 (or 107), or Psychology 101 and 102. Students are advised to plan ahead accordingly.

To qualify for a specialization in organizational management, students are required to have an overall average of 70% in the nine courses of this specialization.

### **Specialization in Tourism and Hospitality**

The Bachelor of Business Administration degree with a specialization in tourism and hospitality is designed for students who plan to work in the tourism and hospitality industry in a management capacity or as an entrepreneur. The specialization in tourism and hospitality includes four required courses that focus specifically on the tourism and hospitality industry, as well as five electives to be chosen from a large multi-disciplinary set of courses that can enrich a students' understanding of international business and international peoples.

In addition to the core BBA program, completion of the specialization in tourism and hospitality requires successful completion of the following courses:

#### **Required:**

- Island Studies 211/Sociology/Anthropology 211 (Island Tourism: The Search for Paradise)
- Business 454 (Tourism and Hospitality Management)
- Business 455 (Sustainable Tourism Development)
- Economics 242 (The Economics of Tourism)

**TWO** courses from List A, and another **THREE** courses from List A or List B:

#### **List A:**

- Business 465 (Project Management)
- Business 476 (Intercultural Management)
- Business 477 (International Marketing)
- Sociology/Anthropology 374/Island Studies 374 (Tourism)
- Any courses offered by the Department of Modern Languages

#### **List B:**

- Anthropology 105 (Introduction to Anthropology I)
- Anthropology 106 (Introduction to Anthropology II)
- Anthropology 201 (Cultural Anthropology)
- Religious Studies 101 (Religions of the World – Western Traditions)
- Religious Studies 102 (Religions of the World – Eastern Traditions)
- Sociology/Anthropology 212 (Peoples of South Asia)
- Sociology/Anthropology 242 (Peoples of Oceania)
- Sociology/Anthropology 251 (Peoples of Africa)
- Sociology/Anthropology 263/ Diversity and Social Justice Studies 263 (Global Youth Cultures)
- Sociology/Anthropology 355/Diversity and Social Justice Studies 355 (Globalization)

To qualify for a specialization in tourism and hospitality, students are required to have an overall average of 70% in the nine courses of this specialization.

### **Honours in Business Administration**

An Honours concentration in Business Administration provides an opportunity for BBA students to pursue advanced studies in Business. It is available to students with a strong academic background who intend to continue studies in Business at the postgraduate level, or to students who intend to pursue a career where research experience would be of value.

## ADMISSION

For admission to the Honours program, students must have a minimum average of 75% in all previous courses. Permission of the School is required and is contingent on the student finding a faculty supervisor. Students interested in pursuing the Honours program should seek admission as early as possible, not later than the end of the third year.

## COURSE REQUIREMENTS

A total of 126 semester hours of credit is required for the BBA Honours. In addition to the requirements of the regular BBA, Honours students must complete Honours Thesis 510 (six semester hours). This thesis would normally be completed in the semester following Business Research 495. A committee of three faculty members, including the supervisor, will review the Honours thesis. An oral examination conducted by the committee will also be included in the evaluation process. A minimum average of 75% must be maintained to remain in the Honours program.

## Accelerated Bachelor of Business Administration Program

The Accelerated Bachelor of Business Administration program is available to students who have a two-year diploma from Holland College (or a similar college) in Retail Management, Business, or Accounting. They must satisfy general UPEI and School of Business entrance requirements. Applicants must demonstrate a minimum average of 70% in their college program.

## REQUIRED COURSES:

**Required courses** recommended to be taken in a student's **FIRST year** at UPEI:

- Business 141 - Marketing
- Business 171 - Organizational Behaviour
- Business 241 - Management Information Systems
- Business 288 - Research and Evidence-Based Management
- Economics 101 - Introductory Microeconomics
- Economics 102 - Introductory Macroeconomics
- Math 111- Finite Mathematics
- UPEI 101 - Writing Studies (see note 3)
- Accounting 101 - Introduction to Financial Accounting (except students whose college diploma was in Accounting; see note 1)

**Required courses** recommended to be taken in a student's **SECOND year** at UPEI:

- Business 212 - Business Presentations and Communications
- Business 231 - Corporate Finance
- Business 251 - Introduction to Management Science
- Business 272 - Human Resource Management
- Business 301 - Business Law – Part I
- Business 343 - Integrated Cases in Marketing
- English 381 - Professional Writing
- Accounting 221 - Managerial Accounting

**Required courses** recommended to be taken in a student's **THIRD year** at UPEI:

- Business 333 - Integrated Cases in Corporate Finance
- Business 351 - Operations Management
- Business 371 - Entrepreneurship and New Ventures
- Business 391 - Strategic Management
- Business 485 - Developing Management Skills
- Business 495 - Business Research I



## ELECTIVE COURSES:

For students whose **college diploma was in Accounting**:

In addition to the 22 required courses, students must take 8 elective courses. At least three electives must be business courses, and at least four electives must be non-business courses. The other elective ("a free elective") may be either a business or a non-business course.

For students whose **college diploma was in Business or Retail Management**:

In addition to the 23 required courses, students must take 7 elective courses. At least two electives must be business courses, and at least four electives must be non-business courses. The other elective ("a free elective") may be either a business or a non-business course.

Students must obtain at least 60% in at least 14 of the 18 required business courses in order to qualify for the degree of Accelerated Bachelor of Business Administration.

## NOTES:

1. Students in the Retail or Business Program will also be required to take Accounting 101 if they have not completed the equivalent at Holland College or an equivalent community college program.
2. Students in this program are eligible for the Business Co-op option.
3. The completion of UPEI 101 is a required course for the Accelerated BBA, but the course also meets the general UPEI requirement of taking UPEI 101, 102 or 103.

## Bachelor of Business in Tourism and Hospitality

The Bachelor of Business in Tourism and Hospitality (BBTH) is a two-year post-diploma degree available only to graduates of diploma programs at the Atlantic Tourism and Hospitality Institute (ATHI) or of similar programs at similar post-secondary institutions. This post-diploma degree provides the opportunity for students to continue their education through a concentration in Business Administration.

Students must meet the UPEI admission requirements for this degree by completing the ATHI diploma, including economics, or equivalent course work at a university or college, with a minimum overall average of 70%. In the BBTH program, students must obtain grades of at least 60% in at least 12 of the 16 required business courses in order to qualify for the degree. Students are subject to all of the Academic Regulations of the University.

## REQUIRED COURSES

Required courses recommended to be taken in a student's **FIRST year** at UPEI:

- Accounting 101 - Introduction to Financial Accounting
- Accounting 221 - Managerial Accounting
- Business 141 - Marketing
- Business 171 - Organizational Behaviour
- Business 212 - Business Presentations and Communications
- Business 251 - Introduction to Management Science
- Business 288 - Research and Evidence-Based Management
- Business 301- Business Law – Part I
- UPEI 101 - Writing Studies (see note 4)

Required courses recommended to be taken in a student's **SECOND year** at UPEI:

- Business 231- Corporate Finance
- Business 272 - Human Resource Management
- Business 333 - Integrated Cases in Corporate Finance
- Business 343 - Integrated Cases in Marketing
- Business 351 - Operations Management

- Business 371 - Entrepreneurship and New Ventures
- Business 391 - Strategic Management
- Business 485 - Developing Management Skills
- English 381 - Professional Writing

## ELECTIVE COURSES

In addition to the 18 required courses, students must take 2 elective courses. At least one elective must be a non-business course. The other elective ("a free elective") may be either a business or a non-business course. For the non-business elective, Island Studies 211 (Island Tourism: The Search for Paradise) is highly recommended.

## NOTES:

1. Accounting courses are considered to be Business electives.
2. Due to student enrolments and faculty availability, some courses may not necessarily be offered each year. Students should consult the current timetable before registration.
3. Business 373 (Tourism Management) or Business 454 (Tourism and Hospitality management) is recommended for the free elective.
4. The completion of UPEI 101 is a required course for the BBTH, but the course also meets the general UPEI requirement of taking UPEI 101, 102 or 103.
5. Students are eligible to apply to the Cooperative Education program upon entrance to the University.
6. The following courses are not eligible as electives for the BBTH program: Math 111/112, and Economics 101/102.

## Bachelor of Business Studies

The Bachelor of Business Studies (BBST) program is a post-diploma degree. It will require a minimum of two years of academic study at UPEI, the curriculum of which will consist primarily of core courses and a few electives.

To be eligible for program admission, students must have already completed a two-year business diploma in specified programs at a recognized college and have achieved an overall average of 70%. Students must meet the UPEI admission requirements for this degree. In the BBST, students must obtain grades of at least 60% in at least 12 of the 16 required business courses in order to qualify for the degree. Students are subject to all of the Academic Regulations of the University.

## REQUIRED COURSES

Required courses recommended to be taken in a student's **FIRST year** at UPEI:

- Business 141 - Marketing (see note 2)
- Business 171 - Organizational Behaviour
- Business 212 - Business Presentations and Communications
- Business 251 - Introduction to Management Science
- Business 288 - Research and Evidence-Based Management
- Business 301 - Business Law – Part I
- Accounting 101- Introduction to Financial Accounting (except students whose college diploma was in Accounting; see note 1)
- Accounting 221 - Managerial Accounting
- UPEI 101 - Writing Studies (see note 9)

Required courses recommended to be taken in a student's **SECOND year** at UPEI:

- Business 231 - Corporate Finance
- Business 272 - Human Resource Management
- Business 333 - Integrated Cases in Corporate Finance
- Business 343 - Integrated Cases in Marketing

- Business 351 - Operations Management
- Business 371 - Entrepreneurship and New Ventures
- Business 391 - Strategic Management
- Business 485 - Developing Management Skills
- English 381 - Professional Writing

## ELECTIVE COURSES

For students whose **college diploma was in Accounting**:

In addition to the 17 required courses, students must take 3 elective courses. At least one elective must be a business course and at least one elective must be a non-business elective. The other elective ("a free elective") may be either a business or a non-business course.

For students whose **college diploma was in Business or Retail Management**:

In addition to the 18 required courses, students must take 2 elective courses. At least one elective must be a non-business course. The other elective ("a free elective") may be either a business or a non-business course.

## NOTES:

1. Students who have completed a diploma in Accounting Technology must take a business elective in place of Accounting 101.
2. Students who have successfully completed a course in organizational behaviour in their college diploma program must take a business elective in place of Business 171.
3. Accounting courses are considered to be Business electives.
4. Due to student enrolments and faculty availability, some courses may not necessarily be offered each year. Students should consult the current timetable before registration.
5. Political Science 201 (Canadian Politics I: Government) and 311 (Canadian Public Administration) are recommended as potential non-business electives.
6. Recommended Business electives include Business 265 (Introduction to Small Business and Entrepreneurship), Business 465 (Project Management), Business 471 (Org. Development), and Business 476 (Intercultural Management).
7. Students are eligible to apply to the Co-operative Education program upon entrance to the university.
8. Unless specified, the following courses are not eligible as electives for the BBST program: Math 111/112, Economics 101/102, Business 101.
9. The completion of UPEI 101 is a required course for the BBST, but the course also meets the general UPEI requirement of taking UPEI 101, 102 or 103.

## Co-operative Education in Business Program

Students in any of the degree programs in the School of Business may apply for admission to the optional Co-operative Education Program. Students outside the business programs may be considered in exceptional cases in consultation with the Dean of the faculty of study for the student. This program emphasizes a co-operative approach to university education through experiential learning. It integrates academic classroom studies with practical work experiences outside the formal university environment. There is a global acceptance that learning and individual development are greatly enhanced when the concepts studied in the classroom are periodically applied, tested, and observed by students in meaningful work situations. This program provides progressive experiences of integrating theory and practice

A "Co-operative Education" notation is entered on the parchment and academic transcripts of undergraduate students who successfully complete the degree and Co-operative Education requirements.

## ADMISSION REQUIREMENTS

In the undergraduate Business Administration degree programs, students may apply and be considered for admission to Co-operative Education after completion of the first or second year. The normal prerequisite for admission is an average of 70% in all courses to date. In the "two plus two" programs, students may apply upon entrance to the University. Students will be admitted to Co-op on the basis of their interest, aptitude and assessed ability, usually determined through an interview, to combine successfully the academic requirements with the requirements of the Co-op Program. Students not admitted in one year may reapply the next.

## **REQUIREMENTS**

Once admitted to the program, students normally continue in full-time enrolment between work terms. An academic review of students' performance will take place at the end of each semester. Students are required to maintain a cumulative average grade of 70% in all courses completed to date. Students who fail to meet these standards or who fail a course will be placed "on notice" for the next academic semester. Students who do not meet these standards for two consecutive academic semesters may be dismissed from the program.

Business Co-op students must complete all of the regular requirements for a Bachelor degree in the School of Business programs. Completion of the Co-operative Education Program requires successful completion of the following required courses:

Business 292 – Co-op Career Skills I  
Business 293 – Co-op Work Term I  
Business 392 – Co-op Career Skills II  
Business 393 – Co-op Work Term II  
Business 492 – Co-op Career Skills III  
Business 493 – Co-op Work Term III

The Co-op courses 593 and 594 are extra non-credit courses outside the degree requirements.

## **WORK TERMS**

The University will make every effort to locate work terms for Co-op students in academically-related areas of employment, but cannot guarantee work terms. Work terms may also be identified by Co-operative students; however, these require the approval of the Co-operative Education Coordinator. Students are only permitted to enrol in one academic course each semester while on a work term. Requests to enrol in a second academic course while on a work term may be considered by the Academic Director.

Satisfactory fulfillment of a Business Co-op work term requires:

1. the completion of a work term in an academically-related, paid employment situation usually of 12 to 16 weeks duration. Under certain circumstances, and with the approval of the Co-operative Education Coordinator, students may be permitted to satisfy their work term requirements in longer or shorter time periods. Entrepreneurial work terms are permitted.
2. a satisfactory employer evaluation for the work term and
3. the satisfactory completion of a work term journal as per course requirements.

## **WITHDRAWAL CONDITIONS**

Students may be required to withdraw from the Co-operative Education Program if;

1. they are dismissed from, quit, or fail to obtain or accept an appropriate and approved Co-op work term;
2. they fail to successfully complete course requirements;
3. they do not maintain the required course grade average necessary for continuance in Co-operative Education;
4. in the judgement of the Co-operative Education Coordinator and/or Academic Director, they are no longer suited for the particular requirements of the Co-operative Education Program.

## **REGISTRATION**

Students are required to register for each course at the Registrar's Office, according to normal registration procedures.

## **FEES**

Students accepted to the Co-operative Education Program are required to pay the Co-operative Education Program registration fee and applicable course fees (See Calendar section on fees).

## **Minor in Business Administration**

The Minor in Business Administration is designed for students in faculties other than Business Administration. The Minor consists of at least twenty-one semester hours.

Completion of the Minor in Business Administration requires successful completion of the following courses:

### **Required:**

- Accounting 101 - Introduction to Financial Accounting
- Business 141 - Marketing
- Business 171 - Organizational Behaviour

**FOUR** of the following courses:

- Accounting 221 - Managerial Accounting
- Business 251 - Introduction to Management Science
- Business 265 - Introduction to Entrepreneurship and Small Business Management
- Business 288 - Research and Evidence-Based Management
- Business 231 - Corporate Finance
- Business 272 - Human Resource Management
- Business 301 - Business Law – Part I
- Business 333 - Integrated Cases in Corporate Finance
- Business 343 - Integrated Cases in Marketing
- Business 351 - Operations Management
- Business 371 - Entrepreneurship and New Ventures
- Business 485 - Developing Management Skills

## **Certificate in Business**

The Business Certificate is intended for students who satisfy the entrance requirements of the Business Program but are not pursuing a Business degree. Generally, students must have successfully completed Grade 12 in a University Preparatory program with an overall average of at least 70% in English, Mathematics, any two Social Studies, Languages, or Sciences, and one other academic course.

Applicants with the appropriate work experience may also be accepted into the program.

The objective of this certificate program is to provide students with a sampling of courses in the areas of business. For those students interested, the certificate program also provides many of the foundation courses required to enter the BBA degree program.

The Business Certificate is a credit program comprised of ten three-semester hour courses: three required courses and seven elective courses. The courses are generally offered during the normal academic year, but some may be offered during summer school.

Please note: students enrolled in the Bachelor degree in Business Administration, the Bachelor of Business in Tourism and Hospitality and the Bachelor of Business Studies do not qualify for the certificate.

### **Required courses:**

- Accounting 101 - Introduction to Financial Accounting
- Business 141 - Marketing
- Business 171 - Organizational Behaviour

**SEVEN** of the following courses:

- Accounting 221 - Managerial Accounting
- Business 251 - Introduction to Management Science
- Business 265 - Introduction to Entrepreneurship and Small Business Management
- Business 288 - Research and Evidence-Based Management
- Business 231 - Corporate Finance
- Business 272 - Human Resource Management
- Business 301 - Business Law – Part I
- Business 333 - Integrated Cases in Corporate Finance
- Business 343 - Integrated Cases in Marketing
- Business 351 - Operations Management
- Business 371 - Entrepreneurship and New Ventures
- Business 465 - Project Management
- Business 485 - Developing Management Skills

Students must obtain grades of at least 60% in at least 7 of the 10 business courses in order to qualify for the Certificate of Business.

### **Certificate in Accounting**

The Accounting Certificate is intended for non-business students who satisfy the entrance requirements of the Business program. Generally, students must have successfully completed Grade 12 in a University Preparatory program with an overall average of at least 70% in English, Mathematics, any two Social Studies, Languages, or Sciences, and one other academic course.

Applicants with the appropriate work experience may also be accepted into the program.

Students who graduated with a BBA, BBST or BBTH, without the Accounting Specialization, are also eligible to return to complete the Accounting Certificate.

The Certificate provides some of the foundation courses for the Chartered Professional Accountant designation.

To be eligible to receive the Certificate, students must obtain a minimum average of 60% in each of the courses taken.

### **REQUIRED COURSES**

- Accounting 101 - Introduction to Financial Accounting
- Accounting 202 - Introductory Financial Accounting – Part II
- Business 231 - Corporate Finance
- Business 241 - Management Information Systems
- Accounting 301 - Intermediate Accounting – Part I
- Accounting 302 - Intermediate Accounting – Part II

**FOUR** of the following courses:

- Accounting 221 - Managerial Accounting
- Accounting 401 - Advanced Financial Accounting – Part I
- Accounting 402 - Advanced Financial Accounting – Part II
- Accounting 412 - Cost Accounting
- Accounting 415 - Auditing
- Accounting 416 - Auditing, Accounting, and Society
- Business 333 - Integrated Cases in Corporate Finance
- English 381 - Professional Writing

Students who have earned a specialization in accounting in the Bachelor of Business Administration program are not eligible for the Certificate in Accounting.

## ACCOUNTING COURSES

### 101 INTRODUCTORY ACCOUNTING—Part I

This course introduces the accounting model and basic accounting concepts and principles needed to read, analyze and interpret financial statements. An understanding of the role of accounting in society will be explored. Sound ethical judgment for financial decision-making will be stressed. Emphasis is on accounting from a “user’s” perspective.

Three hours a week

### 202 INTRODUCTORY ACCOUNTING—Part II

This course focuses on understanding and applying the accounting equation, recording transactions and preparing financial statements in accordance with generally accepted accounting principles. Differences between International Financial Reporting Standards and Accounting Standards for Private Enterprises will be highlighted. Sound ethical judgment for financial statement preparation will be stressed. Emphasis is on accounting from a “preparer’s” perspective.

PREREQUISITE: Accounting 101

Three hours a week

### 221 MANAGERIAL ACCOUNTING

The emphasis throughout this course is on the uses of accounting and other financial tools in the management of a business. Topics include inventory costing methods, cost allocation, cost behaviour, the contribution approach, pricing, and budgeting.

PREREQUISITE: Accounting 101

Three hours a week

### 301 INTERMEDIATE ACCOUNTING—Part I

This course provides in-depth coverage of the accounting standards required for corporate financial reporting for both public and private enterprises. It introduces students to the Canadian accounting environment and the concepts and principles from which Generally Accepted Accounting Principles (GAAP) have grown. Specific emphasis is given to the major asset categories found on corporate balance sheets through extensive coverage of cash, accounts receivable, inventories, capital assets and investments. Other topics covered in detail include current liabilities, revenue and expense recognition, and the statement of cash flows.

PREREQUISITE: Accounting 202

Three hours a week

### 302 INTERMEDIATE ACCOUNTING—Part II

This course continues the examination of balance sheet items with extensive coverage of the accounting and reporting issues related to liabilities and shareholders’ equity, including complex debt and equity instruments, corporate income taxes, leases, pensions and other post-employment benefits, earnings per share, and restatements.

PREREQUISITE: A minimum grade of 60% in Accounting 301 or permission of the instructor

Three hours a week

### 401 ADVANCED FINANCIAL ACCOUNTING—Part I

This course covers the study of mergers and acquisitions using the purchase method, and accounting for intercompany transactions and their elimination to arrive at consolidated financial statements.

PREREQUISITE: A minimum grade of 60% in Accounting 302 or permission of the instructor

Three hours a week

### 402 ADVANCED FINANCIAL ACCOUNTING—Part II

This course covers the accounting for partnerships, municipal governments, not-for-profit organizations, trusts and estates, and foreign exchange transactions.

PREREQUISITE: A minimum grade of 60% in Accounting 401 or permission of the instructor

Three hours a week

#### 412 COST ACCOUNTING

Topics include standard costing, budgets, flexible budgets, variance analysis, pricing, relevance and decentralization, and transfer pricing.

PREREQUISITE: Accounting 221 and a minimum grade of 60% in Accounting 302 or permission of the instructor  
Three hours a week

#### 415 AUDITING

This course provides an introduction to the auditing profession and specifically the external audit of financial statements. This course focuses on the three phases of the audit process – risk assessment, risk response and reporting. The role of ethics and independence within the auditing profession will be emphasized.

PREREQUISITE: A minimum grade of 60% in Accounting 302 or permission of the instructor  
Three hours a week

#### 416 AUDITING, ACCOUNTING AND SOCIETY

The main focus of this course will be the application and extension of auditing and accounting concepts to realistic scenarios through the use of case analysis. This advanced course will also focus on the role of auditors and accountants in society. Topics include the financial reporting environment, the standard-setting process, regulatory influences on the profession, corporate governance, ethics and professionalism, and emerging issues in the profession.

PREREQUISITE: A minimum grade of 60% in Accounting 415 or permission of the instructor  
Three hours a week

#### 431 INCOME TAXATION

This course introduces students to income tax law for both individuals and corporations. The course is designed for students pursuing a professional accounting designation or a career requiring an advanced knowledge of tax.

PREREQUISITES: A minimum grade of 60% in Accounting 302 or permission of the instructor  
Three hours a week

### **BUSINESS COURSES**

#### 101 INTRODUCTION TO BUSINESS

An introduction to the functional areas of business. Topics to be covered include business organizations, marketing, finance, accounting, production, and personnel. Much emphasis will be placed on the development of both written and oral communication skills in a business context. Case studies will be used to reinforce theoretical concepts discussed.

PREREQUISITE: Successful completion (a passing grade) of the English Academic Program (EAP) for those students enrolled in the EAP program.

Three hours a week

#### 141 MARKETING

This course presents the basic concepts of marketing. It introduces the marketing function, marketing systems and the marketing concept and then focuses on the development of marketing strategies, target markets, and the marketing mix in a decision-making context.

PREREQUISITE: Successful completion (a passing grade) of the English Academic Program (EAP) for those students enrolled in the EAP Program.

Three hours a week

#### 171 ORGANIZATIONAL BEHAVIOUR

This course introduces students to the theory of organizational behaviour (the study of people at work in organizations). It examines the behaviours of individuals working alone or in teams, and how organizational characteristics, management practices and other factors influence this behaviour, and ultimately organizational effectiveness.

PREREQUISITE: Successful completion (a passing grade) of the English Academic Program (EAP) for those students enrolled in the EAP Program.



Three hours a week

### 211 BUSINESS COMMUNICATIONS

This course focuses on developing students' writing and presentation skills in a business environment. Students will learn techniques to help them communicate with professionalism, clarity and persuasiveness in a variety of business contexts.

PREREQUISITES: English 101 or UPEI 102, or UPEI 103, and must be registered in Business with a 2nd year standing

Three hours a week

### 212 BUSINESS PRESENTATIONS AND COMMUNICATIONS

This course develops students' presentations skills in a business context. The course emphasizes professionalism and the use of evidence and analysis to support recommendations in order to make a compelling case.

PREREQUISITES: English 101 or UPEI 101. Successful completion (a passing grade) of the English Academic Program (EAP) for those students enrolled in the EAP Program.

Three hours a week

### 213 BUSINESS ETHICS

(See Philosophy 205)

### 231 CORPORATE FINANCE

Finance is concerned with the planning for, acquisition, and utilization of funds. The major topics discussed in this course include the time value of money, analysis of financial projections, of financial markets, sources of corporate financing, cost of capital, capital budgeting, and working capital management.

PREREQUISITE: Accounting 101

Three hours a week

### 241 MANAGEMENT INFORMATION SYSTEMS

This course provides an introduction and understanding of the value and uses of information systems for business operation and management decision-making. It concentrates on providing an understanding of the tools and basic terminology needed to understand information systems and their role in the business environment. Topics include information systems concepts, a review of information technology concepts, the fundamentals of e-business, planning and development of information systems, and the management of these systems.

PREREQUISITE: Successful completion (a passing grade) of the English Academic Program (EAP) for those students enrolled in the EAP Program.

Three hours a week

### 251 INTRODUCTION TO MANAGEMENT SCIENCE

This course is designed to provide business students with an introductory survey of the many business applications of descriptive and inferential statistics. Topics include frequency distributions, measures of location and dispersion, basic probability theory, discrete and continuous probability distributions, sampling methods and sampling distributions, sample size, confidence intervals, hypothesis testing, linear regression, and forecasting.

PREREQUISITE: Math 111 or permission of the instructor

Three hours a week

NOTE: This is a required course for Business students and credit for Mathematics 221, Education 481, Psychology 271, 278 or 279, Sociology 331, and Sociology 332 will not be allowed.

### 265 INTRODUCTION TO ENTREPRENEURSHIP AND SMALL BUSINESS MANAGEMENT

This course provides an overview of setting up and managing a small business. Topics include an overview of entrepreneurship, starting a new firm, uncovering business opportunities, challenges faced by entrepreneurs, and exploring entrepreneurship business models. The course benefits from guest speakers from the local community of small-business owners and culminates in the building of a formal business plan.

PREREQUISITE: Successful completion (a passing grade) of the English Academic Program (EAP) for those students enrolled in the EAP Program.

Three hours a week

## 272 HUMAN RESOURCE MANAGEMENT

Human Resource Management (HRM) has become a strategic function for both private and public organizations. This course provides an introduction to the conceptual and practical aspects of HRM. It focuses on the personnel processes involved in the procurement, development and maintenance of human resources, such as staffing, training and compensation. The course also includes a critical examination of current personnel issues and trends.

PREREQUISITE: Business 171

Three hours a week

## 275 INTRODUCTION TO BIOTECHNOLOGY

This course is an overview of the biotechnology and life sciences industry, including discovery and development, regulatory and marketing requirements, management, intellectual property requirements, types and sources of innovation, and key issues in technology strategy. No advanced scientific knowledge is presumed or required; a scientific “primer” provides deeper understanding of some of the reading materials and discussions. The class consists of lectures, discussion, and examination of several current topics in the biotechnology and biopharmaceutical industry.

PREREQUISITES: 2nd year standing as a Business or Science student, or permission of the instructor

Three hours a week

## 285 SPECIAL TOPICS

This is an introductory course in Business Administration on various topics for students who are interested in pursuing a Business degree. Lectures, readings and/or research will be undertaken in a variety of specialized areas. Topics will be approved by the faculty of the School of Business Administration.

Three hours a week

## 287 INTRODUCTION TO INTERNATIONAL BUSINESS

This course examines the basic issues involved in the internationalization of business, which includes the impact of international focus on business and how firms establish and conduct transactions with organizations from other countries. More specifically, the course examines the basic models of involvement in international business and the conditions appropriate for each. Class sessions will combine seminars and case discussions requiring active participation by all students.

PREREQUISITE: Business 141 and 171

Three hours a week

## 288 RESEARCH AND EVIDENCE-BASED MANAGEMENT

Evidence-based management considers ethics and stakeholder concerns, practitioner judgment and expertise, local data and experimentation, and principles derived through formal research to inform decision-making. This course introduces students to qualitative and quantitative perspectives and methods for conducting and evaluating business research. Students develop information literacy as they learn to question assumptions and think critically about the nature of evidence and claims made about organizational phenomena. Problems in and prospects for improved managerial decision-making are included.

PREREQUISITE: Successful completion (a passing grade) of the English Academic Program (EAP) for those students enrolled in the EAP Program.

Three hours a week

## 292 CO-OP CAREER SKILLS I

This course offers introductory career skills training to prepare co-op students for their first work term. This course will be graded on a pass/fail basis.

PREREQUISITE: Acceptance into the co-op program.

0 semester hours

## 293 CO-OP WORK TERM I

This course is co-op students' first work term. This course will be graded on a pass/fail basis.

PREREQUISITE: Business 292 or permission of the Academic Director of Co-operative Education.

Three semester hours of credit

### 301 BUSINESS LAW—Part I

This course offers students a basic introduction to the legal system and, in particular, the areas of tort, property, and contract law. A major portion of the course is devoted to the study of the legal implications of contractual issues in business endeavours. Legal cases are used, when applicable, to illustrate principles of law.

Three hours a week

### 302 BUSINESS LAW—Part II

This course expands on the concepts introduced in Business 301, and addresses some additional areas of law.

Topics include securities legislation, landlord and tenant law, real estate law, environmental law, wills and estates, family law, and other business-related areas of law.

PREREQUISITE: Business 301

Three hours a week

### 333 INTEGRATED CASES IN CORPORATE FINANCE

The main focus of the course is the application of financial concepts to realistic business situations through the use of business cases. The principal areas covered will be financial analysis, financial forecasting, valuation, leasing, mergers and acquisitions, and derivative securities.

PREREQUISITE: Business 231

Three hours a week

### 343 INTEGRATED CASES IN MARKETING

This course shows how basic marketing concepts are applied and integrated with other business functions in contemporary business situations. The main focus of the course is on marketing management, planning, executing, and controlling marketing programs. Other topics include international marketing, marketing research, and the social responsibility of marketing managers. The course considers the relationships between these topics and the other business functions. There is extensive use of case method teaching and students are expected to develop the written and oral communication skills necessary for problem solving in marketing.

PREREQUISITE: Business 141 or permission of the instructor

Three hours a week

### 351 OPERATIONS MANAGEMENT

This course covers an analysis of the nature and problems of production and operations management. Emphasis is given to a number of topics including quality management and SPC, product and service design, processes and technology, capacity and facilities, supply chain management, scheduling and distribution, inventory management and sales and operations planning. The intent is to take a broad view of the subject material as opposed to developing significant in-depth expertise in one or more areas.

PREREQUISITE: Business 251

Three hours a week

### 365 SMALL BUSINESS MANAGEMENT: OPPORTUNITY ANALYSIS AND DEVELOPMENT

This course will cover a range of topics to address various aspects of entrepreneurship, intrapreneurship and how to identify and analyze compelling opportunities. The first part of the course will consider innovation strategy and management, including culture, motivation and commercialization. The course will be an active learning experience that helps to map what it takes to grow a business to its full potential. Topics will include assessing opportunities; managing different forms of start-ups; evaluating founding team expertise; considering resource needs; venture financing; marketing and strategic considerations. The course will include a combination of seminars, cases, speakers, and hands-on project work.

PREREQUISITES: Business 141, 171, 265, Accounting 101

Three hours a week

### 366 ENTREPRENEURIAL FINANCE

This course explores the dynamic challenges faced by entrepreneurial firms in securing financial backing to support start-up, development, and growth. The course is organized around the evolution of entrepreneurial companies emphasizing the dynamic nature of the issues confronting these firms. The financial factors that affect

entrepreneurial firms at various stages through to the exit decision are considered. Specific topics include the viability of proposed start-up ventures, the potential sources of financing for entrepreneurial firms, financial distress, and the harvesting decision. The key decisions of firms at various phases of their life cycle are examined. A mix of interactive lectures and case discussions is used.

PREREQUISITE: Business 231 or permission of the instructor

Three hours a week

### 371 ENTREPRENEURSHIP AND NEW VENTURES

This course is a study of the nature and background of entrepreneurship and the process involved from idea to opportunity to new business venture. Students are expected to study the environment in which entrepreneurship flourishes from both the perspective of the entrepreneur and of the economic system. The generation of ideas and opportunities is discussed, as well as the subsequent transformation of an opportunity into a formal business plan. The course concludes with an examination of the process of implementation of the business plan and the management of the new business which results. Extensive case analysis is required.

PREREQUISITE: Accounting 101, Business 141 and 231

Three hours a week

### 372 INDUSTRIAL RELATIONS

In this course students study the relationship between the labour force and management in the modern organization. Particular attention is given to the nature and role of trade unionism and collective bargaining. A basic objective of the course is to explore the conditions for effective industrial relations in the process of management.

PREREQUISITE: Business 272 or permission of the instructor

Three hours a week

### 373 TOURISM MANAGEMENT

This course provides students with a comprehensive understanding of the management of the world's largest industry—tourism. The course examines key elements of the industry including its scope, the role of transportation, accommodations and attractions, culture and other travel motivators, tourism research and marketing, and the development and distribution of tourism products. The course assesses Prince Edward Island's experience with tourism and its impact on the local economy.

PREREQUISITE: Business 141 recommended or permission of the instructor

Three hours a week

### 385 SPECIAL TOPICS

An intermediate course in Business Administration on a variety of topics for students who have qualified for advanced Business Administration study. Lectures, readings and/or research will be undertaken in a variety of specialized areas. Topics will be approved by the faculty of the School of Business Administration.

Three hours a week

### 386 INTERNATIONAL EXCHANGE TERM

Students who go on an international exchange term and who wish to count that experience towards a Specialization in International Business must register under this course number to document that they have fulfilled that requirement of the specialization. This is not a course that counts towards a student's requirement of 120 credit hours for a degree.

PREREQUISITE: Approval from the School of Business' Director of International Programs.

0 semester hours

### 387 INTERNATIONAL BUSINESS ELECTIVE

This course number is reserved for courses transferred in from other universities that qualify as electives for the Specialization in International Business.

Three hours a week

### 391 STRATEGIC MANAGEMENT

This course provides students with an opportunity to explore the concepts of strategic thinking, analysis, and planning. It integrates the functional and process areas studied in the degree program and utilizes cases to give students experience in crafting business strategy.

PREREQUISITE: Business 141, 231 and 272

Three hours a week

### 392 CO-OP CAREER SKILLS II

This course offers career skills training to strengthen co-op students' readiness for their second work term. This course will be graded on a pass/fail basis.

PREREQUISITE: Business 293

0 semester hours

### 393 CO-OP WORK TERM II

This course is co-op students' second work term. This course will be graded on a pass/fail basis.

PREREQUISITE: Business 392 or permission of the Academic Director of Co-operative Education.

Three semester hours of credit

### 394 INTERNATIONAL CO-OP PLACEMENT

Students who go on an international work term and who wish to count that experience towards a Specialization in International Business must register under this course number to document that they have fulfilled that requirement of the specialization. This is not a course that counts towards a student's requirement of 120 credit hours for a degree.

PREREQUISITE: Approval by the School of Business' Director of International Programs.

0 semester hours

### 407 SPECIAL TOPICS IN ORGANIZATIONAL MANAGEMENT

An advanced course in organizational management on a variety of topics for students who have qualified for advanced Business Administration study. Lectures, readings and/or research will be undertaken in a variety of specialized areas. Topics will be approved by the faculty of the School of Business.

Three hours a week

### 421 PERSONAL FINANCE

This course provides students with theoretical and practical information regarding personal financial planning including budgeting, personal taxation principles, the use and cost of credit, the importance of saving, investment strategies, retirement planning, estate planning, real estate and mortgages, and the use of property and life insurance.

PREREQUISITE: Business 231 or permission of the instructor

Three hours a week

### 432 APPLIED INVESTMENT MANAGEMENT

This course examines the various investment assets available to the individual, with a focus on the practical aspects of investing, and also considers important theoretical concepts necessary for a full appreciation of investment management. Major topics include the financial markets, financial intermediaries, types of investments, the purpose of a stock exchange, and market theories. Students undertake a fundamental analysis of a public company's common shares and present an investment recommendation.

PREREQUISITE: Business 231 or permission of the instructor

Three hours a week

### 439 INTERNATIONAL FINANCE

This course examines international finance and applications from a business perspective. Some of the key topics include foreign exchange markets, world capital markets (including banking), the use of derivatives, risk management, globalization, and foreign direct investment.

PREREQUISITE: Business 333 or permission of instructor

Three hours a week

#### 443 CONSUMER BEHAVIOUR

This course explores the consumer buying process and the ways in which marketers can influence and shape the attitudes and actions of consumers through strategic marketing initiatives to cultivate consumer and organization satisfaction.

PREREQUISITE: Business 343 or permission of the instructor

Three hours a week

#### 444 MARKET RESEARCH

This course will introduce students to the practice of market research. Specifically, students will understand the role and importance of market research in evidence-based decision making, will practice evidence-based market research, and will develop the skills to develop and report on evidence-based market research plans.

PREREQUISITE: Business 343 or permission of the instructor

Three hours a week

#### 445 BRAND MANAGEMENT

This course will provide students with an overview of strategic brand development and management as a means of connecting with consumers and establishing a market differentiation.

PREREQUISITE: Business 343 or permission of the instructor

Three hours a week

#### 446 PERSONAL SELLING AND SALES

This course will examine the principles and practices of personal selling as a strategic part of an overall marketing plan. Specifically, the course will look at customer relationship management, developing sales pitches, and business-to-business sales strategies.

PREREQUISITE: Business 343 or permission of the instructor

Three hours a week

#### 454 TOURISM AND HOSPITALITY MANAGEMENT

This course introduces the elements of tourism and hospitality: facility and accommodation, food and beverage, travel, tourism activities and the economic impact of tourism. A creative problem-solving approach is applied to the development and design of these elements. The course stresses critical thinking techniques as well as writing and presentation skills.

PREREQUISITE: Accounting 101, Business 343, and Business 272, or permission of the instructor

Three hours a week

#### 455 SUSTAINABLE TOURISM DEVELOPMENT

This course critically examines sustainable and responsible tourism development practices at both the micro and macro levels of the industry. Case study analysis is an integral component of the course. A major focus will be on benefits and impacts associated with tourism development, as well as the strategies for maximizing benefits and minimizing adverse effects.

PREREQUISITE: Business 141 or permission of the instructor

Three hours a week

#### 461 COMMUNICATIONS

This course examines behavioural concepts associated with the communication process. Each section of the course is designed to help students acquire a sensitivity to the communication process. Students are expected to acquire an awareness of techniques of effective communication through readings, cases and simulations.

PREREQUISITE: Business 171 or permission of the instructor

Three hours a week

#### 465 PROJECT MANAGEMENT

Project Management is the application of knowledge, skills, tools, and techniques to project activities to meet project requirements. The course emphasizes the design, scheduling, budgeting, and management of projects from a variety of fields.

PREREQUISITE: Business 351

Three hours a week

#### 468 SELF EMPLOYMENT – BEHIND THE SCENE

This is a very practical course looking inside the world of small to medium size businesses. Witness self employment and management first hand through guest speakers, field trips and class discussion. Gain valuable insight into strategizing and executing a business idea.

PREREQUISITES: Business 371, or permission of the instructor

Three hours a week

#### 471 ORGANIZATIONAL DEVELOPMENT AND CHANGE

For organizations to survive and thrive they must adapt to changes in their environments as well as engage proactively to improve. Change can be planned or reactive and include major paradigm shifts as well as smaller adjustments. This course considers the nature of organizational change and strategies for managing change and improving organizations.

PREREQUISITE: Business 272 or permission of the instructor

Three hours a week

#### 475 E-COMMERCE

This course surveys a variety of e-business models through the use of case studies. Students are introduced to strategic, legal, and technology issues that businesses face when changing business processes in an electronic commerce environment.

PREREQUISITE: Business 333 and 343, or permission of the instructor

Three hours a week

#### 476 INTERCULTURAL MANAGEMENT

This course examines the complex challenges that culture poses in international business. Topics covered include cultural influences on conducting business, values and communications, managing multicultural teams, international negotiations, and conflict resolution. The course aims to develop intercultural management knowledge and skills for working globally.

PREREQUISITE: Business 171 or permission of the instructor

Three hours a week

#### 477 INTERNATIONAL MARKETING

This course addresses global issues that confront today's international marketer and presents concepts relevant to all international marketers. The focus is to develop a managerial understanding of international marketing and the competitiveness of Canadian and Island businesses in the global market. It provides a view of world markets, their respective consumers and environments, and the marketing management required to meet the demands of dynamic international settings.

PREREQUISITE: Business 343 or permission of the instructor

Three hours a week

#### 479 SELECTED TOPICS IN MARKETING

This course deals with selected topics in marketing such as advertising, sales management, retailing, business marketing, tourism, and contemporary marketing issues. The course includes a range of active learning approaches, such as case discussions, computer simulations, and projects.

PREREQUISITE: Business 343

Three hours a week

#### 481 INTEGRATED MARKETING COMMUNICATIONS

This course examines how consumer decision-making processes form the basis for promotions. In this context, the course deals with principles for developing advertising campaigns, trade and consumer promotion techniques, and methods for relating optimal advertising and a consistent message across all audiences while maximizing budgets.

PREREQUISITE: Business 343 or permission of the instructor

Three hours a week

#### 482 SPECIAL TOPICS

An advanced course in Business Administration on a variety of topics for students who have qualified for advanced Business Administration study. Readings and/or research will be under-taken in a variety of specialized areas. Topics will be approved by the faculty of the School of Business Administration.  
Three hours a week

#### 484 DIRECTED STUDIES

This is an upper level course that does not have a prescribed curriculum. In consultation with the course professor, the student chooses a specific topic and then undertakes an in-depth study of this topic. The course professor must approve all directed-study activities before registration can occur.  
Three hours a week

#### 485 DEVELOPING MANAGEMENT AND LEADERSHIP SKILLS

In this course, learners are provided with tools and exercises that are used to develop self-awareness, creativity, conflict resolution, and empowerment skills. Learners begin a process of self-assessment which can continue to serve their development as managers after the course is completed.  
PREREQUISITE: Business 141, 231 and 272, or permission of the instructor  
Three hours a week

#### 486 CURRENT ISSUES IN BUSINESS

This course offers students a program of study on a number of topics judged by faculty to be current, and likely to have a long-term impact on business management. Such topics may include, but are not limited to, changing employment structures, information technology uses in business, re-engineering, evolving regulatory environments, comparative business environments, and sustainable development.  
PREREQUISITE: Business 171, 333 or 343  
Three hours a week

#### 488 MANAGEMENT IN PERSPECTIVE

This course examines the emergence and evolution of management and management education. Class sessions follow a seminar format and students are required to complete an independent research paper. Students critically examine historical or contemporary topics about management, management education, and related fields.  
PREREQUISITE: Business 171, or permission of the instructor  
Three hours a week

#### 489 INTERNATIONAL STRATEGY AND FINANCE

This course examines issues important to international business management. Some of the key topics include international trade, foreign investment, foreign exchange markets and international strategy. The course includes seminars and case studies, and requires active participation by all students.  
PREREQUISITES: Business 141, 231, 351, or permission of instructor  
Three hours a week

#### 492 CO-OP CAREER SKILLS III

This course offers career skills training to strengthen co-op students' readiness for their third work term. This course will be graded on a pass/fail basis.  
PREREQUISITE: Business 393  
0 semester hours

#### 493 CO-OP WORK TERM III

This course is co-op students' third work term. This course will be graded on a pass/fail basis.  
PREREQUISITE: Business 492 or permission of the Academic Director of Co-operative Education.  
Three semester hours of credit

#### 495 BUSINESS RESEARCH I



This required course examines the general methodology of conducting business research. The student will use the principles acquired in class to prepare and present a substantial paper on a research topic chosen in consultation with a faculty supervisor.

PREREQUISITE: Business 141 and 231 or permission of the instructor  
Three hours a week

#### 496 BUSINESS RESEARCH II

This course allows students to pursue a research project in further depth.

PREREQUISITE: Business 495 and permission of the instructor  
Three hours a week

#### 510 HONOURS THESIS

This course is aimed at students interested in pursuing an extensive research project. It is a required course in the BBA Honours Program.

PREREQUISITE: Business 495 and permission of the instructor  
Six hours a week

#### 593 CO-OP WORK TERM IV

This optional course is available to co-op students who elect to do a fourth work term.

PREREQUISITE: Business 493  
0 semester hours

#### 594 CO-OP WORK TERM V

This optional course is available to co-op students who elect to do a fifth work term.

PREREQUISITE: Business 593  
0 semester hours

### Canadian Studies

<http://upei.ca/canadianstudies>

#### Co-ordinator

Sharon Myers

Canadian Studies is an interdisciplinary program drawing on the resources of eight departments at UPEI. The goal of the program is to provide students with an in-depth understanding of Canadian society and culture. A student may major in Canadian Studies, may double major in Canadian Studies and another discipline, or may minor in Canadian Studies.

#### REQUIREMENTS FOR A MAJOR IN CANADIAN STUDIES

1. Students pursuing a Major in Canadian Studies must complete 42 semester hours (14 courses) in the Canadian Studies Program. These semester hours must be composed of the two required core courses in Canadian Studies (CST 102 and CST 411); one course in research methods (one of English 204, History 211, or Sociology 331); eleven courses from Option Lists A, B, C, and D, with at least two courses from each option list and at least three 300 level courses and three 400 level courses.

2. Students are required to maintain an average of 65% in the Canadian-area courses.

3. There is a French Language co-requisite of three semester hours in French. Students must achieve a level of comprehension, writing and speaking at the level of French VI (Fr 212). To take the French Placement Test, please contact the First-Year Advisement Centre in Student Services, in the W. A. Murphy Student Centre. During the summer months, the French Placement Test is available through the Department of Modern Languages' website. Shortly after completion of the Placement Test, the student will be contacted by the Department of Modern Languages and notified of the appropriate course in which to enrol. Students are strongly urged to consider additional work in French.

4. Students should consult with the coordinator of the program when registering, in order to better plan an individual program suitable to their needs and interests.

NOTE: Not all courses listed are available in any given year. Also, some courses vary in their coverage of Canada from year to year. With the permission of the program coordinator, courses with a major focus on Canada that are not on the option lists may be substituted for those listed. Even if Canadian Studies 411 is offered during the winter semester, students are strongly urged to make arrangements in order to find an advisor and a topic of research during the fall term of their fourth year.

#### CANADIAN STUDIES CORE COURSES

Canadian Studies 102—Imagining Canada

Canadian Studies 411—Research and Tutorial

#### RESEARCH METHODS

One of the following: English 204, History 211, or Sociology

#### FRENCH LANGUAGE CO-REQUISITE

3 semester hours (French 212 or above)

#### OPTION A—CANADIAN INSTITUTIONS

Economics 212—Regional Economics

Economics 304—Canadian Economic Problems

French 261 (or Education 213)—Introduction à l'éducation en français au Canada

Political Science 201—Canadian Politics I: Government

Political Science 202—Politics & Government of PEI

Political Science 209—Special Topics (only if it's Canadian)

Political Science 211—Law, Politics and the Judicial Process I

Political Science 212—Law, Politics and the Judicial Process II

Political Science 262—Canadian Politics II: Environment and Processes

Political Science 302—Canadian Federalism

Political Science 311—Canadian Public Administration

Political Science 314—Canadian Public Policy

Political Science 315—Canadian Foreign Policy

Political Science 353—The Politics of Canadian-American Relations

Political Science 401—Law, the Courts and the Constitution I

Political Science 411—Political Parties and Elections in Canada

#### OPTION B – ARTS, LANGUAGE AND LITERATURE

English 315—English-Canada Drama

English 321—English-Canada Prose

English 322—English-Canada Poetry

English 323—Littérature canadienne-française I

English 324—Littérature canadienne-française II

English 331—Literature of Atlantic Canada

English 333—L.M. Montgomery

English 425—Advanced Studies in Canadian Literature

Fine Arts 321—Canadian Art

French 221—Langue et lectures I

French 222—Langue et lectures II

French 241—French Composition and Analysis I

French 242—French Composition and Analysis II

French 252—Le français des affaires

French 339—Théâtre canadien-français

French 441—Littérature canadienne-française I

French 442—Littérature canadienne-française II  
French 443—Culture et littérature acadiennes I  
French 444—Culture et littérature acadiennes II  
French 446—Traduction: anglais-français  
French 451—Directed Studies in French (where Canadian-area related)  
Music 423— Canadian Music I  
Music 424— Canadian Music II

#### OPTION C—HISTORICAL CONTEXTS

Economics 221—Canadian Economic History  
History 101—Canadian History—Pre-Confederation  
History 102—Canadian History—Post-Confederation  
History 231—The Atlantic Region  
History 232—The Atlantic Region  
History 325—Canadian Social History to WW I  
History 326—Canadian Social History since WWI  
History 327—Migration to Canada I  
History 328—Migration to Canada II  
History 331—History of PEI—Pre-Confederation  
History 332—History of PEI—Post Confederation  
History 352— The History of Quebec and French Canada  
History 385—Women in 19th Century Canada  
History 386—Women in 20th Century Canada  
History 424—History of Canadian Nationalism and the Canadian Identity  
History 425—Childhood in Modern Canada  
History 426—History of the Canadian Working Classes  
History 489—20th Century PEI

#### OPTION D—HUMAN IDENTITIES

Acadian Studies 201—Introduction to Acadian Studies (in French)  
Acadian Studies 491—Special Topics in Acadian Studies (in French)  
Canadian Studies 302—The Canadian Experience  
French 338—Introduction à la société québécoise  
Sociology/Anthropology 252—Aging and Society  
Sociology/Anthropology 259—Special Topics (when Canadian-area related)  
Sociology/Anthropology 312—Rural Society in Canada  
Sociology/Anthropology 431—Minority/Ethnic Groups and Canadian Multiculturalism  
Sociology 211—Marriage and the Family  
Sociology 362—Urban Sociology  
Sociology 371—Canadian Society

The following courses can be included in the above options (check with the Coordinator of the program concerning which option group the course belongs to in a given year).

Canadian Studies 109—Special Topics in Canadian Studies  
Canadian Studies 209—Special Topics in Canadian Studies  
Canadian Studies 309—Special Topics in Canadian Studies  
Canadian Studies 409—Special Topics in Canadian Studies  
Canadian Studies 451—Directed Studies in Canadian Studies  
Canadian Studies 452—Directed Studies in Canadian Studies

#### **REQUIREMENTS FOR A MINOR IN CANADIAN STUDIES**

A minor in Canadian Studies is recognized when a student has successfully completed 21 semester hours of courses in Canadian Studies, including CST 102 and six other Canadian Studies elective courses from at least three different options, at least one of which is at the 400 level.

Note: Not all courses listed are available in any given year. Some courses vary in their coverage or Canada from year to year. With the permission of the program coordinator, courses with a major focus on Canada which are not on the option lists may be substituted for those listed.

## **CANADIAN STUDIES CORE COURSES**

### **102 IMAGINING CANADA**

This introductory course examines the creation and renegotiation of Canada's national identity. Included are the myths, symbols, and stories that have led Canada to be imagined in specific ways. The course is interdisciplinary, drawing on institutional, political, economic, historical, sociological, artistic, linguistic, literary, and cultural perspectives.

Three hours a week

### **109 SPECIAL TOPICS**

Creation of a course code for special topics offered by Canadian Studies at the 100 level.

### **209 SPECIAL TOPICS**

Creation of a course code for special topics offered by Canadian Studies at the 200 level.

### **301 THE CANADIAN EXPERIENCE**

This course is designed to provide an opportunity to examine the development of Canadian culture from the perspectives of a number of distinct disciplines. The themes of colonialism, regionalism, metropolitanism and cultural diversity will provide the basis for this examination. The object of the course is to develop an awareness of the complex patterns of development in Canadian culture from the French period to the present. The course will consist of seminars and lectures by a variety of instructors.

Three hours a week

### **302 THE CANADIAN EXPERIENCE**

A continuation of Canadian Studies 301.

Three hours a week

### **309 SPECIAL TOPICS**

Creation of a course code for special topics offered by Canadian Studies at the 300 level.

### **409 SPECIAL TOPICS**

Creation of a course code for special topics offered by Canadian Studies at the 400 level.

### **411 RESEARCH TUTORIAL AND SEMINAR**

This course is required for all senior students majoring in Canadian Studies. The purpose of this course is to provide an opportunity for interdisciplinary research in an area to be determined by the student and a participating faculty member. Readings and research on the course will be supervised by a faculty member. The student is expected to present the results of the research in the form of an essay or a public presentation. This is a tutorial and seminar course.

Three hours a week

### **451-452 DIRECTED STUDIES**

These courses are designed to provide an opportunity to examine special topics in Canadian Studies. The content and instructors will vary from year to year; open to both majors and non-majors. (See Academic Regulation 9 for Regulations Governing Directed Studies).

## **Chemistry**

<http://upei.ca/chemistry>

## **Chemistry Faculty**

Michael T.H. Liu, Professor Emeritus  
 Rabin Bissessur, Professor, Chair  
 Alaa Abd-El-Aziz, Professor  
 Russell Kerr, Professor  
 Brian D. Wagner, Professor  
 Nola Etkin, Associate Professor  
 Barry Linkletter, Associate Professor  
 Jason Pearson, Associate Professor  
 David Baranowski, Adjunct Professor  
 Fabrice Berrue, Adjunct Professor  
 Richard Bethell, Adjunct Professor  
 Matthias Bierenstiel, Adjunct Professor  
 Robert Chapman, Adjunct Professor  
 Darren Derksen, Adjunct Professor  
 J. Regis Duffy, Adjunct Professor  
 Christopher Kirby, Adjunct Professor  
 Stephanie MacQuarrie, Adjunct Professor  
 Gary Reid, Adjunct Professor  
 Marianne Rodgers, Adjunct Professor  
 Michael Shaver, Adjunct Professor

Accreditation received by the Canadian Society for Chemistry National Board for the Chemistry Major and Honours Program.

## GENERAL REQUIREMENTS

For all courses with both laboratory and lecture components, credit will be granted only if satisfactory standing in both of these components has been obtained.

## REQUIREMENTS FOR A MAJOR IN CHEMISTRY

Students pursuing a Bachelor of Science degree with a major in Chemistry must take at least 48 semester hours of chemistry in total and must at the same time complete certain courses as specified by the major requirements.

The required Chemistry courses are: Chemistry 111-112, Chemistry 221, Chemistry 241-242, Chemistry 231, Chemistry 272, Chemistry 322, Chemistry 331, Chemistry 342, Chemistry 353, Chemistry 361, Chemistry 374, Chemistry 482 OR 483 and two Chemistry electives, at least one of which is at the 4th year level.

Additional course requirements for the Chemistry major include the following courses from other disciplines: Biology 131-132, Mathematics 151, Mathematics 152, Mathematics 251 and a Math elective, Physics 111-112 or Physics 121-122. As well, students majoring in Chemistry are advised to take Physics 272 (Electronics and Instrumentation).

All programs of study of students declared as Chemistry majors must be approved by the Chair of the Department. An outline of the Chemistry major requirements in the suggested sequence for their completion is given below, but deviations from it are permitted provided that the pertinent prerequisites are fulfilled.

### First Year

	Semester hours of credit
Chemistry 111-112 General Chemistry I and II	6
Biology 131-132 General Biology I and II	6
Physics 111-112 or 121-122 General Physics	6
Mathematics 151-152 Introductory Calculus I and II	6
Electives (6 semester hours)	6
Total	30

### Second Year

Chemistry 221 Analytical Chemistry	3
Chemistry 241-242 Organic Chemistry I & II	6
Chemistry 231 Physical Chemistry I	3
Chemistry 272 Inorganic Chemistry I	3
Mathematics 251 Intermediate Calculus I	3
Electives (12 semester hours)	12
Total	30

#### Third Year

Chemistry 322 Analytical Instrumentation	3
Chemistry 331 Physical Chemistry II	3
Chemistry 342 Advanced Organic Chemistry	3
Chemistry 361 Organic Spectroscopy	3
Chemistry 374 Inorganic Chemistry II	3
Mathematics elective (3 semester hours)	3
Electives (12 semester hours)	12
Total	30

#### Fourth Year

Chemistry 353 Biochemistry	3
Chemistry 482 OR 483 Advanced Research Project	6*
OR	
Advanced Chemistry Laboratory	3*
Chemistry Electives	6
Electives	15 or 18*
Total	30

\*The total number of electives depends on whether Chemistry 482 (6 credits) or Chemistry 483 (3 credits) is taken to fulfill the fourth year laboratory requirement. The Chemistry electives may be chosen from the Chemistry courses numbered: 202, 282, 432, 441, 461, 462, 464, 467, 468, 469, 482 or 483. At least one of the electives must be a 4th year course. The mathematics elective may be selected from Mathematics 221, 242, 252, or 261.

### REQUIREMENTS FOR A MINOR IN CHEMISTRY

Students may obtain a degree with a minor in Chemistry by successfully completing the following courses:

Chemistry 111-112, Chemistry 221, Chemistry 231, Chemistry 241-242 or Chemistry 243, Chemistry 202, and Chemistry 272.

### REQUIREMENTS FOR HONOURS IN CHEMISTRY

The Honours Program in Chemistry is designed to provide research experience at the undergraduate level within the BSc program. It is available to students with a strong academic background who intend to continue studies at the post-graduate level in Chemistry or some related field, or to students who intend to pursue a career where research experience would be an asset.

The Honours Program differs from the major in requiring a two-semester research course with thesis report, in the requirement of 126 semester hours for the degree and in the requirement of an additional five advanced Chemistry courses. The following are the course requirements for the Honours Program in Chemistry:

#### First Year

	Semester hours of credit
Chemistry 111-112 General Chemistry I and II	6
Biology 131-132 General Biology I and II	6
Physics 111-112 or 121-122 General Physics	6
Mathematics 151-152 Introductory Calculus I and II	6
Electives (6 semester hours)	6
Total	30

Second Year	
Chemistry 221 Analytical Chemistry	3
Chemistry 241-242 Organic Chemistry I & II	6
Chemistry 231 Physical Chemistry I	3
Chemistry 272 Inorganic Chemistry I	3
Mathematics 251 Intermediate Calculus I	3
Mathematics 252 Intermediate Calculus II	3
Electives (9 semester hours)	9
Total	30

Third Year	
Chemistry 322 Analytical Instrumentation	3
Chemistry 331 Physical Chemistry II	3
Chemistry 342 Advanced Organic Chemistry	3
Chemistry 353 Biochemistry	3
Chemistry 361 Organic Spectroscopy	3
Chemistry 374 Inorganic Chemistry II	3
Chemistry elective (3 semester hours)	3
Mathematics elective (3 semester hours)	3
Electives (6 semester hours)	6
Total	30

Fourth Year	
Chemistry 432 Methods in Computational Chemistry	3
Chemistry 441 Physical Organic Chemistry	3
Chemistry 467 Inorganic Reaction Mechanisms and Catalysis OR	
Chemistry 468 Advanced Inorganic Chemistry	3
Chemistry 490 Honours Thesis	12
Chemistry electives (6 semester hours)	6
Electives (9 semester hours)	9
Total	36

The Chemistry electives may be chosen from among Chemistry courses numbered: 202, 282, 461, 462, 464, 467, 468, or 469. The Mathematics elective may be chosen from Mathematics 221, 261, 301 or 321 in consultation with the Chair. As well, students in the Honours Program in Chemistry are strongly advised to take Physics 272 (Electronics and Instrumentation) and/or Physics 312 (Electromagnetism I).

Honours students should note that Chemistry 490 is a two- semester course and carries twelve semester hours of credit. No credit for the first semester will be granted without successful completion of the second semester of the course.

For admission to the Honours Program, students must have a minimum average of 70% in all previous courses; normally the Department expects high second-class standing or first-class standing in previous Chemistry courses. Permission of the Department is also required and is contingent on the student finding an Honours Advisor, on being assigned an advisory committee, on acceptance of the research project by the Chemistry Department, and on general acceptability. Students interested in doing Honours should consult with the Department Chair as early as possible and not later than March 31 of the student's third year.

To graduate with a BSc Honours in Chemistry, students must complete 126 semester hours of credit which meet the required courses outlined above. As well, students must attain a 75% average in all Chemistry courses combined and must achieve a minimum overall average of 70% in all courses submitted for the degree. Students failing to meet the Honours requirements may apply for a transfer to the BSc Chemistry Major Program or to other degree programs.

## **NOTES REGARDING 100-LEVEL CHEMISTRY COURSES**

Chemistry 111-112 are introductory courses required for, but not restricted to, Chemistry Majors and Honours. A combined average of at least 60% is a prerequisite for all Chemistry courses above the 100 level. However, this course prerequisite may also be met by the successful completion of a qualifying examination to be offered each year on the first Tuesday after Labour Day. This examination, which shall cover material from both Chemistry 111 and 112 is open to those who have passing grades for both Chemistry 111 and 112, but who do not have a combined average of at least 60%. To be admitted to Chemistry courses above the 100 level, students must achieve a score of 65% on the qualifying examination. The score on the qualifying exam will not replace those attained in Chemistry 111 and 112, nor shall it be factored into any calculation of grades for graduation, scholarships or other purposes. This course prerequisite may also be waived with the permission of the Chair for individual courses. This 60% combined average regulation does not apply to students who have received credit for Chemistry 111-112 prior to the 2007-2008 academic year.

## **CHEMISTRY COURSES**

### **001 INTRODUCTION TO THE ESSENTIALS OF CHEMISTRY**

This non-credit course is designed primarily for students needing an introduction to chemical principles, as preparation for first year chemistry. Basic chemical principles are introduced in relation to everyday applications, including industry and the environment. Topics include: matter and energy; elements and atoms; nomenclature and chemical reactions; electron arrangements in atoms; chemical quantities and calculations; acids and bases; and gases. Classes will be augmented by laboratory demonstrations. This course is required for those students planning to take Chemistry 111 and who do not have Grade 12 Academic Chemistry.

### **111 GENERAL CHEMISTRY I**

This course emphasizes the fundamentals of chemistry. Topics include: atoms, molecules and ions; stoichiometry; mass relations; gases and their behaviour; electronic structure and the periodic table; covalent bonding and molecular geometry; and thermochemistry. The laboratory associated with this course stresses stoichiometry, qualitative analysis, atomic spectroscopy and thermochemistry.

**PREREQUISITE:** Grade XII Chemistry, Chemistry 001 or the permission of the Chair in special cases

Three lecture hours a week; one three-hour laboratory period or tutorial a week

### **112 GENERAL CHEMISTRY II**

This course continues the subject matter of Chemistry 111. Topics include: chemical equilibrium, acids and bases, intermolecular forces, solutions, chemical kinetics, entropy and Gibbs energy, redox equations and electrochemistry. The laboratory associated with this course stresses volumetric analysis, titration curves and chemical kinetics.

**PREREQUISITE:** Chemistry 111

Three lecture hours a week; one three-hour laboratory period or tutorial a week

### **202 ENVIRONMENTAL CHEMISTRY**

This course deals with the major topics of concern in environmental chemistry. Emphasis is placed on the chemistry involved, as well as assessment of the relative hazards and corrective methods available to provide abatement. Topics covered include: atmospheric free radical chemistry, the green-house effect, stratospheric ozone, tropospheric chemistry and photochemical smog, the chemistry of natural water systems, acid rain, indoor air quality, sewage and waste management, chlorinated organic compounds, and heavy metals in the environment.

**PREREQUISITE:** Chemistry 112

Three lecture hours a week & three laboratories during the term (scheduled during the first class)

### **221 ANALYTICAL CHEMISTRY**

The treatment of analytical data and the estimation of experimental error are considered in detail. Chemical equilibrium, rate and equilibrium constants, abundance and titration curves, complexometric and redox reactions are discussed. The Beer-Lambert law and colorimetry are also examined. The laboratory work includes a selection of gravimetric, volumetric and colorimetric techniques relevant to the theory discussed.

**PREREQUISITE:** Chemistry 112



Three lecture hours and four laboratory hours a week

### 231 PHYSICAL CHEMISTRY I

This is an introductory course that deals with the topics of kinetic theory, introductory thermodynamics and thermo- chemistry, phase diagrams, conductivity, electrochemistry and introductory reaction kinetics. The latter includes first- and second-order reactions, as well as methods for dealing with the kinetics of complex reaction mechanisms.

PREREQUISITE: Chemistry 112, Mathematics 191-192, or Mathematics 112 with permission of the Chair

Three lecture hours and three hours laboratory a week

### 241 ORGANIC CHEMISTRY I

This course introduces students to the structure and reactivity of hydrocarbons and functional groups, stereochemistry, aromaticity, nucleophilicity and electrophilicity, basic types of organic reactions and the application of spectroscopy to structure elucidation.

PREREQUISITE: Chemistry 112

Three lecture hours and three hours laboratory a week

NOTE: Credit cannot be obtained for both Chemistry 241 and Chemistry 243.

### 242 ORGANIC CHEMISTRY II

This course provides a detailed examination of reactivity and mechanisms of organic reactions, including nucleophilic substitution, elimination, addition, electrophilic aromatic substitution, reactions of carbonyl compounds, and rearrangements. Some multistep synthesis and polymers (including biopolymers) are also discussed.

PREREQUISITE: Chemistry 241

Three lecture hours and three laboratory hours a week

NOTE: Credit cannot be obtained for both Chemistry 242 and Chemistry 243.

### 243 ORGANIC CHEMISTRY FOR THE LIFE SCIENCES

This course is an introduction to organic chemistry for students in the life sciences (and others who do not intend to pursue a major in chemistry). Topics covered include the structure and reactivity of hydrocarbons and functional groups, stereochemistry, aromaticity, nucleophilicity and electrophilicity. Basic types of reactions discussed include nucleophilic substitution, elimination, addition, oxidation/reduction and reactions of carbonyl compounds.

PREREQUISITE: Chemistry 112

Three lecture hours and three hours laboratory a week.

NOTE: Credit cannot be obtained for both Chemistry 243 and Chemistry 241 or 242.

### 272 INORGANIC CHEMISTRY I

This course examines the descriptive chemistry of the main group elements and their compounds; periodic trends in reactivity, structure and physical properties. Other topics include: electronic configuration, an introduction to symmetry operations and symmetry elements, bonding theories (molecular orbital theory), acid-base theory, and special topics (industrial application, bioinorganic chemistry).

PREREQUISITE: Chemistry 112

Three lecture hours and four laboratory hours a week

### 282 (formerly 382) INTRODUCTION TO SCIENTIFIC RESEARCH

This course introduces students to some of the basic skills required in planning and reporting scientific research. It includes electronic searching of the literature, planning and design of experiments, analysis of experimental data, assessment of experimental error, scientific proof, ethics in research, scientific publications, social media, and scientific presentations.

PREREQUISITE: Chemistry 112

Three lecture hours a week

### 322 ANALYTICAL INSTRUMENTATION

This course introduces a variety of instrumentation techniques, and examines the theory, advantages and limitations associated with each. Topics include UV-visible absorption spectroscopy, atomic absorption and emission spectroscopy, operational components of spectrophotometers; electro- analytical methods, potentiometric methods, ion-specific electrodes, voltammetry, liquid chromatography, gas chromatography, spreadsheet methods and statistical software.

PREREQUISITE: Chemistry 221 and Chemistry 361 or permission of the Chair

Three lecture hours and four laboratory hours a week

### 331 PHYSICAL CHEMISTRY II

This course is an introduction to quantum mechanics and spectroscopy for chemists. Topics covered include blackbody radiation, the photoelectric effect, diffraction, particle in a box, rigid rotor, harmonic oscillator and hydrogen atom in detail. The course will also explore the interaction of light with matter and applications to rotational, vibrational and electronic spectroscopy.

PREREQUISITE: Chemistry 231 and Mathematics 251, or permission of the Chair

Three lecture hours and three hours laboratory a week

### 342 ADVANCED ORGANIC CHEMISTRY

This course addresses the application of structure elucidation and synthetic methods to organic chemistry. Topics covered include: enolates, enamines, functional group interconversion, polycyclic and heterocyclic aromatic compounds, cycloadditions, rearrangements, multistep syntheses, and natural product synthesis.

PREREQUISITE: Chemistry 241/242 with a combined minimum average of 60% and Chemistry 361

Three lecture hours and four laboratory hours a week

### 353 BIOCHEMISTRY

This course is an introduction to biochemistry. Topics covered include the structure and function of biomolecules and their building blocks; protein structure; enzyme mechanism and kinetics; cell membrane structure and transmembrane signalling; thermodynamics of metabolism and an overview of the major metabolic pathways; DNA replication, transcription and translation of RNA for protein synthesis. The laboratory portion of the course focuses on the physical and chemical properties of proteins and enzymes. Students use modern biochemistry techniques including ion-exchange and affinity chromatography, spectroscopy and enzyme assays.

PREREQUISITE: Chemistry 242 or Chemistry 243

Three lecture hours and two hours tutorial a week

### 361 SPECTROSCOPIC METHODS IN STRUCTURAL ANALYSIS

This course examines ultraviolet, visible, infrared and n.m.r. spectroscopy and mass spectrometry in terms of the physical processes responsible for the energy absorption and ion generation. Problems associated with the recording and interpretation of spectra are addressed and the application of spectral analysis to structural identification is stressed.

PREREQUISITE: Chemistry 241/242 with a combined minimum average of 60%

Three lecture hours and three hours laboratory a week

### 374 INORGANIC CHEMISTRY II

This course introduces the chemistry of the transition metals, focusing on coordination and organotransition metal compounds. It discusses the geometry, bonding models (ligand field theory, molecular orbital theory, isolobal analogy), and electronic properties of the transition metals and their compounds. It examines specific families with respect to their chemical and physical properties and their reactivity (ligand substitution, oxidative addition, reductive elimination, insertion reactions) as related to their structure and bonding. Other topics include application to industrial processes and bioinorganic chemistry.

PREREQUISITE: Chemistry 272 with a minimum of 60% and Chemistry 361 must be taken at least concurrently

Three lecture hours and three hours laboratory a week

### 432 METHODS IN COMPUTATIONAL CHEMISTRY

In this class we will review the theoretical foundations of quantum mechanics as well as undergo practical investigations of real-world chemical problems using modern quantum chemical software. Topics include methods in first principles simulations such as Hartree-Fock, perturbation theory, configuration interaction,

coupled cluster and density functional theories in addition to more approximate methods such as semi-empirical approaches and molecular mechanics force fields.

PREREQUISITE: Chemistry 331 with a minimum of 60%

Three lecture hours a week

#### 441 PHYSICAL ORGANIC CHEMISTRY

This course examines the qualitative and quantitative relationships between the rates and mechanisms of organic reactions, and the electronic and physical structures of reactants. Among the topics considered are: theory and applications of inductive and resonance effects, linear free energy relationships, kinetic isotope effects, solvent effects, steric effects in substitution and elimination reactions, acids and bases and pericyclic reactions, applications of semi-empirical and ab initio molecular orbital calculations.

PREREQUISITE: Chemistry 342 with a minimum of 60%

Three lecture hours a week

#### 461-462 DIRECTED STUDIES IN CHEMISTRY

These courses may be offered at the discretion of the Department to advanced students. Conditions under which they are offered and entry will be subject to the approval of the Chair of the Department and the Dean of Science. (See Academic Regulation 9 for Regulations Governing Directed Studies.)

#### 464 POLYMER CHEMISTRY

This course examines the synthesis, properties, and applications of organic polymers. Topics include: ionic, radical and condensation polymerizations, as well as the newer catalytic methods.

PREREQUISITE: Chemistry 241/242 with a combined minimum average of 60%

Three lecture hours and a one-hour laboratory a week

#### 467 INORGANIC REACTION MECHANISMS AND CATALYSIS

Inorganic reaction mechanisms are discussed, with an emphasis on catalytic cycles and the application of organometallic compounds to synthesis. Topics include: basic inorganic reaction mechanisms, catalytic cycles and catalysis, application of organometallic chemistry to modern industrial synthesis and polymerization reactions, and chirality and enantioselectivity in catalysis. Fundamental concepts will be supplemented with material from the current literature to explore the broad range of interdisciplinary applications of inorganic and organometallic catalysts.

PREREQUISITE: Chemistry 374 with a minimum of 60%

Three lecture hours a week

#### 468 ADVANCED INORGANIC CHEMISTRY

This course deals with advanced topics in Inorganic Chemistry. Topics include: bioinorganic chemistry, green chemistry, solid state inorganic chemistry and advanced coverage of molecular orbital theory and bonding in transition metal and main group complexes. This course will also introduce advanced spectroscopic techniques, including X-ray diffraction, Mossbauer spectroscopy and multi-nuclear NMR spectroscopy. The current literature is explored to illustrate the broad range and interdisciplinary nature of inorganic chemistry.

PREREQUISITE: Chemistry 374 with a minimum of 60%

Three lecture hours a week

#### 469 MATERIALS CHEMISTRY

This course discusses current topics in materials chemistry. Topics include the synthesis and characterization of intercalation compounds, conductive polymers and their applications, semiconductors and their applications, defects in inorganic solids, and transport measurements.

PREREQUISITE: Chemistry 241/242 with a combined minimum average of 60%, 331, 374 with a minimum of 60% in these courses

Three lecture hours a week

#### 481 SPECIAL TOPICS

A course in which topics or issues are explored outside the core area.

#### 482 ADVANCED RESEARCH PROJECT

A laboratory research course designed to review, unify, and augment the content of previous chemistry courses and to provide an introduction to chemical research. Students will abstract and adapt procedures from the chemical literature and apply them in a one-semester research project carried out under the supervision of a Faculty Member. Components in the evaluation include a written thesis and its oral presentation.

**PREREQUISITES:** All Chemistry courses of a 300 level or lower which are required for the Chemistry Major program must be completed or taken concurrently. Entry to this course is contingent upon the student finding a departmental faculty member willing to supervise the research and permission of the department.

Twelve hours laboratory a week (minimum)

Six semester hours of credit

#### 483 ADVANCED CHEMISTRY LABORATORY

A capstone laboratory course designed to integrate and augment the content of previous chemistry courses in organic, in-organic, physical and analytical chemistry. Students will select and carry out a number of short projects which are developed by faculty members in the various areas of Chemistry. Students will be evaluated on their development of experimental procedures based on the chemical literature, scientific record-keeping, and preparation of reports.

**PREREQUISITES:** All Chemistry courses of a 300 level or lower which are required for the Chemistry Major program must be completed or taken concurrently.

Six hours laboratory and one hour seminar a week

#### 490 HONOURS RESEARCH AND THESIS

This course is a laboratory course focused on a project of original research. The course carries twelve semester hours of credit and is required of every Honours student in their final year of undergraduate study. The project is designed during the second semester of the prior year and intensive experimental work is conducted during the final year, for a minimum average of twelve hours per week, under the direction of an advisor and an advisory committee. The research results are reported in thesis format and are presented orally to the Department faculty and students.

**PREREQUISITE:** Acceptance to the Honours Program

Twelve semester hours of credit

### Classics

<http://upei.ca/classics>

#### Classics Faculty

D.F. Buck, Professor, Chair

The Greeks and the Romans laid foundations upon which Western Civilization rests. We owe to the Greeks the roots of much of our literature, science, philosophy and art, while the Romans gave the still living legacy of their language, literature and law to an empire that stretched from the North Sea to the Persian Gulf. To allow the student to share in this rich heritage, the Department of Classics offers courses in the languages, literature, history, philosophy and civilization of Greece and Rome.

Our courses in Greek and Roman Civilization are for students who wish to gain a general understanding of classical antiquity and are the usual basis for further work in Classics. The 200 and 300 level courses treat particular subjects and periods, but none of the Classics courses requires a knowledge of Greek or Latin.

There are, however, courses in the Greek and Latin languages for both beginning and advanced students. Those who wish to learn Greek and Latin are urged to begin their studies as early as possible in their university careers.

Students who pass in Classics 101, 102, 312, 342, 431 and 432 may claim credit for these courses in the Department of History.

### REQUIREMENTS FOR A MINOR IN CLASSICS

1. A Minor in Classics consists of 21 semester hours.
2. The 21 semester hours must be distributed as follows:
  - (a) 6 hours in Greek or 6 hours in Latin.
  - (b) 6 hours in civilization courses; i.e. non-language courses offered by the Classics Department or cross-listed courses recommended by the Department.
  - (c) 9 hours of electives at the 200 level or above; at least 3 of these 9 hours must be at the 300 level or above.

## **CLASSICS COURSES**

### **101 GREEK CIVILIZATION**

This course surveys Greek Civilization from the Bronze Age to the death of Alexander the Great. It examines important political, literary and artistic creations, such as Athenian democracy, tragic drama and sculpture, within their historical contexts. The aim is to provide both a general understanding of Ancient Greece, including its contribution to Western Civilization, and a basis for further work in Classics.

Cross-listed with History (cf. History 251)

PREREQUISITE: None

Three hours a week

### **102 ROMAN CIVILIZATION**

This course surveys Roman Civilization from its beginnings to the fall of Rome. It examines important political, literary and material creations, such as the Empire, the Aeneid, and the Colosseum, within their historical contexts. The aim is to provide both a general understanding of Ancient Rome, including its contribution to Western Civilization, and a basis for further work in Classics.

Cross-listed with History (cf. History 252)

PREREQUISITE: None

Three hours a week

### **121 CLASSICAL MYTHOLOGY**

This course surveys the Greek and Roman myths as they are found in the religion, pre-scientific thought, literature, philosophy and art of the Ancient World. These myths helped to make the universe, society and the individual intelligible to the Ancients and have contributed significantly to the art and literature of Western Civilization. The aim of the course is to provide both a general understanding of Greek and Roman culture and a basis for further work in Classics.

Cross-listed with Religious Studies (cf. Religious Studies 121)

PREREQUISITE: None

Three hours a week

### **212 ANCIENT TRAGEDY**

This course examines critically the more important surviving plays of Aeschylus, Sophocles, Euripides and Seneca as dramatic reflections of the political, social, moral and religious concerns of the ancient Greeks and Romans. The aim is to develop a capacity for the critical appreciation of drama and an understanding of the society from which it emerged.

PREREQUISITE: Classics 101, or 121, or permission of the instructor

Three hours a week

### **222 ANCIENT COMEDY**

This course examines critically the more important surviving plays of Aristophanes, Menander, Plautus and Terence as comic reflections of the changing political, social, moral and religious concerns of the ancient Greeks and Romans. The aim is to develop a capacity for the critical appreciation of comedy and an understanding of the society from which it emerged.

PREREQUISITE: Classics 101, or 121, or permission of the instructor

Three hours a week

### **231 EGYPTIAN AND MESOPOTAMIAN ART**

(See Fine Arts History 201)

232 GREEK ART  
(See Fine Arts History 202)

241 ROMAN ART  
(See Fine Arts History 211)

262 PLATO AND ARISTOTLE  
(See Philosophy 262)

288 SPECIAL TOPICS  
Creation of a course code for special topics offered by Classics at the 200 level.

312 AUGUSTUS AND THE EARLY ROMAN EMPIRE  
This course gives detailed consideration to the political, military, social and economic history of the Roman Empire from the assassination of Julius Caesar to the suicide of Nero. The focus is on the civil wars of the Late Republic, the achievements of the Augustan Principate and its evolution under the Julio-Claudian emperors. Particular attention is given to the literary and documentary sources, especially Tacitus' Annals and Suetonius' Lives of the Caesars.  
Cross-listed with History (cf. History 271)  
PREREQUISITE: Classics 102, or 121, or permission of the instructor  
Three hours a week

341 ROMAN LAW  
Roman Law as opposed to British Common Law is the basis of the present law of most countries in Western Europe as well as of Quebec. It is not only fundamental for legal studies, but it also illuminates contemporary issues like divorce and human rights. This course examines the history, sources, procedure, substance and legacy of the Roman Civil and Criminal Law with special attention to Justinian's Institutes.  
PREREQUISITE: Classics 102, or 312, or permission of the instructor  
Three hours a week

342 THE LATER ROMAN EMPIRE (A.D. 284-410)  
This course gives detailed consideration to the political, military, social, economic and religious history of the Roman Empire from the reign of Diocletian to the sack of Rome by Alaric the Visigoth. Attention is directed to the reasons why the Romans failed to halt the decline of their Empire.  
Cross-listed with History (cf. History 272)  
PREREQUISITE: Classics 102, or 312, or permission of the instructor  
Three hours a week

388 SPECIAL TOPICS  
Creation of a course code for special topics offered by Classics at the 300 level.

488 SPECIAL TOPICS  
Creation of a course code for special topics offered by Classics at the 400 level.

## LANGUAGE COURSES

### GREEK

101  
This course provides an introduction to the grammar and syntax of Classical Greek.  
PREREQUISITE: None  
Three hours a week

102  
This course provides a continuation of the study of the grammar and syntax of Classical Greek.

PREREQUISITE: Greek 101  
Three hours a week

## **LATIN**

101  
This course provides an introduction to the grammar and syntax of the Latin language.  
Three hours a week

102  
This course provides a continuation of the study of the grammar and syntax of the Latin language.  
PREREQUISITE: Latin 101  
Three hours a week

## **431-432 DIRECTED STUDIES**

Student and teacher jointly investigate problems or authors or do advanced language studies in consultation with the Chair. May be used as a History credit with approval of History Chair  
PREREQUISITE: Four courses in Classics  
(See Academic Regulation 9 for Regulations Governing Directed Studies.)

## **Computer Science**

<http://upei.ca/csit>

### **Computer Science Faculty**

Stephen Howard, Associate Professor, Chair  
David LeBlanc, Associate Professor  
Cezar Câmpeanu, Professor  
Qiang Ye, Associate Professor  
Yingwei Wang, Assistant Professor  
Scott Bateman, Adjunct Professor

## **DEGREE PROGRAMS**

The Department of Computer Science offers a program of study leading to a Bachelor of Science degree with a Major in Computer Science and Honours in Computer Science. An optional co-operative education stream and a video game programming specialization are available for computer science majors.

## **ADMISSION TO PROGRAMS**

Students intending to take a major in Computer Science must make their intent known to the Department as soon as possible so that the Department will be able to give early and continued advice for course selection and further study or employment after graduation. Such prospective majors should make their intent known to the Department during their Second Year but should do so no later than Third Year. Students wishing to pursue the computer science co-operative education stream should signify their intention during the first semester of their Second Year.

## **SELECTION OF COURSES**

Students majoring in Computer Science are permitted to take courses with the Information Technology, IT, designation for degree credit only as general electives, except where otherwise noted. Courses with the IT designation cannot count towards a Minor in Computer Science.

## **REQUIREMENTS FOR A MAJOR IN COMPUTER SCIENCE**

The program requires a total of 120 semester hours of course credit. A total of 51 semester hours of Computer Science is required: 45 semester hours of core courses, plus 6 semester hours of electives above the 100 level. The

core consists of Computer Science 151-152, 161, 252, 261, 262, 282, 332, 342, 352, 361, 371, 421, 481, and 482. To receive credit towards a Major in Computer Science, all core computer science courses listed require 60% as a minimum grade and all Computer Science courses which are listed as prerequisites must have a minimum mark of 60%. All core courses have three semester hours of credit. The required Mathematics courses are: Mathematics 191-192, 221, 242, and 261.

Also required are 6 semester hours of credit from Biology, Chemistry or Physics; 9 semester hours of credit from the Faculty of Arts; One of UPEI 101, 102, or 103 and one writing intensive course, and 3 semester hours of credit from the School of Business Administration. An additional 9 semester hours of credit must be selected from either the Faculty of Science (other than Computer Science) or the School of Business Administration. Students are strongly encouraged to complete some of the Science and Business courses early in their program.

NOTE: Students majoring in computer science with a specialization should consult their specific requirements, which differ from the normal requirements listed above.

The following sequence of courses is suggested:

Semester hours of credit

First Year

Computer Science 151-152	6
Computer Science 161	3
Mathematics 191-192	6
One of UPEI 101, 102, or 103	3
Science Electives	6
Business & Arts Electives	6

Second Year

Computer Science 241	3
Computer Science 252	3
Computer Science 261	3
Computer Science 282	3
Mathematics 242	3
Mathematics 261	3
Electives	12

Third Year

Computer Science 332	3
Computer Science 342	3
Computer Science 352	3
Computer Science 361	3
Computer Science 371	3
Mathematics 221	3
Electives	12

Fourth Year

Computer Science 421	3
Computer Science 481	3
Computer Science 482	3
Computer Science Electives	6
Electives	15
Total	120

## REQUIREMENTS FOR HONOURS IN COMPUTER SCIENCE

The Honours program in Computer Science is designed to provide research experience at the undergraduate level. It is intended for students who are planning to pursue postgraduate studies in Computer Science or a related discipline, or who are planning a career where research experience would be an asset.



The program requires a total of 126 semester hours of course credit. A total of 63 semester hours of Computer Science is required: 45 semester hours of core courses, a 6-semester-hour Honours project (CS 490), plus 12 semester hours of electives above the 100 level, at least 3 semester hours of which must be at the 400 level. The core consists of Computer Science 151-152, 161, 252, 261, 262, 282, 332, 342, 352, 361, 371, 411, 421, and 481. All core courses have three semester hours of credit. The required Mathematics courses are: Mathematics 191-192, 221, 242, 251, and 261.

Also required are 6 semester hours of credit from Biology, Chemistry or Physics, 9 semester hours of credit from the Faculty of Arts (including one of UPEI 101, UPEI 102, or UPEI 103 and one writing intensive course), and 3 semester hours of credit from the School of Business Administration. An additional 9 semester hours of credit must be selected from either the Faculty of Science (other than Computer Science) or the School of Business Administration. Students are strongly encouraged to complete some of the Science and Business courses early in their program.

To graduate with Honours in Computer Science, students must achieve a minimum average of 75% in all Computer Science courses combined, and must achieve a minimum overall average of 70% in all courses submitted for the degree. In addition, all core Computer Science courses listed require 60% as a minimum grade and all Computer Science courses which are listed as prerequisites must have a minimum mark of 60%.

The specific courses are listed below:

	<b>Semester hours of credit</b>
<b>First Year</b>	
Computer Science 151-152	6
Computer Science 161	3
Mathematics 191-192	6
One of UPEI 101, UPEI 102, or UPEI 103	3
Science Electives	6
Business & Arts Elective	6
<b>Second Year</b>	
Computer Science 252	3
Computer Science 261	3
Computer Science 262	3
Computer Science 282	3
Mathematics 242	3
Mathematics 251	3
Mathematics 261	3
Electives	9
<b>Third Year</b>	
Computer Science 332	3
Computer Science 342	3
Computer Science 352	3
Computer Science 361	3
Computer Science 371	3
Computer Science Elective	3
Mathematics 221	3
Electives	9
<b>Fourth Year</b>	
Computer Science 411	3
Computer Science 421	3
Computer Science 481	3
Computer Science Electives	9

Computer Science 490 (Honours Research Project)	6
Electives	12
Total	126

### **ENTRANCE REQUIREMENTS**

Permission of the Department is required for admission to the program. Students must normally have a minimum average of 70% in all previous courses. The Department expects first-class or high second-class standing in all previous Computer Science courses. Admission is contingent upon the student finding a project advisor. Students interested in doing Honours are strongly encouraged to consult with the Department Chair as soon as possible, and no later than January 31 of the student's third year. Students admitted to the program need acceptance by the Department of a topic for the Honours project by March 31 of their third year.

### **COMPUTER SCIENCE CO-OPERATIVE EDUCATION PROGRAM**

The Computer Science Co-operative Education Program is an optional five-year program that complements the Bachelor of Science Program in Computer Science with a minimum of four (4) terms of supervised work experience divided between at least two placements. A placement is the continuous period a student spends with one employer. Each placement can be one work term or two work terms in duration and must start at the beginning of January, May or September. A work term is 14 to 16 weeks in duration but in exceptional circumstances a shorter duration work period may be permitted. Normally, the first work placement commences after the student has completed two years of the BSc degree program.

Students should note that the Co-operative Education Program is not a summer work program. At least one work term will be taken during a regular academic term. A limited number of placements will be available in a given year. Eligibility for a placement will be decided by the Co-op Coordinator and Program Director while hiring decisions for Co-op students are made by the employers.

Students who successfully complete all requirements of the program will have a notation entered on their transcript and their degree parchment.

### **ADMISSION REQUIREMENTS**

Applications to join the Computer Science Co-operative Education Program are made at the end of the first or second academic terms to the Computer Science Co-op Program Director. A student must be a full time student majoring in Computer Science at the time of application. In addition to their interest, motivation, and abilities assessed through an interview, students must complete the requirements for the first year of their undergraduate BSc program in Computer Science with a cumulative average of 70% or higher and a Computer Science average of 70% or higher to be admitted to the program. Requirements for a first work term normally include the completion of 60 credit hours towards the BSc degree at the time of the placement including CS 151, CS 152, CS 241, CS 252, CS 261, and CS 282. Students not admitted may reapply upon completion of their next academic semester.

### **CONTINUANCE REQUIREMENTS**

To remain in the Co-op program, the student must continue to satisfy all the requirements of the BSc Program, and maintain cumulative and Computer Science averages of 70%, in addition to achieving satisfactory performance on previous work terms. Students must register for a Co-operative education work term before each work term. They must also attend the seminars and workshops organized to provide the required employment orientation and professional development. They may also be required to give talks to their peers introducing skills and methodology learned on the job.

### **PROGRAM REQUIREMENTS**

In addition to satisfying the requirements for the BSc Program in Computer Science, Co-operative Education students must fulfill the following requirements:

1. The completion of a minimum of four terms of work experience in approved, academically-relevant, employment situations of 14 to 16 weeks duration each.
2. A satisfactory employer evaluation for each co-op work term.

3. The satisfactory completion of a written report for each term.
4. Fulfillment of any other requirements specified by the Department, such as the participation in seminars and workshops.

#### **WITHDRAWAL CONDITIONS**

Students may be required to withdraw from the Co-op Program if:

1. They are dismissed from, discontinue, or fail an appropriate and approved Co-op work term position due to a fault on their part;
2. They fail to submit or successfully complete a work term report;
3. They do not satisfy the continuance requirements including the required course grade average necessary for continuance in Cooperative Education;

Students have the right of appeal under Academic Regulation 12.

#### **WORK TERM REGISTRATION**

Students are required to register for all work terms according to normal course registration procedures. A work term course grade is placed on a students' academic transcript following completion of each work term and graded on a pass/fail basis.

#### **FEES**

Students pay for their academic courses as they are taken. Students accepted to the Cooperative Education Program are required to pay regular student fees and a Co-operative Education Program Fee (see Calendar section on fees).

#### **REQUIREMENTS FOR A MINOR IN COMPUTER SCIENCE**

Students may obtain a minor in Computer Science by completing at least 21 semester hours of courses in Computer Science defined as follows:

	Semester hours of credit
CS 151-152 Introduction to Computer Science I & II	6
CS 252 Computer Organization and Architecture	3
CS 261 Data Structures and Algorithms	3
plus 3 semester hours of Computer Science at the 300 level or above, and an additional 6 semester hours of Computer Science at the 200 level or above.	

#### **SPECIALIZATIONS**

The department offers specializations in core areas of computer science and departmental expertise. Specializations provide the student with a suggested course of study concentrating in a particular field of computer science.

#### **VIDEO GAME PROGRAMMING**

To achieve a specialization in Video Game Programming, the student must complete the following courses in addition to the normal requirements for a major in computer science: IT 132, CS 212, CS 222, CS 311, CS 435, CS 436 and CS 465. In addition, students must take CS 483 instead of CS 482.

Students wishing to pursue a specialization in Video Game Programming must apply for admission to the specialization at the end of their second year. Students must have an overall average of 75% and cannot have a mark less than 70% in any of the courses CS 152, CS 261 and CS 212.

Students pursuing the specialization must maintain an overall average of 75% in subsequent terms. Furthermore, students in the specialization cannot receive a mark of less than 70% in the courses CS 311, CS 435 and CS 436.

The above requirements may be waived in exceptional cases by a decision of the department.

#### **COMPUTER SCIENCE COURSES**

### 121 (Formerly IT 121) INTRODUCTION TO COMPUTER PROGRAMMING

This course is an introduction to computer programming for non-science students. Students will be taught basic programming skills in a modern computer language. Topics include problem analysis, algorithm design, program structure, data types, selection, iteration, procedures, functions, and debugging of programs.

Three lecture hours and one laboratory session a week

NOTE: Credit will not be allowed for CS 121 if taken concurrently with, or subsequent to, CS 151 or Engineering 132 or if students already have credit for IT 121.

### 141 INTRODUCTION TO COMPUTER PROGRAMMING FOR SCIENTISTS

This course is an introduction to computer programming for non-computer science majors. Topics include problem-solving, algorithm design, data types, control structures, repetition, loops, nested structures, modular programming and arrays.

PREREQUISITE: Grade XII academic mathematics.

Three lecture hours and 1.5 hours of laboratory session per week

NOTE: Credit will be allowed for only one of CS 141 or Engineering 131. As well, CS 141 may not be taken concurrently with, or after, CS 151.

### 151 INTRODUCTION TO COMPUTER SCIENCE I

This course is the first of a two-course sequence designed to introduce the fundamentals of Computer Science and prepare students for further studies in this or related fields. Emphasis is on problem solving and software development in a high level object-oriented language such as Java. Topics include computer fundamentals; the programming process; language syntax and semantics; simple data types, classes, methods, expressions, control structures, input/output, arrays, and graphical user interfaces.

PREREQUISITE: Grade XII academic Mathematics.

Three lecture hours and 1.5 hour of laboratory session a week

NOTE: Students will not receive credit for Engineering 131 if taken after, or concurrently with, CS 151

### 152 INTRODUCTION TO COMPUTER SCIENCE II

This course continues the development of object-oriented programming topics introduced in CS 151. Topics include elementary searching and sorting, inheritance, polymorphism, recursion, exception handling, graphical user interfaces, introduction to data structures (lists, stacks, queues, trees, graphs), threads, network programming.

PREREQUISITE: CS 151 with a minimum grade of 60%

Three lecture hours and 1.5 hour of laboratory session a week

### 161 (Formerly 241) DIGITAL SYSTEMS

This course provides an introduction to digital systems, beginning with elementary components such as logic gates, from which are constructed components such as adders and comparators, and progressing to more complex systems such as programmable logic devices, memory and processor units. Students acquire skills in the design and analysis of combinational and sequential digital systems, CAD design and simulation tools for complex systems, and construction of digital systems based upon a modular methodology.

PREREQUISITE: CS 151 or Engineering 131, three semester hours of Mathematics

Three lecture hours and a three-hour laboratory session a week

### 185 CO-OP WORK TERM I

This course is available to computer science co-op students only. It is an integration of professional development work- shops with learning through productive work experiences. Through the workshops, students develop professional skills in writing resumes, conducting job searches, interviewing, and professional etiquette. A work term report related to a technical problem/issue within the organization where the student is working is required. Students are assessed on a pass/fail basis.

PREREQUISITE: Acceptance into the Computer Science Co-operative Education Program.

Hours of credit: 1

### 206 WEB DEVELOPMENT AND PROGRAMMING

In this course, students learn to create websites that involve server-side scripting and database operations. While one specific scripting language is used to acquire web development and programming skills, students are exposed to a spectrum of scripting languages, enabling them to easily adapt to others.

PREREQUISITES: CS 152

Three hours a week

#### 212 MOBILE DEVICE DEVELOPMENT - iOS

This course introduces the student to programming for mobile devices that use iOS. The course will present a study of the architecture, operating system, and programming for these devices.

PREREQUISITE: CS 152

Three lecture hours per week

#### 213 MOBILE DEVICE DEVELOPMENT - ANDROID

This course introduces the student to programming for mobile devices that use the Android platform. The course will present a study of the architecture, operating system and programming language of these devices.

PREREQUISITE: CS 152

Three lecture hours per week

#### 252 COMPUTER ORGANIZATION AND ARCHITECTURE

This course provides a basic understanding of the organization and architecture of modern computer systems. It examines the function and design of major hardware components both from a designer's perspective and through assembly language programming. Topics include components and their interconnection, internal/external memory, input/output subsystems, processors, computer arithmetic, instruction sets, addressing modes, and pipelining.

PREREQUISITE: CS 152

Three hours a week

#### 261 DATA STRUCTURES AND ALGORITHMS

This course continues the study of data structures, recursive algorithms, searching and sorting techniques, and general strategies for problem solving. It also introduces complexity analysis and complexity classes.

PREREQUISITE: CS 152 and six semester hours of Mathematics

Three lecture hours a week

#### 262 COMPARATIVE PROGRAMMING LANGUAGES

This course examines the principal features of major types of programming languages, including procedural, logical, functional and object-oriented languages. Features include parameter-passing mechanisms, control structures, scope, and binding rules. Compilers and interpreters will also be introduced. Each language type is illustrated by considering a specific language.

PREREQUISITE: CS 261

Three lecture hours a week

#### 271 PRACTICAL EMBEDDED SYSTEMS

This course introduces students to the concept of embedded systems architectures, the interconnection of sensors and actuators to such systems, and the usage of such platforms for data acquisition and control of automated systems. Popular microcontroller units and system-on-chip platforms will be examined.

PREREQUISITES: CS 121 or CS 141 or CS 151 or ENGN 131

Three lecture hours a week

#### 282 PROGRAMMING PRACTICES

This course introduces the student to development in the Unix/Linux environment. Topics include development tools, shell programming, common utility programs, processes, file/directory management, IDEs, testing/debugging, version control, and an introduction to software engineering.

PREREQUISITE: CS 152 or permission of the instructor (based on completion of CS 151 with first class standing)

Three lecture hours a week

### 285 CO-OP WORK TERM II

This second work term enables students to further develop their computing professionalism by applying classroom theory with new technical skills acquired during the work term. In conjunction with developing their personal portfolio, students submit a report summarizing their work term achievements. Students are assessed on a pass/fail basis.

PREREQUISITE: CS 185

Hours of credit: 0

Note: Transfer students and other special cases may obtain one semester hour of credit, provided the student did not receive a one-semester hour credit for CS 285, completes six professional development workshops, and submits a work term report.

### 311 VIDEO GAME DESIGN

This course focuses on the process from initial idea to final design of a video game. Students will craft a game document from an original concept of their own creation and create a prototype of the game based on that document.

PREREQUISITE: CS 261

Three lecture hours per week

### 321 HUMAN COMPUTER INTERFACE DESIGN

This course is an introduction to the design and evaluation of software interfaces and webpages. The course focuses on user-centered design and includes topics such as user analysis and modelling, iterative prototyping, usability testing, designing for the web, internationalization and localization.

Cross-listed with Information Technology (cf. IT 321)

PREREQUISITES: for CS 321: CS 152 and for IT 321: IT 121

Three hours a week

### 322 INTRODUCTION TO BIOINFORMATICS

This course is an introduction to bioinformatics, with a focus on a practical guide to the analysis of data on genes and proteins. It familiarizes students with the tools and principles of contemporary bioinformatics. Students acquire a working knowledge of a variety of publicly available data and computational tools important in bioinformatics, and a grasp of the underlying principles enabling them to evaluate and use novel techniques as they arise in the future.

Cross-listed with Biology, Pathology/Microbiology, Human Biology (cf. Biology 322, VPM 885, HB 885)

PREREQUISITE: CS 261 or BIO 223 or permission of instructor. If taken as VPM 885 or HB 885 - Admission to the graduate program and permission of the instructor.

Three lecture hours and a one-hour laboratory session a week

Note: No student can be awarded more than one course credit among HB 885, VPM 885, CS 322 and BIO 322.

### 332 THEORY OF COMPUTING

This course introduces automata theory, formal languages and computability. Topics include: finite automata; regular expressions; regular, context-free, and context-sensitive languages; computability models; algorithmic decidable and undecidable problems.

Cross-listed with Mathematics (cf. Mathematics 332)

PREREQUISITE: CS 261 and Math 242

Three lecture hours a week

### 342 COMPUTER COMMUNICATIONS

This course introduces the basic principles of modern computer communication: protocols, architectures and standards. Topics include layered architectures, data transmission, error and flow control, medium access, routing, congestion control and common internet application protocols.

PREREQUISITE: CS 252 and CS 282

Three lecture hours a week

### 352 OPERATING SYSTEMS

This course introduces the student to the major concepts of modern operating systems. Topics covered include: process management, memory management, file systems, device management and security.

PREREQUISITE: CS 252, CS 261 and CS 282

Three lecture hours a week

### 361 ANALYSIS AND DESIGN OF ALGORITHMS

This course, which introduces the study of algorithm design and measures of efficiency, is a continuation of Computer Science 261. Topics include algorithm complexity and analysis; techniques such as divide and conquer, greedy and dynamic programming; searching and sorting algorithms; graph algorithms; text processing; efficient algorithms for several common computer science problems and NP-completeness.

PREREQUISITE: CS 261 and Math 242

Three lecture hours a week

### 362 SOFTWARE DESIGN AND ARCHITECTURE

This course examines the principles and best practices in object-oriented (OO) software design. Topics include a review of foundational OO concepts, OO design principles, classic design patterns, and software architectures.

PREREQUISITE: CS 261

Three lecture hours a week

### 371 DATABASE SYSTEMS

This course introduces the fundamental concepts necessary for the design, use and implementation of database systems. Topics discussed include logical and physical organization of data, database models, design theory, data definition and manipulation languages, constraints, views, and embedding database languages in general programming languages.

PREREQUISITES: CS 261

Three lecture hours a week

### 385 CO-OP WORK TERM III

This course is available to computer science co-op students only. It is an integration of the third work term experience with professional development seminars designed to build career awareness and address workplace issues. Students develop a work term report, providing a critical analysis towards advancing a solution to a technical problem/issue of interest to their employer. Students are assessed on a pass/fail basis.

PREREQUISITE: CS 285

Hours of credit: 1

### 392 NUMERICAL ANALYSIS

(See Mathematics 392)

### 395 SPECIAL TOPICS IN COMPUTER SCIENCE

This course provides students with an opportunity to pursue special topics in Computer Science. Content varies from year to year. Prospective students should contact the department for a more detailed description of any particular year's offering.

PREREQUISITE: Permission of the instructor

Three lecture hours a week

### 406 (Formerly 306) CLOUD COMPUTING

In this course, we examine the critical technology trends that are enabling cloud computing, the architecture and the design of existing deployments, the services and the applications they offer, and the challenges that need to be addressed to help cloud computing to reach its full potential. The format of this course will be a mix of lectures, seminar-style discussions, and student presentations.

PREREQUISITE: CS 206

Three lecture hours per week

### 411 ARTIFICIAL INTELLIGENCE AND AUTOMATED REASONING

This course introduces general problem-solving methods associated with automated reasoning and simulated intelligence. Topics include problem abstraction, state space heuristic search theory, pathfinding, flocking behaviour, knowledge representation, propositional logic, reasoning with uncertainty, machine learning and connectionism.

PREREQUISITE: CS 261

Three lecture hours a week

#### 421 PROFESSIONAL PRACTICE

This course prepares students to think critically about essential and potentially controversial issues in information technology. Topics discussed include ethics; security; privacy and civil liberties; risk and liability; intellectual property; and certification standards. Professional and academic writing and presentation skills are also addressed.

PREREQUISITE: Minimum third-year standing in the Computer Science Program

Three hours a week

#### 423 (Formerly 323) PHYSICS OF GAMING

This course examines the elements of physics required in video game software. The first part of this course covers the mathematical basics that are related to physics; the second part deals with several important physics topics, including Newtonian Mechanics, Kinematics, Projectiles, and Collisions; the third part applies physics concepts to real-life objects, specifically, discussing how to model physical objects such as cars, airplanes, boats, and rockets; the fourth part gives an introduction to an industry-standard physics engine.

PREREQUISITES: CS 261, Physics 112, and Math 192

Three lecture hours a week

#### 435 COMPUTER GRAPHICS PROGRAMMING

This course introduces the student to the principles and tools of applied graphics programming including graphical systems, input and interaction, object modeling, transformations, hidden surface removal, and shading and lighting models. Languages, graphics libraries and toolkits, and video game engines are introduced, as well as relevant graphics standards.

PREREQUISITE: CS 261 and Math 261

CO-REQUISITE: CS 362 (needs to be taken before or concurrently)

Three lecture hours a week

#### 436 ADVANCED COMPUTER GRAPHICS PROGRAMMING

This course builds on the computer graphics programming concepts introduced in CS 435. Students are given a deeper understanding of the components of the 3D graphics pipeline, and how they are used in modern graphical applications. Topics include advanced texture mapping, practical uses of vertex and pixel shaders, screen post-processing, particle systems, and graphics engine design.

PREREQUISITE: CS 435

Three lecture hours a week

#### 444 DATA SCIENCE

Data science is an interdisciplinary and emerging field where techniques from several areas are used to solve problems using data. This course provides an overview and hands-on training in data science, where students will learn to combine tools and techniques from computer science, statistics, data visualization and the social sciences. The course will focus on: 1) the process of moving from data collection to product, 2) tools for preparing, manipulating and analyzing data sets (big and small), 3) statistical modelling and machine learning, and 4) real world challenges.

PREREQUISITE: CS 371 and Math 221

Three lecture hours per week

#### 461 WIRELESS SENSOR NETWORKS

This course is an introduction to Wireless Sensor Networks. It includes the following topics: single-node architecture, wireless sensor network architecture, physical layer, MAC protocols, link-layer protocols, naming and



addressing, time synchronization, localization and positioning, topology control, routing protocols, transport layer, and quality of service.

PREREQUISITE: CS 252 and CS 261

Three lecture hours per week

#### 465 VIDEO-GAME ARCHITECTURE

This programming-driven course aims to explore the various systems that comprise a typical video-game project, including event systems, state machines, rendering, scripting and AI programming. Students will implement these components throughout the course with the end goal of building a small game.

PREREQUISITE: CS 435

CO-REQUISITE: CS 436 (must be taken previously or concurrently)

Three lectures hours per week

#### 472 COMPILER DESIGN

This is a first course in compiler design. The course covers: compilation phases, lexical analysis, parsing, scope rules, block structure, symbol tables, run-time heap and stack management, code generation, preprocessing, compiler-compilers, and translation systems.

PREREQUISITE: CS 332

Three lecture hours a week

#### 481 SOFTWARE ENGINEERING

This course emphasizes the theory, methods and tools employed in developing medium to large-scale software which is usable, efficient, maintainable, and dependable. Project management is a major focus. Topics include traditional and agile process models, project costing, scheduling, team organization and management, requirements modelling/specification, software design, software verification and testing, and re-engineering.

PREREQUISITE: 4th year standing in Computer Science

Three lecture hours a week

#### 482 SOFTWARE SYSTEMS DEVELOPMENT PROJECT

In this course students propose, complete and present a significant software project in a group setting using the system development skills learned in CS 481. The course applies object-oriented design principles through the use of UML. Students are encouraged to select (with the consent of the instructor) a project with a real-world client.

PREREQUISITE: CS 481 (May be taken concurrently in exceptional circumstances).

Three semester hours of credit: One and a half lecture hours a week plus project time

#### 483 VIDEO GAME PROGRAMMING PROJECT

In this course students work as a group to develop a single design into a fully functioning video game. This course applies the project management skills learned in CS 481 to the development of a professional quality video game based upon a single design and prototype emerging from CS 311.

PREREQUISITE: CS 311, CS 481 and enrolment in the video game programming specialization.

Six semester hours of credit: One and a half lecture hours a week plus significant project time.

#### 485 CO-OP WORK TERM IV

This course is available to computer science co-op students only. It is an integration of the fourth work term experience with professional development seminars designed to foster professionalism. Students may choose between submitting a work term report or giving a public presentation on a technical issue related to their work experience. In addition, students must participate in a reflective seminar based upon their overall co-op experiences. Students are assessed on a pass/fail basis.

PREREQUISITE: CS 385

Hours of credit: 1

#### 486 CO-OP WORK TERM V

This optional work term is available to computer science co-op students only, electing for a fifth work term. The goal is to add further value for the student, integrating classroom theory with professional skills acquired during the work term. Students are assessed on a pass/fail basis.

PREREQUISITE: CS 485

Hours of credit: 0

#### 490 HONOURS RESEARCH PROJECT

This course is intended to give research experience to students planning to pursue graduate studies in computer science or a related area, or planning a career where research experience would be an asset. It provides students with the opportunity to do an independent research project on a computer science topic, under the supervision of a faculty member. Typically, some of the work will be conducted during the summer months.

PREREQUISITE: Acceptance to the Honours program and approval by the Department of the project topic (see Calendar listing for entrance requirements)

Six semester hours of credit

#### 491-492 DIRECTED STUDIES

These courses are designed and recommended for Computer Science students to encourage independent initiative and study. Reading and research will be conducted in one or more specialized areas.

(See Academic Regulation 9 for Regulations Governing Directed Studies.)

#### 495 ADVANCED TOPICS IN COMPUTER SCIENCE

This course provides students with an opportunity to pursue advanced topics in computer science. Content varies from year to year but is always at a fourth-year level. Prospective students should contact the department for a more detailed description of any particular year's offering.

PREREQUISITE: Permission of the instructor

Three lecture hours a week

### INFORMATION TECHNOLOGY COURSES

#### 132 INTERACTIVE STORYTELLING

This course will address traditional storytelling and the challenges of interactive narrative. Students will develop a solid understanding of traditional narrative theory as well as experimental approaches to storytelling in literature, theatre and film with relevance to game development.

Three lecture hours per week

#### 321 HUMAN COMPUTER INTERFACE DESIGN

(See Computer Science 321)

#### 371 APPLIED DATABASES

This course is an introduction to relational database concepts and design for non-computer science majors. Topics include the logical and physical organization of data, database models, design theory, data definition and manipulation languages, constraints, views, database security, data warehousing and data mining.

PREREQUISITES: IT 121 or CS 151 or permission of instructor

NOTE: Credit will not be allowed for both IT 371 and CS 371. Computer science majors will not receive credit for IT 371.

Three hours a week

### Co-operative Education Program

<http://upei.ca/co-op>

The UPEI Co-op Program is an integrated approach to university education which enables students to alternate academic terms on campus with work terms in suitable employment. The success of such programs is founded on the principle that students are able to apply theoretical knowledge from course studies in the workplace and return to the classroom with practical workplace experience. Students who successfully complete all the requirements of the program will have the notation entered on their transcripts and on the graduation parchment.

### ACADEMIC COURSE REQUIREMENTS

Please refer to the Physics, Computer Science, or Business Programs for specific academic course requirements.

## **ADMISSION REQUIREMENTS**

### **1. Early entrance stream**

The early entrance stream is an option available to students applying to UPEI or enrolled in their first year of study at the institution. Students must meet the standard application and admission requirements indicated in the UPEI Calendar and, in addition, the applicant must indicate the specific co-operative education program that they are applying to. After students are accepted into the program, students must pay the acceptance fee before they will be formally considered a Co-op student. Students who satisfy the above requirements will be admitted to the program with probationary status. During this probationary period, students will receive career counselling, and will be eligible to participate in professional workshop sessions and networking events. Students will normally be eligible to apply for work terms after completing two years of study; however, special cases will be considered. Before students are eligible to apply for work terms, they must receive formal acceptance into the program by the Director of the program. To apply for formal acceptance, a student must submit a transcript and curriculum vitae to the Director. Students will be admitted into the program based on their interest, aptitude and assessed ability, to combine successfully the academic requirements with the special work term requirements of the given program. Students not admitted may reapply at the next opportunity.

### **2. Standard entrance stream**

Applications under the standard entrance stream are normally made during the second year of study. Special application cases will be considered. The applicant must be a full-time student at the time of application and must normally have a cumulative average of at least 70% in the required program courses. Students will be admitted to the program based on their interest, aptitude and assessed ability, to combine successfully the academic requirements with the special work term requirements of the given program. Students not admitted may reapply at the next opportunity.

## **CONTINUANCE REQUIREMENTS**

Once admitted to the program, students must continue in full-time enrolment between work terms. An academic review of students' performance will take place at the end of each semester. Please refer to the course grade average requirements of the Physics, Computer Science, and Business programs. It is also required that students achieve satisfactory performance on previous work terms, as outlined below in Program Requirements. Students who fail to meet these standards or who fail a course(s) will be placed "on notice" for the next academic semester. Students who do not meet these standards for two consecutive academic semesters may be dismissed from the program.

## **WORK TERM REQUIREMENTS**

The University will make every effort to locate work term positions for co-op students in suitable areas of employment, but cannot guarantee work terms. See the individual programs for any special situations.

Satisfactory fulfillment of a co-op work terms includes:

1. The completion of a minimum of work terms, as established by the specific Department/School program in approved, academically-related, paid employment situations of 12 to 16 weeks duration;
2. A satisfactory employer evaluation for each co-op work term;
3. The satisfactory completion of a written report at the end of the work term;
4. Fulfilment of other requirements specified by the Department/School, such as the participation in seminars and workshops.

Students are required to apply by early December for a first work term starting in May of the following year, or in early April for a first work term starting the following January.

A notation will be placed on students' academic transcripts following completion of each work term.

#### **WITHDRAWAL CONDITIONS**

Students may be required to withdraw from the UPEI Co-op Program if:

1. They are dismissed from, discontinue, or fail an approved co-op work term position due to a fault on their part;
2. They fail to submit or successfully complete a work term report;
3. They do not satisfy the continuance requirements including the required course grade average necessary for continuance in the UPEI Co-op Program;

#### **WORK TERM REGISTRATION**

Students are required to verify their work term eligibility at the Co-op Office and officially register for all work terms at the Registrar's Office. Work terms will officially be designated on students' transcripts as pass or fail in the Sciences Co-op and in the Business Co-op.

### **Diversity and Social Justice Studies (DSJS)**

<http://www.upei.ca/arts/diversity-and-social-justice-studies>

#### **Co-ordinator**

Ann Braithwaite, Diversity and Social Justice Studies

Diversity and Social Justice Studies responds to the 21st century need for critical engaged citizens who can, through a variety of theoretical languages and methodologies: a) analyze the social construction of identity categories (gender, sexuality, race, class, age, national status, able-bodiedness, species, etc.) and recognize the difference these make to what we know and how we act in the world; b) recognize, address, and challenge global inequities around these intersecting identity categories and analyze how social structures and policies, systems of representation, and everyday practices perpetuate these inequities; c) see the world from multiple points of view at the same time, recognize the complexity of contexts in shaping those views, and understand that both knowledge and visions of social change are always situated and partial. Diversity and Social Justice encourages interdisciplinary approaches and the development of intercultural knowledge through a variety of courses and other learning opportunities. Courses are divided into three clusters: 1) Gender and Sexuality; 2) Identities and Social Structures; 3) Cultural Representation and Analysis.

#### **REQUIREMENTS FOR A MAJOR IN DIVERSITY AND SOCIAL JUSTICE STUDIES**

Students pursuing a Major in Diversity and Social Justice must complete 42 credit hours (14 courses) in the DSJS Program. These credit hours must be composed of the 2 required core courses in DSJS 109 and 404, and 12 additional courses from the list of DSJS courses, with at least four courses (12 semester hours) at the 300-400-level. Students must take a minimum of 2 courses from each of the 3 thematic clusters.

##### **1. Core Courses:**

DSJS 109 - Special Topics in Diversity and Social Justice Studies

DSJS 404 - Theorizing Social Justice

##### **2. DSJS and cross-listed courses:**

#### **THEMATIC CLUSTERS**

##### **Gender and Sexuality**

DSJS 205 - Sex and Culture

DSJS 242 - Philosophies of Love and Sexuality (Philosophy 242)

DSJS 261 - Sex, Gender and Society (Sociology/Anthropology 261)

DSJS 385 - Women in 19th Century Canada (History 385)

DSJS 386 - Women in 20th Century Canada (History 386)

DSJS 391 - Psychology of Women (Psychology 391)

DSJS 435 - Gender and Sexuality (Psychology 435)

### **Identities and Social Structures**

DSJS 263 - Global Youth Cultures (Sociology/Anthropology 263)

DSJS 275 - Social Inequality (Sociology/Anthropology 275)

DSJS 302 - Constructing Difference and Identity (also Sociology/Anthropology 307)

DSJS 352 - Kinship and Family (Anthropology 352)

DSJS 381 - Women, Economics and the Economy (Economics 381)

DSJS 401 - Medical Anthropology (Anthropology 401)

DSJS 451 - Women and Aging (Family Science 451)

### **Cultural Representation and Analysis**

DSJS 212 - Food and Cultural Studies

DSJS 221 - Writings by Women (English 221)

DSJS 306 - Transgression, Resistance, Protest

DSJS 311 - Identity and Popular Culture

DSJS 374 - Qualitative Research Methods (Psychology 374)

DSJS 402 - Cybercultures (Anthropology 403)

DSJS 412 - Theories of the Body

DSJS 456 - Visual Culture (Sociology/Anthropology 456)

DSJS 466 - Advanced Topics in Gender and Sexuality (English 466)

DSJS 473 - 18th Century English Society and Culture (History 473)

### **REQUIREMENTS FOR A MINOR IN DIVERSITY AND SOCIAL JUSTICE STUDIES**

A minor in DSJS will be recognized when a student has successfully completed twenty-one (21) semester hours of courses in DSJS, including 109 and six additional courses from anywhere on the list of DSJS courses. At least six-semester hours must be at the 300- or 400-level.

### **DIVERSITY AND SOCIAL JUSTICE STUDIES CORE COURSES**

#### **109 SPECIAL TOPICS**

Creation of a course code for special topics offered by Diversity and Social Justice Studies at the 100 level.

#### **205 SEX AND CULTURE**

This course examines theories of sex and sexuality, and investigates how they are central to the construction and function of contemporary North American culture. It explores how boundaries between 'approved of' and 'disapproved of' sexual behaviours reflect larger social and cultural concerns, and challenges students to think beyond the more usual either/or ways of identifying sexuality. Topics covered include the social construction of heterosexuality, changing definitions of lesbian/gay/bisexual, challenges posed by intersexed and transgendered people, sex work, sado/masochism, pornography, monogamy, intergenerational sex, internet and 'cybersex,' and the 'feminist sex wars.'

PREREQUISITE: None

Three hours a week

#### **209 SPECIAL TOPICS**

Creation of a course code for special topics offered by Diversity and Social Justice Studies at the 200 level.

#### **212 FOOD AND CULTURAL STUDIES**

This course introduces students to the study of food and its relationships to identities (i.e., gender, race, class, national status), the body, community, popular culture, and politics. It explores how historical and contemporary food production and consumption practices both construct and reflect these relationships and examines such questions as how food is defined and how it circulates to both perpetuate and challenge power and privilege. Cross-listed with Foods & Nutrition (cf. Foods & Nutrition 231)

## 221 WRITINGS BY WOMEN

(See English 221)

## 242 PHILOSOPHIES OF LOVE AND SEXUALITY

(See Philosophy 242)

## 261 SEX, GENDER AND SOCIETY

(See Soc/Anth 261)

## 263 GLOBAL YOUTH CULTURES

(See Soc/Anth 263)

## 275 SOCIAL INEQUALITY

(See Soc/Anth 275)

## 292 WORK AND SOCIETY

(See Sociology 292)

## 302 CONSTRUCTING DIFFERENCE AND IDENTITY

This course examines some of the differences between and among women, exploring how claims to various identities and politics have transformed Diversity and Social Justice Studies. It analyzes essentialist assumptions about identity categories such as race, sex, gender, and sexuality, and examines their social construction and contemporary interconnections at the institutional level.

Cross-listed with Sociology/Anthropology (cf. Soc/Anth 307)

PREREQUISITE: DSJS 109, or permission of the instructor

Three hours a week

## 303 PSYCHOLOGY OF AGING

(See Psychology 303)

## 306 TRANSGRESSION, RESISTANCE, PROTEST

This course introduces students to concepts of 'transgression,' resistance, and protest, exploring what kinds of events, people, and objects are thought to constitute social, political, and cultural practices of these concepts in various times and places. It explores how gender, sexuality, race, national identity, class, age, and abilities have been central to social definitions of--and anxieties about--transgression, resistance, and protest. It also focuses on how people have used these concepts to productively push against the limits of their social positionings.

PREREQUISITE: None

## 309 SPECIAL TOPICS

Creation of a course code for special topics offered by Diversity and Social Justice Studies at the 300 level.

## 311 IDENTITY AND POPULAR CULTURE

This course introduces students to approaches to the study of popular culture and cultural studies, asking what is meant by the term "pop culture" and exploring it as a site of struggle and negotiation for a variety of identity groups. It explores both how social identities (gender, race, sexuality, and class) are constructed and represented in popular cultural objects and practices, and examines how those can make a difference to how people then interact with and in that pop culture. Course materials are drawn from advertising, popular events and trends, news items, film, TV, fan culture, zines, pornography, and the new communications technologies.

Cross-listed as English 314 and Anthropology 310

PREREQUISITE: None

Three hours a week

## 332 KNOWLEDGE AND CULTURE

(See Anthropology 332)

### 352 KINSHIP AND FAMILY

(See Anthropology 352)

### 355 GLOBALIZATION

(See Soc/Anth 355)

### 371 COMMUNITY BASED ETHICAL INQUIRY

(See Philosophy 371)

### 374 QUALITATIVE RESEARCH METHODS

(See Psychology 374)

### 381 WOMEN, ECONOMICS AND THE ECONOMY

(See Economics 381)

### 384 CULTURAL PSYCHOLOGY

(See Psychology 385)

### 385 WOMEN IN 19TH CENTURY CANADA

(See History 385)

### 386 WOMEN IN 20TH CENTURY CANADA

(See History 386)

### 391 PSYCHOLOGY OF WOMEN

(See Psychology 391)

### 395 GENDER AND VIOLENCE

(See Psychology 395)

### 401 MEDICAL ANTHROPOLOGY

(See Anthropology 401)

### 402 CYBERCULTURES

(See Anthropology 403)

### 404 THEORIZING SOCIAL JUSTICE

This capstone course provides the opportunity for students to explore theories and practices of “social justice,” broadly defined, across a number of contexts. It examines how social movements and identity groups have defined this concept, investigates, through a variety of theoretical and methodological approaches, processes towards this goal in addition to barriers inhibiting its attainment.

PREREQUISITES: DSJS 109 and at least two other DSJS courses

### 406 QUEER THEORY

This course introduces students to the body of academic thought known as “queer theory” and to the ways it challenges assumptions about sexuality, gender, and other identity categories. It focuses on queer theory’s historical foundations, genealogies, and contributions, as well as on contemporary uses of and debates in the field.

PREREQUISITES: DSJS 109 and at least one other DSJS course at the 200 level or above, or permission of the instructor.

### 409 SPECIAL TOPICS

Creation of a course code for special topics offered by Diversity and Social Justice Studies at the 400 level.

### 412 THEORIES OF THE BODY

This course introduces students to what is often called “body studies,” exploring a range of theoretical and cultural accounts of the body. Through a variety of interdisciplinary readings and materials, it investigates the centrality of definitions of the body to understandings of the self, identity, and embodiment. It also examines how different perceptions of the body have been central to conceptualizations of sex, gender, race, and sexuality, and looks at some of the social and political consequences of these different perceptions.

PREREQUISITE: At least one DSJS course, or permission of the instructor

Three hours a week

#### 431 MINORITY/ETHNIC GROUPS AND CANADIAN MULTICULTURALISM

(See Soc/Anth 431)

#### 435 GENDER AND SEXUALITY

(See Psychology 435)

#### 451 WOMEN AND AGING

(See Family Science 451)

#### 456 VISUAL CULTURE

(See Soc/Anth 456)

#### 466 ADVANCED TOPICS IN GENDER AND SEXUALITY

(See English 466)

#### 472 SOCIAL JUSTICE IN PSYCHOLOGY

(See Psychology 472)

#### 473 18TH CENTURY ENGLISH SOCIETY AND CULTURE

(See History 473)

#### 491-492 DIRECTED STUDIES

These advanced courses for qualified students (see Academic Regulation 9) provide for supervised independent or group study of specialized topics in Diversity and Social Justice Studies. The topics offered must be approved by the Co-ordinator of Diversity and Social Justice Studies and the Dean of the Faculty.

PREREQUISITE: At least three DSJS courses or approval of the instructor

Three hours a week

## **Economics**

<http://upei.ca/economics>

### **Economics Faculty**

P. Nagarajan, Professor Emeritus

J. Stevens, Assistant Professor, Chair

W. Rankaduwa, Professor

M.B. Ali, Associate Professor

J. Sentance, Associate Professor

Y. Jia, Assistant Professor

L. Clark, Adjunct Professor

### **REQUIREMENTS FOR A MAJOR IN ECONOMICS**

Students wishing to major in Economics must complete fifty-four semester hours in Economics and Mathematics according to the program described below. All courses are valued at three semester hours.

101 - Introductory Microeconomics

102 - Introductory Macroeconomics

203 - Intermediate Microeconomics 1



204 - Intermediate Macroeconomics 1  
305 - Intermediate Microeconomics 11  
306 - Intermediate Macroeconomics 11

One of:

303 - Economic Methodology  
307 - Mathematical Economics  
308 - Introduction to Econometrics

PLUS: Seven (7) additional elective courses in economics, at least three of which must be at the 300 or 400 level.

Mathematics

111 - Finite Mathematics  
112 - Calculus for the Managerial, Social, and Life Sciences OR 151 and 152 – Introductory Calculus I and II

Statistics

Math 221 - Introductory Statistics OR Business 251 - Introduction to Management Science

### **Recommendation**

Students planning to follow graduate studies in Economics are advised to plan their courses with the Department. Such students should include the following courses as part of their seven electives in Economics: 307 Mathematical Economics and 308 Econometrics as well as 403 Advanced Microeconomics and 404 Macroeconomics. The Department further recommends that students who wish to go on to graduate studies choose Mathematics 151 and Mathematics 152, rather than Mathematics 112, as a stronger base for additional Mathematics courses. Students should also consider including Mathematics 261 (Linear Algebra) in their program of studies.

### **REQUIREMENTS FOR A MINOR IN ECONOMICS**

Students wishing to minor in Economics must complete twenty-one semester hours in Economics distributed as follows: Economics 101 and 102, and five other courses including at least one of the intermediate theory courses (Economics 203 or 204). At least two courses at the 300 level or above. Students should plan their program in consultation with the Department.

NOTE: The offerings listed below are not necessarily available each year. At best it may be possible to offer certain courses every other year. The courses offered in the current year will be published so that students will have the exact information available.

### **ECONOMICS COURSES**

#### **101 INTRODUCTORY MICROECONOMICS**

This course provides an introduction to the economic analysis of consumer and producer behaviour. Of particular concern is the role of the market in the allocation of resources and the distribution of income, and how these outcomes are affected by imperfections in the market system and by government policy.

PREREQUISITE: None

Three hours a week

#### **102 INTRODUCTORY MACROECONOMICS**

An introduction to the development, tools and application of macroeconomic analysis in the Canadian economy. Topics discussed will include inflation, unemployment, monetary policy, fiscal policy as well as others.

PREREQUISITE: None

Three hours a week

#### **203 INTERMEDIATE MICROECONOMICS I**

The theories of consumer and producer behaviour developed in Economics 101 are elaborated upon through the application of classical utility and indifference curve and production isoquant approaches. Choice under uncertainty and competitive market outcomes are also examined.

PREREQUISITE: Economics 101

Three hours a week

#### 204 INTERMEDIATE MACROECONOMICS I

This course explores the national economy in terms of the determination of national output, the general price level, the rate of interest, and employment. It then analyzes the effectiveness of monetary and fiscal policy in achieving specific goals and combination of goals.

PREREQUISITE: Economics 102

Three hours a week

#### 211 INTRODUCTION TO RESOURCE ECONOMICS

In this course questions concerning the use of natural resources are analyzed using the techniques of microeconomic theory. Issues relating to scarcity and conservation, market failure, inter-temporal allocation of resources, property rights, common property resources, and the environment are discussed from both a Canadian and international perspectives.

PREREQUISITE: Economics 101 or permission of the instructor

Three hours a week

#### 212 REGIONAL ECONOMICS

This course analyzes the problems of regional economic development in terms of factors affecting the location of an economic activity, land use, and migration. Regional disparities and the strategies of the Government of Canada and the provincial governments to reduce them from both historical and contemporary perspectives are also discussed.

PREREQUISITE: Economics 101 or 102 or permission of the instructor

Three hours a week

#### 215 ENVIRONMENTAL ECONOMICS

This course is an introduction to the field of environmental economics. Students analyze the types of incentives provided by the economic system that lead to environmental degradation as well as improvement. It presents a critical analysis of traditional economic models and introduces alternative ecological models, along with a discussion of such topics as externalities, valuation of ecological assets, and policy development.

PREREQUISITE: Economics 101 or permission of the instructor

Three hours per week

#### 221 CANADIAN ECONOMIC HISTORY

This course surveys the history of Canada's economic development, emphasizing the interplay of Canada's resource base, the international economy, and the trade policies of France, England and the United States. Topics include exploitation of the staples trades, industrialization, expansion to the west, the Depression, and our legacy of foreign investment.

PREREQUISITE: Economics 101 and 102 or permission of the instructor

Three hours a week

#### 222 PUBLIC SECTOR ECONOMICS

This course examines the broad nature and function of the public sector, with emphasis on the rationale for the existence of the public sector in a market economy and its impact on resource allocation, distribution of income and economic performance. Topics include anatomy of market failure, types of government intervention to correct market failure, the public good, externalities, and an overview of the growth of the public sector in Canada.

PREREQUISITE: Economics 101 and 102, or permission of the instructor

Three hours a week

#### 242 THE ECONOMICS OF TOURISM

This course uses economic tools to analyze the role of tourism at the provincial, regional, national and international levels. In-put/output analysis is used to compute local multipliers as they relate to the PEI economy. The role of the hospitality industry is also explored.

PREREQUISITE: Economics 101 or 102 or permission of the instructor

Three hours a week

### 251 MONEY AND FINANCIAL INSTITUTIONS

This course analyzes the nature and role of money in the economy. It examines commercial banking, central banking, money and capital markets, and other financial intermediaries. Elements of business finance are discussed with particular emphasis on the role of public financial institutions. Also included are financing foreign trade, consumer finance, an examination of public finance, and monetary policy.

PREREQUISITE: Economics 101 and 102

Three hours a week

### 283 AGRICULTURAL ECONOMICS

This course introduces students to agricultural economics and the role of agriculture in the economy. It reviews the structure of the food and fibre system from the farm and its suppliers to marketing and consumers. The role of agriculture in development, problems in agricultural trade, and alternatives in market structures and management are among the topics covered.

PREREQUISITE: Economics 101 and 102 or permission of the instructor

Three hours a week

### 285 SPECIAL TOPICS

A lecture course in which contemporary topics or economic issues are explored and analyzed in an introductory/general manner.

### 291 MANAGERIAL ECONOMICS

Managerial economics is the study of those economic principles and techniques needed in the evaluation, planning and management of economic projects in such fields as natural resources, agriculture, international and regional development. Optimization techniques, process programming, demand, cost and price analysis, and the study of alternative management regimes and optimizing goals are among the topics to be studied.

PREREQUISITE: Economics 101

Three hours a week

### 303 ECONOMIC METHODOLOGY

This course provides a critical analysis of various methodologies used by economists. It introduces students to research in economics by focusing attention on competing economic paradigms and the problem of empirical verification of economic hypotheses.

PREREQUISITE: Economics 203 and 204, Mathematics 221

Three hours a week

### 304 CANADIAN ECONOMIC PROBLEMS

This course examines selected contemporary problems of the Canadian economy by focusing on the formulation and analysis of economic policies designed to deal with these problems.

PREREQUISITE: Economics 101 and 102 or permission of the instructor

Three hours a week

### 305 INTERMEDIATE MICROECONOMICS II

An extension of Economics 203, this course covers price determination in monopoly, monopolistic competition, and oligopoly models. Game theory, factor pricing, capital investment over time, general equilibrium, asymmetric information, externalities, and public goods are discussed. The use of microeconomics as a tool in decision-making is illustrated.

PREREQUISITES: Economics 101 and Economics 203

3 semester hours

### 306 INTERMEDIATE MACROECONOMICS II

This course addresses the theory of inflation, unemployment, economic growth and fluctuations, the determination of the balance of payments and the exchange rate, and monetary and fiscal policies in closed and open economies.

PREREQUISITES: Economics 102 and Economics 204

3 semester hours

### 307 (Formerly 231) MATHEMATICAL ECONOMICS

This is an introduction to the use of mathematics in theoretical economic analysis. Topics to be considered include utility maximization, efficient production, price and income determination, the adjustment to and stability of equilibrium, inflation, and the impact of government spending and taxation programs.

PREREQUISITE: Economics 101 and 102, Mathematics 111 and 112. Non-economic majors without Economics 101-102 but possessing a strong background in mathematics may be admitted with the instructor's permission

Three hours a week

### 308 (Formerly 411) INTRODUCTION TO ECONOMETRICS

This course concentrates on effective procedures for the statistical estimation and testing of key parameters in economic models. Remedies are developed for problems associated with model specification. Multicollinearity, serial correlation, heteroscedasticity, simultaneous equations, and forecasting.

PREREQUISITE: Economics 203 and 204, Mathematics 221, and either Mathematics 112 or 151

Three hours a week

### 311 HISTORY OF ECONOMIC THOUGHT (I)

This course traces economics ideas from the Greek philosophers to the end of the classical school in the mid-nineteenth century, in particular the works of Plato, Aristotle, St. Thomas Aquinas, the English Mercantilists, the French physiocrats, Adam Smith, Thomas Malthus, David Ricardo, and J.S. Mill. A continuing theme is the relationship between the development of economic ideas and the structure of the society in which the economist lived.

Cross-listed with History Department (cf. History 461)

PREREQUISITE: Economics 101 and 102 or permission of the instructor

Three hours a week

### 312 HISTORY OF ECONOMIC THOUGHT (II)

This course traces the evolution of modern economic ideas beginning with Karl Marx. It considers Socialist, Neoclassical, Institutional and Keynesian Schools of Economic thought.

Cross-listed with History Department (cf. History 462)

PREREQUISITE: Economics 101 and 102 or permission of the instructor

Three hours a week

### 324 LABOUR ECONOMICS

From a theoretical perspective this course examines the workings of the labour market under different supply and demand conditions. Topics discussed include labour force participation, human capital investment, unemployment, discrimination and the effects of government policies such as the minimum wage, unemployment insurance, welfare and pay equity legislation.

PREREQUISITE: Economics 203 or instructor's permission

Three hours a week

### 331 INTERNATIONAL TRADE

This course examines the causes and economic consequences of international trade. Topics covered include theories of international trade, aggregate national gains from trade, effects of trade on the distribution of income, tariffs and non-tariff trade barriers, the basic theory of international factor movements, and commercial policy.

PREREQUISITE: Economics 203

Three hours a week

### 332 INTERNATIONAL MONETARY ECONOMICS

This course focuses on theories of balance of payments adjustment mechanisms and the efficiency of foreign exchange markets. Topics covered include modeling the open economy; the effects of incomes, prices, interest rates and exchange rates on international trade and capital flows; exchange rate regimes, capital mobility and macroeconomic policy coordination; the role of international institutions; and problems of international liquidity.

PREREQUISITE: Economics 204

Three hours a week

### 341 ECONOMIC DEVELOPMENT THEORY

This course provides a broad theoretical framework for understanding the development problems of developing countries. Topics covered include theories of economic growth and development, sources of economic growth, patterns of economic development, the role of capital and saving in economic development, inward-looking and outward-looking development, and the problem of industrialization in developing countries.

PREREQUISITE: Economics 204

Three hours a week

### 342 ECONOMIC DEVELOPMENT POLICY

This course focuses on development strategies and policies for the developing world and related controversies concerning IMF-style stabilization packages. The emphasis is on international aspects of economic development, neo-structuralist policy prescriptions, and empirical aspects of the problem of financing economic development. Selected country case studies are analyzed, particularly from Sub-Saharan Africa and Latin America.

PREREQUISITE: Economics 341

Three hours a week

### 352 APPLIED RESOURCE ECONOMICS

This course in applied economics deals with the management of natural resources, with special emphasis on water, fishery and forestry resources. It explains the use of cost-benefit analysis and linear programming in optimizing resource use. It also examines the dynamics of project analysis, the role of projections, and the discount rate.

PREREQUISITE: Economics 211 or permission of the instructor

Three hours a week

### 361 (Formerly 431) INTRODUCTION TO GAME THEORY

The course consists of an introduction to game theory with an emphasis on economics applications. As such, the course will first present an introduction to the basic ideas and concepts underlying Game Theory. It will then introduce the concepts of strategic decisions in a static setting through games including dominant strategies, Nash equilibrium and mixed strategies. The course will also deal with the analysis of strategic decisions in a dynamic setting through sequential games, backward induction, and repeated games.

PREREQUISITES: Economics 305 and a course in statistics (Math 221 or Business 251) or permission of the instructors

### 371 THE ECONOMICS OF SPORTS

This course uses economic analysis to examine a variety of aspects of the business of sports. Topics include the structure of sports markets, the value of franchises to owners and cities, competitive balance, salaries, collective agreements, and discrimination. In examining these issues, this course uses models and methods from a variety of fields of economics, including labour economics, industrial organization and competition policy, cost-benefit game theory, public finance, and urban economics.

PREREQUISITES: Economics 203 or permission of the instructor

3 semester hours

### 381 WOMEN, ECONOMICS AND THE ECONOMY

This course examines the treatment of women by the discipline of economics from both mainstream and feminist perspectives. It includes a review of the feminist critique of traditional economics, as well as an examination of the economic literature pertaining to women and women's activities. Topics include women in the workforce and the economic analysis of fertility, marriage and divorce, and household production.

Cross-listed with Diversity and Social Justice Studies and Family Science (cf. DSJS 381 and Family Science 384)

PREREQUISITE: Economics 101 or 102 or permission of the instructor. For DSJS students, DSJS 109, or permission of the instructor. When taken as Family Science 384, Family Science 242 is required.

Three hours a week

### 382 ECONOMICS OF AGING IN AN AGING SOCIETY

This course examines the microeconomics of individual choices with respect to aging in the macroeconomic and public fiscal dimensions of an aging society. It deals with these matters in the context of economic conditions and policy in Canada.

PREREQUISITES: Economics 101 and 102

3 semester hours

### 385 SPECIAL TOPICS

A lecture course in which contemporary topics or economic issues are explored and analyzed in an introductory/general manner.

### 403 ADVANCED MICROECONOMICS

This course extends and analyzes topics developed in Economics 203 at an advanced level. These include demand, production and cost theories, competing theories of the firm, factor pricing, and general equilibrium.

PREREQUISITE: Economics 203, 305 and 307

Three hours a week

### 404 ADVANCED MACROECONOMICS

This course traces the development of the microeconomic foundations of macroeconomic theory to expand students' analytical skills by constructing and solving macroeconomic models. Topics may include: dynamic choice, uncertainty and rational expectations, business cycles, fiscal and monetary policy.

PREREQUISITE: Economics 204, 306 and 307

Three hours a week

### 405 FINANCIAL ECONOMICS

This course provides an understanding of the economic analysis of the financial system beyond the introductory level. It places particular emphasis on the structure, operation and the role of financial markets, such as money markets, capital markets and derivative markets, and the characteristics of various financial securities traded in these markets. The main topics covered in the course include economic theories of saving and investment behaviour, asset demand and supply under uncertainty, decision making by investors in the presence of uncertainty, portfolio analysis, managing risk, and the models of asset pricing.

PREREQUISITES: Economics 203, 204, and 251, or permission of the instructor

Three hours a week

### 412 PUBLIC FINANCE

This course deals with the role of the public sector in attaining an efficient allocation of resources and an equitable distribution of income in a market economy. It focuses on theories of public expenditure and taxation, and emphasizes criteria for the evaluation and selection of public expenditure and tax programs. Special attention is given to Canadian fiscal problems and current policy issues in this area.

PREREQUISITE: Economics 203 and 204

Three hours a week

### 413 ECONOMETRICS II

This course is a continuation of Econometrics I (EC 308) intended to introduce students to a selection of estimation and hypothesis-testing methods commonly employed in applied economic research. These additional topics include (but are not necessarily limited to) the analysis of time series, panel data, binary choice models, and basic Monte Carlo/bootstrap methods.

PREREQUISITE: Economics 411

### 421-422 DIRECTED STUDIES IN ECONOMICS

These are courses in Economics on a variety of topics for students who have qualified for advanced study. Readings and/or research will be undertaken in a variety of specialized areas. The topics offered must be approved by the Chair of the Department and the Dean of the Faculty. (See Academic Regulation 9 for Regulations Governing Directed Studies.)

### 485 SPECIAL TOPICS

A lecture course in which contemporary topics or economic issues are explored and analyzed in an introductory/general manner.

NOTE: The Department encourages students to select “Economic Papers on Island Topics” which may be eligible for a prize from the Prince Edward Island Department of Industry/ ACOA Awards.

## **Education**

<http://upei.ca/education>

### **Education Faculty**

Ray Doiron, Professor Emeritus  
Ronald MacDonald, Associate Professor, Dean  
Martha Gabriel, Professor  
Timothy Goddard, Professor  
Kate Tilleczek, Professor  
Linyuan Guo, Associate Professor  
Alexander McAuley, Associate Professor  
Tess Miller, Associate Professor  
Fiona Walton, Associate Professor  
Sean Wiebe, Associate Professor  
Lyndsay Moffatt, Assistant Professor  
Jane Preston, Assistant Professor  
Carolyn Thorne, Assistant Professor  
June Countryman, Adjunct Professor  
Alec Couros, Adjunct Professor  
Michelle Daveluy, Adjunct Professor  
Jessie Lees, Adjunct Professor  
Audrey Penner, Adjunct Professor  
Elizabeth Townsend, Adjunct Professor  
Shelley Tulloch, Adjunct Professor  
Miles Turnbull, Adjunct Professor  
Zain Esseghaier, Lecturer  
Julie Gagnon, Lecturer

### **Twelve-Month Post-Degree Bachelor of Education**

The Bachelor of Education (BEd) is a 12-month post-degree program consisting of 20 three-hour credit courses in education. This program is designed to provide the variety of courses and extended field experiences through which students can develop the knowledge and skills needed to teach in the modern classroom. It is the opportunity for students to focus their studies in Primary/Elementary (K - 6) or Intermediate/Senior (7-12) and in International, Indigenous, or Adult and Workplace Education.

### **REQUIRED COURSES:**

#### **PRIMARY/ELEMENTARY CONCENTRATION (K - 6)**

#### **INTERMEDIATE/SENIOR CONCENTRATION (7 - 12)**

Ed 403 The Arts and Social Transformation  
Ed 404 Curriculum and Planning  
Ed 405 Creating a Climate for Learning: Effective Classroom Management  
Ed 406 Supporting Students' Social and Emotional Health  
Ed 411 Learners and Learning  
Ed 420 Teaching for Science, Technology, Math, and Engineering (STEM)  
Ed 431 Differentiated Instruction and Inclusive Practices  
Ed 449 Introduction to Indigenous Education  
Ed 463 Perspectives on Culture and Society in Education

Ed 464 Educating for Global Citizenship  
Ed 466 Principles and Practices of Teaching English as Another Language  
Ed 482 Assessment and Evaluation  
Ed 496 Inquiry and Action I  
Ed 497 Inquiry and Action II  
Ed 582 Assessment of Individual Learners

### **PRIMARY/ELEMENTARY CONCENTRATION (K - 6)**

Ed 423 Primary/Elementary Mathematics I  
Ed 428 Primary/Elementary Mathematics II  
Ed 432 Primary/Elementary language and Literacies and Multiliteracies I  
Ed 433 Literacy and Multiliteracies in the Early Years II  
Ed 445 Primary/Elementary Science  
Ed 454 Primary/Elementary Social Studies

### **INTERMEDIATE/SENIOR CONCENTRATION (7 - 12)**

Ed 413 Multiliteracies  
Ed 415 Inclusive Classroom

#### **Students take 4 of:**

Ed 426 Intermediate/Senior Mathematics I  
Ed 427 Intermediate/Senior Mathematics II  
Ed 436 Intermediate/Senior English I  
Ed 437 Intermediate/Senior English II  
Ed 446 Intermediate/Senior Science I  
Ed 447 Intermediate/Senior Science II  
Ed 456 Intermediate/Senior Social Studies I  
Ed 457 Intermediate/Senior Social Studies II

### **SPECIALIZATIONS**

Students may complete specializations in International, Indigenous, or Adult and Workplace Education by completing a six-week practicum in an international or indigenous setting and one course beyond the 20 required for the BEd as outlined below:

#### **INTERNATIONAL EDUCATION**

Ed 462 International Education, or  
Ed 465 International Development

#### **INDIGENOUS EDUCATION**

Ed 451 Integrating indigenous Themes in the Curriculum K-12

#### **ADULT AND WORKPLACE EDUCATION**

- Ed 363 The Adult Learner and one of:
- Ed 309 An Introduction to Learning in the Workplace
- Ed 375 Mentoring the Adult Learner

### **Bachelor of Education—Français Langue Seconde**

This unique program will provide the variety of courses, French language and cultural experiences and extended field experiences (21 weeks of practicum) through which students can develop the knowledge and skills needed to teach in modern French Second Language classrooms. This program also provides students an opportunity to focus their studies in the Early, Middle, or Senior years.

Students must pass all courses to graduate with a Bachelor of Education-français langue seconde.



## **REQUIRED COURSES:**

### **PRIMARY/ELEMENTARY CONCENTRATION (K-6) and INTERMEDIATE/SENIOR CONCENTRATION (7-12)**

Ed 403F Intégration des arts  
Ed 404F (1) : Planification et programmes d'études  
Ed 405F (1) : Climat organisationnel : Gestion de classe efficace  
Ed 406F (1) : Comprendre la santé sociale et émotionnelle chez les élèves  
Ed 411 Learners and Learning  
Ed 415F Inclusion en salle de classe  
Ed 423 Primary/Elementary Mathematics I  
Ed 428 Primary/Elementary Mathematics II  
Ed 449 Introduction to Indigenous Education (1)  
Ed 463F Culture et société  
Ed 476/486 French Methods I  
Ed 482F Évaluation en salle de classe  
Ed 485F Pédagogie de l'immersion: Les Principes de Base  
Ed 488F Littérature Education en Français Partie I  
Ed 489F Littérature Education en Français Partie II  
Ed 490F Integration Langue et Contenu  
Ed 493F Compétences langagières en salle de classe  
Ed 496F Séminaire de stage I  
Ed 497F Séminaire de stage II  
Ed 445 Primary/Elementary Science  
Ed 454 Primary/Elementary Social Studies  
Ed 426 Intermediate/Senior Mathematics I  
Ed 420 Teaching for Science, Technology, Engineering and Math (STEM)

### **Certificate in Adult Education (CAE) and Bachelor of Education Specializing in Human Resource Development BEd (HRD)**

#### **(i) Introduction**

The Certificate in Adult Education and the Bachelor of Education in Human Resource Development are articulated programs offered jointly by Holland College and the University of Prince Edward Island. Participants may complete only the Certificate in Adult Education or, after completion of the Certificate in Adult Education, they can choose to continue to- wards a BEd degree with a specialization in Human Resource Development, BEd (HRD).

The Certificate in Adult Education (CAE) and the BEd (HRD) are designed for mature individuals who have a combination of at least five years education and related vocational/occupational experience. The students are likely to have paid or volunteer experience in adult learning environments and are interested in working with adults in post-secondary institutions, business, industry, volunteer, or government settings; providing professional development or teaching adults; teaching in the trades or vocational areas in secondary schools or adult education institutions; or, designing and implementing adult education training or programs.

#### **(ii) CERTIFICATE IN ADULT EDUCATION (CAE)**

The Certificate in Adult Education focuses on: understanding adult education learning theory and philosophies; becoming aware of the diverse needs of adult learners; and, learning and applying the methodologies and strategies needed to teach adults. The CAE consists of 12 courses (36 semester hours). Three (six semester hour) courses are offered by Holland College, and six (three semester hour) courses are offered by UPEI. Holland College and UPEI offer the required courses on a yearly basis and the electives over a two-year period. All courses are offered in the late afternoon, early evening or weekend hours at Holland College. The UPEI courses are taught by instructors approved by the Dean of Education, UPEI. Courses are offered in each of the four academic terms.

The required courses are:

Ed. 3110 Methods and Strategies in Adult Education I (6 semester hours) Holland College

Ed. 4220 Methods and Strategies: Instructional Design for Online Learning (6 semester hours) Holland College  
Ed. 3010 Practicum in Adult Education (6 semester hours) Holland College  
Ed. 363 Understanding the Adult Learner (3 semester hours) UPEI  
Ed. 362 Communication Practices (3 semester hours) UPEI  
Ed. 364 Assessment of Adult Learning (3 semester hours) UPEI

In addition, students will select 3 additional courses from the following Adult Education electives: Ed. 368 Curriculum, Ed. 308 Activity-Based Learning, Ed. 366 Technology, and Ed. 373 Special Needs.

### (iii) **BACHELOR OF EDUCATION (HUMAN RESOURCE DEVELOPMENT)**

The Bachelor of Education in Human Resource Development focuses on: further developing the knowledge base related to adult learning; developing Prior Learning Recognition and Assessment portfolios; and, completing academic credits from UPEI.

The BEd (HRD) is designed for mature individuals who have a combination of at least five years education and related vocational/occupational work experience. The applicants have successfully completed the Certificate in Adult Education and have met the requirements of the Faculty of Education. This degree does not certify applicants to teach in the public school system unless they are qualified to teach in an occupational or trades area.

The BEd (HRD) is jointly offered by Holland College and UPEI and each institution will offer half of the courses. The BEd (HRD) consists of four stages.

1. Completion of the Certificate in Adult Education
2. Three elective adult education courses from Holland College plus one required course: Ed 319 Preparing for PLAR (Prior Learning and Assessment Recognition); and four elective adult education courses offered by UPEI
3. Prior Learning Recognition and Assessment Portfolio and/ or specific occupational courses offered by Holland College (up to an equivalent of either 10 courses or 30 semester hours).
4. Ten academic courses (30 semester hours) from UPEI including one of UPEI 101, 102 or 103 and a writing intensive course.

### (iv) Admission

Students may apply for admission to the CAE through Holland College at [hollandc.pe.ca](http://hollandc.pe.ca). Tuition fees are to be paid directly to the institution that is offering the course. To continue with the BEd (HRD), students must have successfully completed all of the courses in the CAE and have submitted a written statement of intent and two references to the Faculty of Education. As this is a part-time program and there is continuous intake, students may begin study in September, January, May or July.

### (v) Transcript and Credit Assessment

Originally, the Certificate in Adult Education and BEd (Adult Education) were jointly offered by UNB and Holland College. As of September 2006, the CAE and BEd (HRD) programs are now being offered between Holland College and UPEI. Therefore, applicants who are transferring to Holland College and UPEI

- a) will have all UNB credits which were completed in the CAE/BEd (Adult Education) programs accepted by UPEI;
- b) will have until 2012 to transfer their credits to UPEI.

In addition:

a) applicants may have taken academic courses from other universities. Courses will be considered for transfer credit based on both the marks achieved (not less than 60%) and the age of completed course. Courses over 10 years old may be deemed inappropriate and may require substitution. Exceptions will be made only with the permission of the Dean or Chair.

b) students who believe that they can meet, or have met, the requirements of a course, may seek UPEI credit by means of challenge for credit, Prior Assessment and Learning Recognition (PLAR), or recognition of Special Credits earned elsewhere (see Academic Regulations 15 & 16)

c) candidates beginning the CAE or BEd (HRD) in 2006 or later must complete one-half of the required course work at UPEI (see Academic Regulation 1e).

(vi) Time Limit to Complete the Degree

Students are urged to complete their degree within 10 years from the date of their first registration.

### **Certificate in Educational Leadership in Nunavut**

The Certificate in Educational Leadership in Nunavut is designed to provide qualified teachers and educational leaders in Nunavut with the background, history, knowledge, skills and attitudes to provide culturally based, effective, and responsive, leadership in the school system. It includes five core courses from the introductory level through to specialized courses that focus on parental engagement, action research and approaches to school improvement that support the implementation of educational legislation and policy in Nunavut.

The required courses are as follows:

ED 509 - Foundations of Transformational Leadership in Nunavut Education

ED 511 - Proactive Instructional Leadership in Nunavut Communities

ED 512 - Educational Leadership –Engaging Nunavut Parents, Elders and Community

ED 513 - Leadership of the School Improvement Process in Nunavut Communities

ED 514 - Action Research in Educational Leadership for Nunavut

### **EDUCATION COURSES**

**Please note: Education courses (at the 200, 400 and 500 level) are graded as Pass or Fail. Students must pass all 20 three-hour-credit courses of the program to graduate with a BEd.**

#### **211 INTRODUCTION TO EDUCATION**

This course provides students with an introduction to education in Canada. Students examine: the purpose of schools, the characteristics of classrooms, the role of teachers, the relationship between schools and society, current issues in education, and teaching as a career and profession. A minimum of 25 hours of school-related experience is a requirement of this course.

Three lecture hours, plus one full morning or afternoon a week for school visits

#### **213 INTRODUCTION A L'EDUCATION EN FRANÇAIS AU CANADA**

This course provides students with an introduction to French first and second language education in Canada with a particular emphasis on the educational system on Prince Edward Island. Students analyze a variety of French programs in Canadian schools, the goals of these programs, and the roles of teachers within them. Students also examine current issues in education and their impact on French language education. A minimum of 25 hours of school-related experience is a course requirement.

Cross-listed with French (cf. French 261)

#### **307 ETHICS FOR ADULT PRACTITIONERS**

This course examines professional ethics in the practice of adult education by: exploring the meanings of “professional” and “ethics” in the context of adult education; discussing the ideas and skills that assist adult educators in applying professional ethics to their practice; examining current codes of ethics for adult educators; and, creating individual statements of ethical practice.

#### **308 INTEGRATING ACTIVITY BASED LEARNING IN ADULT EDUCATION**

In this course, learners explore theoretical aspects supporting activity based learning, reflect on personal teaching frameworks, examine and customize a variety of strategies designed to make learning and training active. Using these foundations, participants expand their teaching repertoires by integrating activity based learning with active training, team learning, peer teaching and independent learning, and develop lesson plans and units to be used in adult learning environments.

#### **309 AN INTRODUCTION TO LEARNING IN THE WORKPLACE**

Fostering a learning culture at work is a complex process with many competing demands on both workers and those who train and manage them. This course will introduce participants to current issues and trends affecting

workplace learning; key theories of learning, learning styles and motivation for learning in relation to the workplace; core competencies associated with workplace learning; the role of informal training programs and informal learning (communities of practice, mentoring etc.); and process models for workplace learning. Participants will apply their learning and design a workplace learning program that addresses a key issue and concern in their organization.

### 311 INTRODUCTION TO DISTANCE LEARNING

This course provides an orientation to the methodologies and varieties of distance education approaches currently available. Students explore learning technologies related to distance education in the form of e-learning, video conferencing, audio conferencing, etc., and apply them to adult learning contexts.

### 312 APPLIED RESEARCH IN POST-SECONDARY INSTITUTIONS

In this practical course, students review the fundamental requirements to building a successful applied research group at a post secondary educational institution. Topics covered include: national setting, institutional context, funding, communication, management, staffing, student involvement, industry partners, and community economic development. As applied research complements the teaching activities at post-secondary institutions, in this course, each student develops and presents an applied research proposal suitable for submission to a funding agency.

### 313 ADMINISTRATION OF PROGRAMS IN ADULT EDUCATION

This interactive course explores the current state of adult education in Canada and the statutory framework that largely determines the direction and capacity of the discipline and practice of adult education. Students examine the mandates and variety of provider agencies (adult learning associations, literacy networks, community-based and public education agencies, adult high schools, community colleges). The funding of adult education and the constitutional requirements of governments in Canada are considered. As well, the nature of regional differences and needs (e.g. economic and social development) and how the geography and demography of the Canadian landscape challenges the framework and delivery of adult education are discussed.

### 314 SOCIOLOGY OF ADULT EDUCATION

This course examines the social and political structures that have an impact on adult education. Students explore the influence of these structures in shaping public policy on adult education, and discuss their significance for program development and implementation.

Three hours a week

### 315 CRITICAL THINKING AND WRITING FOR THE ADULT EDUCATOR

In this course, students in the adult education context further refine their communication skills. Students will develop greater proficiency and effectiveness in oral communication. The assignments emphasize the writing process; the clear and correct use of the English language in developing reflective and critical thought; and writing in various genres, including research, professional documents, and correspondence.

### 319 CAREER AND LEARNING PORTFOLIO DEVELOPMENT

(See Integrated Studies 193 and University 193)

### 361 CHILDREN'S LITERATURE

(See English 245)

### 362 COMMUNICATION PRACTICES

This course covers both interpersonal and group communication skills necessary for adult learning. It teaches students to express thoughts and ideas in clear, well-defined terms both orally and in writing. Emphasis is placed on developing skills in active listening, public speaking, and small group facilitation, as well as in understanding the variables that affect human communication. Participants are encouraged to identify their own communication challenges through study, research, presentation, and self-reflection.

Three hours a week

### 363 THE ADULT LEARNER

This course examines the principles and processes of adult learning. Topics covered include learning styles, personal experiences, social and cultural factors that affect learning, learning in formal and non-formal environments, and the characteristics of adult learners.

Three hours a week

#### 364 ASSESSMENT OF ADULT LEARNING

This course examines general principles, processes, and techniques of assessment and evaluation that meet the needs of the instructors, learners, and stakeholders. New assessment techniques in the psychomotor domain are expected. Students develop practical experience in designing and implementing strategies for identifying learners' needs and assessing learning outcomes in the adult, technological, and/or business sectors.

Three hours a week

#### 365 COUNSELLING THE ADULT LEARNER

This course introduces students to the social and emotional development of adult learners, and explores the theoretical principles underlying vocational and personal counselling. It focuses on the development of practical application of counselling methods.

#### 366 EDUCATIONAL TECHNOLOGY AND THE ADULT LEARNER

This course explores the implications, both theoretical and practical, of the new abundance of tools, information, knowledge and connections that are possible to support learning in the internet age. Critical classroom topics such as openness in online education, student assessment, academic integrity and collaboration are combined with theory and significant hands on experience. No prior technical knowledge is expected and students will leave the class with strategies customized to their own contexts.

Three hours a week

#### 367 ENTREPRENEURIAL EDUCATION

This course introduces adult learners to the principles of entrepreneurial education. Students identify enterprising opportunities, and gain experience in planning and facilitating learning by using specialized software to create enterprising educational ventures.

Three hours a week

#### 368 CURRICULUM DEVELOPMENT

This course focuses on curriculum development beginning with needs identification, content planning and research, leading to lesson design and delivery. Students develop an understanding of provincial outcomes and standards. Students assess learners' needs, set appropriate outcomes, plan methodologies and resources, implement program plans, evaluate learning, and reflect on teaching effectiveness.

Three hours a week

#### 369 ISSUES IN ADULT EDUCATION

This course introduces students to contemporary trends (e.g., societal, economic, political, and social trends), and diversity in the workplace. Also explored is the role of adult educators as change agents in shaping the fields of training, development, and adult education.

Three hours a week

#### 371 INTRODUCTION TO ADULT EDUCATION

This course surveys the theories and historical practice of the adult education movement. It examines the characteristics of adult education in a variety of contexts, with particular emphasis on Canadian and provincial initiatives and challenges. Changing needs across a wide range of institutional settings within the field of adult education are identified and discussed.

Three hours a week

#### 372 FACILITATING LITERACY IN ADULT LEARNERS

In this course, students learn to apply the principles of adult learning and current theory and research to adult literacy settings. The course examines various instructional strategies and techniques that develop language and literacy skills in large or small groups, or in the context of coaching. There is recognition that barriers to literacy

learning exist and that educators must understand not only the theory and practice of literacy but also the needs and goals of the individuals in a social learning environment.

Three hours a week

### 373 SPECIAL NEEDS OF ADULT LEARNERS

In this course, students are introduced to inclusive education and become aware of the issues and characteristics of adults with special needs. The course gives an overview of some common learning difficulties and challenges. It also provides suggestions for teaching strategies to encourage adults to learn from their strengths and increase independence. Of particular interest is the use of assistive technology, self-advocacy, and awareness of services available to adult learners. Also explored are secondary issues related to special needs and adults.

Three hours a week

### 374 TRANSFORMATIVE LEARNING

This course presents the theoretical foundation of transformative learning and transformational education, with an emphasis on practical application. It encompasses principles of adult learning coupled with teaching practices that establish leader empowerment. The role of a transformative educator is explored as a paradigm and establishes critical self-reflection as an essential component of teaching practice. Students should be prepared to examine their educational beliefs, values, and assumptions, and the impact of those beliefs on teaching practice.

Three hours a week

### 375 MENTORING THE ADULT LEARNER

This course examines effective methods of mentoring adult students in various contexts. The qualities, techniques, and necessary formal structures in facilitated mentoring relationships are studied using readings, case studies, discussion, presentations, and modelling. Students understand the depth of mentoring adults to the extent that individuals perform the role of mentor or assist others in a structured mentoring program.

Three hours a week

### 391 FOUNDATIONS OF COACHING

A course which examines the variety of sciences which are the foundations of coaching, such as: anatomy, physiology, philosophy, psychology, and sociology, as well as introduces coaching concerns in a number of popular sports (NCCP Level 1 Theory included).

Three hours a week

### 392 ADMINISTRATION OF PHYSICAL EDUCATION

A course concerned with the organizational and administrative principles in physical education. Major areas to be examined include: intramurals and recreation, interschool sports, equipment, facilities, and public relations.

Three hours a week

### 395 SPECIAL TOPICS IN ADULT EDUCATION

Students investigate special topics that have particular reference to the fields of adult education, technological training and development, trades education, and other related areas. Students are expected to explore and research an approved topic of their choice.

Hours of Credit: 1, 2 or 3 credit hours

### 401 DIRECTED STUDIES

This course is available to advanced students at the discretion of the faculty. Entry to the course, course content, and the conditions under which the course may be offered are subject to the approval of the Dean of Education. (See Academic Regulation 9 for Regulations Governing Directed Studies)

### 402 MEETING THE NEEDS OF THE YOUNG LEARNER

This course examines topics in education psychology relevant to the early years classroom. Topics include physical, cognitive, social/emotional and moral/spiritual development; individual differences; learning theories and motivation; behaviour; and the legal, ethical, and counselling responsibilities of teachers for supporting students in need.

Three hours a week

#### 403 ARTS AND SOCIAL TRANSFORMATION (Integration des arts)

This course is an introduction to the Arts and Education. Emphasis is on fostering creativity and critical inquiry through a variety of multi-modal experiences in the arts, the reading of current literature on arts methods and theories, the study of new curricular programs (including the integration of arts with other disciplines), and the role of arts in social transformation.

#### 404 COURSE CURRICULUM AND PLANNING FOR INSTRUCTION (Planification et programmes d'études)

In this course, students will develop the conceptual understanding and practical skills of lesson and unit planning as they pertain to curriculum. Foci include curriculum integration; project based learning; social action curriculum; understanding by design; experiential learning; outcomes and competencies assessment; coupling assessment with instruction; and various theoretical conceptions of curriculum, such as the hidden, null, void, and lived curriculum.  
1 credit course

#### 405 CREATING A CLIMATE FOR LEARNING: EFFECTIVE CLASSROOM MANAGEMENT (Climat organisationnel: Gestion de classe efficace)

The focus of the course will be on establishing a positive classroom climate to help students become responsible for their learning, behaviours and choices. Foci include strategies to promote student motivation, build positive student-teacher relationships, and develop partnerships between parents and school.  
1 credit course

#### 406 SUPPORTING STUDENTS' SOCIAL AND EMOTIONAL HEALTH (Comprendre la sante sociale et emotionnelle chez les eleves)

This course will examine the responsibilities of teachers in supporting the mental health of K-12 learners in the contemporary contexts of family, peers, school, work, and the media. Emphasis is placed on challenges such as low self-esteem, difficult emotions, anxiety, depression, eating disorders, bullying, self-injury, and suicide.  
1 credit course

#### 411 LEARNERS AND LEARNING

This course explores the growth and development of learners from early childhood to late adolescence. Topics include physical, cognitive, social/emotional and moral/spiritual development; individual differences; learning theories and motivation; behaviour; and the legal, ethical, and counselling responsibilities of teachers.  
Three hours a week

#### 412 SCHOOL AND CLASSROOM CULTURE

This course will familiarize students with the variety of often contradictory and unnoticed social, epistemological, economic, political, and cultural influences that have shaped dominant beliefs about K-12 schooling. Students will develop critical inquiry skills as they examine educational assumptions and arrangements, with particular attention to their impact on educational outcomes, in their own lives, in schools, and in society at large.  
Three hours a week

#### 413 MULTILITERACIES

This course introduces students to the critical, developmental, and pedagogical dimensions of supporting students K-12 as they learn the range of literacies required for life in the twenty-first century.  
Three hours a week

#### 415 INCLUSIVE CLASSROOM

This course provides an overview of students with different learning abilities in the regular classroom, and examines the evolution of services for children with particular learning needs. The course emphasizes the skills needed to ensure that the regular classroom is inclusive and that the teacher is sensitive to all needs.  
Three hours a week

#### 417 MEETING THE NEEDS OF THE ADOLESCENT LEARNER

This course examines topics in educational psychology relevant to the middle and senior years classroom. Topics include physical, cognitive, social/emotional and moral/spiritual development; individual differences; learning

theories and motivation; behaviour; and the legal, ethical, and counselling responsibilities of teachers for supporting students in need.

Three hours a week

#### 418 GUIDANCE IN THE SCHOOLS

This course examines principles, problems and procedures in the provision of guidance services in a school setting. Particular attention is given to such topics as the functions of school personnel in guidance; integration of school and community resources; guidance-testing programs; information services; placement and follow-up activities.

Three hours a week

#### 420 TEACHING FOR SCIENCE, TECHNOLOGY, ENGINEERING AND MATH (STEM)

This course introduces students to the pedagogies, practices, and instructional alternatives that foster acquisition of the knowledge, skills, and attitudes critical to success in the sciences, technology, engineering and maths.

Three hours a week

#### 421 TEACHING FOR THE HUMANITIES

This course introduces students to the pedagogies, practices, and instructional alternatives that foster acquisition of the knowledge, skills, and attitudes critical to success in the social studies and humanities.

Three hours a week

#### 422 MATHEMATICS FOR TEACHERS

The course provides opportunities for students to reason and make sense of mathematics in meaningful ways by discovering mathematics through inquiry-based instructional methods grounded in real-life contexts. Content will be drawn from the National Council of Teachers of Mathematics five content (number & operations, algebra, geometry, measurement, and data analysis & probability) and process (problem-solving, reasoning & proof, communications, connections, and representation) standards.

Three hours a week

NOTE: This course may be used as partial fulfillment of the Mathematics requirement for entrance to the BEd program, but cannot be used as a credit towards the BEd itself.

#### 423 PRIMARY/ELEMENTARY MATHEMATICS

This course examines the pedagogy of Primary/Elementary mathematics. Instruction focuses on how children learn mathematics, what it means to engage children in doing mathematics, teaching mathematics through problem solving, and curriculum sequencing. Underlying these foundational ideas for teaching, students will have the opportunity to re-learn key areas of mathematics in a twenty-first century approach to teaching and learning.

Three hours a week

#### 426 INTERMEDIATE/SENIOR MATHEMATICS I

Building on the pedagogy of mathematics at the Primary/Elementary grades, this course examines the pedagogy of Intermediate/Senior mathematics. Instruction focuses on how students learn mathematics in these grades, what it means to engage them in doing mathematics, teaching mathematics through problem solving, and curriculum sequencing. Students will also have the opportunity to re-learn key areas of mathematics in a twenty-first century approach.

Three hours a week

#### 427 INTERMEDIATE/SENIOR MATHEMATICS II

This course is a continuation of Education 426, and builds a conceptual foundation for the topics covered in the intermediate/senior years curriculum. Emphasis is placed on the critical examination of the current intermediate/senior years mathematics curriculum in relation to materials and methodologies. Experience in a variety of teaching methodologies is provided in addition to the development of an understanding of the principles and practices of assessment in mathematics.

PREREQUISITE: Education 426

Three hours a week

#### 428 PRIMARY/ELEMENTARY MATHEMATICS II



A continuation of Education 423, this course further examines and extends the pedagogy of Primary/Elementary focusing on how children conceptualize mathematics and instructional methods required to foster children's numeracy skills.

PREREQUISITE: Education 423

Three hours a week

#### 429 MATHEMATICS IN THE MIDDLE YEARS II

This course provides pre-service teachers with an opportunity to design effective learning experiences, to enable students in the middle years to achieve the key stage outcomes of the Atlantic Provinces Education Foundation Curriculum for Mathematics Grades 5 - 9.

PREREQUISITE: Education 425

Three hours a week

#### 431 DIFFERENTIATED INSTRUCTION AND INCLUSIVE PRACTICES (Inclusion et différenciation pédagogique en salle de classe)

This course focuses on the design, implementation and assessment of differentiated instructional practices to simultaneously address curriculum outcomes and the significant range of student differences in regular K-12 classrooms.

#### 432 PRIMARY/ELEMENTARY LANGUAGE. LITERACIES AND MULTILITERACIES I

This course provides an examination of the foundations of language/literacy processes based on current theories of language acquisition and literacy development. The focus is on six core strands: reading, writing, listening, speaking, viewing and representing, as well as balanced approaches to teaching, learning and assessing literacy skills in the Primary/Elementary grades.

Three hours a week

#### 433 LITERACY AND MULTILITERACIES IN THE EARLY YEARS II

This course is a continuation of Education 432, in which students use language arts outcomes, materials, methods, and assessment techniques to design comprehensive literacy programs and activities.

PREREQUISITE: Education 432

#### 434 LANGUAGE ARTS IN THE MIDDLE YEARS I

This course provides an introduction to current theory and conceptual frameworks for language arts, as well as teaching methods associated with teaching language arts in the middle years of school. The focus includes literacy acquisition with core strands of reading, writing, listening, speaking, viewing and representing, with teaching methods that develop a balanced approach to teaching language arts in grades 5-9.

Three hours a week

#### 436 INTERMEDIATE/SENIOR ENGLISH I

This course familiarizes students with a variety of theories, practices, and values for addressing curriculum and pedagogy as they relate to the teaching of English at the Intermediate/Senior level. With a view to being and becoming English teachers, both locally and globally, students will participate in writing, speaking, listening, reading, viewing and representing activities as informed by research and in a range of developmental, socio-cultural, and media contexts.

Three hours a week

#### 437 INTERMEDIATE/SENIOR ENGLISH II

Building on Ed 436, placement experiences and a growing expertise in English education, students will critically inquire and contribute to current discussions and practices on the nature and cross-curricular scope of language and literacy. Emphasis will be on sense-making and concept development, effective writing instruction, the interactive/iterative relationship between teaching and assessment, and the evolving social/economic relevance of communication genres, modes, and media.

PREREQUISITE: Education 436

Three hours a week

#### 441 INTRODUCTION TO CURRICULUM DEVELOPMENT

This introductory course examines the foundational forces (historical, philosophical, psychological, and societal/cultural) which influence the curriculum, and presents various models for curriculum development. Specific references will be made to the PEI scene.

Three hours a week

#### 445 PRIMARY/ELEMENTARY SCIENCE

The course examines methods of science teaching in the Primary/Elementary grades. Emphasis is placed on practical aspects of organizing and delivering active learning experiences in science, the reading of current literature on method and theory of science, the study of new curricular programs including the integration of science learning with other disciplines, and the relationship between sustainability and science.

Three hours a week

#### 446 INTERMEDIATE/SENIOR SCIENCE I

This course provides an introduction to basic pedagogical concepts and skills needed for the successful and effective teaching of science to Intermediate/Senior school students. Using the concepts of general science and the provincial science curriculum, the course examines the nature and limitations of teaching, learning and technology within the Canadian science classroom context.

PREREQUISITE: At least a minor in a Natural Science, or permission of the instructor.

Three hours a week

#### 447 INTERMEDIATE/SENIOR SCIENCE II

This course examines the development, nature, and limitations of science and technology; the role of science and technology in society; and the teaching of science and technology in the schools. Time is devoted to an examination of the provincial science curricula, innovative teaching and assessment strategies and techniques, and the development of active learning opportunities.

PREREQUISITE: Education 446

Three hours a week

#### 449 INTRODUCTION TO INDIGENOUS EDUCATION

This course is anchored in community-based learning. Students experience Indigenous ceremonies and teachings, which, in turn, foster a mental, physical, emotional, and spiritual understanding of the Indigenous worldview and ways of knowing. This course also introduces Canada's history of cultural assimilation unjustly imposed upon Indigenous peoples in Canada.

1 credit course

#### 451 INTEGRATING INDIGENOUS THEMES IN THE CURRICULUM

This course promotes dynamic ways for the public school curriculum to acknowledge more faithfully the histories, cultures, worldviews and teachings of Indigenous peoples in Canada and globally. The importance of developing more culturally responsive pedagogies and assessment practices and more respectful and inclusive research is highlighted. Insights are shared into the processes of recovery for Indigenous communities and the essential supports for their students to experience success at all grade levels.

Three hours a week

#### 454 PRIMARY/ELEMENTARY SOCIAL STUDIES

This course promotes dynamic teaching methods and inclusive approaches to inspire young learners and to elevate the quality of teaching and learning through Social Studies at the Primary/Elementary levels. Grounded in the needs of twenty-first century learners, this course offers concrete ways to create more vibrant, engaging, playful, supportive and inviting environments for this core curriculum area to give all learners dignity and honour their diverse ways of learning.

Three hours a week

#### 456 INTERMEDIATE/SENIOR SOCIAL STUDIES I

This course promotes dynamic teaching methods and inclusive approaches to inspire learners in grades 7-12 and to elevate the quality of teaching and learning through Social Studies at the Intermediate/Senior levels. Grounded

in the needs of twenty-first century learners, this course offers concrete ways to create more vibrant, engaging, playful, supportive and inviting environments for this core curriculum area to give all learners dignity and honour their diverse ways of learning.

Three hours a week

#### 457 INTERMEDIATE/SENIOR SOCIAL STUDIES II

This course develops a rationale, framework and procedures for facilitating thematic teaching and learning on critical social issues appropriate for grades 7-12. Skills in curriculum development are refined as students explore authentic assessment practices and ways of promoting student ownership of and co-responsibility for learning.

PREREQUISITE: Education 456

Three hours a week

#### 459 ENTERPRISE EDUCATION

This course introduces the key principles and components of Learning For Enterprise, an international movement that nurtures initiative, self-determination, creativity and innovation in twenty-first century learners. A workshop design engages participants in classroom and community-based challenges that contribute to learners' confidence in self and community as they apply enterprising capabilities in a wide range of contexts throughout their lives. Specific applications to historically dependent cultures are explored.

Three hours a week

#### 462 INTERNATIONAL EDUCATION

This course introduces students to the economic, political, and cultural factors that influence public education in foreign countries. The public school systems of selected foreign countries are examined and compared to the provincial systems in Canada. Students are expected to carry out independent research on a foreign country of their choosing.

Three hours a week

#### 463 PERSPECTIVES ON CULTURE AND SOCIETY IN EDUCATION (culture et société)

This course introduces students to the visible and invisible impact of culture and society on education. As students develop an understanding of cultural and social perspectives in education, they examine the roles of schools in the proliferation of social and cultural norms as well as their potential as sites for change.

2.5 credit course

#### 464 EDUCATING FOR GLOBAL CITIZENSHIP

This course is intended to broaden pre-service teachers' theoretical and pedagogical perspectives on global citizenship education by gaining an enhanced awareness of a world view that recognizes the interdependence and interconnections of the natural and social worlds. Participants will be introduced to the concept of global citizenship and, from this, develop an understanding of social justice, diversity, socio-cultural responsibility, sustainability, and agency. Demonstrating how to integrate global citizenship into educational practices is a key learning outcome of this course.

2.5 credit course

#### 465 INTERNATIONAL DEVELOPMENT

This course introduces students to the history of international development and explores the models of development currently employed. Particular attention is given to the effects of economic, political, environmental, and cultural development on public education in emerging countries.

Three hours a week

#### 466 PRINCIPLES AND PRACTICES OF TEACHING ENGLISH AS AN ADDITIONAL LANGUAGE

This course explores the theoretical foundations for teaching English as a second/additional language (ESL/EAL). Students are introduced to fundamental aspects of additional language acquisition and the factors affecting language learning and teaching. The course introduces the needs of English language learners in various contexts including ESL/EAL, mainstream and foreign language classrooms. Students develop a critical perspective on issues related to language learning and teaching.

Three hours a week

#### 467 APPROACHES AND METHODS FOR TEACHING ENGLISH AS AN ADDITIONAL LANGUAGE

This course provides students with the foundations to facilitate language classes in contexts including ESL/EAL, mainstream and foreign language classrooms. The course introduces a range of English language teaching approaches and methodologies and addresses techniques specific to teaching listening, speaking, writing, reading, vocabulary and grammar in an additional language.

PREREQUISITE: Education 466

Three hours a week

#### 468 SCHOOL AND COMMUNITY

This course examines the historical and cultural roles of the rural school. Emphasis is placed on the evolving role of the school as a community resource centre.

Three hours a week

#### 469 SPECIAL TOPICS

To create a category for uniquely titled courses offered by a department and put on the timetable as a “special course” on a one-time basis.

Hours of Credit: 1, 2 or 3 credit hours

#### 471 ADMINISTRATION IN EDUCATION

This course is an introduction to the theory and practices of administration in education which includes an analysis of the nature of school organizations, effective administrative processes, the administrative structure of education on PEI, and legal issues in administration.

PREREQUISITE: Permission of the instructor

Three hours a week

#### 473 COMMUNICATIONS

An introductory course covering both interpersonal and group communication, aimed at teaching the student to think and to express ideas in lucid and well-defined terms. The emphasis will be on the workshop approach involving constant practice in the techniques of voice and speech, public speaking, classroom drama, and creative movement. This should encourage in the students a flexible and resourceful attitude, and help them to develop self-confidence, together with the awareness and sensitivity needed for teaching.

Three hours a week

#### 474 TECHNOLOGY IN EDUCATION

This course provides an introduction to the integration of digital technologies into teaching and learning. The focus is on use of technology as a tool to support the school curriculum. Web-based communication and work with web-based resources is an essential component.

Three hours a week

#### 475 ADVANCED TECHNOLOGY IN EDUCATION

This course provides an opportunity to explore, develop and post web-based resources. Digital photography, digital video, and other emerging technologies are explored and applied within the educational context.

PREREQUISITE: Education 474 or permission of instructor.

Three hours a week

#### 476 FRENCH METHODS I

In this course, students explore the curriculum and teaching of core French in the intermediate and secondary schools. Students develop a variety of teaching methodologies in the area of core French.

PREREQUISITE: At least a minor in French, or permission of instructor.

Three hours a week

#### 481 STATISTICS IN EDUCATION

This course is an introduction to descriptive and inferential statistics required to understand, interpret, express, and evaluate the results of measurement in education. Topics included are frequency distributions, histograms,

frequency polygons, mean, median for grouped and raw data, normal distributions, standard deviation, normal approximation of a binomial random variable, random sampling and sampling distributions, estimation of means, confidence intervals, student distribution, small and large samples, one- and two-tail tests of hypotheses, correlation and regression, Chi-square test, analysis of variance.

Three hours a week

#### 482 ASSESSMENT AND EVALUATION

This course examines the complexity of assessment by contrasting assessment theories with common practices in the classroom. Students explore the concept of a balanced assessment program that integrates formative and summative assessment practices. Students develop skills in creating a variety of assessment instruments (e.g., observation check-lists, tests, rubrics, portfolios). Issues and practices of large-scale assessment are also explored.

Three hours a week

#### 485 PÉDAGOGIE EN IMMERSION: LES PRINCIPES DE BASE

This course explores the general pedagogical principles and techniques of content-based teaching in French Immersion at all levels. Topics covered include development of language skills, thematic teaching in immersion, integrating form and content in immersion, and strategy instruction in immersion. This course is taught entirely in French and students are required to complete all assignments in French.

**PREREQUISITE:** Students must have completed at least six courses (18 credit hours) in French studies in a recognized university program or have been educated in a francophone university for at least two years. Students must also meet the minimum standard, as determined by the Faculty of Education, on a French proficiency test administered before admission to the program.

#### 486 DIDACTIQUE DU FRANÇAIS LANGUE SECONDE: UNE INTRODUCTION

This course explores the general pedagogical principles and techniques of communicative-experiential teaching in core and immersion French programs at all levels. Topics covered include three-stage lesson planning, personalization, pedagogical grammar, and culture teaching. This course is taught entirely in French and students are required to complete all assignments in French.

**PREREQUISITE:** Students must have completed at least six courses (18 credit hours) in French studies in a recognized university program or have been educated in a francophone university for at least two years.

#### 487 L'ACQUISITION DES LANGUES SECONDES

This course explores students' past experiences and beliefs about language learning and teaching, principal theories related to second language acquisition, and practical applications of theory to classroom contexts in French Immersion and core French at all levels. This course is taught entirely in French and students are required to complete all assignments in French.

**PREREQUISITE:** Students must have completed at least six courses (18 credit hours) in French studies in a recognized university program or have been educated in a francophone university for at least two years or with instructor's permission.

2.5 credit course

#### 488 LITTÉRATIE - ÉDUCATION EN FRANÇAIS - PARTIE I

This course introduces students to the general pedagogical principles and techniques of literacy development in French first and second language contexts at the early, middle and senior years. Using materials available in schools and applying appropriate methods and assessment techniques, students design programs and activities based on the learning outcomes in the Atlantic Provinces Education Foundation French Immersion Curriculum. This course is taught entirely in French and all assignments are completed in French.

Three hours a week

#### 489 LITTÉRATIE - ÉDUCATION EN FRANÇAIS- PARTIE II

This course explores and deepens students' understanding of the pedagogical principles and techniques of literacy development in French first and second language contexts at the early, middle and senior years. Using materials available in schools and applying appropriate methods and assessment techniques, students design programs and activities based on the learning outcomes in the Atlantic Provinces Education Foundation French Immersion Curriculum. This course is taught entirely in French and all assignments are completed in French.

PREREQUISITE: Education 488

#### 491 SOCIOLOGY OF EDUCATION

This course involves an analysis of the reciprocal relations between school and society. It examines the influence of political and economic structures in shaping the education systems of various societies, as well as the relevance of different types of schooling in facilitating political and economic participation and cultural enrichment. Empirical attention is given to societies at various levels of general development, with particular emphasis on Canada.

PREREQUISITE: A university degree or two courses in Sociology and at least Third year status or permission of the instructor

Three hours a week

#### 493 FRENCH LANGUAGE PROFICIENCY IN A SCHOOL SETTING/LES COMPÉTENCES LANGAGIÈRES EN CONTEXTE ÉDUCATIF

This course will allow current and future teachers of French as an additional language to enhance their language skills and intercultural awareness. Participants will learn the importance of maintaining a high quality of French in the classroom through reflective and interactive activities. At the end of the course, participants will be able to reflect on their own language practices in the classroom, and communicate clearly and correctly in French in both written and spoken contexts. Additionally, they will be better equipped to guide students effectively in reading, writing, and understanding a variety of texts and identify, correct, and explain common errors in learning French as an additional language.

Three semester hours taught over 2 semesters

#### 495 INQUIRY AND ACTION I

Through on-campus seminars and five weeks of school placement, students will observe, experience and reflect upon the various roles and responsibilities that a teacher has within the classroom and school and the impact of teaching on learners. They will begin to plan and teach lessons under the guidance of mentor teachers. Using an ePortfolio, they will begin to document their personal and professional growth as educators.

Three hours a week

#### 496 INQUIRY AND ACTION II

Through on-campus seminars, and nine weeks of in-school observation and school experience, students will gain in-class experience in planning and teaching effective lessons, themes and units of study. They will use strategies developed in coursework to facilitate and assess student learning. Feedback from the mentor teacher and faculty advisor will inform self-assessment and personal and professional growth. Students, using an ePortfolio, will document their personal and professional growth as educators.

6 credit course

#### 497 INQUIRY AND ACTION II

On-campus seminars and eleven weeks of practicum placement will focus on implementing skills and strategies required to meet the diverse learning needs of students within the classroom setting. Students effectively plan, implement, and assess adaptations and modifications required for optimal learning by individuals and the entire group. In addition, the seminars will assist students in preparing for professional certification in contexts chosen to deepen their knowledge and practice. ePortfolios will be completed and presented to meet course and program requirements.

6 credit course

#### 498 ADVOCACY II – BECOMING A PROFESSIONAL

On-campus seminars and six weeks of practicum placement will prepare students for professional certification in contexts chosen to deepen their knowledge and practice. ePortfolios will be completed and presented to meet course and program requirements.

PREREQUISITE: Education 497

Three hours a week

#### 509 FOUNDATIONS OF TRANSFORMATIONAL LEADERSHIP IN NUNAVUT EDUCATION

This course reviews the history and world view of the Inuit, with particular emphasis on culture, educational history, struggles with power and privilege, beliefs, values, and principles relevant to Nunavut. Traditional and contemporary views on leadership are studied as participants develop a deeper understanding of the cultural context in which they live and work as educational leaders. Participants examine the directions and philosophies established in Nunavut, including ties to the environment and practices that facilitate transformational educational leadership.

Three semester hours

#### 511 PROACTIVE INSTRUCTIONAL LEADERSHIP IN NUNAVUT COMMUNITIES

The responsibilities, roles, and tasks of principals and other educational leaders are explored as they relate to the creation of a positive, inclusive, collaborative, and culturally responsive school community. The role of leadership in teaching and learning and building positive relationships, both in and outside school, is examined as a key factor in facilitating the academic achievement and well-being of learners. A variety of culturally appropriate facilitation strategies are introduced as participants analyze the legal, moral, ethical and policy rights of learners and educators in maintaining and strengthening culture and language and promoting success in schools, the local community, and the world beyond.

Three semester hours

#### 512 EDUCATIONAL LEADERSHIP—ENGAGING NUNAVUT PARENTS, ELDERS, AND COMMUNITY

This course focuses on the development of collaborative relationships, positive communication, and empowerment of parents, elders, and community members who lead, support, and guide education in Nunavut. Participants discuss approaches that respond to and involve the community, and build accountability in ways that are transparent and reciprocal. The involvement of the extended community in the daily life and long-term vision of the school provides a central focus as participants reflect on, and write about, the process of creating collaborative learning communities with parents, caregivers, and elders based on cultural values, beliefs, and principles.

Three semester hours

#### 513 LEADERSHIP OF THE SCHOOL IMPROVEMENT PROCESS IN NUNAVUT COMMUNITIES

Policy implementation, supervision of teaching and the leadership of learning, staff evaluation, and program accountability play a key role in transformational educational leadership and are a major focus in this course. Participants discuss and write extensively about policy implementation that is culturally and linguistically responsive in promoting learning. Participants are challenged to develop skill sets they require to involve the community and parents in developing and implementing a vision for education based on current policies.

Three semester hours

#### 514 REFLECTIVE PRACTICE IN EDUCATIONAL LEADERSHIP FOR NUNAVUT

Participants propose, develop, and implement an approved reflective inquiry project based on their own educational practice.

Three semester hours

#### 559 SPECIAL TOPICS IN EDUCATION

In this course, students investigate special topics in the field of education. Permission of the Coordinator of Graduate Studies and the Dean is required.

Hours of Credit: 1, 2 or 3 credit hours

#### 573 CHILDREN'S LITERATURE IN EDUCATION

An introduction to, and survey of, children's literature with emphasis on contemporary books written for children. These include picture books, fiction, and nonfiction with special consideration of Canadian titles. Students examine, read, evaluate, and discuss different forms of literature and various genres of fiction, as well as the ways children's literature is integrated into contemporary school curriculum.

Three hours a week

#### 574 YOUNG ADULT LITERATURE

An introduction to young adult literature with emphasis on contemporary books written for adolescents. These include picture books, fiction, and nonfiction with special consideration of Canadian titles. Students examine, read,

evaluate, and discuss young adult books and explore the ways young adult literature is integrated into contemporary school curriculum.

Three hours a week

#### 575 ORGANIZATION AND MANAGEMENT OF LEARNING RESOURCES

This course provides opportunities to consider principles of analysis, appraisal, and review of learning resources. Students develop criteria for evaluating and selecting a wide range of both print and non-print learning resources, and to formulate policies and procedures for the selection of learning resources to support the instructional program in the school.

Three hours a week

#### 581 THE INCLUSIVE CLASSROOM

Teachers examine the emergence of inclusive education and explore the history of services to children with special needs and attitudes teachers bring to the classroom. Recent research and practice in inclusive education is explored by the students.

Three hours a week

#### 582 ASSESSMENT OF INDIVIDUAL LEARNERS

Teachers are introduced to individualized educational assessment of children with learning needs and become familiar with a variety of assessment tools and their implementation.

Three hours a week

#### 583 DIFFERENTIATION AND INDIVIDUALIZED INSTRUCTION

This course introduces teachers to differentiation of curriculum and a variety of teaching methods for learners with exceptional needs, as well as the components and implementation of an individualized educational plan.

Three hours a week

#### 584 LEADERSHIP AND COLLABORATION

Teachers explore inclusive teaming and classroom consultation as methods to promote inclusive education. Leadership traits required to facilitate the development of an inclusive school is also explored.

Three hours a week

#### 585 IMPROVING LANGUAGE AND LITERACY ACHIEVEMENT

This course looks at strategies teachers can employ to develop language and literacy skills in the students in their classrooms. Current research in this area is presented and critiqued.

Three hours a week

### **School of Sustainable Design Engineering**

<http://upei.ca/engineering>

#### **Engineering Faculty**

Nicholas Krouglicof, Associate Dean

Don MacEwen, Professor

Amy Hsiao, Associate Professor

Wayne Peters, Associate Professor

Bishnu Acharya, Assistant Professor

Sadegh Babaii, Assistant Professor

Aitazaz Farooque, Assistant Professor

Elizabeth Osgood, Assistant Professor

#### **Overview**

The School of Sustainable Design Engineering at UPEI recognizes the integrating nature of engineers in society and the need for a broad and balanced education. Our program follows current trends in engineering education and



focuses on student outcomes. Small class sizes within an activity-based learning environment allow faculty and staff to be student centric and provide specific and timely input to individual students.

Students are exposed to broad knowledge and skills in engineering science, natural science, mathematics, and complementary studies in concert with an applied project-based design stream simulating the engineering profession. Students entering the UPEI Engineering program will be actively engaged in the profession of engineering from day one. The UPEI Engineering program is designed to provide a highly flexible learning environment that is responsive to the dynamic needs of students and the industries that employ them.

In addition to fundamental science, engineering science and mathematics courses, students are required to develop skills in engineering design, communication, analysis, project management, professional ethics and more. The program is delivered in a two plus two orientation where students must first complete a two-year foundational program (engineering diploma) before proceeding into the upper class (degree years three and four). Students who successfully complete the diploma may choose to continue their engineering degree at UPEI in the BSc in Engineering (Sustainable Design Engineering) provided they meet all admission criteria ([see admission criteria](#)) or transfer to a more traditional engineering discipline at one of our partner universities. UPEI continues to offer a complete and seamless pathway for a four-year engineering degree in a variety of traditional engineering disciplines as well as now offering an innovative bachelor's degree in sustainable design engineering with focus areas in mechatronics, sustainable energy and bio-resources.

### **Engineering Diploma (Foundational Program)**

The engineering diploma program at UPEI has a proven history in preparing students for challenging careers as Professional Engineers. Accredited by CEAB as an affiliate with Dalhousie University's Faculty of Engineering, students in the diploma program complete a unique design-based curriculum where most courses are common throughout the Dalhousie Associated University (AU) system (Dalhousie, Saint Mary's, Acadia, St. FX, CBU and UPEI). As part of this affiliated system, the UPEI engineering diploma satisfies the first two years of a four-year Bachelor of Engineering (BEng) at Dalhousie University. You can find more information on the Dalhousie Engineering Associated University system and disciplines offered on the Dalhousie University website.

After a common first year, students select their discipline choice (i.e. civil, mechanical, electrical, chemical etc.) through a competitive grade-point placeholder system. Each separate discipline requires three discipline specific electives to be taken in the second year, which ensures a smooth transition to the chosen discipline. The program allows students to study for two years in a small, supportive environment at UPEI, while providing the opportunity to complete their engineering degree in the specialized disciplines at Dalhousie's Faculty of Engineering in the now standard four-year timeframe. UPEI's new Bachelor of Science in Engineering (Sustainable Design Engineering) provides an additional discipline choice for UPEI Engineering students.

Students with a UPEI Engineering Diploma may also choose to transfer to the University of New Brunswick in Fredericton. UPEI has had a long-standing agreement with UNB giving UPEI transfer students access to their program of choice. UNB now recognizes the UPEI version of the Associated University diploma as a block equivalent to their first two years, allowing students automatic entry into the third year of most UNB engineering programs. For more information on UNB block transfers for engineering, please contact the head of the UPEI School of Engineering at [upeiengineer@upe.ca](mailto:upeiengineer@upe.ca).

As a CEAB accredited program through Dalhousie's Associated University system, UPEI diploma students also have the opportunity to transfer to any engineering degree program in Canada. Most programs will require transcripts of courses taken as well as detailed course outlines to assess course equivalency. Since course transfer is on a course-by-course basis; courses are accepted at the discretion of the receiving university. Students looking to transfer outside the region should seek advice from their faculty advisor early in their program.

### **Engineering Degree Program**

The engineering degree program at UPEI allows students with a UPEI Engineering diploma or equivalent the opportunity to complete a progressive and innovative sustainable design engineering degree in Prince Edward

Island. Students in the Bachelor of Science in Engineering (Sustainable Design Engineering) will have the unique opportunity to work on design projects with faculty in a variety of disciplines at UPEI including the natural sciences, kinesiology, mathematics, computer science, veterinary medicine and business.

Operating in a non-departmentalized and generic discipline structure, the UPEI engineering degree program is focused on providing creative and sustainable solutions to society's problems. The integrated, project-based professional practice (PBPP) stream provides an applied foundation where students work on real community and industrial-based projects in every term of their program. Traditional content courses are delivered via an integrated and timely approach with PBPP courses that develop professional practice skills in a simulated workplace environment. It is recognized that design is an essential element of engineering and the curriculum structure reflects this focus.

The program also provides students with three focus area options in mechatronics, sustainable energy and bio-resources. These program focus areas have been identified as strategic areas for engineering innovation and employment based on significant consultation with government and industry stakeholders. The Bachelor of Science in Engineering (Sustainable Design Engineering) at UPEI is supported by Engineers PEI as a direct path to a professional engineering designation (PEng) and will undergo a separate accreditation review by the Canadian Engineering Accreditation Board (CEAB) during the next review cycle in 2017.

### **Design-Based Curriculum**

It is increasingly recognized that understanding basic science and mathematics are only two of the many areas that are essential to professional engineering practice. Engineering students in our program must make responsible decisions based on good judgment and an ability to justify decisions within a structured analytical framework. Based on this generalist philosophy, our program is designed to develop a student's ability to think. This fundamental requirement of engineers to think critically in response to ever-changing and complex situations is accomplished through a design stream core relying heavily on inquiry-based learning supported by traditional lecture-based knowledge. The progression in complex thinking skills occurs over the duration of the four-year (two plus two) program and beyond through appreciation of lifelong learning and professional development.

The following core design courses must be taken in succession to support the students' developing skills.

1. Engineering 121—Design 1: Engineering Communication
2. Engineering 122—Design 2: Engineering Analysis
3. Engineering 221—Design 3: Engineering Projects I
4. Engineering 222—Design 4: Engineering Projects II
5. Engineering 371—Project-Based Professional Practice I
6. Engineering 372—Project-Based Professional Practice II
7. Engineering 471—Project-Based Professional Practice III
8. Engineering 472—Project-Based Professional Practice IV

### **Recommended Program of Study for Engineering Diploma**

Students are strongly encouraged to meet with a faculty advisor early in the program to review course selection. The following is the recommended course sequence for the diploma program.

#### **Years 1 and 2 (24-Course Foundational Program)**

##### **First Year—Term 1**

Engineering 121—Design 1: Engineering Communications  
Engineering 151—Engineering and the Biosphere  
Physics 111—General Physics I  
Chemistry 111—General Chemistry I  
Mathematics 151—Introductory Calculus I  
UPEI 101—Writing Studies – Engaging Writing, Rhetoric, and Communications

## **First Year—Term 2**

Engineering 122—Design 2: Engineering Analysis  
Engineering 132—Computer Programming with Engineering Applications  
Physics 112—General Physics II  
Chemistry 112—General Chemistry II  
Mathematics 152—Introductory Calculus II  
Mathematics 221—Statistics

## **Second Year—Term 3**

Engineering 221—Design 3: Engineering Projects I  
Engineering 231—Strength of Materials  
Engineering 261—Thermofluids I  
Engineering 281—Electric Circuits I  
Mathematics 253—Vector Calculus for Engineers  
One (1) discipline-specific engineering elective

## **Second Year—Term 4**

Engineering 222—Design 4: Engineering Projects II  
Mathematics 261—Linear Algebra  
Mathematics 301—Differential Equations  
One (1) humanity elective (courses typically offered by the Faculty of Arts, except basic languages or economics)  
Two (2) discipline-specific engineering electives

Discipline-specific electives for the UPEI Bachelor of Science In Engineering (Sustainable Design Engineering) are Engineering 234—Dynamics, Engineering 243—Engineering Economics, and Engineering 262—Thermofluids II or Associated University equivalents.

For selection of discipline-specific electives for Dalhousie or UNB programs, as well as admission criteria, please refer to <http://www.dal.ca> or [www.unb.ca](http://www.unb.ca).

If you have any questions or concerns about the UPEI diploma requirements, please consult your faculty advisor or contact the head of the UPEI School of Engineering at <mailto:upeiengineer@upei.ca>

## **BACHELOR OF SCIENCE WITH A MAJOR IN MATHEMATICS FOR ENGINEERING DIPLOMA STUDENTS (under revision)**

See Mathematics and Statistics section.

## **BACHELOR OF SCIENCE WITH A MAJOR IN PHYSICS FOR ENGINEERING DIPLOMA STUDENTS (under revision)**

See Physics section.

## **Required Program of Study for Bachelor of Science in Engineering (Sustainable Design Engineering)**

The sustainable design engineering degree program at UPEI is cohort based and, therefore, students must have first completed the diploma requirements and then will follow a common program of study as follows:

## **Years 3 and 4 (18 Course Degree Program)**

## **Third Year—Term 5**

Engineering 371—Project-Based Professional Practice I  
Engineering 322—Engineering Measurements

Engineering 326—Materials, Mechanics, and Manufacturing  
Engineering 381—Systems Engineering  
One (1) introductory engineering focus area elective\*

### **Third Year—Term 6**

Engineering 372—Project-Based Professional Practice II  
Engineering 327—Machines & Automatic Controls  
Engineering 363—Thermofluids III with Heat Transfer  
Engineering 382—System Dynamics with Simulation  
One (1) engineering focus area elective

### **Fourth Year—Term 7**

Engineering 471—Project-Based Professional Practice III  
Engineering 421—Facilitated Study & Experimental Practice  
Engineering 443—Technical Management & Entrepreneurship  
One (1) engineering focus area elective

### **Fourth Year—Term 8**

Engineering 472—Project-Based Professional Practice IV  
One (1) engineering focus area elective  
One (1) science or business elective  
One (1) complementary study (humanities elective)

\*The first engineering focus area elective must be the introductory course in mechatronics, sustainable energy, or bio-resources. All other focus area electives must be selected from the approved list for that focus area and at least one of the focus area electives must be at the 400 level. Before selecting focus area or other electives, please consult with your faculty advisor or the head of the School of Engineering.

## **ENGINEERING COURSES**

### **121 ENGINEERING COMMUNICATIONS**

This course is a basic introduction to the profession, to the design process, and to the way that engineers communicate through drawing, writing and speaking. The course stresses the importance of creativity and social responsibility in engineering. Topics include basic engineering concepts, simple engineering design projects, presentation of graphical material for engineering designs, and technical reporting, which includes verbal, written, and graphical means. There is an emphasis on group work in engineering.

**PREREQUISITE:** Admission to the Engineering Program. Math 191, Physics 111, and Engineering 131 must be completed or taken at least concurrently

Three hours lecture and three hours laboratory per week

### **122 ENGINEERING ANALYSIS**

This course is a continuation of the design process and engineering professionalism introduced in Engineering 121. Emphasis is placed on the development of a structured problem solving capability that can be generally applied in most industrial environments. As with all UPEI design courses, the content is delivered primarily through facilitated exercises and a project based learning environment. Students are expected to be self-directed and are required to analyze situations in a systematic and scientific manner. In order to perform engineering analysis, a basic understanding of math and engineering science (i.e. statics, strength of materials, material science, material balance, fluid mechanics, thermodynamics, circuits, measurements, etc.). is required and an overview of these areas is provided. Students are also expected to integrate the knowledge and skills from other engineering science, math and general science courses. Computer aided tools introduced include Microsoft Excel, DataStudio, MatLab and Simulink. Demonstration of design concepts during end of year industry expo is required.

**PREREQUISITE:** Engineering 121 with a grade of at least 60%, Math 191, and Physics 111

Three hours lecture and three hours of lab per week

### 131 (formerly 132) COMPUTER PROGRAMMING WITH ENGINEERING APPLICATIONS

This course is a study of computer programming as it relates to engineering. Topics include problem solving, algorithm design, software standards, operating systems, computer components, data types, control structures, repetition, loops, nested structures, modular programming and arrays. Several programming languages and programs are used including MS Excel, Matlab and C.

PREREQUISITE: Admission to the Engineering Program

Three lecture hours and two lab hours per week

### 152 (formerly 151) ENGINEERING AND THE BIOSPHERE

The course focuses on the relationship between living systems and the man-made environment as it applies to engineering design. The relevance of biology to industrial and engineering applications is emphasized. Laboratory sessions will make extensive use of field trips to local sites. This course includes a basic introduction to cell structure and function, microbiology and toxicology, nutrient cycles, communities and ecology as it relates to understanding the impacts of man-made systems and structures.

PREREQUISITES: Admission to the Engineering Program

Three lecture hours and three lab hours per week

### 212 GEOLOGY FOR ENGINEERS

This course provides a basic overview of key geological processes and principles with emphasis on practical aspects of geology as they apply to engineering and related disciplines. Topics include rock types, rock formation, plate tectonics, glaciation, erosion, earth materials, geological mapping, stratigraphy and structural geology. An appreciation for ore forming processes, mineral resources, geothermal energy, environmental geology, and groundwater resources is also development. Laboratory activities focus on basic mineral and rock identification, and interpretation of topographic and geological maps.

PREREQUISITE: Engineering 152

Three lecture hours and two lab hours per week

### 221 ENGINEERING PROJECTS I

This course is the first in a two-course sequence, which provides a complete community design experience. In 221, students go through a self-selecting team and project based process in response to request for proposals prepared by community partners. Students are required to research and analyze the client's situation (internal/external) and develop detailed analytical proposals and conceptual design options for their community partner. Concepts are developed into detailed designs and prototypes in Engineering 222. End of term client presentation are used as hold points and to provide focus and direction for the second term.

PREREQUISITE: Engineering 122 with a grade of at least 60%, Engineering 131, Engineering 152, Physics 112 and Math 192

Three hours lecture and three hours lab per week

### 222 ENGINEERING PROJECTS II

A continuation of engineering 221, students will complete detailed paper designs of their concepts, in-depth engineering analysis, as well as develop a physical model or demonstration to support the recommended design solution. Working closely with community partners and faculty, students will learn how to manage a complex client oriented project, supported by accurate numerical analysis and professional documentation. Client interaction and presentations occur at selected hold points and demonstration of concept at a public industry expo is required.

PREREQUISITE: Engineering 221 with a grade of at least 60%

Three hours of lecture and three hours of lab per week

### 224 INTRODUCTION TO STRUCTURAL ENGINEERING

This course is an introduction to the field of structural analysis as an applied discipline. Building on deflection and truss analysis from previous mechanics courses, students are exposed to concepts of influence, flexibility, stiffness, impact and other analytical techniques and dynamic loading in rigid structures. The National Building Code and material resistance is also introduced.

**PREREQUISITE:** Engineering 231

Three hours of lecture and three hours of lab per week

#### **225 MATERIALS SCIENCE**

This course is an introduction to the properties and behaviour of engineering materials. Topics include atomic structure and bonding, crystalline structures, deformation, metallic structures, hardening and annealing, phase diagrams, ceramics, polymers, composites, electrical and optical properties. Computer applications are used.

**PREREQUISITE:** Engineering 122, Chemistry 111 and Math 291

Three hours lecture and three hours lab per week

#### **231 STRENGTH OF MATERIALS**

This course is an introduction to the study of stress, strain and deformation of a solid body subjected to static forces. Topics include elastic and plastic stress, strain, Mohr's circle, torsion, behaviour of beams and columns. Computer applications and hands-on laboratory experiments are used.

**PREREQUISITE:** Engineering 122 and Math 192

Three hours lecture and three hours lab per week

#### **234 ENGINEERING DYNAMICS**

This course is a study of mechanics concerned with the state of motion of rigid bodies that are subject to the action of forces. The course considers the kinematics and kinetics of motion applied particles and rigid bodies particularly as it relates to engineering applications and design. Topics include rectilinear and curvilinear motions, normal and tangential coordinates, dependent motion, Newton's Laws of Motion, energy and momentum methods.

**PREREQUISITE:** Engineering 122, Engineering 131, Engineering 152 and Math 192

Three hours lecture and three hours lab per week

#### **235 KINEMATICS AND DYNAMICS OF MACHINES**

This course introduces fundamental concepts in the analysis of linkages and other aspects of complex machinery. Using graphical and analytical methods and relying on static and dynamic principles previously learned, students are exposed to a variety of cams, gears and trains in an applied context. Simple gyroscopic effects are also introduced.

**PREREQUISITE:** Engineering 234 and Math 291

Three hours lecture and three hours of laboratory per week

#### **242 FUNDAMENTALS OF ENVIRONMENTAL ENGINEERING**

This course is an introduction to the field of environmental engineering with a focus on understanding the effects of man-made pollutants on natural systems (physical, chemical). Particular emphasis is placed on the identification, analysis and design of solid and wastewater management systems in a sustainable and responsible manner.

**PREREQUISITE:** Engineering 152

Three hours of lecture and two hours of tutorial per week

#### **243 ENGINEERING ECONOMICS**

This course provides students with the fundamentals of engineering economics and finance financial aspects in the context of professional engineering practice. Topics include the time value of money, project screening, cost estimation, and discounting analysis techniques. Economic analysis of depreciation, maintenance, replacement and upgrading and the impact of taxes, inflation and time on infrastructure development. Relevant software and projects are used.

**PREREQUISITE:** Engineering 122, Engineering 131, Engineering 152 and Math 192

Three hours lecture and three-hour tutorial per week

#### **252 FUNDAMENTALS OF PROCESS ENGINEERING**

The main objective of this course is to develop the student's ability to perform mass and energy balances on reactive and non-reactive processes. Introductory topics include systems of units and a study of process variables such as temperature, pressure, and flowrate. Also covered are fundamental properties of multiphase systems:

phase equilibrium, vapour pressure, phase rule, Raoult's and Henry's Laws, and colligative properties. Emphasis is placed on developing problem-solving skills.

PREREQUISITE: Engineering 261 and Math 291

Three lecture hours and two tutorial hours per week

### 261 THERMO FLUIDS I

This course is designed to provide the student with a basic understanding of the fundamental concepts and principles of thermodynamics (first and second laws) and the application of these principles to engineering problems. Topics included are: the nature and forms of energy; basic concepts of systems, properties, states and processes; energy transfer as work and heat; energy and The First Law of Thermodynamics; entropy and The Second Law of Thermodynamics; and heat engine cycles. The analysis of various systems for power generation or refrigeration is also included.

PREREQUISITE: Engineering 122, Engineering 131 and Engineering 152. Math 291 must be taken at least concurrently

Three hours lecture and three lab hours per week

### 262 THERMO FLUIDS II

This course is an introduction to the field of fluid mechanics. Topics covered include properties of fluids, forces on submerged surfaces, stability of floating objects, ideal fluid flow, and momentum and energy methods. Concepts of similitude are introduced and fundamental scaling parameters in real fluids. Turbulence is introduced; pipe flow problems and lift/drag problems are solved.

PREREQUISITE: Engineering 261 and Math 291

Three hours lecture and three hours lab per week

### 281 ELECTRIC CIRCUITS I

This course is a study of topics such as Ohm's laws, Kirchoff's laws, equilibrium, equations, Thevenin's and Norton's theorems, transient circuit sinusoidal steady state response, complex impedance, complex frequency, and magnetically coupled circuits,

PREREQUISITE: Engineering 122, Engineering 131, Engineering 152, Math 192 and Physics 112

Three hours lecture and two hours tutorial per week

### 282 ELECTRIC CIRCUITS II

This course is a continuation of Engineering 281, expanding upon concepts introduced in the first course. This will include two port networks, Fourier series and Fourier transforms, Laplace transforms, Bode and Polar plots, and Filters.

PREREQUISITE: Engineering 281

Three hours lecture and two hours tutorial per week

### 322 ENGINEERING MEASUREMENTS

This course covers the basic types of measurement of many fundamental physical phenomena, including time, distance, displacements, speed, rates, force, flow, temperature, pressure, stress and strain, and frequency. An introduction to digital and analog electronics is a component of the course, but the focus is on understanding ways to sense physical parameters. This course has a significant field component.

PREREQUISITE: Admission to the Sustainable Design Engineering Degree Program

Three hours lecture and three hours lab per week

### 326 MATERIALS, MECHANICS, AND MANUFACTURING

This course covers the basic theory and practice of modern manufacturing processes in an applied context. Students will experience machining, forming, and casting of objects using a variety of materials. Material properties are investigated and mechanical properties analyzed with consideration for optimal performance. Students will produce parts using CAD/CAM/CNC tools and assess part quality to predefined specifications and tolerances. Lab periods will include hands-on machining and industrial field tours.

PREREQUISITE: Admission to the Sustainable Design Engineering Degree Program

Three lecture hours and three lab hours per week

### 327 MACHINES AND AUTOMATIC CONTROL

This course introduces students to the complexity of automating machines. Building on previous machine design and electric circuit's courses, students will investigate and experiment with all aspects of electrical systems, mechanical systems and automatic control. Topics covered include: history of machines, how machines work, concept of control, human interaction, instruments and measurements, control schematics, AC/DC machines and transformers, programmable technology, power electronics, electric motors, protection systems, and industrial safety. Labs involve reverse engineering exercises and industrial field trips are used to enhance understanding.

PREREQUISITE: Engineering 322

Three lecture hours and three lab hours per week

### 334 INTRODUCTION TO MECHATRONICS ENGINEERING

This course covers fundamental skills associated with the development of computer-controlled intelligent systems and processes. Following a modern approach to mechanical engineering design, students will attempt synergistic integration of electronics, control systems, and mechanical components in a controlled laboratory environment. Students must demonstrate skills related to the selection, integration and/or calibration of sensors, actuators, signal conditioning, control algorithms, computer software, and hardware systems used to manage complexity, uncertainty, and communication in robotic systems.

PREREQUISITES: Admission to the Sustainable Design Engineering Degree Program

Three hours of lecture and three hours of lab per week

### 337 MECHATRONIC SYSTEM INTEGRATION AND INTERFACE DESIGN

This course focuses on the fundamentals of human and mechatronic system interaction and a systematic approach to its interface design. Signal generation, transmission, and interface design are the main topics of this course. Integration of the Mechatronics system focuses on the use of embedded electronics to control and monitor mechanical behavior in a mechatronic system. Following a user-centered design and observational philosophy, students will learn to evaluate the execution efficiency of typical voice, command and graphical (GUI) user interfaces to interact with the mechatronic system with the specific aim of monitoring and control. Topics include: transducers, motors and actuators I/O and signaling, signal transmission philosophy and design, conducting user studies, evaluation techniques, information structure, and programming for interactive systems. Labview and Simulink interface software development packages are used.

PREREQUISITES: Engineering 334

Three hours of lecture and three hours of lab per week

### 339 MECHATRONICS COMPUTER-AIDED PRODUCT DEVELOPMENT, MODELLING, AND SIMULATION

This course reinforces students' skills in solid modelling and expands into computational simulation. Utilizing advanced CAD/CAM/CAE simulation software such as SolidWorks, CATIA, Altair Hyperworks, ANSYS Workbench, and Stratsys Insight 3D printing software, and in a controlled environment, students engage in developing skills required to work in today's industrial and integrated computer-aided product development. The course focuses on a hands-on approach to product innovation and the effective use of computational simulation technology. The course covers aspects of structural and mechanical CAE/FEA as well as thermal management CAE/CFD simulations when designing intelligent mechatronics products.

PREREQUISITES: Engineering 334

Three hours of lecture and three hours of lab per week

### 363 THERMOFLUIDS III WITH HEAT TRANSFER

This course advances student knowledge across the related fields of thermodynamics, fluid mechanics, and heat transfer. Generalized relationships are reviewed including ideal and real gas effects, gas tables, equations of state and generalized compressibility, enthalpy, and entropy charts. Applied experimentation with refrigerators, air conditioning and heat pumps is used to further enhance focus on conversion efficiency and performance. Flow in constant area ducts with friction and heat exchange, steady and unsteady heat conduction, convection and radiation phenomena with application to selected problems in several fields of engineering is also introduced.

PREREQUISITE: Engineering 322

Three lecture hours and three lab hours per week

### 371 PROJECT-BASED PROFESSIONAL PRACTICE I



This course is the first of a four-course project-based stream that simulates the practice of a professional engineer. Students working closely with faculty supervisors and industry partners will experience an actual research and development project where they are expected to research the problem and develop a highly technical solution that is not patented or commercially available. Following best practices in project management, students will develop detailed project proposals, conceptual designs, and proof of concepts within the ethical and safety considerations that are fundamental to the profession. Concepts are further developed into operational prototypes during the second semester.

**PREREQUISITE:** Admission to the Sustainable Design Engineering Degree Program

Six lecture hours and six lab hours per week

### 372 PROJECT-BASED PROFESSIONAL PRACTICE II

A continuation of Engineering 371, students will complete detailed designs of their concepts, build full-scale operational prototypes (where possible) and test them in a controlled laboratory and industrial environment (where possible). Working closely with faculty and industry partners, students will prepare patent applications and develop commercialization plans for the products or processes developed. Demonstration of concept during an end of year industry expo is required.

**PREREQUISITE:** Engineering 371

Six lecture hours and six lab hours per week

### 381 SYSTEMS ENGINEERING

This course introduces students to the interdisciplinary field of systems engineering and a systems approach to analyzing complex problems. Specific subjects covered include: logistics, reliability, safety, performance, and risk management. Open-ended problems are used and students are expected to classify, categorize, and illustrate physical and functional relationships using schematic diagramming techniques. Modeling of performance is introduced, but is covered in greater depth in the systems dynamics course to follow. Systems considered in the course include human, ecological, transportation, communication, mechanical, electrical, and mechatronic. This course utilizes a problem-based experiential teaching method with a significant field component.

**PREREQUISITE:** Admission to the Sustainable Design Engineering Degree Program

Three hours lecture and three hours lab per week

### 382 SYSTEM DYNAMICS WITH SIMULATION

This course introduces the analysis and control of dynamic systems, with concepts and examples drawn from all disciplines. It includes development and analysis of differential equation models for mechanical, electrical, thermal, and fluid systems, including some sensors. Systems are primarily analyzed using Laplace transforms and computer simulation methods. Analysis concepts cover first, second, and higher order differential equations, transient characteristics, transfer functions, stability, dominance, and frequency response. Properties of systems include time constant, natural and damped frequency, and damping ratio.

**PREREQUISITE:** Engineering 381

Three hours lecture and three hours lab per week

### 421 FACILITATED STUDY AND EXPERIMENTAL PRACTICE

This course provides an individual assessment of the students' engineering knowledge to date in the context of their assigned industry-sponsored project. Students in consultation with faculty will determine knowledge and skill requirements of their project and develop a study and experimentation plan to fill gaps in the students' knowledge and experience. The content of the course will be customized to each student and his or her individual needs.

**PREREQUISITE:** Engineering 372

Three lecture hours per week

### 443 TECHNOLOGY MANAGEMENT & ENTREPRENEURSHIP

This course provides an overview on how to start and sustain a technology-oriented company. Topics discussed will include the role of technology in society, intellectual property, patents, business plans, financial planning, sources of capital, business structure, liability, tax implications, sales, marketing, operational and human resource management. This course will be taught using problem-based and experiential learning strategies with involvement from real life entrepreneurs as motivators and facilitators.

PREREQUISITE: Engineering 372  
Three lecture hours per week

#### 471 PROJECT-BASED PROFESSIONAL PRACTICE III

This course builds on concepts and knowledge learned throughout the third year of the program. Fourth-year students will assume a leadership role in dual cohort (third and fourth year) project teams. Working closely with industry partners and faculty supervisors, students must develop innovative and technology-based solutions with a high level of technical sophistication. Lessons learned from previous project experiences must be applied and students will rely heavily on knowledge content and skills acquired through their engineering science courses. Lab hours will include professional development exercises in isolation of, and preparation for industry projects. Design concepts are further developed into operational prototypes during the second semester. As with all project-based courses, professional responsibility/accountability and an appreciation for best practices and ethical behaviour must be demonstrated.

PREREQUISITE: Engineering 327, Engineering 363, Engineering 372, and Engineering 382  
Six lecture hours and six lab hours per week

#### 472 PROJECT-BASED PROFESSIONAL PRACTICE IV

A continuation of Engineering 471, this course is the capstone and culmination of all that has been learned in the program. Students will complete detailed designs of their concepts, build full-scale operational prototypes (where possible) and test them in a fully operational industrial involvement. Working closely with industry clients, students will prepare patents and attempt commercialization of products or processes developed. Students are exposed to all aspects of project management, engineering economics, law, ethics, and safety; and capability outcomes are closely monitored in this class. Demonstration of concept during an end of year industry expo is required.

PREREQUISITE: Engineering 471  
Six hours of lecture and six hours of lab per week

#### 481-482 DIRECTED STUDIES IN ENGINEERING

Available to advanced engineering students at the discretion of the department. Entry to the course, course content, and the conditions under which the course may be offered will be subject to the approval of the Chair of the Department and the Dean of the Faculty. (See [Academic Regulation 9](#) for Regulations Governing Directed Studies.)

#### 491-492 SPECIAL TOPICS IN ENGINEERING

This course provides students with an opportunity to pursue special topics in engineering. The course content and its offering in any one semester will be at the discretion of the Department. Interested students should contact the Department to confirm the details of the course and its offering.

### English

<http://upei.ca/english>

#### English Language and Literature Faculty

Elizabeth Epperly, Professor Emeritus  
Brent MacLaine, Professor Emeritus  
Brendan O'Grady, Professor Emeritus  
Terry Pratt, Professor Emeritus  
John Smith, Professor Emeritus  
Greg Doran, Associate Professor, Chair  
Catherine Innes-Parker, Professor  
Richard M. Lemm, Professor  
Shannon Murray, Professor  
Anne Furlong, Associate Professor  
Geoffrey Lindsay, Associate Professor  
John McIntyre, Associate Professor

## PREAMBLE

The English Majors and Honours program encourages students to explore the diverse body of literature in English from a variety of perspectives. Course content and critical approaches range across the discipline and include historical, theoretical, interdisciplinary and genre studies. The program also offers courses in creative writing and linguistics. Students may expect to gain both a sound background in the history of the English language and literature, and a familiarity with the most recent developments in literary practice and scholarship. The curriculum is designed to encourage a progressive acquisition of literary skills. As students earn their degree through their four years, they will progress from introduction to, through development in, toward mastery of, the following: (a) elements of the English language; (b) the research essay; (c) critical reading and literary theory; (d) the terminology of the discipline; (e) knowledge of the periods of literary history; (f) verbal presentations. In order for students to understand the goal of sequencing of courses and skills acquisition, the Department offers the following general descriptions for courses at four levels:

(i) 100-level courses: Introduction (ii) 200-level courses: Foundation (iii) 300-level courses: Coverage (iv) 400-level courses: Focus

## COURSE LEVELS AND PREREQUISITES

(i) Courses at the 100 level are introductory courses that provide a basic framework for critical reading and writing at university. English 192 and 195 are general introductions to literature, taught from a variety of perspectives. English 121 and 122 are required courses for a major, minor, or honours in English. Detailed descriptions of each year's courses will be available in the Department's Calendar Supplement.

(ii) Courses at the 200 level are either general interest courses or foundational courses that develop the skills necessary for further study in English. The prerequisite for 200-level courses is at least one 100-level English course or permission of the instructor.

(iii) Courses at the 300 level provide detailed study of areas of language and literature. The prerequisites for these courses are (a) at least one 100-level English course, and (b) at least one 200-level English course, or permission of the instructor. Some courses require specific 200-level courses.

(iv) Courses at the 400 level are designed to give students the opportunity for advanced study of a chosen topic within a specific area of English language or literature. The classes are usually seminars that require active participation and independent study. Students must have completed English 296: Writing About Literature and at least two 300-level courses before enrolling in a 400-level course.

## REQUIREMENTS FOR HONOURS IN ENGLISH

### ADMISSION

The permission of the English Department is required before a student enrolls in Honours English. The admission requirement is an overall average of at least 75% in all prior English courses. Admission to the program will be competitive, and because the demand for the program will likely exceed the resources available at the Department, not all applicants who meet the formal admission requirements will be accepted into the Honours program.

### PREREQUISITES

English 121, 122, 204 and 296

### COURSE REQUIREMENTS

An Honours English student must complete 126 semester hours of credit, including the prerequisite courses and the following minimal requirements in English:

Medieval Literature	3 hours
Shakespeare and one other Renaissance course	6 hours

Eighteenth-Century Literature	3 hours
Nineteenth-Century British Literature	3 hours
Modern and Contemporary Literature	6 hours
Canadian Literature	3 hours
American Literature	3 hours
English Language and Linguistics	3 hours
Literary Theory	3 hours
Two 400 level courses	6 hours
Graduating Essay (see below)	6 hours
Three additional English courses, at least one of which must be in British Literature before 1900 and the other two must be at the 300-level	9 hours

## **REQUIREMENTS FOR A MAJOR IN ENGLISH**

PREREQUISITES: English 121, 122, 204 and 296

### **I. Required Courses**

Students must take at least 3 semester hours from each of the following areas:

Medieval Literature

Renaissance Literature other than Shakespeare

Shakespeare

Eighteenth-Century Literature

Nineteenth-Century Literature

Twentieth-Century Literature or Contemporary Literary Theory (Canadian Literature is strongly recommended)

English Language and Linguistics

### **II. English Electives (18 semester hours)**

In addition to the required courses, students choose six other English courses, at least two of which must be at the 300 level and two at the 400 level. For guidance in the choice of electives, please consult the Department's Calendar Supplement or the Department Chair.

## **REQUIREMENTS FOR A MINOR IN ENGLISH**

Students in the English Minors program complete English 121 and 122, and at least five other English courses above the 100 level as electives, two of which must be at the 300 or 400 level. Students are encouraged to choose those electives in consultation with the Department Chair or Minors Co-ordinator.

## **ADVANCED STUDIES**

Advanced Studies courses are designed to give students the opportunity for in-depth study of a chosen topic within a specific area of English language or literature. The classes are usually seminars that require active participation and independent study. They may be devoted to a major author, a group of authors, thematic or stylistic developments, or critical or theoretical concerns. Detailed descriptions of each year's Advanced Studies courses are published in the Department's Calendar Supplement.

## **ENGLISH COURSES**

### **101 ACADEMIC WRITING (Offered every semester)**

This course offers an introduction to university writing and rhetoric, aimed at the development of clear, critical thinking and an effective prose style.

Cross-listed with University (cf. UPEI 101)

PREREQUISITE: Successful completion (a passing grade) of the English Academic Program (EAP) program for those students enrolled in the EAP program.

Three hours a week

### **121 HEROES, LOVERS, GODS, AND MONSTERS: SURVEY OF LITERATURE FROM ITS BEGINNINGS TO 1785**

This course uses the idea of the hero to explore the literature of England from its beginning to 1789. The course will introduce such texts as Beowulf (the Anglo-Saxon epic hero), Sir Gawain and the Green Knight (the romance hero), The Faerie Queene (the allegorical hero), Paradise Lost (the biblical epic hero) and Gulliver's Travels (the satiric hero). Along the way, students will meet other characters, including lovers, gods, and monsters, who challenge and support the hero. This is a course in reading, appreciation, and critical analysis within an historical framework.

Three hours a week

#### 122 VISIONARIES, REBELS, EXILES, AND REFORMERS: SURVEY OF LITERATURE FROM 1785 TO THE PRESENT

This course introduces students to British literature from the onset of the Industrial Revolution in the 1780s to the multicultural, high-tech, globalized twenty-first century. The course investigates how Romantic, Victorian, Modern, and Contemporary writers responded to the profound social, psychological, economic, and political upheavals of their times in poems, short stories, novels, plays, and manifestos, which themselves revolutionized human experience. This is a course in reading, appreciation, and critical analysis within an historical framework.

Three hours a week

#### 192 INTRODUCTION TO LITERATURE (Offered every semester)

This course introduces the major literary genres and focuses upon a selection of representative works. Students explore and discuss the elements of poetry, fiction, and drama. Class work involves lectures and discussions, with a special emphasis on writing assignments.

Three hours a week

#### 195 INTRODUCTION TO DRAMA

This course introduces the genre of drama, focusing on six specific periods. Students will explore the theatrical, historical and literary aspects of dramatic works from the Classical, Medieval, Renaissance, Neo-Classical, Modern, and Contemporary periods. In addition, this course will also introduce the genre of film. Class work involves lectures and discussions, with a special emphasis on writing assignments.

Three hours a week

#### 204 RESEARCH METHODS IN ENGLISH

This course deals with practical and theoretical issues in finding and using standard bibliographic and electronic sources for scholarly research in English literature and language and related disciplines. This course is compulsory for English Honours and Majors students, and strongly recommended for English Minors.

Three hours a week

#### 206 CRITICAL APPROACHES TO TEXTS I

This course approaches literary and cultural texts through a number of critical lenses including reader response, Marxism, feminism, historicism, psychoanalysis, and deconstruction. The course is designed to introduce students to a variety of critical approaches to the interpretation of literary and cultural texts.

Three hours a week

#### 211 CONTINENTAL LITERATURE IN TRANSLATION

This course introduces students to poems, plays, novels, and short stories taken from a variety of eras from the ancient to the contemporary in continental European literature. Authors whose translated works may be read include such figures as Homer, Sophocles, Virgil, Dante, Cervantes, Montaigne, Goethe, Dostoevsky, Baudelaire, Ibsen, Kafka, and Brecht.

Three hours a week

#### 212 CREATIVE WRITING I

This workshop in creative writing provides students with the opportunity to develop their proficiency in writing fiction, poetry, drama, or creative non-fiction. Students produce and revise new material and present these manuscripts to the work- shop. Class time is devoted to discussion of students' manuscripts and published texts and to strategies and structures involved in writing them.

PREREQUISITE: Submission of a portfolio (e.g., 5-10 pages of poetry, 10-20 pages of fiction or scriptwriting, or 10-20 pages of creative non-fiction); and permission of the instructor

Three hours a week

### 213 LITERATURE AND THE BIBLE

This course explores the influence of the Bible on English Literature from the Old English period to the present, through the study of texts such as *The Dream of the Rood*, the Medieval cycle plays, *Paradise Lost*, *Absalom and Achitophel*, *Pilgrim's Progress*, *Frankenstein*, and *Not Wanted On the Voyage*.

Three hours a week

### 221 WRITING BY WOMEN

Students explore a wide range of writing by women—poems, plays, novels, short stories, essays—in the context of historical and social concerns. The course normally concentrates on British, American, and Canadian women writers of the nineteenth and twentieth centuries, but in some semesters may concentrate on women writers from other centuries and cultures.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 221)

Three hours a week

### 222 READING FILM: INTRODUCTION TO FILM STUDIES

This course introduces students to the basic elements used in the construction of films, such as narrative structure, editing, and *mise en scène*. Through the exploration of techniques specific to film, as well as other more general narrative strategies, students develop visual literacy skills. They learn how to understand and write about the medium of film and the particular films studied. The films screened cover a variety of styles and come from a variety of periods.

Three lecture hours a week and one screening every two weeks

### 224 SCIENCE FICTION

This course introduces students to the genre of science fiction. Looking at literature from a variety of historical periods, students explore how science fiction responds to the cultural contexts out of which it arises. Possible topics include space/time travel, alternative histories, artificial intelligence, the relationship between technology and morality, and utopias and dystopias.

### 226 CRIME AND DETECTIVE LITERATURE

This course examines themes of crime, criminality, and detection in English literature. Focussed on a range of works drawn from selected literary periods and genres, the course considers the roles and representations of the criminal, the detective, the suspect, the witness, the victim, and the terrorist, as well as the perception of crime and criminality more generally. Topics may include popular notions of law and order, the city as crime scene, evidence and interpretation, and social justice.

PREREQUISITE: One 100-level English course or permission of instructor

Three hours per week in a combination with lecture/discussion

### 244 INTRODUCTION TO THEATRE STUDY – TEXT, CHARACTER, AND PERFORMANCE

(See Theatre Studies 244)

### 245 INTRODUCTION TO CHILDREN'S LITERATURE

This course traces the development of literature for children, including the folktale tradition, a survey of children's literature before 1850, and some examples of children's literature after *Alice's Adventures in Wonderland*.

Three hours a week

### 255 INTRODUCTION TO SHAKESPEARE

This course introduces students to the study of Shakespeare's plays through a focus on his comedies and tragedies. This course is a good choice for students who intend to teach high school English.

Three hours a week

### 256 SHAKESPEARE IN FILM AND MEDIA

This course explores a selection of Shakespeare's plays through their performance in film, television, and multimedia adaptations. The course includes a film lab.

Three hours a week

### 272 CONTEMPORARY POETRY

This course is a study of poetic directions since 1960, exploring the work of British, Irish, and North American poets such as Larkin, Lowell, Hughes, Heaney, Atwood, Ginsberg, Plath, Hecht, and Rich.

Three hours a week

### 275 ARTHURIAN LITERATURE THROUGH THE AGES

This course introduces students to the Arthurian legend as it is re-told through the ages. The course will begin with the origins of the Arthurian myth in Welsh legend, and trace it from the golden age of Medieval romance through to the twentieth century.

Three hours a week

### 281 THE ENGLISH LANGUAGE

This course introduces students to the nature of language by exploring the factors that shape Present-Day English. Students will cover the basic principles of linguistics, and a brief history of the language. Topics may include languages as structured systems; dialects of English (with an emphasis on Atlantic English); gender and language; the acquisition of language; and human and animal communication. Classes combine lecture, group work, discussion, and practical exercises.

Three hours a week

### 285 LINGUISTICS I: THE SOUND SYSTEM OF ENGLISH

This course introduces students to the phonetics and phonology of contemporary English for the purpose of studying the sound patterns of English, and acquaints them with the analysis of syllable structure, rhythm and intonation, and stress. Classes combine lecture, group work, discussion, practical exercises, transcription, and problem solving.

Three hours a week

### 286 LINGUISTICS II: THE GRAMMAR AND VOCABULARY OF ENGLISH

This course introduces students to the syntax and morphology of contemporary English. The course will investigate the principles of word formation (morphology), and of the formation of phrases and sentences (syntax). Class activities include lectures, group work, discussion, practical exercises, sentence analysis and problem solving.

Three hours a week

### 291 TRENDS IN LITERATURE

This variable content course is designed to accommodate trends in literature and literary studies. It is a general course suited to non-English majors, with a focus on particular themes, writers, or approaches. Course descriptions are published in the English Department's Calendar Supplement.

Three hours a week

### 296 WRITING ABOUT LITERATURE

This course is designed for English students who are seriously interested in developing the analytical writing skills necessary for producing clear, well-organized, and persuasive arguments about literature. It will provide students with opportunities to read, discuss, and write about fiction, poetry, and plays while becoming more familiar with literary analysis, critical frameworks, and literary discourse (i.e., the rhetoric and terms specific to the discipline of literary studies). Assignments will be based on the multi-step writing process of preliminary writing, drafting, revising and peer review, and editing, with attention to effectiveness at the level of thinking, content, structure, and use of evidence. By the end of the course, students should experience greater confidence and proficiency in their ability to enter the critical conversation about literature.

PREREQUISITE: English 121 or 122 or permission of the instructor

Three hours a week

### 301 THE NEW ENGLISH LITERATURES OF AFRICA AND THE CARIBBEAN

This course considers the development of post-colonial African and Caribbean national and regional literary cultures within their historical contexts. Students explore works by established and newer authors.

Three hours a week

### 302 THE NEW ENGLISH LITERATURES OF AUSTRALIA, NEW ZEALAND, AND THE INDIAN SUBCONTINENT

This course considers the development of post-colonial national and regional literary cultures of Australia, New Zealand, and the Indian subcontinent within their historical contexts. Students explore works by established and newer authors.

Three hours a week

### 303 CONTEMPORARY DRAMA

This course introduces students to a variety of contemporary dramatists. The course examines the plays in relationship to preceding dramatic periods and the variety of influences on them. The course examines the styles, such as Absurdism, employed and the themes explored. The course explores the work of a variety of dramatists, such as Beckett, Albee, Ionesco, Walcott and Stoppard.

Three hours a week

### 304 CONTEMPORARY FICTION

This course studies trends and techniques in fiction in English since the Second World War. It includes representative novels and short stories by major writers of various nationalities.

Three hours a week

### 306 CRITICAL APPROACHES TO TEXTS II

This course examines critical trends of the twentieth century and provides practice in the application of critical methodology to literary and cultural texts. The course is designed to build on the knowledge of critical approaches acquired in English 206: Critical Approaches to Texts I.

Three hours a week

### 307 SPECIAL TOPICS

Creation of a course code for special topics offered by English at the 300 level.

### 313 PHILOSOPHY AND LITERATURE

(See Philosophy 361)

### 314 IDENTITY AND POPULAR CULTURE

(See Diversity and Social Justice Studies 311)

### 315 ENGLISH-CANADIAN DRAMA

This course introduces students to a variety of significant English-Canadian dramatists from 1967 to the present. In addition to examining the historical and literary contexts of the plays, the course considers the external forces affecting dramatic production throughout the period. The dramatists studied may include George Ryga, David French, Wendy Lill, Sharon Pollock, Judith Thompson, and Tomson Highway.

Three hours a week

### 321 ENGLISH-CANADIAN PROSE

This course introduces students to a variety of significant English-Canadian prose writers in the modern period, reviews the historical development and contexts of English-Canadian fiction, and explores the relationship between the writer's narrative strategies and fictional concerns.

Three hours a week

### 322 ENGLISH-CANADIAN POETRY

This course examines English-Canadian poetry from the nineteenth century to the present, focusing on poets of the Confederation era, major figures of 1930-1970 such as Pratt, Livesay, Birney, Page, Avison, Layton, Purdy, Cohen and Atwood, and the important new voices and poetic developments of the 1970s and 1980s.

Three hours a week

### 323 LITTÉRATURE CANADIENNE-FRANÇAISE I: DE LA NOUVELLE FRANCE A 1895



(See French 441)

### 324 LITTÉRATURE CANADIENNE-FRANÇAISE II: XX<sup>e</sup> SIECLE

(See French 442)

### 331 THE LITERATURE OF ATLANTIC CANADA

This course studies works by the major writers of Atlantic Canada. It includes a consideration of the socioeconomic and geographic factors that have influenced them and an exploration of the character of the region as depicted in their works.

Three hours a week

### 332 MODERN BRITISH LITERATURE

By considering the works of authors such as Conrad, Lawrence, Woolf, Yeats, and Joyce, this course examines the literature of Britain, including Anglo-Irish writing, from the close of the Victorian age to the mid-twentieth century.

PREREQUISITE: English 122

Three hours a week

### 333 L.M. MONTGOMERY

This course investigates L.M. Montgomery's contributions as a writer of women's and children's fiction; as a diarist and poet; and as a regional and international writer. Readings include some of Montgomery's most popular works from the Anne and Emily series as well as her lesser-known works.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 333)

Three hours a week

### 335 BRITISH ROMANTIC LITERATURE

This course traces the origins and development of the British Romantic movement from the dawn of the French Revolution to the aftermath of the Napoleonic wars. Emphasis is placed on understanding the social, cultural, and historical contexts in which the writers worked. Major emphasis will be on the works of such writers as Blake, Wordsworth, Coleridge, Keats, Byron, Percy Shelley, and Mary Shelley.

PREREQUISITE: English 122

Three hours a week

### 336 VICTORIAN LITERATURE

This course introduces students to the Victorian period through an examination of the ideas and concerns which characterized the period. Emphasis is placed on understanding the social, cultural, and historical contexts in which the writers worked. Writers covered include Arnold, Carlyle, Tennyson, Ruskin, D. Rossetti, C. Rossetti, E. Barrett Browning, R. Browning, and Wilde.

PREREQUISITE: English 122

Three hours a week

### 337 NINETEENTH-CENTURY BRITISH FICTION

This course examines the development of the novel in Britain from the early to the late nineteenth century, focussing on novels by writers such as Austen, Dickens, the Brontës, Thackeray, Eliot, and Hardy. Emphasis is placed on social context, nineteenth-century responses, and contemporary criticism of the novels studied.

PREREQUISITE: English 122

Three hours a week

### 341 MODERN DRAMA

This course introduces students to a variety of significant dramatists from the Modern Period. The course examines the plays in relationship to the preceding period and its influence on them. The course examines the stylistic movements associated with the period, such as Realism. The course explores the work of a variety of dramatists, such as Ibsen, Chekhov, Shaw, Brecht, Synge, and Wilde.

Three hours a week

### 342 FICTION FROM IRELAND

This course surveys Irish fiction in English from the nineteenth century to the present, including the Irish Literary Revival. Students examine works by such writers as Edgeworth, Carleton, Joyce, O'Flaherty, Flann O'Brien, Stephens, Bowen, and Doyle in the context of the political, social, and cultural developments of their time.  
Three hours a week

### 351 AMERICAN MODERNISM 1910-1945

This course traces the rise of American Modernism including the New York avant-garde, the First World War era, the Harlem Renaissance, the Lost Generation writers in Paris, and the classics of High Modernism in different regions of the United States. Students investigate a variety of experiences that shape American modernist aesthetics including war, technology, gender, sexuality, and urban life. Authors include E. E. Cummings, William Carlos Williams, Ernest Hemingway, F. Scott Fitzgerald, William Faulkner, Zora Neal Hurston, Ralph Ellison, Willa Cather, and the Left Bank women writers including Djuna Barnes.  
Three hours a week

### 356 RENAISSANCE LITERATURE

This course offers a survey of the poetry and prose of the time of Henry VIII, Elizabeth I, and James I. Students read the sonnets of William Shakespeare and works by such writers as Thomas More, John Donne, Philip Sidney, and Ben Jonson.

PREREQUISITE: English 121 or permission of the instructor

Three hours a week

### 357 RENAISSANCE DRAMA

This course is a study of representative works of English Renaissance drama (excluding Shakespeare). Writers include Kyd, Marlowe, Dekker, Jonson, Middleton, and Webster.

PREREQUISITE: English 121 or permission of the instructor

Three hours a week

### 358 MILTON

This course offers a thorough reading of *Paradise Lost* and *Paradise Regained*, as well as a representative sample of John Milton's early poetry and prose.

PREREQUISITE: English 121 or permission of the instructor

Three hours a week

### 362 NINETEENTH-CENTURY AMERICAN LITERATURE 1830-1910

This course focuses on important writers and texts who influenced the social and cultural context of nineteenth-century America from the "renaissance" through the realist period to the beginning of early Modernism. Emphasis is placed on poetry, prose, and prose fiction and to such themes as freedom, individualism, idealism, materialism, and the environmental imagination. Among the writers studied are Emerson, Thoreau, Hawthorne, Poe, Fuller, Whitman, Dickinson, Twain, and James.

Three hours a week

### 364 CONTEMPORARY AMERICAN LITERATURE 1945 TO THE PRESENT

This course examines the major forces in American poetry, fiction, and drama from 1945 to the present. The topics include developments in the American realist tradition, postmodernism, regional and ethnic traditions, and the avant-garde. Typically, the selection of authors and texts is determined by a particular thematic, literary-historical, or theoretical focus.

Three hours a week

### 365 EIGHTEENTH-CENTURY LITERATURE I

This course explores a variety of different kinds of texts—poems, novels, pamphlets, essays, diaries—written between 1660 and the middle of the eighteenth century. The course allows students to consider a number of cultural themes and issues, for example, gender, race, travel, crime, and science. Writers may include Rochester, Behn, Dryden, Pepys, Haywood, Swift, Pope, Montagu, Leapor.

PREREQUISITE: English 121 or permission of the instructor

Three hours a week

### 366 EIGHTEENTH-CENTURY LITERATURE II

This course explores a variety of different kinds of texts—poems, novels, pamphlets, essays, diaries—written between the middle and the end of the eighteenth century. The primary focus of this course is on the literature of sensibility and the development of the gothic. This course considers writers such as Richardson, Fielding, Montagu, Johnson, Walpole, Burney, and Radcliffe, placing their texts within a larger cultural context, and exploring their connection, for example, to medical discourses, architecture, and prison reform.

PREREQUISITE: English 121 or permission of the instructor

Three hours a week

### 367 RESTORATION AND EIGHTEENTH-CENTURY DRAMA

This course explores British drama from the reopening of the theatres in 1660 through the eighteenth century. Students study a representative selection of plays, with particular attention to the ways they are embedded in contemporary culture. Students also read contemporary culture through the drama and the drama within a larger cultural context. Playwrights considered may include Wycherley, Behn, Congreve, Pix, Centlivre, Gay, and Sheridan.

PREREQUISITE: English 121 or permission of the instructor

Three hours a week

### 372 CHAUCER

This course provides an introduction to the works of Geoffrey Chaucer in his context as a fourteenth-century English poet. The course explores a selection of Chaucer's writings, such as *The Book of the Duchess*, *The Parliament of Fowls*, *The Legend of Good Women*, and *The Canterbury Tales*.

PREREQUISITE: English 121 or permission of the instructor

Three hours a week

### 375 MIDDLE ENGLISH LITERATURE

This course introduces Middle English Literature from the Norman Conquest to 1500. Students explore the major medieval genres, such as lyric, dream vision, romance, allegory, debate, and devotional literature through the study of authors such as the Gawain poet, the fourteenth-century Mystics, Langland and Malory.

PREREQUISITE: English 121 or permission of the instructor

Three hours a week

### 378 THE MEDIEVAL BOOK

This course focuses on the physical artefact of the Medieval manuscript book - in particular, how manuscripts were made, designed and used. Students are introduced to a variety of medieval manuscripts in facsimile form to study the different designs that were used for books intended for different genres and uses.

Cross-listed with History (cf. History 378)

### 379 UNDERSTANDING COMICS: READING GRAPHIC NOVELS

This course introduces students to the elements of the graphic novel. Through the exploration of techniques specific to the graphic novel, as well as other general narrative and literary strategies, students will learn to read, interpret and write about graphic novels. Additionally, students will learn about the development of this literary genre.

PREREQUISITE: One 200-level English course or permission of the instructor

Three hours per week in a combination with lecture/discussion

### 381 PROFESSIONAL WRITING

This course introduces students from a variety of disciplines to the skills and tasks required for effective communication in a professional environment. The course focuses on the following: analytical reports, proposals, descriptions of processes, extended definitions, instructions, business correspondence, memoranda, graphics, presentation of data, and oral presentations. Assignments, designed for the student's particular discipline, emphasize a sound analysis of the goals for each task, and the effective, economical, clear, and correct use of language to achieve these goals.

PREREQUISITE: English 101 or permission of the instructor

Three hours a week

### 385 LINGUISTICS AND LITERATURE

In this course students apply the principles and practice of linguistics to the analysis and interpretation of literary texts. Particular emphasis is placed on metrical theory and its application to an understanding of verse forms. Topics may include a linguistic account of metaphor and aesthetic effects; the communicative function of literary language; the linguistic aspects of the performance of literature; and narrative. Classes combine lecture, group work, discussion, and practical exercises.

PREREQUISITE: English 285 or English 286, English 101 or permission of the instructor

Three hours a week

### 392 CREATIVE WRITING II

This advanced workshop in creative writing provides students with the opportunity to develop further their proficiency in writing fiction, poetry, drama, or creative non-fiction. Students produce new material and revise work-in-progress, and present these manuscripts to the workshop. Class time is devoted to discussion of students' manuscripts and published texts and to strategies and structures involved in writing them.

PREREQUISITE: English 212 and permission of instructor

Three hours a week

### 393 CREATIVE WRITING III

This is a master-class workshop for students who have demonstrated discipline, ability, and professionalism in their previous writing, editing, and workshop participation. Students revise and finish projects in the genres of one or more of fiction, poetry, scriptwriting, and creative non-fiction, and prepare manuscripts for submission to literary journals and competitions. This course includes public readings and attendance at readings by visiting writers.

PREREQUISITE: English 212, English 392, and permission of instructor

Three hours a week

### 394 WRITING LIVES: THE ART AND CRAFT OF LIFE-WRITING

This workshop-based course offers students the opportunity to study and to practice genres of writing such as memoir, autobiography, biography, and fictive memoir. Students examine texts with an emphasis on the craft, purpose, and historical context of life-writing. Students produce their own manuscripts, and present these to the workshop for discussion of strategies and structures involved in life-writing.

PREREQUISITE: English 212 and/or permission of the instructor

Three hours a week

### 401 CAPSTONE IN ARTS

(See Arts 401)

### 404 SPECIAL STUDIES IN COMMUNICATION AND RHETORIC

(See Writing 404)

### 406 ADVANCED STUDIES IN CRITICAL THEORY

PREREQUISITES: English 305, or English 206 and permission of the instructor

Three hours a week

### 415 ADVANCED STUDIES IN TWENTIETH- CENTURY LITERATURE

PREREQUISITE: One 300-level course in twentieth-century literature

Three hours a week

### 425 ADVANCED STUDIES IN CANADIAN LITERATURE

PREREQUISITE: One 300-level course in Canadian Literature

Three hours a week

### 435 ADVANCED STUDIES IN NINETEENTH- CENTURY BRITISH LITERATURE

PREREQUISITE: One of English 335, 336, or 337, or permission of the instructor

Three hours a week

#### 445 ADVANCED STUDIES IN CHILDREN'S LITERATURE

PREREQUISITE: English 245 or permission of the instructor

Three hours a week

#### 455 ADVANCED STUDIES IN EARLY MODERN LITERATURE

PREREQUISITE: English 256, 356 or 358, or permission of the instructor

Three hours a week

#### 463 ADVANCED STUDIES IN AMERICAN LITERATURE

PREREQUISITE: One of 351, 361, 362, or 364, or permission of the instructor

Three hours a week

#### 465 ADVANCED STUDIES IN EIGHTEENTH- CENTURY LITERATURE

PREREQUISITE: English 365 or 366, or permission of the instructor

Three hours a week

#### 466 ADVANCED STUDIES IN GENDER AND SEXUALITY

PREREQUISITE: One 300-level course in English literature or permission of the instructor

Three hours a week

#### 475 ADVANCED STUDIES IN MEDIEVAL LITERATURE

PREREQUISITE: English 372, 375, 376 or permission of the instructor

Three hours a week

#### 485 ADVANCED STUDIES IN LINGUISTICS

PREREQUISITE: English 285, 286, and 385, or permission of the instructor

Three hours a week

#### 486 ADVANCED STUDIES IN CREATIVE WRITING

PREREQUISITE: English 212 and permission of the instructor

Three hours a week

#### 491 SEMINARS

This variable content seminar course is designed to accommodate the most recent developments in the discipline. The course typically concentrates on a particular author, genre, theme, or methodology not covered by other 400-level courses. Course descriptions are published in the English Department Calendar Supplement.

PREREQUISITE: Normally, the prerequisites for this seminar are three 300-level English courses or permission of the instructor. Specific prerequisites may apply in any given year, depending on the seminar offered. Please see the Calendar Supplement for more information.

Three hours a week

#### 492 TUTORIAL

With the approval of the Chair and Dean, a senior student of high (usually first class) standing, pursuing an English Major, Minor or Honours degree, may be allowed to explore a special topic under the guidance of a faculty member. Before such approval is granted, the student must obtain the consent of a faculty member to supervise the work and submit, at least one month before enrolling in the course, a detailed proposal of the project, including the area of interest, the method of approach, and a comprehensive bibliography. If the project receives Departmental approval and approval of the Dean, the student may proceed with the study.

#### 496 HONOURS TUTORIAL

This is an intensive tutorial course in the area of the student's Honours Thesis, supervised by the student's Honours Supervisor. Each Honours Tutorial will be developed by the student and advisor and approved by the department as a whole. As part of this course, students will be required to produce a substantive proposal for their

Honours Thesis. Other requirements may include annotated bibliographies, preliminary draft work, reading journals, essays. This course is a prerequisite for English 497.

#### 497 HONOURS THESIS

Each student is required to complete a substantial scholarly work devised by the student and approved by the English Department. The thesis will be written under the supervision of a member of the English Department and assessed, after a discussion with the student, by a three-member committee consisting of the supervisor, a second reader from the English Department, and an outside examiner, usually from another academic department at the University. Students must complete English 496 before beginning 497.

### Environmental Studies

<http://upei.ca/science/environmental-studies>

#### Director

Carolyn Peach Brown

#### Overview

The objective of the Bachelor of Environmental Studies program at the University of Prince Edward Island (UPEI) is to equip students as global citizens, with the tools to understand the environmental connections across academic fields, to critically analyze complex environmental issues, and to lead the way in innovation toward sustainable solutions. Environmental issues typically do not respect traditional academic boundaries and require scientific, technical, human and social perspectives to address. As an interdisciplinary liberal arts and science program, the Bachelor of Environmental Studies will provide students with the opportunity to integrate knowledge across faculties of Arts, Science, and Business. In the classroom, in the field and in the community, students will explore how they can make a positive impact toward sustainability in their personal lives, communities and globally.

A student enrolled in the Bachelor of Environmental Studies (BES) will require a total of 120 credit hours or 40 Courses which includes a minimum of 42 credit hours or 14 discipline specific courses with a designation of Environmental Studies (ENV). There are five required core courses in Environmental Studies, one of which requires a 30 hour internship working with a community partner engaged in the environmental field (ENV 301). There are requirements from both the Faculty of Arts and Science as described in the program outlined below.

Students can choose to take one of three specializations:

- Environmental Thought and Practice
- Island Environments and Sustainability
- Environmental Innovation and Change Management

The specialization in Environmental Thought and Practice focuses on the exploration of the values, attitudes and beliefs of people in relation to the environment in order to provide answers to pressing environmental concerns. Island Environments and Sustainability specialization focuses on the diverse characteristics of islands and islanders' interaction with the environment in order to gain an understanding of lessons for sustainability in all places. The specialization in Environmental Innovation and Change Management focuses on learning how to live within the limits of our environment, and develop innovations to manage the interaction of human activities with and upon the environment in a positive way; to challenge the conventional and move organizations, businesses and communities to invoke positive change.

### COURSE REQUIREMENTS FOR THE AREAS OF SPECIALIZATION

Students are expected to apply for a particular specialization at the beginning of their second year. However, it is possible for students to declare a specialization until the end of their third year.

### ENVIRONMENTAL INNOVATION AND CHANGE MANAGEMENT SPECIALIZATION

Five Core Environmental Studies Courses (ENV) = 15 Hours Credit

- ENV 101 - Introduction to Environmental Studies
- ENV 203 - Societies and Sustainability: Past and Present
- ENV 204 - Methods of Environmental Inquiry
- ENV 301 - Environmental Studies Internship
- ENV 401 - Public Scholars on Environmental Issues

At least nine additional Environmental Studies courses that fit the following criterion = 27 Hours Credit

- Two must be at the 400 level
- Four must be at the 300 level or above
- Three Environmental Studies electives

Two Core Specialization Courses = 6 Hours Credit

- ENV 332 - Environmental Innovation and Change Management Skills
- Either Economics 211 - Introduction to Resource Economics OR Economics 215 - Environmental Economics

9 credit hours chosen from the following list OR other course with permission of Director:

ENV 224 - Field Course in Ecological Forestry  
 ENV 242 - Society and Natural Resources  
 ENV 351 - Sustainable Community Planning  
 ENV 354 - Environmental Valuation: Theory and Practice  
 ENV 433 - Environmental Communication strategies  
 ENV 495 - Environmental Studies Symposium  
 ENGN 151 - Engineering and the Biosphere  
 BUS 141 - Marketing  
 BUS 265 - Introduction to entrepreneurship and Small Business Management  
 BUS 373 - Tourism Management  
 PHYS 261 - Energy, Environment and the Economy  
 S/A 341 - Technology, Society and the Environment

3 Foundational Cognate Courses = 9 Hours Credit

- Biology 101 - Environmental Biology
- Philosophy 203 - Environmental Philosophy
- Either Sociology 101 - Introduction to Sociology I OR Anthropology 105 - Introduction to Anthropology I

1 Course in Statistical Methods = 3 Hours Credit

- Math 221 - Introductory Statistics I (or other course with permission of Director)

4 Foundational Courses from approved List of Science and Business courses that fit the following criteria = 12 Hours Credit

- 2 Science
- 2 Science or Business

4 Foundational Courses from approved List of Arts courses that fit the following criteria = 12 Hours Credit

- 1 Political Science or Economics
- 1 English or History

- 2 Arts

Required courses in other departments, and electives as listed below in the section “Required courses in other departments - ALL SPECIALIZATIONS” = 36 Hours Credit

## **ENVIRONMENTAL THOUGHT AND PRACTICE SPECIALIZATION**

Five Core Environmental Studies Courses (ENV) = 15 Hours Credit

- ENV 101 - Introduction to Environmental Studies
- ENV 203 - Societies and Sustainability: Past and Present
- ENV 204 - Methods of Environmental Inquiry
- ENV 301 - Environmental Studies Internship
- ENV 401 - Public Scholars on Environmental Issues

At least nine additional Environmental Studies courses that fit the following criterion = 27 Hours Credit

- Two must be at the 400 level
- Four must be at the 300 level or above
- Three Environmental Studies electives

Two Core Specialization Courses = 6 Hours Credit

- Either Psychology 101- Introduction to Psychology I OR Psychology 333 – Ecopsychology
- Sociology/Anthropology 341 - Technology, Society and the Environment

### **9 credit hours chosen from the following list OR other course with permission of Director:**

- ENV 224 - Field Course in Ecological Forestry
- ENV 242 - Society and Natural Resources
- ENV 351 - Sustainable Community Planning
- ENV 354 - Environmental Valuation: Theory and Practice
- ENV 433 - Environmental Communication strategies
- ENV 495 - Environmental Studies Symposium
- ENGN 151 - Engineering and the Biosphere
- BUS 141 - Marketing
- BUS 265 - Introduction to entrepreneurship and Small Business Management
- BUS 373 - Tourism Management
- PHYS 261 - Energy, Environment and the Economy
- S/A 341 - Technology, Society and the Environment

3 Foundational Cognate Courses = 9 Hours Credit

- Biology 101 - Environmental Biology
- Philosophy 203 - Environmental Philosophy
- Either Sociology 101 - Introduction to Sociology I OR Anthropology 105 - Introduction to Anthropology I

1 Course in Statistical Methods = 3 Hours Credit

- Math 221 - Introductory Statistics I (or other course with permission of Director)

4 Foundational Courses from approved List of Science and Business courses that fit the following criteria = 12 Hours Credit



- 2 Science
- 2 Science or Business

4 Foundational Courses from approved List of Arts courses that fit the following criteria = 12 Hours Credit

- 1 Political Science or Economics
- 1 English or History
- 2 Arts

Required courses in other departments, and electives as listed below in the section “Required courses in other departments - ALL SPECIALIZATIONS” = 36 Hours Credit

### **ISLAND ENVIRONMENTS AND SUSTAINABILITY SPECIALIZATION**

Five Core Environmental Studies Courses (ENV) = 15 Hours Credit

- ENV 101 - Introduction to Environmental Studies
- ENV 203 - Societies and Sustainability: Past and Present
- ENV 204 - Methods of Environmental Inquiry
- ENV 301 - Environmental Studies Internship
- ENV 401 - Public Scholars on Environmental Issues

At least nine additional Environmental Studies courses that fit the following criterion = 27 Hours Credit

- Two must be at the 400 level
- Four must be at the 300 level or above
- Three Environmental Studies electives

Two Core Specialization Courses = 6 Hours Credit

- IST 201 - Introduction to Island Studies
- Either POLS 233 - Political Geography OR ENV 334 - Environmental Stresses on Island Communities

9 credit hours chosen from the following list OR other course with permission of Director:

- ENV 224 - Field Course in Ecological Forestry
- ENV 242 - Society and Natural Resources
- ENV 351 - Sustainable Community Planning
- ENV 354 - Environmental Valuation: Theory and Practice
- ENV 433 - Environmental Communication strategies
- ENV 495 - Environmental Studies Symposium
- ENGN 151 - Engineering and the Biosphere
- BUS 141 - Marketing
- BUS 265 - Introduction to entrepreneurship and Small Business Management
- BUS 373 - Tourism Management
- PHYS 261 - Energy, Environment and the Economy
- S/A 341 - Technology, Society and the Environment

3 Foundational Cognate Courses = 9 Hours Credit

- Biology 101 - Environmental Biology
- Philosophy 203 - Environmental Philosophy
- Either Sociology 101 - Introduction to Sociology I OR Anthropology 105 - Introduction to Anthropology I

1 Course in Statistical Methods = 3 Hours Credit

- Math 221 - Introductory Statistics I (or other course with permission of Director)

4 Foundational Courses from approved List of Science and Business courses that fit the following criteria = 12 Hours Credit

- 2 Science
- 2 Science or Business

4 Foundational Courses from approved List of Arts courses that fit the following criteria = 12 Hours Credit

- 1 Political Science or Economics
- 1 English or History
- 2 Arts

Required courses in other departments, and electives as listed below in the section “Required courses in other departments - ALL SPECIALIZATIONS” = 36 Hours Credit

### **REQUIRED COURSES IN OTHER DEPARTMENTS – ALL SPECIALIZATIONS (36 credit hours)**

- One of UPEI 101, 102, or 103
- A Writing Intensive course (Either English 381 - Professional Writing or Business 211 - Business Communications or other writing intensive course with approval of Director)

Other electives = 30 semester hours

The remaining number of semester hours required to complete the requirements for the Environmental Studies major will be made up from courses selected by the students.

### **REQUIREMENTS FOR A MINOR IN ENVIRONMENTAL STUDIES**

A minor in Environmental Studies will be recognized when a student has successfully completed 21 semester hours of courses drawn from Environmental Studies courses and cross-listed courses.

These courses must include:

- 1) Two core introductory Environmental Studies courses (Environmental Studies 101 and 203)
- 2) A minimum of 6 semester hours in approved courses within the Faculty of Sciences; and
- 3) A minimum of 6 semester hours in approved courses within the Faculty of Arts and School of Business Administration

### **APPROVED COURSES ENVIRONMENTAL STUDIES MINOR**

Students who do not have the required prerequisites for particular courses that are cross-listed in the Environmental Studies Program are encouraged to consult with the instructors of these courses to seek their permission to enrol. Instructors may choose to admit students to these courses based upon alternative prerequisites that are judged to provide the student with sufficient background preparation for the course.

### **Faculty of Science**

\*\*Biology 101 - Current Issues in Environmental Biology  
 Biology 132 - Introduction to Organisms  
 Biology 222 - Ecology  
 Biology 314 - Plant Community Ecology  
 Biology 327 - Field Coastal Ecology  
 Biology 391 - Marine Biology  
 Biology 411 - Principles of Wildlife Biology  
 Biology 452 - Biogeography and Macroecology

Biology 454 - Biodiversity and Conservation Biology  
Biology 462 - Watershed Ecology  
Biology 465 - Marine Community Ecology  
Biology 485 - Environmental Toxicology  
Chemistry 202 - Environmental Chemistry  
Physics 261 - Energy, Environment and the Economy

**\*\* Students may only credit either Biology 101 or Biology 132 toward their minor.**

## **Faculty of Arts**

Economics 211 - Introduction to Resource Economics  
Economics 215 - Environmental Economics  
Economics 352 - Applied Resource Economics  
English 322 - English Canadian Poetry  
English 331 - The Literature of Atlantic Canada  
English 335 - British Romantic Literature  
History 483 - History of the Environmental Movement  
Island Studies 201 - Introduction to Island Studies  
Philosophy 102 - Introduction to Ethics and Social Philosophy  
Philosophy 105 - Technology, Values, and Science  
Philosophy 203 - Environmental Philosophy  
Philosophy 206 - Animal Ethics  
Philosophy 371 - Community-Based Ethical Inquiry  
Psychology 333 - Ecopsychology  
Sociology 305 - Population and Society  
Sociology/Anthropology 341 - Technology, Society and the Environment

## **ENVIRONMENTAL STUDIES CORE COURSES:**

### **101 (formerly 201) INTRODUCTION TO ENVIRONMENTAL STUDIES**

This course introduces students to a multidisciplinary and interdisciplinary approach to the study of environmental issues; and emphasizes the interrelationships among the various physical, biological, and human systems. It examines major contemporary environmental issues, such as global warming and land use, and focuses on how these issues are understood and addressed within the natural sciences, social sciences, and humanities. Three hours a week (some field trips may be required)  
Three semester hours of credit

### **203 SOCIETIES AND SUSTAINABILITY: PAST AND PRESENT**

This course explores the concept of sustainability in relation to how societies have interacted with the environment overtime. Through exploration of successes and failures from historical and contemporary societies, students will develop the capacity to understand the ecological context in which humans live, to recognize limits, and to design sustainable human systems for the future.  
Three semester hours of credit

### **204 METHODS OF ENVIRONMENTAL INQUIRY**

This course introduces students to the diverse nature of inquiry in the various fields of environmental studies. Through practical case studies it provides literacy in key methods used in understanding the environment in the sciences, social sciences and humanities.  
Three semester hours of credit

### **301 ENVIRONMENTAL STUDIES INTERNSHIP**

This course provides students with opportunities to develop, integrate and apply their knowledge of environmental issues and theory. Students will be involved in 'internship' experiences with varied environmental organizations, in environmental action research on campus issues or in other settings, and in developing personal

plans for environmental action and change. Classroom discussions and written work will aid students in developing a multidisciplinary and systems approach to the analysis of these experiences.

**PREREQUISITE:** ENV 101. Students taking this course concurrently may apply for admission to the instructor One and a half hours per week in class, two and a half hours per week in practicum work  
Three semester hours of credit

#### **401 PUBLIC SCHOLARS ON ENVIRONMENTAL ISSUES**

This seminar course will provide a forum for students to interact and learn from local, national and international experts in various fields of environmental studies. Students will gain an increased awareness and understanding of the diverse ways in which our society is addressing issues related to the environment. The course will provide opportunities for students to develop in their own expertise as public scholars.

Three semester hours of credit

### **ENVIRONMENTAL STUDIES COURSES**

#### **101 (formerly 201) INTRODUCTION TO ENVIRONMENTAL STUDIES**

This course introduces students to a multidisciplinary and interdisciplinary approach to the study of environmental issues; and emphasizes the interrelationships among the various physical, biological, and human systems. It examines major contemporary environmental issues, such as global warming and land use, and focuses on how these issues are understood and addressed within the natural sciences, social sciences, and humanities.

Three hours a week (some field trips may be required)

Three semester hours of credit

#### **203 SOCIETIES AND SUSTAINABILITY: PAST AND PRESENT**

This course explores the concept of sustainability in relation to how societies have interacted with the environment overtime. Through exploration of successes and failures from historical and contemporary societies, students will develop the capacity to understand the ecological context in which humans live, to recognize limits, and to design sustainable human systems for the future.

Three semester hours of credit

#### **204 METHODS OF ENVIRONMENTAL INQUIRY**

This course introduces students to the diverse nature of inquiry in the various fields of environmental studies. Through practical case studies it provides literacy in key methods used in understanding the environment in the sciences, social sciences and humanities.

Three semester hours of credit

#### **209 SPECIAL TOPICS**

To create a category for uniquely titled courses offered by a department and put on the timetable as a “special course” on a one-time basis.

Three semester hours of credit

#### **212 EARTH’S PHYSICAL ENVIRONMENT**

This course will introduce students to the basic ‘building blocks’ of Earth’s physical characteristics, providing a foundation on which to develop more specialist knowledge in their understanding of Environmental Studies. It will examine the geologic and geomorphic cycles, including processes of weathering, erosion, transportation and deposition, and investigate how these create fluvial, glacial, and coastal landforms and impacts on human activity. It also aims to address atmospheric processes and the links between global climate zones and world ecosystems.

**PREREQUISITE:** Second year standing or permission of the instructor

Three semester hours of credit

#### **224 FIELD COURSE IN ECOLOGICAL FORESTRY**

This course introduces students to the principles and practices of ecological forestry management. By combining theory-based lectures and an experiential learning approach at the MacPhail Woods Ecological Forestry site students will gain a deep understanding of the forest and forest restoration efforts.

**PREREQUISITE:** Second year standing or permission of the instructor

Three semester hours of credit

### 231 ISLAND ENVIRONMENTAL HISTORIES

Environmental history is broadly defined as the study of continuity and change in human relationships with the environment. This course introduces students to environmental history and historical methods with a focus on historic and current, interaction with the environment on global islands. Special focus will be given to ocean, forest, and land use activity in Prince Edward Island and islands in the Atlantic region.

Three semester hours of credit

### 242 SOCIETY AND NATURAL RESOURCES

This course examines the development, use and conservation of natural resources. It explore the definition of natural resources, the history of resource use, governance regimes, and theories and practices around integrated resource planning and management, ecosystem management, adaptive management, conflict resolution approaches, local knowledge and public participation. Case studies explore recent trends in forestry, fisheries, agriculture, parks and recreation, wildlife, and water resources management.

Three semester hours of credit

### 291 DIRECTED STUDIES

This course offers recognition for equivalency-learning to returned CUSO cooperants and interns who have completed an international development placement overseas. Students who have completed a CUSO placement with a focus on environmental issues – such as environmental science, resource management, conservation, environmental education – can apply to receive credit toward their Environmental Studies degree.

Three semester hours of credit

### 301 ENVIRONMENTAL STUDIES INTERNSHIP

This course provides students with opportunities to develop, integrate and apply their knowledge of environmental issues and theory. Students will be involved in 'internship' experiences with varied environmental organizations, in environmental action research on campus issues or in other settings, and in developing personal plans for environmental action and change. Classroom discussions and written work will aid students in developing a multidisciplinary and systems approach to the analysis of these experiences.

PREREQUISITE: ENV 101. Students taking this course concurrently may apply for admission to the instructor One and a half hours per week in class, two and a half hours per week in practicum work

Three semester hours of credit

### 309 SPECIAL TOPICS

To create a category for uniquely titled courses offered by a department and put on the timetable as a “special course” on a one-time basis.

Three semester hours of credit

### 311 UNDERSTANDING CLIMATE CHANGE

This course introduces students to the science of climate change. Students explore its social and political implications, and examine its impact on daily life by reviewing current scientific data as it relates to vulnerabilities of particular regions. Topics include methods, strategies, and technologies that address climate change, using case studies of adaptive and mitigative programs in North America, with a special emphasis on Canada’s climate action plan.

PREREQUISITE: Environmental Studies 101 or 203

Three hours a week

Three semester hours of credit

### 321 NATURAL HAZARDS

This course provides an introduction to the causes of a variety of natural hazards (tectonic - e.g. earthquakes, tsunamis, and volcanic activity; meteorological - e.g. hurricanes and flooding; and mass movement - e.g. landslides, mudslides, and avalanches) as well as their impact on human activities and the strategies available to predict and manage such events.

PREREQUISITE: ENV 101 or ENV 203 or permission of the instructor  
Three semester hours of credit

### 332 ENVIRONMENTAL INNOVATION AND CHANGE MANAGEMENT SKILLS

This course will introduce students to a general overview of innovations to address environmental goals. It will examine how using a structured approach to change can move organizations, businesses and communities toward more environmentally sustainable practices.

Three semester hours of credit

### 334 ENVIRONMENTAL STRESSES ON ISLAND COMMUNITIES

This course explores the risk and vulnerabilities associated with climate change and other environmental stress on island communities. This course will focus on the special characteristics of island communities and will explore island vulnerabilities in the natural and built environment as well as in social and economic systems.

Three semester hours of credit

### 342 ENVIRONMENT AND DEVELOPMENT

This course focuses on environment and development issues in an international, particularly a developing country, context. Issues related to trade, biodiversity conservation, agriculture, climate change, wealth, poverty, population, and gender will be explored.

PREREQUISITE: ENV 101 or permission of the instructor

Three semester hours of credit

### 351 SUSTAINABLE COMMUNITY PLANNING

An overview of how planning tools and practice shape the form of communities, including: (1) Key issues and principles of sustainability at a community scale; as well as related planning approaches; (2) Sustainable community planning approaches and tools for identifying and achieving quality of life, and (3) The components and process of developing an integrated sustainable community plan. Students will learn how to assess community capital, identify and recruit key stakeholders and develop, implement, monitor and evaluate a community plan.

Three semester hours of credit

### 354 ENVIRONMENTAL VALUATION: THEORY AND PRACTICE

This course would develop the theory and techniques in the valuation of non-market (ecological) good and services. It will focus on the techniques and methods for placing monetary values on the environment and incorporating them into economic decision making at both the macro and project level.

Three semester hours of credit

### 401 PUBLIC SCHOLARS ON ENVIRONMENTAL ISSUES

This seminar course will provide a forum for students to interact and learn from local, national and international experts in various fields of environmental studies. Students will gain an increased awareness and understanding of the diverse ways in which our society is addressing issues related to the environment. The course will provide opportunities for students to develop in their own expertise as public scholars.

Three semester hours of credit

### 409 SPECIAL TOPICS

To create a category for uniquely titled courses offered by a department and put on the timetable as a "special course" on a one-time basis.

PREREQUISITE: ENV 101 or ENV 203 or permission of the instructor

Three semester hours of credit

### 411 ENVIRONMENTAL GOVERNANCE

This course focuses on developing an understanding of principles, practices and emerging issues relating to environmental governance. An emphasis is placed on exploring the roles of governments, markets and collective action in environmental policy and management. Examples of governance arrangements are drawn from different parts of the world and different ecological contexts, including the uniqueness of island contexts.

Cross-listed with Island Studies (c.f. Island Studies 619)

PREREQUISITES: ENV 101 or permission of the instructor. For students taking the course as IST 619 they need to be an active graduate student  
Three semester hours of credit

#### 431 ENVIRONMENTAL IMPACT ASSESSMENT

This course examines Environmental Impact Assessment (EIA) from philosophical, methodological and institutional perspectives. The evolution of EIA in Canada will be the focus. The strategic role of EIA will be explored as to its effectiveness as a tool for achieving sustainability goals. Case studies illustrating major issues and applications will be presented at a variety of geographical scales. Some field trips may be required.

Cross-listed with Environmental Sciences (c.f. ESC 803)

PREREQUISITES: ENV 101 or with permission of instructor

Three semester hours of credit

#### 433 ENVIRONMENTAL COMMUNICATION STRATEGIES

This course promotes the development of communication skills in the context of environmental issues and exposes students to direct interaction with representatives from industry, government and the community. The course will also provide broad theoretical and practical knowledge needed to resolve disputes as well as skills training in techniques of mediation, facilitation, and negotiation.

Three semester hours of credit

#### 441 ENVIRONMENT AND INTERNATIONAL RELATIONS

Ecological problems such as climate change and resource scarcity transcend the boundaries of nation-states and therefore necessitate international cooperation between states and non-state actors. This course will examine the dynamics of global environmental politics.

Three semester hours of credit

#### 491-492 DIRECTED STUDIES

These courses offer students the opportunity for the study of other subjects in environmental studies in two different forms: (1) In response to an individual student's needs, a program of directed readings or directed research can be developed with a faculty member; (2) Directed Studies courses are offered on occasion by members of the faculty or by visiting instructors. (See Academic Regulation 9 for Regulations Governing Directed Studies.)

Three hours a week

Three semester hours of credit

#### 495 ENVIRONMENTAL STUDIES SYMPOSIUM

The Student Environmental Studies Symposium course is an opportunity for students to facilitate a public forum to raise awareness and discussion about a contemporary environmental issue. This unique course will focus on students planning and running a one day symposium about a relevant environmental issue of their choice. It will provide an opportunity for active and collaborative learning as students dialogue with important stakeholders engaged in real world issues from government, the private sector and civil society. Through the process of organizing this symposium, students will deepen their knowledge of the complex nature of environmental issues and the challenges in finding sustainable solutions. Practical outcomes of the course include the development of critical thinking and writing skills, as well as organizational, communication and team-building skills.

Three semester hours of credit

### **CROSS-LISTED COURSES (APPROVED LIST OF SCIENCE, BUSINESS AND ARTS COURSES)**

#### **Applied Human Sciences:**

Family Science 221 - Family Resource Management

Foods and Nutrition 223 - Nutrition and Dietary Behaviour

**Biology: (please note that Biology 131-132 are required as prerequisites for the other Biology courses below)**

101 – Current Issues in Environmental Biology  
131 - Introduction to Cell and Molecular Biology  
132 - Introduction to Organisms  
222 - Ecology  
202 - Botany  
204 - Zoology  
311 - Plants and People  
314 - Plant Community Ecology  
327 - Field Coastal Ecology  
351 - Ornithology  
371 - Life of Mammals  
391 - Marine Biology  
452 - Biogeography and Macroecology  
454 - Biodiversity and Conservation Biology  
462 - Watershed Ecology  
465 - Marine Community Ecology  
485 - Environmental Toxicology

**Chemistry: (please note that Chemistry 111-112 are required as prerequisites for the other Chemistry courses below)**

111 - General Chemistry I  
112 - General Chemistry II  
202 - Environmental Chemistry  
243 - Organic Chemistry for the Life Sciences

**Engineering:**

151 - Engineering and the Biosphere  
212 - Geology for Engineers

**Physics:**

261 - Energy, Environment and the Economy

**Business:**

101 - Introduction to Business  
141 - Marketing  
171 - Organizational Behaviour  
211 - Business Communication  
251 - Introduction to Management Science  
265 - Introduction to Entrepreneurship and Small Business Management  
275 - Introduction to Biotechnology  
373 - Tourism Management

**Arts:**

**Economics:**

211 - Introduction to Resource Economics  
215 - Environmental Economics  
283 - Agricultural Economics  
352 - Applied Resource Economics

**English:**

322 - English Canadian Poetry  
331 - The Literature of Atlantic Canada  
335 - British Romantic Literature  
362 - 19th century American literature, 1830-1910



**History:**

- 231 - The Atlantic Region
- 331 - History of Prince Edward Island: Pre-Confederation
- 332 - History of Prince Edward Island: Post-Confederation
- 483 - History of the Environmental Movement

**International Development Studies:**

- 201 - Introduction to International Development Studies

**Modern Languages:**

- 211 - Latin American Studies: South America

**Philosophy:**

- 102 - Introduction to Ethics and Social Philosophy
- 105 - Technology, Values, and Science
- 111 - Critical Thinking
- 206 - Animal Ethics
- 301 - Philosophy of Science
- 371 - Community-Based Ethical Inquiry

**Political Science:**

- 101 - Introductory Politics I: Government and Politics in Liberal Democracies
- 102 - Introductory Politics II: Political Ideologies in Liberal Democracies
- 253 - Introduction to Political Theory

**Psychology:**

- 101 - Introduction to Psychology: Part I
- 242 - Introduction to Social Psychology
- 333 - Ecopsychology
- 362 - Ergonomics

**Religious Studies:**

- 102 - Religions of the World: Eastern Traditions

**Sociology:**

- 102 - Introduction to Sociology II
- 271 - Self and Society
- 282 - Social Psychology
- 305 - Population and Society
- 332 - Methodology and Research II
- 372 - Collective Behaviour and Social Movements
- 392 - Media and Society

**Sociology/Anthropology:**

- 106 - Introduction to Anthropology II
- 222 - Native Canadians
- 266 - Science, Culture and Society
- 341 - Technology, Society, and the Environment

**Fine Arts**

<http://upei.ca/finearts>

**Fine Arts Faculty**

Janos Fedak, Professor, Chair

Fine Arts (art history) is a discipline which examines the role of the visual arts in the development of human society. Fine Arts attempts to understand the nature of art, its origins and evolution, and the role it plays in various civilizations. While the task of the artist is the creation of works of art, that of the art historian is their systematic study, analyzing and understanding the products of creative expression. Studies of the Fine Arts can involve the examination of economic, social, and political issues; problems of patronage, taste, style, and iconography; and questions of literary influence, philology, philosophy, psychology, and religion. At the same time, how works of art are made, their conservation and/or restoration and theories of perception or optics are also investigated.

The study of Fine Arts helps to enhance our aesthetic awareness and our ability to “see” and describe and to search for new meanings and explore new ideas in our environment. The Department of Fine Arts offers a range of art history courses, especially Western art, from ancient times to the present. The art history courses concentrate on the study of architecture, sculpture, painting, and minor/decorative arts. The studio arts course offered by the Department (FAS 111) provides an introduction to basic artistic techniques.

### **REQUIREMENTS FOR A MINOR IN FINE ARTS**

Students in the Minor Program in Fine Arts must take FAH 101 and FAH 102 consecutively as prerequisites and five other courses including at least two at the 200 level and at least two at the 300 or 400 level.

### **FINE ARTS COURSES**

FAH—Fine Arts History

FAS—Fine Arts Studio

#### **FAH 101 INTRODUCTION TO THE HISTORY OF WESTERN ART I**

This course is a survey of the development of visual arts from Prehistoric to Medieval times. Emphasis is placed on the study of major works of art, methods of analysis, use of proper terminology, historical and cultural contexts, and changes of forms and styles.

Cross-listed with History (cf. History 103)

Three hours a week

#### **FAH 102 INTRODUCTION TO THE HISTORY OF WESTERN ART II**

This course is a continuation of the survey begun in FAH 101. It covers the most representative works of the visual arts from the early Renaissance period through the Modern era. The major artistic achievements and stylistic changes are studied with particular emphasis on their relationship to historical and cultural circumstances.

Cross-listed with History (cf. History 104)

Three hours a week

#### **FAS 111 STUDIO ARTS**

This course explores five media through the use of visual problems. All sessions consist of working periods with technique and media. The media are Drawing (pencil, pen and ink, brush, charcoal); Painting (acrylic, watercolour, mixed media); Sculpture (carving, modelling, assembling); Design (sources, elements); Graphics (silk screen, line block, wood block, embossed, direct image). Limited enrolment. Preference is given to students who have already gained credit in Fine Arts courses or who are currently enrolled in other courses in Fine Arts.

Three hours a week for two semesters

Credit value: three semester hours

NOTE: Students must register for this course at the beginning of the fall semester. Later registration is not allowed.

#### **FAH 201 EGYPTIAN AND MESOPOTAMIAN ART**

This course examines (in chronological order) the changes of style in architecture, painting, sculpture, and the minor/decorative arts from the prehistoric periods in Egypt and Mesopotamia to the establishment of the Hellenistic kingdoms in both regions. The characteristics of each period are considered with emphasis on the outstanding works of art/architecture and their historical contexts.

Cross-listed with Classics (cf. Classics 231)

Three hours a week

#### FAH 202 GREEK ART

This course examines (in chronological order) the changes of style in architecture, painting, sculpture, and the minor/decorative arts from the Archaic period to the end of the Hellenistic age. The characteristics of each period are considered with emphasis on the outstanding works of art/architecture and their historical contexts.

Cross-listed with Classics (cf. Classics 232)

Three hours a week

#### FAH 211 ROMAN ART

This course examines (in chronological order) the changes of style in architecture, painting, sculpture, and the minor/decorative arts from the beginning of the Roman Republic to the end of the Imperial era. The characteristics of each period are considered with emphasis on the outstanding works of art/architecture and their historical contexts.

Cross-listed with Classics (cf. Classics 241)

Three hours a week

#### FAH 212 MEDIEVAL ART

This course examines (in chronological order) the changes of style in architecture, painting (especially illuminated manuscripts), sculpture, and the minor/decorative arts from the Byzantine period to the end of the Gothic era in Europe. The characteristics of each period are considered with emphasis on the outstanding works of art/architecture and their historical contexts.

Cross-listed with Religious Studies (cf. Religious Studies 272)

Three hours a week

#### FAH 301 RENAISSANCE ART

This course examines the artistic milieu in Europe -- with a particular emphasis upon the Italian and Flemish schools -- from the early Fifteenth Century to the mid-Sixteenth Century.

Three hours a week

#### FAH 302 BAROQUE AND ROCOCO ART

This course examines (in chronological order) the changes of style in architecture, painting, sculpture, and the minor/decorative arts in Italy and other parts of Europe from the early Seventeenth Century to the end of the Eighteenth Century. The characteristics of each period are considered with emphasis on the outstanding works of art/architecture and their historical contexts.

Three hours a week

#### FAH 311 NINETEENTH-CENTURY ART

The evolution of the visual arts is studied from the French Revolution to the Post-Impressionist era. Neoclassicism, Romanticism, revival styles, Realism, and Impressionism are the subject areas of the course.

Three hours a week

#### FAH 312 TWENTIETH-CENTURY ART

This course is designed to develop an understanding of the various artistic expressions in the visual arts, including the new art forms of photography and cinema, from the late Nineteenth Century to the present.

Three hours a week

#### FAH 321 CANADIAN ART

The development of the visual arts in Canada is studied from the Seventeenth Century (colonial times) to the present. The course examines the native tradition in Canada, the legacy of the early French and English settlers, and later developments in the visual arts within the context of the socio-economic and political history of the country.

Three hours a week

#### FAH 451-452 DIRECTED STUDIES

These courses involve the examination of particular problems in specific areas of interest in the visual arts and archaeology.\* Individual studies are conducted under faculty guidance. Open to qualified students from any discipline.

(See Academic Regulation 9 for Regulations Governing Directed Studies.)

\*Archaeology of Roman Pannonia and of early Medieval times in Western Hungary. Fieldwork in Hungary.

## **History**

<http://upei.ca/history>

### **History Faculty**

Rev. Francis W.P. Bolger, Professor Emeritus

Andrew Robb, Professor Emeritus

Edward MacDonald, Associate Professor, Chair

Ian Dowbiggin, Professor

Susan Brown, Associate Professor

Lisa Chilton, Associate Professor

Richard G. Kurial, Associate Professor

James Moran, Associate Professor

Richard Raiswell, Associate Professor

Sharon Myers, Assistant Professor

### **HISTORY PROGRAM**

History has been defined as the “memory of human group experience” because it brings the student into contact with the whole range of human effort and achievement. Its object is to recreate the past from the evidence left to us, and to try to explain how and why human beings spoke, acted, and thought as they did in the past. Although history must always deal with the “facts” of societies, it is even more concerned with explaining and illuminating them.

The program is centred broadly on the history of “Atlantic Civilization”—the historical development of Europe and the Americas. The courses aim to provide both a broad exposure to the history of the Atlantic World, and more specialized work in the history of various regions and countries. The Department also offers courses in the practice and the craft of history.

### **AREA COURSES**

The Department offers the following “streams”—Canadian, USA, British, European, Global, Greek and Roman, and Others:

#### **Canadian**

101 Canadian History—Pre-Confederation

102 Canadian History—Post-Confederation

231 The Atlantic Region

232 The Atlantic Region

325 Canadian Social History to World War I

326 Canadian Social History since World War I

331 History of Prince Edward Island— Pre-Confederation

332 History of Prince Edward Island— Post-Confederation

352 The History of Quebec and French Canada

353 Canada and The First World War

385 Women in 19th-Century Canada

386 Women in 20th-Century Canada

424 History of Canadian Nationalism and the Canadian Identity

425 Childhood in Modern Canada

426 A History of the Canadian Working Classes

489 20th-Century Prince Edward Island

## **USA**

241 United States History—From the Colonial Period to Reconstruction

242 United States History since Reconstruction

333 Health Care and North American Society in Historical Perspective

391 The United States from 1900 through World War II

392 The United States since World War II

393 The American Mind and Imagination: From the Puritans to the Progressives

394 20th-Century American Intellectual History

395 Race & Ethnicity in American Life: A History of Immigration

396 Race & Ethnicity in American Life: African-American History

397 Race & Ethnicity in American Life: The Hispanic- American Experience

441 United States Foreign Policy from the Revolutionary Period through World War I

442 United States Foreign Policy since World War I

## **British**

261 Modern British History I

262 Modern British History II

310 Tudor England, 1485-1603: Creation of a Nation

362 Victorian Britain

363 Modern Irish History

472 20th-Century Great Britain

473 18th-Century English Society and Culture

## **European**

201 European Civilization 500 BC-1648

202 European Civilization 1648 to the Present

303 Renaissance Europe

304 The European Enlightenment, Revolution, and the Napoleonic Empire

305 The European Middle Ages 500-1300

311 Science, Magic, Witchcraft, and the Occult in Premodern Europe

323 Russian History since 1682

341 German History since 1648

342 History of France since 1500

404 Monsters, Gold, and Glory: Travel, Trade and the Problem of Discovery in Premodern Europe

411 Europe Since Bismarck

485 European Intellectual History Since 1789

## **Global**

222 From Magic to the Double Helix: Science and Society in Historical Perspective

321 History of Christianity to the Reformation

322 History of Christianity from the Reformation to the Present

327 Migration to Canada I

328 Migration to Canada II

371 The Atlantic World I

372 The Atlantic World II

373 The Second World War in Global Context

405 Crusades and Crusading

432 Britain and the Imperial Experience

434 Madness and Society

455 War and Revolution in the 20th Century World

483 The History of the Environmentalist Movement

## **Greek and Roman**

251 Greek Civilization

252 Roman Civilization

271 Augustus and the Early Roman Empire

272 The Later Roman Empire, 284-410 AD

## **Other**

111 Discovering the Past

113 Crime and Punishment: Historical Themes

114 Plague: Historical Themes

211 The History Workshop: Skills and Methods in History

222 From Magic to the Double Helix: Science and Society in Historical Perspective

312 Themes and Debates in History

484 Applied Public History

491 Directed Studies

492 Directed Studies

497 Honours Tutorial in Historiography

498 Honours Graduating Essay

Normally, students will choose History 101/102 as their introduction to history. These courses include an important tutorial component emphasizing introductory skills and methods of history.

200-level courses provide introductions to the histories of civilizations, regions, and countries, especially in the areas listed above. They are intended to build upon the skills acquired in History 101/102.

300-level courses provide more specialized studies in a number of areas.

400-level courses are usually seminars emphasizing discussion and research in more specialized areas.

While providing courses for students in all faculties, schools, and departments, the Department also provides a minor, major, and honours program for those who have a special interest in the study of history.

## **MAJOR PROGRAM**

To register as a major in History, a student must complete History 101/102 and six semester hours (2 courses) at the 200 level. Students are urged to take History 201/202 in the first or second year to satisfy the second requirement. Students may take additional 200-level courses.

- History 101/102, 201/202, 211, and 312 are compulsory for students in the major program.
- History 101/102, 201/202, and 211 should be completed by the end of the fourth semester.
- History 312 should be completed no later than the end of the sixth semester.

A major program is complete when a student has successfully completed a minimum of 42 hours of credit in History (14 courses) of which a minimum of 12 hours (4 courses) must be at the 300 level, and 12 hours (4 courses) must be at the 400 level. Majors must complete courses totalling 6 semester hours of credit at the 200-400 levels in four of the six areas of study: Greek and Roman, Europe, Britain, the USA, Canada, and Global.

## **HONOURS PROGRAM**

To be admitted to the honours program, the student must submit a letter of application to the Honours Coordinator. Applicants must be registered in, or have completed, the major program. Applications are normally submitted during the fourth or fifth semester. Decisions on admission are made by the department acting as a committee of the whole. Admissions decisions will be made on the basis of demonstrated and potential ability to carry out independent research and sustained historical analysis. Meeting the minimum entry requirements does not guarantee admission.

- Applicants must have a minimum average of 70% in all previous University courses. Normally, the Department expects an average of at least 75% in all previous history courses.
- In addition to the courses required for the major, honours students are required to complete History 497 and 498.
- Each honours student must prepare a graduating honours essay under the direction of a supervisor. This essay will be evaluated by a three-person committee, one member of which will be from outside the Department.
- The candidate must take a final oral examination on the essay.
- Students intending to enter graduate programs should be aware that many such programs require a reading knowledge of a second language. Undergraduate courses in a second language are a useful preparation for graduate work in history.
- Honours students must complete courses totalling 6 semester hours of credit at the 200-400 levels in four of the six areas of study: Greek and Roman, Europe, Britain, the USA, Canada and Global.

An honours program is complete when the student completes:

1. a total of 126 semester hours of course credits with a minimum overall average of 70%;
2. a total of 48 semester hours of course credits in History (6 semester hours in addition to the minimum required for the major), with a minimum average of 75%.

### **CREDITS FOR CROSS-LISTED COURSES**

The Department accepts as part of its major or honours program a maximum of 12 hours (4 courses) of courses cross-credited to History from related disciplines. Of such courses, students can apply 6 hours (2 courses) taken at the 100 or 200 levels and 6 hours (2 courses) at the 300 or 400 levels. Students must have the prior approval of the Chair of History if credit is to be granted. The courses from related disciplines which may be approved for credit are the following:

Asian Studies 201 - Introduction to West Asia  
 Asian Studies 202 - Introduction to East Asia  
 Classics 101 - Greek Civilization  
 Classics 102 - Roman Civilization  
 Classics 202 - Augustus and the Early Roman Empire  
 Classics 342 - The Later Roman Empire, 284-410 AD  
 Classics 431 - Directed Studies (with approval of History Chair)  
 Classics 432 - Directed Studies (with approval of History Chair)  
 Economics 311/312 - History of Economic Thought  
 Fine Arts History 101/102 - Art History  
 History 231/232 - The Atlantic Region  
 Religious Studies 331/332 - History of Christianity

### **MINOR PROGRAM**

To complete a minor in History, the student must complete History 101/102 and five other history courses (15 semester hours), including

- one Canadian history,
- one continental European history,
- one course each out of two of the following three fields: British history, USA history, and Global history,
- one other history course.

At least two of the student's courses must be at the 300 level or above.

### **DIRECTED STUDIES**

History 491/492 (Directed Studies courses) are designed to allow students to pursue an area of study of their own interest which may not be offered by the curriculum. Directed Studies courses are usually restricted to qualified Third and Fourth Year students in any discipline. The program of study in the course must be approved by the Instructor, the Chair, and the Dean of the Faculty prior to registration.

## **HISTORY COURSES**

### **101 CANADIAN HISTORY—PRE-CONFEDERATION**

This course surveys topics of historical importance in Canadian history up to and including the attainment of Confederation. The emphasis is on the interaction between political events and change in the economy and society. Tutorials examine various historical interpretations of the Canadian experience.

Lecture: Two hours a week

Tutorial: One hour a week

### **102 CANADIAN HISTORY—POST-CONFEDERATION**

This course surveys topics of historical importance in Canadian history in the Post-Confederation period. The emphasis is on the interaction between political events and change in the economy and society. Tutorials examine various historical interpretations of the Canadian experience.

Lecture: Two hours a week

Tutorial: One hour a week

### **103 INTRODUCTION TO THE HISTORY OF WESTERN ART I**

(See Fine Arts History 101)

### **104 INTRODUCTION TO THE HISTORY OF WESTERN ART II**

(See Fine Arts History 102)

### **111 DISCOVERING THE PAST**

This course is a unique and exciting chance for students to work closely with each other and with a professor in a seminar, applying the techniques of historical investigation to shed light on one particular issue. These techniques include; the careful analysis of primary sources; an appreciation that there are different historical interpretations of the same subject; an understanding of how the subject under investigation changes over time. Instead of regular lectures, in each class students work through a series of carefully selected readings which forms the basis for interactive discussions. Each year, the seminar is devoted to a different historical issue, and is led by a different professor from the History Department.

### **113 CRIME AND PUNISHMENT: HISTORICAL THEMES**

This course provides an introduction to changing ideas and practices surrounding crime and punishment over time. Topics may include who has been identified as a threat to the social order, including thieves, prostitutes, vagrants, and young offenders, and the punishments that societies have deemed appropriate for criminals, including public executions, exile, and imprisonment. Additionally, the course provides opportunities to explore and to develop skills in historical thinking and methods.

Three credit hours; lecture, discussion

### **114 PLAGUE: HISTORICAL THEMES**

This course introduces students to plague, an important aspect of disease and health history. From the devastating outbreaks of the Black Death in medieval Europe, to the contemporary phenomenon of Ebola, the course focuses on the ways in which major outbreaks of infectious disease have shaped societies. The course considers the medical, social, economic, and political consequences of epidemics and pandemics. The course explores how various forms of plague were understood when they happened, and how our views of them have changed over time. This will be done by reading important works on plagues, and by examining original sources that were produced by those living through major disease outbreaks as they unfolded.

Three credit hours; lecture, discussion

### **201 EUROPEAN CIVILIZATION 500 BC-1648**

This introductory course examines the history of European civilization from the rise of classical Greece to the Treaty of Westphalia in 1648. Lectures analyze the major political, economic, social, and cultural forces which shaped European society during this period.

Lecture: Three hours a week



## 202 EUROPEAN CIVILIZATION 1648 TO THE PRESENT

This introductory course examines the history of European civilization from the end of the Thirty Years' War to the present. Lectures analyze the main political, economic, social, and cultural forces which shaped Europe from the early modern to the post-industrial period.

Lecture: Three hours a week

## 209 SPECIAL TOPICS

Creation of a course code for Special Topics offered by the Department of History at the second year level.

## 211 THE HISTORY WORKSHOP: SKILLS AND METHODS IN HISTORY

This introductory course offers students the opportunity to develop their research, writing and critical thinking skills while introducing them to the nature of historical method and inquiry. The course provides instruction and practice in the use of standard print and electronic bibliographic tools and in the writing of research, analytical and critical papers in history. Topics of study include the relationship between history and truth, the uses of evidence and argumentation, and the varieties of historical research.

Lecture/Discussion/ Workshops: Three hours a week

## 222 FROM MAGIC TO THE DOUBLE HELIX: SCIENCE AND SOCIETY IN HISTORICAL PERSPECTIVE

This course evaluates the history of science from the scientific revolution to late twentieth century. It also evaluates how science has been understood differently from one period to the next, how science has been grounded in cultural, social, and political currents, and how scientific understandings and perceptions have influenced how we see the world around us. This survey includes the study of major changes in scientific outlook brought about by thinkers like Isaac Newton, Auguste Comte, Louis Pasteur, Charles Darwin, Marie Curie and Albert Einstein. Important technological developments and the professionalization of scientific knowledge are also considered.

Three semester hours

## 231 THE ATLANTIC REGION

This course examines the Atlantic Region, considering such factors as history, geology, geography, climate, archaeology, biology, economics, politics, education, sociology, religion, literature, music, and folklore. The purpose of the course is to foster an understanding of the region, and to explore the role of the region within the Canadian context. The course draws upon a variety of university and community resource people.

Three hours a week

## 232 THE ATLANTIC REGION

A continuation of History 231.

Three hours a week

## 241 UNITED STATES HISTORY—FROM THE COLONIAL PERIOD TO RECONSTRUCTION

This survey course in United States History begins with the Colonial period and concludes with an examination of the Civil War and Reconstruction. It covers a variety of topics in social, political, economic, diplomatic, military, and constitutional history.

Lecture: Three hours a week

## 242 UNITED STATES HISTORY SINCE RECONSTRUCTION

This survey course in modern United States History examines industrial and urban development, modern political trends, social themes, and the development of the United States as a world power. Topics covered include Progressivism, the American role in World War I and World War II, the New Deal, and contemporary American society.

Lecture: Three hours a week

## 251 GREEK CIVILIZATION

(See Classics 101)

252 ROMAN CIVILIZATION  
(See Classics 102)

261 MODERN BRITISH HISTORY I

This course surveys the major political, social and cultural developments in British history from the late 17th century to the mid-19th century. Topics may include the structure of the British political system, popular radicalism, industrialization, the "Irish question," Victorian morality and family life, and imperial expansion.  
Lecture: Three hours a week

262 MODERN BRITISH HISTORY II

This course surveys British political and social developments from the mid-19th century to the present. Topics may include the advent of a democratic political system, Irish nationalism, the rise of the labour movement, World Wars I and II, and the Thatcher era.  
Lecture: Three hours a week

271 AUGUSTUS AND THE EARLY ROMAN EMPIRE  
(See Classics 312)

272 THE LATER ROMAN EMPIRE, 284-410 AD  
(See Classics 342)

291 INTRODUCTION TO WEST ASIA  
(See Asian Studies 201)

292 INTRODUCTION TO EAST ASIA  
(See Asian Studies 202)

303 RENAISSANCE EUROPE

This course examines the period bounded by the Black Death and the Protestant Reformation. It explores the major political, intellectual and cultural developments in Renaissance Italy and their later translation to Northern Europe. Topics may include the place of Italy in the late medieval world; the causes and consequences of the crises of the fourteenth century; the emergence of humanism and the revival of antiquity; the relationship between culture and power; popular piety; new models of gender relations in Renaissance society; the impact of printing; and the unique shape of the Renaissance in Northern Europe. Assignments will stress primary source analysis.  
PREREQUISITE: History 201/202 or permission of the instructor  
Lecture: Three hours a week

304 THE EUROPEAN ENLIGHTENMENT, REVOLUTION, AND THE NAPOLEONIC EMPIRE

This course examines the origins, nature, and significance of the European Enlightenment. Specific topics include the French Revolution, the rise of Napoleon, the Scientific Revolution, enlightened despotism, romanticism, and nationalism.  
PREREQUISITE: History 202 or permission of the instructor  
Lecture: Three hours a week

305 THE EUROPEAN MIDDLE AGES 500-1300

This course traces the history of Europe from the fall of the Roman Empire to the Black Death of the fourteenth century. Topics include the early history of Christianity and Islam, the Carolingian renaissance, the Viking invasions, the growth of the Papacy, the emergence of nation states, and the Crusades  
PREREQUISITE: History 201/202 or permission of the instructor  
Seminar: Three hours a week

309 SPECIAL TOPICS

Creation of a course code for Special Topics offered by the Department of History at the third-year level.

310 TUDOR ENGLAND -1485-1603: CREATION OF A NATION

This course examines how the kings and queens of the Tudor dynasty transformed England from a crumbling, medieval monarchy into a powerful, centralized nation. It was a bloody process that saw thousands of English men and women lose their lives, but the result was an English nation endowed with a unique sense of identity, culture, and mission in the world. Topics include Henry VIII and the search for a legitimate heir; the Reformation in England; the evolution of queenship under Mary and Elizabeth; the ideological revolution and the problem of dissent; the changing structures of society; and the contrasting worlds of high and low culture.  
PREREQUISITE: History 201

### 311 SCIENCE, MAGIC, WITCHCRAFT AND THE OCCULT IN PREMODERN EUROPE

This course investigates how men and women sought to understand, explain, control and manipulate the natural world in the early modern period. Topics include medieval cosmology and astrology; alchemy and learned magic; changing views of the role of the devil in the natural world; witch belief and witch hunting. Particular attention is paid to how the traditions of learned magic informed the development of science in the seventeenth century.

PREREQUISITE: History 201 or permission of the instructor

Three semester hours of credit

### 312 THEMES AND DEBATES IN HISTORY

This course introduces students to some of the key theories and debates within current Western historiography (the study of historical writing). History is fundamentally concerned with the analysis of evidence, yet historians often disagree over the interpretation of that evidence and what is considered causally significant. This course will consider major “schools” and concepts of historical analysis that shape how history is interpreted. Topics may include the role of ideas and individuals versus broad economic and social forces; class, gender, race, post-colonialism, post-modernism, oral history, public history, and digital history.

PREREQUISITE: History 201/202 or permission of the instructor

Lecture: Three hours a week

### 321 HISTORY OF CHRISTIANITY TO THE REFORMATION

This course examines the growth and development of Christianity prior to the Reformation. Special emphasis is placed on the relationship between the growth of the Church and the broader historical context within which it occurred.

Cross-listed with Religious Studies (cf. Religious Studies 331)

Lecture: Three hours a week

### 322 HISTORY OF CHRISTIANITY FROM THE REFORMATION TO THE PRESENT

This course examines some of the principal developments within Christianity from the Reformation until the present. Special emphasis is placed on the relationship between these developments and the broader historical context within which they occurred.

Cross-listed with Religious Studies (cf. Religious Studies 332)

Lecture: Three hours a week

### 323 RUSSIAN HISTORY SINCE 1682

This course explores the political, social, economic, diplomatic, and cultural history of Russia since the reign of Peter the Great. It covers topics such as Russia’s rise as a European power in the 18th and 19th centuries, the development of Russian autocracy, the revolutions of 1905 and 1917, the history of the Soviet Union under Lenin and Stalin, the nationalities question, the collapse of communism, and Russia since Gorbachev.

Lecture: Three hours a week

### 325 CANADIAN SOCIAL HISTORY TO WORLD WAR I

This course focuses on selected themes in the day-to-day lives of Canadians within their respective communities to World War I. Topics of study may include native society, pioneering, immigration and outmigration, the Victorian frame of mind, industrialization and urbanization, social and ethnic groups, attitudes and mores, working conditions, reform, the arts, and recreation.

Lecture: Three hours a week

### 326 CANADIAN SOCIAL HISTORY SINCE WORLD WAR I

This course focuses on selected themes in the lives of Canadians within their respective communities since World War I. Topics of study may include immigration and ethnicity, industrialization and urbanization, reform, labour, health, education, welfare, crime and punishment, the arts and recreation.

Lecture: Three hours a week

### 327 MIGRATIONS TO CANADA I

This course explores the history of Canadian migrations between the mid-18th century and the First World War. Migrant groups studied include the Loyalists of the late 18th century, African Americans, the Irish Famine, and the Central and East Europeans.

PREREQUISITES: History 101 and History 102

### 328 MIGRATIONS TO CANADA II

This course explores the history of Canadian migrations between the First World War and the present. Some of the migrants whose histories will be highlighted are Chinese and Japanese settlers in the west during the early 20th century, Jews, Italians, peoples from the Caribbean islands, and peoples from the Middle East.

PREREQUISITES: History 101 and History 102

### 331 HISTORY OF PRINCE EDWARD ISLAND— PRE-CONFEDERATION

This study of Prince Edward Island until 1864 emphasizes the French Regime, the development of colonial institutions, the struggle for the attainment of Responsible Government, and the influence of the land tenure system on the economic, political, and social development of the Island.

Lecture: Three hours a week

### 332 HISTORY OF PRINCE EDWARD ISLAND—POST- CONFEDERATION

This study of Prince Edward Island from 1864 until the present emphasizes the role of the Island in the Confederation movement, its entry into Confederation, and provincial-federal adjustments as they affected Prince Edward Island's history. It is recommended that History 331/332 be taken in sequence.

Lecture: Three hours a week

### 333 HEALTH CARE AND NORTH AMERICAN SOCIETY IN HISTORICAL PERSPECTIVE

This course explores the history of health, disease and medicine, focussing on North America from the time of contact between Native Peoples and Europeans, to the present. The course is organized around four major themes in the history of health and illness: historical epidemiology, social and political responses to health and disease, the rise of modern medicine and other health care groups, and the recent challenges to regular medical practice by alternative health care providers. Particular attention is paid to the effects of shifting systems of medical practice on patient experience.

PREREQUISITE: None

Lecture: Three hours a week

### 341 GERMAN HISTORY SINCE 1648

This course covers the political, diplomatic, social, economic, and cultural history of Germany since the Reformation. It explores topics such as the Thirty Years' War, Austro-Prussian rivalry in the 18th century, German unification in the 19th Century, World War One, Hitler's Third Reich, the division of Germany after 1945, and Germany since the collapse of communism.

Lecture: Three hours a week

### 342 HISTORY OF FRANCE SINCE 1500

This course covers the political, diplomatic, social, economic, and cultural history of France since the Reformation. It explores topics such as the Wars of Religion, the Age of Louis XIV, the French Revolution, Franco-German rivalry, the Dreyfus Affair, the Presidency of Charles DeGaulle, and the student revolts of 1968.

Lecture: Three hours a week

### 352 THE HISTORY OF QUEBEC AND FRENCH CANADA

This course examines the social, economic and political history of Quebec. It examines economic development, political change, secularization, and the rise of nationalist and separatist movements. It also explores the changing relations between Quebec and prominent French Canadian communities elsewhere in Canada.

Lecture: Three hours a week

### 353 CANADA AND THE FIRST WORLD WAR

This course will examine the underlying causes of the First World War, the experiences of those who fought overseas, and the impact of war on the work and lives of those on the home front. Although the course will consider the international context of war, particular attention will be paid to the Canadian experience of the First World War, including the conscription controversy, post-war commemoration, and the legacy of the First World War for Canadian identity, politics, and culture in the twentieth century.

Lecture/Seminar: Three hours a week

### 362 VICTORIAN BRITAIN

This course explores themes in British social, political and cultural history in the nineteenth century. Topics may include working-class culture and politics, Victorian family life, urban life and poverty, crime and police, imperialism and popular culture, Irish Home Rule, the campaign for women's votes, and the social and cultural ferment of pre-World War I Britain.

PREREQUISITE: Previous course work in British history is recommended

Lecture: Three hours a week

### 363 MODERN IRISH HISTORY

This course examines the history of Ireland and the Irish emigration overseas, from the 18th Century to the present.

PREREQUISITE: Previous course work in British or European history is recommended.

Seminar: Three hours a week

### 371 THE ATLANTIC WORLD I

This course examines the emergence of an Atlantic world through the European "discovery," conquest, and colonization of the Americas. The interaction of West African, Western European and Aboriginal American peoples, and the societies and institutions they developed, is the focus of the course. Spanish, English, French and Portuguese activity in the Atlantic and the Americas is surveyed, with particular attention given to topics such as labour systems, religious patterns, agriculture, and the nature of colonial societies before 1700.

PREREQUISITE: A previous course in Canadian, European or American History, or permission of the instructor

Lecture: Three hours a week

### 372 THE ATLANTIC WORLD II

This course traces the emergence of a maturing Atlantic world from the latter 1600s to the period of independence. The shape and interaction of the English, French, Spanish and Portuguese and their colonial empires, together with the continuing relationship with African and Aboriginal American peoples, is the focus of study. Slavery, the plantation system, differing patterns of development, and political independence are given particular attention.

PREREQUISITE: A previous course in Canadian, European or American History, or permission of the instructor

Lecture: Three hours a week

### 373 THE SECOND WORLD WAR IN GLOBAL CONTEXT

This course combines lectures and class discussions and covers the history of the Second World War, its causes, conduct, and impact on twentieth century history. Topics include the rise of Adolf Hitler and the Nazi movement in Germany; the international crises of the 1930s; the war on land, on sea, and in the air in Europe, Africa, the Middle East, and the Far East; the Holocaust; the wartime conferences of Stalin, Churchill, and Roosevelt; the use of atomic weapons against Japan; the post-war Nuremberg Trials; the origins of the Cold War; and the impact of the war on society and the home front.

Lecture/Seminar: Three hours a week

### 378 THE MEDIEVAL BOOK

(See English 378)

### 385 WOMEN IN 19th-CENTURY CANADA

This course examines the changes that have taken place in the historical roles of women in Canadian society, and the relationship of these changes to social, economic, and intellectual developments. Using both a thematic and chronological approach, the course examines women's roles from the beginning of the 19th Century to the achievement of suffrage in the 20th Century.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 385)

Lecture/Discussion: Three hours a week

### 386 WOMEN IN 20th-CENTURY CANADA

This course examines the changes that have taken place in the historical roles of women in Canadian society and the relationship of these changes to social, economic, and intellectual developments. Using both a thematic and chronological approach, the course examines women's roles from the achievement of suffrage to the present.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 386)

Lecture/Discussion: Three hours a week

### 391 THE UNITED STATES FROM 1900 THROUGH WORLD WAR II

This course examines developments in American society and politics from the turn of the century through World War II. The course covers such topics as Populism, Progressivism, World War I, the "roaring 20s" and the "dirty 30s," as well as World War II.

Lecture: Three hours a week

### 392 THE UNITED STATES SINCE WORLD WAR II

This course examines developments in American society and politics since World War II. The course covers such topics as the Cold War, anti-Communist crusades, the evolution of the American welfare state, the civil rights movement, the war in Vietnam, and competing visions of America's economic and political destiny.

Lecture: Three hours a week

### 393 THE AMERICAN MIND AND IMAGINATION: FROM THE PURITANS TO THE PROGRESSIVES

This course examines the history of American thought from the Puritans to the Pragmatists. With an emphasis on religion, politics, and economics, it seeks to identify the principal forces, ideas, and traditions affecting the development of a distinctive American intellectual culture and heritage.

PREREQUISITE: History 241/242 or permission of the instructor

Lecture/Seminar: Three hours a week

### 394 20th-CENTURY AMERICAN INTELLECTUAL HISTORY

This course examines the history of American thought in the 20th century. It emphasizes religion, politics, and economics and includes an examination of major intellects from William James to Richard Rorty. It seeks to illuminate the principal forces, ideas, and traditions affecting the development of a distinctive American intellectual culture and heritage in what has been coined "America's Century."

PREREQUISITE: History 241/242 or permission of the instructor

Lecture/Seminar: Three hours a week

### 396 RACE & ETHNICITY IN AMERICAN LIFE: AFRICAN-AMERICAN HISTORY

This course provides an introduction to African-American history. Beginning with the introduction of slavery into the American colonies, it examines the journey from slavery to freedom, the limits to freedom, and the persistent struggle for civil rights in American society.

PREREQUISITE: History 241/242 or permission of the instructor

Lecture/Seminar: Three hours a week

### 397 RACE & ETHNICITY IN AMERICAN LIFE: THE HISPANIC-AMERICAN EXPERIENCE

This course provides an introduction to Hispanic-American history. Beginning with the Spanish conquest, this course examines the struggle for independence, the American conquest, and the evolution of Chicano culture and La Raza as aspects of the persistent struggle for civil rights in America.

PREREQUISITE: History 241/242 or permission of the instructor

Lecture/Seminar: Three hours a week

#### 404 “MONSTERS, GOLD, AND GLORY”: TRAVEL, TRADE, AND THE PROBLEM OF DISCOVERY IN PREMODERN EUROPE

This advanced seminar examines European interaction with Asia and Africa from the time of Alexander the Great and the Ancient Greeks up to the formation of the large trading companies in the early 17th century, when Europeans understood the lands of the far east and south to be inhabited by strange semi-human peoples and the earth filled with gold and precious stones. This course examines the sources and evolution of this lore, noting how it affected the way explorers and merchant adventurers of the 16th century understood the world and interacted with the peoples they encountered. Topics include the development of the Greek and Roman world view; Europe's experience with barbarism; the Pax Mongolica and the development of the medieval world system; medieval geography; the cartographic revolution; explanations of difference and the emergence of race; cross-cultural exchange; and hybridity.

PREREQUISITE: History 201

#### 405 CRUSADES AND CRUSADING

This advanced seminar course examines the crusading movement of the High Middle Ages from both the Christian and Islamic perspective. Topics may include: the Reconquista; Urban II and the development of early crusading theory; Abbasid-Fatimid relations; the evolution of Christian notions of knighthood and the rise of the military orders; the development and application of Christian and Islamic notions of holy war; Crusading against Christians; the logistics of crusading; Christian-Muslim interaction in the Levant; and the counter-crusade under Salah al-Din and Sultan Baybars. Students will be expected to read and engage with a diverse assortment of primary sources, taken from both Christian and Islamic contexts.

PREREQUISITE: History 201 or permission of the instructor.

Seminar: Three hours a week

#### 409 SPECIAL TOPICS

Creation of a course code for Special Topics offered by the Department of History at the fourth year level.

#### 411 EUROPE SINCE BISMARCK

This seminar course covers the social, political, economic, cultural, military, and diplomatic history of twentieth-century Europe from the age of nationalism in the late nineteenth century to the post-Cold War era of ethnic conflict and economic integration. Topics include imperialism, nationalism, World Wars One and Two, Nazism, decolonization, the Cold War, the European Union, the rise and fall of communism, the Balkan wars of the 1990s, globalization, and the rise of the New Right. Using a comparative perspective, the course examines what forces have united and divided Europe's nations since the end of the nineteenth century.

#### 424 HISTORY OF CANADIAN NATIONALISM AND THE CANADIAN IDENTITY

This seminar course examines the development of Canadian nationalist thought and the evolution of the Canadian identity. Topics to be examined may include the evolution of national symbols, such as the Mountie, hockey, and the canoe, and their roles in the process of Canadian nation building and identity formation. The course also examines the influence of the United States and Great Britain in shaping Canadian identity, and the promotion of a distinctive Canadian culture through a variety of media ranging from tourism pamphlets to the CBC.

PREREQUISITE: History 101 or 102, or permission of the instructor

Seminar: Three hours a week

#### 425 CHILDHOOD IN MODERN CANADA

This is a seminar course in 19th- and 20th- Century Canadian social history which takes the experiences of children as its central focus. Themes of study may include the rise and decline of child labour, the development of education and child welfare systems, and changing ideas about childhood and the family.

PREREQUISITE: History 101 or 102, or permission of the instructor

Seminar: Three hours a week

#### 426 A HISTORY OF THE CANADIAN WORKING CLASSES

From fur trader, to factory hand, to fast-food worker, this seminar course explores the historical experiences of working men, women and children in Canada. Topics of study may include early forms of labour, such as slavery;

the industrial revolution and its effects on working class families; the growth of scientific management in the workplace; and the dislocations posed by the Great Depression and the growth of industrial legality. Working class culture, organization and resistance are considered, as are certain ideas about workers, such as the respectable worker and the “breadwinner.”

PREREQUISITE(S): History 101 or 102, or permission of the instructor

Seminar: Three hours a week

#### 432 BRITAIN AND THE IMPERIAL EXPERIENCE

This advanced seminar course examines Britain’s experience of empire and imperialism from its days as a colony of the Roman Empire up to and including decolonisation in the twentieth century. Through a series of case studies and cross-cultural and trans-regional thematic comparisons, this course will introduce students to some of the main issues underlying the study of empire, colonialism and the relationship between coloniser and colonised in the British Empire. Topics may include: the ambiguous legacy of Rome; Wales, England’s first colonial experience; Ireland and the early pattern of imperialism; England and the Moghul Empire; England and the Caribbean; the rhetoric of Empire; Britain’s involvement in the scramble for Africa; the emergence of racial theory; the tools of imperialism; culture and imperialism; colonial resistance; decolonisation in South Asia and southern Africa; the post-colonial empire.

PREREQUISITE: History 201 and one of the following: 202, 262, or 362 (or permission of the instructor).

Seminar: Three hours a week

#### 434 MADNESS AND SOCIETY

This course examines the history of madness in comparative context from the beginning of the eighteenth century to the present with a focus on Europe and North America. Topics include major historical developments in the understanding of madness such as traditional responses to unsoundness of mind, the development of asylums, the rise of professional psychiatry, scientific models of mental illness, and the community care movement. Pivotal theorists, including Freud, Kraepelin, Foucault, and Szasz are discussed.

Lecture: Three hours a week

#### 441 UNITED STATES FOREIGN POLICY FROM THE REVOLUTIONARY PERIOD THROUGH WORLD WAR I

This course examines the evolution of American foreign policy from the American Revolution through World War I. Topics include neutrality, the changing role of the United States in foreign relations, the interaction between domestic and foreign policy, American expansionism, and political, economic, and cultural relationships between the United States and other countries and peoples.

PREREQUISITE: History 241 or permission of the instructor

Seminar: Three hours a week

#### 442 UNITED STATES FOREIGN POLICY SINCE WORLD WAR I

This course examines the evolution of American foreign policy from World War I through the end of the Cold War. Topics include the interwar years, the origins of World War II, post-war American hegemony, the Cold War, the New World Order, and political, economic, and cultural interaction between the United States and other countries and peoples.

PREREQUISITE: History 242 or permission of the instructor

Seminar: Three hours a week

#### 455 WAR AND REVOLUTION IN THE 20<sup>th</sup> CENTURY WORLD

This course examines the history of the world since the First World War. It explores crucial events such as the First and Second World Wars; communist revolution in countries such as Russia, China, Cambodia and Cuba; decolonization; the Korean conflict; war in southeast Asia; the Cold War; the collapse of communism in eastern Europe; and the Persian Gulf War. It also focuses on pivotal figures such as Lenin, Churchill, Hitler, Mao, Thatcher, De Gaulle, Gorbachev, and Castro.

PREREQUISITE: History 201/202 or permission of the instructor

Seminar: Three hours a week

#### 461 HISTORY OF ECONOMIC THOUGHT I

(See Economics 311)



## 462 HISTORY OF ECONOMIC THOUGHT II (See Economics 312)

### 472 20th CENTURY GREAT BRITAIN

This course examines selected topics in 20th-century British History. Topics may include the social and cultural impact of World War I, class conflict in inter-war Britain, the experience of World War II at home and at the front, imperial decline, post-war class and racial tensions, and Thatcherite Britain.

PREREQUISITE: History 262 or permission of instructor.

Seminar: Three hours a week

### 473 18th CENTURY ENGLISH SOCIETY AND CULTURE

This course examines selected topics in 18th-Century English social history. It explores the dynamic and disorderly world of entrepreneurs, social climbers, and riotous crowds characteristic of the time. Topics may include the rise of commercial society and consumerism, poverty, crime and punishment, urban culture, gender and sexuality, theatre, and art.

PREREQUISITE: Previous course work in British History is strongly recommended. Courses in 18th-Century English Literature (ENG 385, 366, 367) would also be relevant.

Seminar: Three hours a week

### 483 THE HISTORY OF THE ENVIRONMENTALIST MOVEMENT

This seminar course covers the history of the environmentalist movement in the United States and Canada since its origins in the late nineteenth century. It describes the changes the movement has undergone thanks to its links to the conservation, eugenics, ecology, birth control, and population control movements. The course also focuses on the writings of key figures in the environmentalist movement, such as Paul Ehrlich, Barry Commoner, Rachel Carson, David Suzuki, and Bill McKibben, as well as the activities of organizations such as the Sierra Club, Zero Population Growth, and Earth First. Students seek to understand the nature of today's environmentalism as a political, social, and cultural movement by examining what it has meant to earlier generations.

PREREQUISITE: 3rd year standing or permission of the instructor

Seminar: Three hours a week

### 484 APPLIED PUBLIC HISTORY

This course introduces students to both the field of public history and the application of history and historical methods in a variety of workplace settings. Public history, which involves the practice and presentation of history outside the academic setting, is the domain of a wide variety of practitioners. While the course deals primarily with the North American context, it also addresses questions of ethics, standards, and audience of broader interest to students of history.

PREREQUISITE: Third or fourth year standing in a history major or honours program, as well as permission of the department

Seminar/field work: Three hours a week and eight hours per week of unpaid field work in a public history workplace setting, supervised by a qualified professional acting as a mentor.

Semester hours of credit: 6

### 485 EUROPEAN INTELLECTUAL HISTORY SINCE 1789

This course covers the history of European ideas since the French Revolution and focuses on the main political ideologies that have arisen over the last two centuries. Topics include conservatism, liberalism, socialism, feminism, imperialism, nationalism, Soviet communism, and environmentalism. The course seeks to determine the fate of these ideologies as the twenty-first century unfolds.

Cross-listed with Political Science (cf. Political Science 436)

Seminar: Three hours a week

### 489 20th CENTURY PRINCE EDWARD ISLAND

This course examines major economic, political, and cultural developments within Prince Edward Island during the 20th century. Topics include the effects of technological change; Maritime Union; federal-provincial relations,

including transfer payments and the 15-year Comprehensive Development Plan; “Rural Renaissance”; the constitutional discussions of the 1980s and 1990s; and the debate surrounding construction of the “fixed link.”

PREREQUISITE: History 332 or permission of the instructor

Seminar: Three hours a week

#### 491-492 DIRECTED STUDIES

These tutorial courses are intended to encourage independent initiative and study on the part of the student. Reading and research are conducted within specialized areas chosen by the student in close consultation with one or more members of the Department. This course is restricted to qualified Third and Fourth Year students in any discipline.

##### **Canadian**

The possible areas of study are:

- The History of Canadian Native Peoples
- Western Canadian History Canadian Social History Canadian Women’s History
- Folk History of Prince Edward Island
- PEI Social and Cultural
- Atlantic Region Social and Cultural

##### **American:**

- U.S. Foreign Policy, 20th-Century
- 18th-, 19th-, and 20th-Century America
- Canadian-American Relations
- Colonial Societies

##### **British and European:**

- British History
- British Social and Cultural History
- Western and Central Europe
- European, Medieval, Modern, and Intellectual History Early Modern Europe—Social and Cultural History  
Gender in British and European History
- History of Religion

(See Academic Regulation 9 for Regulations Governing Directed Studies).

#### 493 DIRECTED STUDIES (CLASSICS)

(See Classics 431 (with approval of History Chair))

#### 494 DIRECTED STUDIES (CLASSICS)

(See Classics 432 (with approval of History Chair))

#### HONOURS COURSES

These courses are restricted to students registered in the History Honours Program. For regulations see above.

#### 497 HONOURS TUTORIAL IN HISTORIOGRAPHY

This is an intensive reading and tutorial course in selected fields offered by the Department. Students should consult with the honours advisor in planning this course. The course normally centres on the historiography of the broad area in which the student’s graduating essay is prepared.

Tutorial: Three hours a week

#### 498 HONOURS GRADUATING ESSAY

Students propose, research, and write a major research essay under the supervision of a tutor from the Department. The essay is the subject of a final oral examination. The oral examination committee consists of the major tutor, one additional member from the Department of History, and a faculty member from another Department of the University.

## **Integrated Studies**

### **Co-ordinator**

Karen Dempsey

The Bachelor of Integrated Studies (BIS) program is a 90-credit degree designed to accommodate the personal, educational, and career goals of adult students, most of whom already possess diverse learning and who study part-time.

The structure is flexible while ensuring that students receive both depth and breadth of knowledge within their studies. The student achieves depth through choosing a concentration of at least 8 courses in an area of interest. Breadth comes through the completion of a required and recommended core of basic courses ranging from literature and communication skills to philosophy and leadership, and by pursuing a diversity of offerings to satisfy personal intellectual curiosity.

## **DEGREE REQUIREMENTS**

### **AREA OF CONCENTRATION (24 semester-hours)**

Students must complete an area of concentration totalling 8 courses or 24 semester-hours. One course at the 300 level and one course at the 400 level. A further 8 courses at the senior (300 and 400) level are required for graduation. Not more than 12 courses or 36 semester-hours can be at the Introductory (100) level. Several additional courses are recommended, depending on individual learning plans. At least 30 semester-hours must be at the 300 level or above, with a grade of 65% in at least 7 of the 10 courses completed at the senior level.

### **REQUIRED COURSES (9 semester-hours)**

One of UPEI 101, 102, or 103 and a writing intensive course  
Integrated Studies 193: Creating a Career and Learning Portfolio

### **ELECTIVES**

Students are required to explain and reflect on their course choices when they establish their learning plan. However, the need to ensure coherence in study should not restrict students from intellectual exploration, or from addressing conspicuous gaps in knowledge unrelated to their primary learning objectives. One of the primary roles of the BIS Coordinator is to help ensure that the course choices are balanced, and the overall outcomes of a well-rounded degree program are achieved.

A number of courses are identified as forming the foundation of a university career. These are recommended rather than required to allow flexibility in devising learning plans with students. Academic advisors give priority to these courses.

## **SUMMARY**

The Bachelor of Integrated Studies requirements include:

- 33 semester-hours (11 courses) at the senior level: nine 300-400 level courses in any subject, one 300 level course in the concentration, and one 400 level course in the concentration.
- A grade of 65% in at least 7 of the 11 courses completed at this senior level
- Not more than 36 semester-hours (12 courses) at the preparatory (100) level
- 6 semester-hours in one of UPEI 101, UPEI 102, or UPEI 103 and a writing intensive course
- Integrated Studies 193: Creating a Career and Learning Portfolio

## **PLAR PROCESSES IN THE BIS**

Program PLAR at the University of Prince Edward Island provides for assessment and recognition of prior learning (PLAR) through portfolio assessment. Learners must demonstrate equivalency of their learning from sources other

than formal study to the outcomes expected of a student who is completing the degree through course work. For more information on the role of PLAR, contact the BIS Coordinator.

### **COURSE DESCRIPTIONS**

Students may choose from a broad range of courses, according to their area of concentration and with academic advice.

#### **193 CAREER AND LEARNING PORTFOLIO DEVELOPMENT**

This course is designed to review and clarify a student's learning and career objectives, and to document and demonstrate experiential learning. Learners understand the various purposes of portfolios; know the conventions of developing and professionally presenting a portfolio; and are capable of articulating acquired learning in job descriptions or degree requirements.

Cross-listed with Education (cf. Education 319) and University (cf. University 193)

Three semester hours

### **International Development Studies**

#### **Co-ordinator**

Wimal Rankaduwa, Economics

### **REQUIREMENTS FOR A MINOR IN INTERNATIONAL DEVELOPMENT STUDIES**

Students wishing to minor in International Development Studies must complete twenty-one semester hours according to the program described below. All courses are valued at three semester hours.

#### **1. The core course in International Development Studies**

IDS 201: Introduction to International Development Studies

PLUS

#### **2. Two courses (6 semester hours) from the list of electives as follows:**

##### **i. minimum of six semester hours from**

a. EC 341: Economic Development Theory

EC 342: Economic Development Policy

OR

b. POLS 221: Political Economy and Social Change in the Developing World

POLS 282: Introduction to International Politics

POLS 392: International Political Economy

POLS 393: International Theory

##### **ii. four other courses (12 semester hours) from the following list of electives:**

#### **Asian Studies**

AST 201: Introduction to West Asia

AST 202: Introduction to East Asia

#### **Business**

BUS 287: Introduction to International Business

BUS 477: International Marketing

#### **Economics**

EC 331: International Trade

EC 332: International Monetary Economics

EC 341: Economic Development Theory

EC 342: Economic Development Policy

#### **Education**

ED 462: International Education  
ED 465: International Development  
International Development Studies  
IDS 421-422: Directed Studies

#### Modern Languages

FR 252: Le Français Des Affaires  
FR 446: Traduction: Anglais—Français  
FR 447: Traduction: Français—Anglais  
GER 201: Intermediate German I  
GER 202: Intermediate German II  
SPAN 201-202: Intermediate Spanish  
SPAN 203: Intensive Study Abroad (Salamanca)

#### Political Science

POLS 221: Political Economy and Social Change in the Developing World  
POLS 282: Introduction to International Politics  
POLS 343: Comparative Politics of South Asia  
POLS 361: Comparative Politics of Africa  
POLS 362: Comparative Politics of Latin America and the Caribbean  
POLS 363: Comparative Politics of the Middle East  
POLS 371: Political Transition in Central and Eastern Europe  
POLS 372: The Politics of Russia and Its Borderlands  
POLS 393: International Theory

#### Sociology/Anthropology

SAN 212: Peoples of South Asia  
SAN 242: Peoples of Oceania  
SAN 251: Peoples of Africa  
SAN 355: Globalization

\* Special Studies in the other disciplines may be considered.

### **INTERNATIONAL DEVELOPMENT STUDIES COURSES**

#### **201 INTRODUCTION TO INTERNATIONAL DEVELOPMENT STUDIES**

This course examines important theoretical and empirical issues of international development using an interdisciplinary approach. The course focuses on a critical analysis of comparative development experience of developing and developed countries, various theories, policy alternatives and strategies of development, and the role of national and international organizations in international development.

#### **202 INTERNATIONAL DEVELOPMENT PROBLEMS AND POLICIES**

This course examines a set of important international development problems and policies theoretically and empirically using an interdisciplinary approach. The course focuses on a critical analysis of the experience of developing and developed countries in relation to the problems of poverty and income distribution, agricultural and rural development, the environment, education, health, gender, population, migration, international trade and finance, international debt and foreign aid, and multinationals and foreign direct investment. A variety of policy alternatives and strategies suggested as solutions for these problems, and the role of national and international organizations in the application of those policies and strategies are also examined.

Three semester hours

#### **209 SPECIAL TOPICS**

To create a category for Special Topics in IDS (International Development Studies)

#### **309 SPECIAL TOPICS**

To create a category for Special Topics in IDS (International Development Studies)

## 409 SPECIAL TOPICS

To create a category for Special Topics in IDS (International Development Studies)

## 421-422 DIRECTED STUDIES

### Island Studies

<http://www.upei.ca/arts/island-studies>

<http://upei.ca/mais>

### Co-ordinator

James Randall

Island Studies is an interdisciplinary program designed to promote an understanding of selected features of the world's small islands, including their geographies, ecologies, cultures, political systems, histories, and societies.

The Island Studies program has three primary goals:

- first, to engage students in an emerging, international academic discussion of islands' distinctive characteristics, challenges, and opportunities;
- second, to study Prince Edward Island as a specific example of an island bearing these characteristics and playing out these challenges and opportunities; and
- third to study islands in a comparative and international framework.

### REQUIREMENTS FOR A MINOR IN ISLAND STUDIES

A minor in Island Studies consists of twenty-one (21) semester hours of credit taken from the list of approved courses, and including Island Studies 201. Among the elective courses, students must complete at least two courses (six semester hours) specific to Prince Edward Island and at least two courses (six semester hours) which are comparative. Students intending to complete a minor in Island Studies are encouraged to complete Island Studies 201 early in their course of studies. Students minoring in Island Studies must choose at least 4 courses in subject areas other than those in which they are majoring.

### ISLAND STUDIES CORE COURSES

#### 201 INTRODUCTION TO ISLAND STUDIES

This course introduces students to the emerging interdisciplinary and comparative study of islands and archipelagoes. It examines their cultures, geography, economies, historical development, environmental concerns, and systems of governance. It focuses on jurisdictions with varying degrees of self-government such as Barbados, the Faroe Islands, Iceland, the Isle of Man, Malta, and Prince Edward Island.

#### 209 SPECIAL TOPICS

Creation of a course code for special topics offered by Island Studies at the 200 level.

#### 211 ISLAND TOURISM: THE SEARCH FOR PARADISE

This course will provide a cross-disciplinary analysis of the nature of island tourism, looking at contrasts between warm-water and cold-water islands; supply and demand considerations; cycles and challenges of the industry; the cultural positioning of hosts and guests; the transformation of land and seascapes; pros and cons of mass versus niche tourism; environmental downsides; and future challenges, including prospects for 'sustainable development'. Cross-listed with Sociology/Anthropology (cf. Sociology/Anthropology 211)

#### 291 DIRECTED STUDIES

This course provides an opportunity for students to study a current topic relevant to islands, under the supervision of a faculty member. Alternatively, credit for this course may be claimed by fulfilling an overseas assignment with a recognized volunteer-sending agency (e.g., CUSO) on a small island in the developing world.

Three hours per week

### 309 SPECIAL TOPICS

Creation of a course code for special topics offered by Island Studies at the 300 level.

### 374 TOURISM

(See Sociology/Anthropology 374)

PREREQUISITE: Island Studies 201

### 409 SPECIAL TOPICS

Creation of a course code for special topics offered by Island Studies at the 400 level.

### 491-492 DIRECTED STUDIES

In response to individual student needs, Directed Studies courses will be designed in the areas of directed readings or directed research. In addition, "Special topics" courses will be offered from time to time by members of the faculty or visiting instructors.

### ELECTIVES

Prince Edward Island Courses

Biology 222 - General Ecology

English 331 - Literature of Atlantic Canada

Environmental Studies 201 - Introduction to Environmental Studies

History 331 - History of PEI - Pre-Confederation

History 332 - History of PEI - Post Confederation

History 489 - 20th Century PEI

Philosophy 371 - Community-based Inquiry in Agriculture and Globalization

Political Science 202 - The Politics and Government of PEI

### Comparative Courses

Acadian Studies 201 - Introduction to Acadian Studies

Anthropology 332 - Social Organization

Biology 452 - Biogeography and Macroecology

Business 373 - Tourism Management

Economics 212 - Regional Economics: Less Developed Areas

Economics 331 - International Trade

Economics 341 - Economic Development Theory

Education 463 - Culture and Society in Education

History 231-232 - The Atlantic Region

Political Science 282 - Introduction to International Politics

Political Science 362 - Comparative Politics of Latin America and Caribbean

Sociology/Anthropology 374 - Tourism

### NOTE 1

Other courses not specifically focused on islands may, with prior approval of the instructor, the Co-ordinator of Island Studies, and the Dean of Arts, be credited toward an Island Studies minor. In such a case, the students will complete substantial individual work on topics related to islands.

### NOTE 2

Students minoring in Island Studies must choose at least 4 courses in subject areas other than those in which they are majoring.

## **Bachelor of Applied Arts in Print Journalism**

### **Co-ordinator**

Donald Desserud

The Bachelor of Applied Arts in Print Journalism is an articulated degree offered by the University of Prince Edward Island in cooperation with Holland College. Students acquire technical training and practical experience in Journalism (primarily during study at Holland College) and also acquire something of the breadth of knowledge, content exposure, and skills in research, problem-solving, and critical thinking associated with liberal education (primarily during study at UPEI). The program differs from a Bachelor of Journalism program, which normally has a more theoretical orientation in exploring the nature of the media. It also differs from a Bachelor of Arts program, which offers greater opportunity for depth of study in an academic discipline, does not have much career-specific orientation, and normally is a minimum requirement for admission to graduate study in the humanities, social sciences and some professional programs.

Students normally undertake one year of study at the University, then complete the two-year Journalism program at Holland College (earning a Holland College diploma), before undertaking a final year of study at the University. The final year of study normally includes an opportunity for journalistic writing either at the University or arranged through Holland College. Deviations from the normal sequence of study between the University and Holland College are permitted. In such cases, at least five courses (15 semester-hours) of study must be completed after the Holland College diploma is earned.

#### STUDENT ADVISEMENT

Each student accepted into pre-Journalism studies is assigned an academic advisor who is a member of the Journalism Coordinating Committee. Students are expected to meet periodically with their academic advisors regarding their expectations of the program, questions about the program, and course selection.

#### UNIVERSITY COURSE REQUIREMENTS

Students complete 20 courses (60 semester hours) at the University. The program is designed to ensure breadth of exposure to areas of knowledge important to journalistic practice. The 20 courses must include:

##### Writing skills

One of UPEI 101, UPEI 102, or UPEI 103 (first semester, first year)  
English 381 (second semester, first year)  
Writing 404 (final year)

##### Ethics

Philosophy 102 or 202 (first year)

##### Canadian Government

Political Science 201 or 262 (first year)

##### Natural sciences methods

Any one of Biology 101, 132, Chemistry 111, Physics 111 (first year)

##### Canadian history

History 101 or 102

##### PEI history and experience

Any one of History 331, 332, Political Science 202, Island Studies 201

##### Cultural Diversity

Any one course in Anthropology, Sociology/Anthropology, or Asian Studies

##### Numeracy/Statistics

Any one course in Mathematics, Psychology 278, Sociology 332, Business 251



Economics

Economics 111 or any alternate course in Economics

Literature and the arts

Any literature course in English or Modern Languages, or any course in Music, or Fine Arts Students may select their eight remaining courses from any area of interest. Students are encouraged to consider the following recommended electives:

- French or another second language,
- Linguistics (English),
- Psychology,
- Sociology,
- Diversity and Social Justice Studies,
- Business Administration, and
- Philosophy 353 (Philosophies of Communication).

## **Mathematics and Statistics**

<http://upei.ca/math>

### **Mathematics and Statistics Faculty**

Shannon Fitzpatrick, Associate Professor, Chair

Maxim Burke, Professor

David Horrocks, Associate Professor

Shafiqul Islam, Associate Professor

Sami Khedhiri, Associate Professor

Gordon MacDonald, Professor

Nasser Saad, Professor

Ken Sulston, Professor

## **DEGREE PROGRAMS**

The Department of Mathematics and Statistics offers three different programs of study leading to a Bachelor of Science degree:

1. Major in Mathematics
2. Honours in Mathematics
3. Major in Mathematics with Engineering

## **ADMISSION TO PROGRAMS**

Students intending to take a major in Mathematics must make their intent known to the Department as soon as possible so that the Department will be able to give early and continued advice for course selection and further study or employment after graduation. Such prospective majors would normally make their intent known to the Department during their Second Year but should do so no later than Third Year.

## **ADMISSION TO SCIENCE CALCULUS**

The first-year Calculus courses for most science students are Math 191 and Math 192. In addition to Grade XII academic Mathematics (or equivalent), a passing grade on the Assessment Test is also required as a prerequisite for Math 191. The Assessment Test covers the standard pre-calculus topics of the high school curriculum (arithmetic, algebra, trigonometry, analytic geometry, and the basic theory of functions). This test is given during the first week of classes in both the first and second semesters. Students who do not pass the assessment test have the option of enrolling in a special section of Math 191 (Math 191X) which also reviews some pre-calculus material. See the Department Chair for details.

## **SELECTION OF COURSES**

Students majoring in Mathematics are permitted to offer Mathematics 101 or Mathematics 111, or both, for degree credit only if these are completed prior to their Third Year.

### REQUIREMENTS FOR A MAJOR IN MATHEMATICS

The Major program requires a total of 120 semester hours of course credit. A total of 45 semester hours of Mathematics is required: 33 semester hours of core courses, plus 12 semester hours of electives above the 100 level, at least 6 semester hours of which must be above the 200 level. The core consists of Math 191-192, 221, 242, 261, 272, 291, 351, 361, plus at least one of 301, 321, or 331. Also required are one of UPEI 101, UPEI 102, or UPEI 103 and one writing intensive course, Computer Science 151-152 and an additional 15 semester hours of courses offered by the Faculty of Science. Physics 111-112 is highly recommended. Students are strongly encouraged to take some of the science courses early in their program.

**Note:** For the academic year 2015/16 only, Math 251 and 252 (and 253 for Engineering students) will be offered to those students who currently already have taken Math 151 and 152 and who require second year calculus courses for their degree requirements. Students entering in the fall of 2015 will be expected to take Math 191 and 192 in their first year of studies. Math 251, 252 and 253 will be deleted from the course offerings in Mathematics in 2016/17 and only Math 191, 192 and 291 will be offered. Students who have completed any of Math 151, 152, 251, 252 or 253 should be aware that courses requiring Calculus prerequisites now have Math 191, 192 or 291 listed as prerequisites in this calendar. Generally Math 151 can be substituted for Math 191, Math 192 can be substituted for Math 152 and Math 251 and 252 or Math 253 can be substituted for Math 291 to satisfy the prerequisites. However, this is a general rule only and students should check with the course instructors to determine prerequisite substitutions for a particular course.

The specific courses (and semester hours of credit) required are:

#### First Year

	<b>Semester hours of credit</b>
Mathematics 191-192	8
Computer Science 151-152	6
Electives	18

#### Second Year

Mathematics 221	3
Mathematics 242	3
Mathematics 291	4
Mathematics 261	3
Mathematics 272	3
Electives	12

#### Third & Fourth Year

At least one of Mathematics 301, 321, or 331	3
Mathematics 351	3
Mathematics 361	3
Mathematics Electives	12
Electives	39
<b>Total</b>	<b>120</b>

### REQUIREMENTS FOR HONOURS IN MATHEMATICS

The Honours program in Mathematics is designed to provide research experience at the undergraduate level. It is intended for students who are planning to pursue postgraduate studies in Mathematics or a related discipline, or who are planning a career where research experience would be an asset.

The Honours program requires a total of 126 semester hours of course credit. A total of 60 semester hours of Mathematics are required: 39 semester hours of core courses, a 6-semester-hour Honours project (Math 480), plus 15 semester hours of electives above the 100 level, at least 3 semester hours of which must be at the 400 level. The

core consists of Math 191-192, 221, 242, 261, 272, 291, 301, 321, 331, 351, and 361. Also required are one of UPEI 101, UPEI 102, or UPEI 103 and one writing intensive course, Computer Science 151-152, and an additional 15 semester hours of courses offered by the Faculty of Science. Physics 111-112 is highly recommended. Students are strongly encouraged to take some of the science courses early in their program. To graduate with the Honours in Mathematics, students must achieve a minimum average of 75% in all Mathematics courses combined, and must achieve a minimum overall average of 70% in all courses submitted for the degree.

**Note:** For the academic year 2015/16 only, Math 251 and 252 (and 253 for Engineering students) will be offered to those students who currently already have taken Math 151 and 152 and who require second year calculus courses for their degree requirements. Students entering in the fall of 2015 will be expected to take Math 191 and 192 in their first year of studies. Math 251, 252 and 253 will be deleted from the course offerings in Mathematics in 2016/17 and only Math 191, 192 and 291 will be offered. Students who have completed any of Math 151, 152, 251, 252 or 253 should be aware that courses requiring Calculus prerequisites now have Math 191, 192 or 291 listed as prerequisites in this calendar. Generally Math 151 can be substituted for Math 191, Math 192 can be substituted for Math 152 and Math 251 and 252 or Math 253 can be substituted for Math 291 to satisfy the prerequisites. However, this is a general rule only and students should check with the course instructors to determine prerequisite substitutions for a particular course.

The specific courses required are listed below:

	<b>Semester hours of credit</b>
First Year	
Mathematics 191-192	8
Computer Science 151-152	6
Electives	18
Second Year	
Mathematics 221	3
Mathematics 242	3
Mathematics 291	4
Mathematics 261	3
Mathematics 272	3
Electives	12
Third and Fourth Year	
Mathematics 301	3
Mathematics 321	3
Mathematics 331	3
Mathematics 351	3
Mathematics 361	3
Mathematics 480 (Honours project)	6
Mathematics Electives	15
Electives	30
Total	126

#### ENTRANCE REQUIREMENTS

Permission of the Department is required for admission to the program. Students must normally have a minimum average of 70% in all previous courses. Normally, the Department expects first-class or high second-class standing in all previous Mathematics courses. Admission is contingent upon the student finding a project advisor and acceptance by the Department of the topic for the Honours project. Students interested in doing Honours are strongly encouraged to consult with the Department Chair as soon as possible, and no later than January 31 of the student's third year.

#### REQUIREMENTS FOR A MAJOR IN MATHEMATICS WITH ENGINEERING

Students enrolled in the Engineering Diploma Program may follow an expanded program leading to the Bachelor of Science degree with a major in Mathematics. Students must fulfil all requirements for a Diploma in Engineering, as well as the additional requirements for a Major in Mathematics specified below.

The Mathematics with Engineering program requires a total of 120 semester hours of course credit. A total of 36 semester hours of Mathematics is required: Math 191-192, 221, 261, 272, 291, 301, 331, one of 351 and 361, and 6 semester hours of mathematics electives at the 300 level or above. All of the required courses for a Diploma in Engineering must be completed, specifically: Engineering 121, 122, 132, 151, 221, 222, 231, 261 and 281; and six semester hours of Engineering electives.

Also required is one of Computer Science 161 or 392. Additional Science are: Physics 111 and 112, and Chemistry 111 and 112. The remaining electives must include one of UPEI 101, UPEI 102, or UPEI 103 and one writing intensive course required by the University.

**Note:** For the academic year 2015/16 only, Math 251 and 252 (and 253 for Engineering students) will be offered to those students who currently already have taken Math 151 and 152 and who require second year calculus courses for their degree requirements. Students entering in the fall of 2015 will be expected to take Math 191 and 192 in their first year of studies. Math 251, 252 and 253 will be deleted from the course offerings in Mathematics in 2016/17 and only Math 191, 192 and 291 will be offered. Students who have completed any of Math 151, 152, 251, 252 or 253 should be aware that courses requiring Calculus prerequisites now have Math 191, 192 or 291 listed as prerequisites in this calendar. Generally Math 151 can be substituted for Math 191, Math 192 can be substituted for Math 152 and Math 251 and 252 or Math 253 can be substituted for Math 291 to satisfy the prerequisites. However, this is a general rule only and students should check with the course instructors to determine prerequisite substitutions for a particular course.

The specific courses required are listed below:

	Semester hours of credit
First Year	
Math 191-192	8
Engineering 121-122	6
Engineering 132	3
Engineering 151	3
Physics 111-112	6
Chemistry 111-112	6

	Semester hours of credit
Second, Third, and Fourth Year	
Mathematics 291	4
Mathematics 261	3
Mathematics 272	3
Engineering 221, 222	6
Engineering 231	3
Engineering 261	3
Engineering 281	3
Computer Science 241 or 392	3
Mathematics 301	3
Mathematics 331	3
Mathematics 351 or 361	3
Mathematics Electives	6
Engineering Electives	6
UPEI 101, 102, or 103	3
Electives	33
Total semester hours	120

## ACADEMIC MINORS

The Department offers academic minors in both Mathematics and Statistics.

### REQUIREMENTS FOR A MINOR IN MATHEMATICS

Students may obtain a minor in Mathematics by completing at least 21 semester hours of courses in Mathematics defined as follows:

Semester Hours Credit		
Math 191-192	Introductory Single Variable Calculus I & II	8
Math 291	Multivariable and Vector Intermediate Calculus I	4
Math 261	Linear Algebra	3

Plus 3 semester hours of Mathematics at the 300 level or above, and an additional 3 semester hours of Mathematics at the 200 level or above.

### REQUIREMENTS FOR A MINOR IN STATISTICS

Students may obtain a Minor in Statistics by completing at least 21 semester hours of courses in Mathematics defined as follows:

Semester Hours Credit		
Math 191-192	Introductory Single Variable Calculus I & II	8
Math 221-222	Introductory Statistics I & II	6
Math 261	Linear Algebra	3
Math 321	Probability and Mathematical Statistics I	3
One additional Statistics Course chosen from Math 324, 322, or 424		3

NOTE: Students majoring in Mathematics are not allowed to minor in Statistics. Consult with the Department regarding specializations within the mathematics major.

## MATHEMATICS COURSES

### 001 PRE-CALCULUS

This is a non-credit pre-calculus course which is designed to prepare students for Math 191. Students who obtain a passing grade in this course are not required to write the Assessment Test before being accepted into Math 151. Topics covered in the course include solving linear equations and inequalities; factoring polynomials; solving quadratic equations; domain, range, and graph of a function; composition of functions and inverse functions; exponential, logarithmic and trigonometric functions.

PREREQUISITE: None

Three lecture hours a week

### 101 ELEMENTS OF MATHEMATICS

This course provides an introduction to several mathematical topics at the university level, and is intended for students majoring in a discipline other than Mathematics, Computer Science or the natural sciences. The course consists of four modules: (1) Sets and Logic, (2) Number Theory, (3) Geometry, (4) Mathematical Systems.

PREREQUISITE: Grade XII academic Mathematics

Three lecture hours a week

NOTE: Credit will not be given jointly for this course and any other 100-level Mathematics course.

### 111 FINITE MATHEMATICS (offered in both semesters)

This course introduces students to finite mathematical techniques and to mathematical models in business, life and the social sciences. The course begins with an introduction to mathematical models, types of models, and conversion of verbal models to mathematical models. Topics covered include systems of linear equations and matrices, linear inequalities and linear programming, sets, counting and probability.

PREREQUISITE: Grade XII academic Mathematics

Three lecture hours a week

NOTE: Credit for Mathematics 111 will not be allowed if taken concurrent with or subsequent to Mathematics 261.

### 112 CALCULUS FOR THE MANAGERIAL, SOCIAL AND LIFE SCIENCES (offered in both semesters)

This course provides an introduction to calculus for students in the managerial, social and life sciences. The main emphasis of the course is the development of techniques of differentiation and integration of algebraic, exponential and logarithmic functions. Applications of derivatives and integrals are also discussed.

PREREQUISITE: Grade XII academic Mathematics

Three lecture hours a week

NOTE: Credit will not be given jointly for this course and Math 151 or 152 or Math 191-192.

### 191 SINGLE VARIABLE CALCULUS I

This course is an introduction to differential and integral calculus of functions of a single variable. The course is intended primarily for majors in Mathematics and the Physical Sciences, as well as those planning to continue with further Mathematics courses. The concepts of limits, continuity and derivatives are introduced and explored numerically, graphically and analytically. The tools of differential calculus are applied to problems in: related rates; velocity and acceleration; extrema of functions; optimization; curve sketching; and indeterminate forms. The concepts of definite and indefinite integrals are introduced, and the relation between the two integrals is discovered via the Fundamental Theorem of Calculus.

PREREQUISITES: Grade XII academic Mathematics and a passing grade on the Assessment Test

Four credit hours (Four lecture hours a week)

NOTE: Credit will not be allowed for Mathematics 191 if a student has already received credit for Math 151.

### 192 SINGLE VARIABLE CALCULUS II

This course is a continuation of integral calculus of functions of a single variable and an introduction to sequences and series. Techniques of integration are studied, including improper integrals and numerical integration, and the tools of integral calculus are used to compute areas, volumes and arc lengths and are applied to problems in physics and differential equations. Sequences, series, tests for convergence, Taylor series, and Taylor polynomials are studied.

PREREQUISITE: Math 191

Four credit hours (Four lecture hours a week)

NOTE: Credit will not be allowed for Math 192 if a student has already received credit for Math 152.

### 221 INTRODUCTORY STATISTICS I (offered in both semesters)

The main objective of this course is to introduce the basic concepts of descriptive statistics, statistical inference, and the use of statistical software such as MINITAB to students in any discipline. More time is spent on statistical inference than on descriptive statistics. Topics include frequency distributions, descriptive statistics, rules of probability, discrete and continuous probability distributions, random sampling and sampling distributions, confidence intervals, one- and two-tail tests of hypotheses, and correlation and linear regression.

PREREQUISITE: Grade XII academic Mathematics. Three semester hours of university mathematics is strongly recommended

Three lecture hours a week

NOTE: Credit will not be allowed for Mathematics 221 if a student has received credit for any of the following courses: Business 251, Education 481, Psychology 271 and Sociology 332.

### 222 INTRODUCTORY STATISTICS II

The course builds upon the knowledge developed in Introductory Statistics I and introduces students to statistical techniques commonly used in research. Topics include linear regression and multiple linear regression, residual analysis, simple ANOVA models, categorical data analysis, simple sampling models, and common distributions (including binomial, Poisson, and exponential).

PREREQUISITE: Math 221

Three lecture hours per week

### 242 DISCRETE MATHEMATICS

This course offers a survey of topics in discrete mathematics that are essential for students majoring in Mathematics or Computer Science. Topics include logic; proof techniques such as mathematical induction; counting methods; algorithms and big-Oh notation; introductory graph theory; and Boolean algebras.

PREREQUISITE: Math 152

Three lecture hours a week

### 251 INTERMEDIATE CALCULUS I

This course continues from Mathematics 152 and is primarily an introduction to infinite series and vector calculus. Topics include parametric representations of curves and their applications, polar coordinates, area and arc length in polar coordinates, sequences, series and tests for convergence, Taylor series and Taylor polynomials, three-dimensional coordinate systems, dot and cross products, vector functions, and cylindrical and spherical coordinates.

PREREQUISITE: Math 152

Three lecture hours a week

### 252 INTERMEDIATE CALCULUS II

This course continues from Mathematics 251. It introduces multivariable differentiation and integration, and investigates further topics in vector calculus. Topics include: functions of several variables; partial differentiation; directional derivatives; gradient vector; local, absolute, and constrained maxima and minima; double and triple integrals; changes of variables in multiple integrals, especially in polar, cylindrical and spherical coordinates; line integrals; curl and divergence; and Green's, Stokes' and Divergence Theorems.

PREREQUISITE: Math 251

Three lecture hours a week

### 253 INTERMEDIATE CALCULUS FOR ENGINEERING

This course is an introduction to vector and multi-variable calculus for engineering students. Topics will include partial and directional derivatives, gradients, extrema of functions of two variables, double and triple integrals in various coordinate systems, line integrals, curl and divergence, Green's theorem, Stoke's theorem, and the Divergence theorem.

PREREQUISITE: Math 152

Four lecture hours a week

NOTE: This course is open only to students in the engineering program. Credit will not be given jointly for this course and Math 251 or 252.

### 261 LINEAR ALGEBRA

This course introduces some of the basic concepts and techniques of linear algebra to students of any major. The emphasis is on the interpretation and development of computational tools. Theory is explained mainly on the basis of two or three-dimensional models. Topics covered are: matrices; determinants; systems of equations; vectors in two and three-dimensional space including dot and cross products, lines, and planes; concepts of linear independence, basis, and dimension explained with examples; linear transformations and their matrices; eigenvectors and eigenvalues.

PREREQUISITE: Six semester hours of First Year Mathematics

Three lecture hours a week

### 272 MATHEMATICAL STRUCTURES AND REASONING

This course provides students with experience in writing mathematical arguments. It covers first-order logic, set theory, relations, and functions. The ideas and proof techniques are considered in the context of various mathematical structures such as partial orders, graphs, number systems, and finite groups.

PREREQUISITE: None

Three lecture hours a week

### 281 FOUNDATIONS OF GEOMETRY

This course presents an axiomatic base for Euclidean geometry and an insight into the interdependence of the various theorems and axioms of that geometry and non-Euclidean geometries. Topics include: incidence and

separation properties for points, lines, planes and space; congruence properties; geometric inequalities; similarity properties; and geometric constructions.

PREREQUISITE: Six semester hours of First Year Mathematics

Three lecture hours a week

## 282 (Formerly 381) MATHEMATICAL PHYSICS

See Physics 282

PREREQUISITE: Math 291 and either Physics 112 or Physics 122

## 291 MULTIVARIABLE AND VECTOR CALCULUS

This course continues from Math 192 and is an introduction to multivariable differentiation and integration and vector calculus. Topics include parametric representation of curves; polar coordinates; vectors; dot and cross products; curves and surfaces in space; calculus of vector-valued functions; functions of several variables; partial differentiation; directional derivatives; tangent planes; local and constrained maxima and minima; double and triple integrals; changes of variables in multiple integrals; vector fields; line and surface integrals; gradient, divergence and curl; Green's, Stokes' and Divergence Theorems.

PREREQUISITE: Math 192

Four credit hours (Four lecture hours a week)

NOTE: Credit will not be allowed for Math 291 if a student has already taken Math 251, 252 or 253.

## 301 DIFFERENTIAL EQUATIONS

This course introduces the basic theory of differential equations, considers various techniques for their solution, and provides elementary applications. Topics include linear equations; separable equations; linear independence and Wronskian; second-order equations with constant coefficients; nonhomogeneous equations; applications of first- and second-order equations; Laplace and inverse Laplace transforms, and their application to initial-value problems; series solutions about ordinary and singular points; and Fourier series.

PREREQUISITE: Math 251

Three lecture hours a week

## 321 PROBABILITY AND MATHEMATICAL STATISTICS I

This course is an introduction to the theoretical basis of statistics for students who have completed Introductory Statistics. The study concentrates on the mathematical tools required to develop statistical methodology. Topics covered include: probability, random variables, functions of random variables, expectation, probability distributions, and sampling distributions.

PREREQUISITE: Math 152, and Math 221 or permission of the instructor.

Three lecture hours a week

## 322 PROBABILITY AND MATHEMATICAL STATISTICS II

This course builds on the mathematical foundation developed in Mathematics 321 and introduces the student to the theory of statistical inference. Topics covered include sampling, further discussion of sampling distributions, parametric point and interval estimation, tests of hypothesis, an introduction to Bayesian, linear, and nonparametric methods.

PREREQUISITE: Math 252 and Math 321

Three lecture hours a week

## 324 APPLIED REGRESSION ANALYSIS

This course builds upon the basis of inference studied in Math 221 and provides students with an advanced knowledge of regression techniques. Topics covered are simple and multiple linear regression techniques, matrix notation, the design matrix, model building techniques, residual analysis, and non-linear regression.

PREREQUISITE: Math 221 and Math 261

Three lecture hours a week

## 331 COMPLEX VARIABLES

This is a first course in complex variables. The aim is to acquaint students with the elementary complex functions, their properties and derivatives, and with methods of integration. Topics covered include: definition and



development of complex numbers as ordered pairs; geometric representation; basic formulas and inequalities involving argument and conjugates; roots of complex numbers, limit, continuity, and derivative; Cauchy Riemann conditions; harmonic functions; properties of trigonometric, hyperbolic, logarithmic, exponential, and inverse trigonometric functions; bilinear transformation; integration; Cauchy Integral Theorem and Formula; residues and poles; Laurent and Taylor's series; and improper integrals.

PREREQUISITE: Math 252

Three lecture hours a week

### 332 THEORY OF COMPUTING

(See Computer Science 332)

### 342 NUMBER THEORY

This first course in number theory will include the following topics: equivalence of the principles of induction and the well-ordering principle; division algorithm; positional notation and repeating decimals; greatest common divisor; Euclidean Algorithm; Fundamental Theorem of Arithmetic; Pythagorean Triplets; Prime Numbers Theorem; Mersenne and Fermat Numbers; congruences; Euler's Phi-function; Chinese Remainder Theorem; Diophantine Equations; Theorems of Lagrange and Wilson; Quadratic Reciprocity Law of Gauss; Legendre symbol and primitive roots; perfect numbers; multiplicative number-theoretic functions; Moebius inversion.

PREREQUISITE: Six semester hours of Mathematics at the 200 level or higher

Three lecture hours a week

### 351 REAL ANALYSIS I

This is a first course in real analysis. Topics include: the reals as a complete ordered field; metric spaces; closed and open sets; Bolzano-Weierstrass and Heine-Borel Theorems; Cauchy Sequences; limits and continuity; derivative; Mean Value Theorem; Riemann Integral; and the Fundamental Theorem of Calculus.

PREREQUISITE: Math 252 and Math 272

Three lecture hours a week

### 361 ABSTRACT ALGEBRA I

This is a first course in abstract (modern) algebra in which several different algebraic structures are introduced.

Topics covered include: the concept of a group, elementary group properties, subgroups, cyclic groups, permutation groups, cosets, normal subgroups, homomorphisms, the concept of a ring, subrings, ideals, polynomial rings, the concepts of field and vector space.

PREREQUISITE: Math 272

Three lecture hours a week

### 371 GRAPH THEORY

This course is an introduction to the ideas, methods, and applications of graph theory. Topics studied include measuring and determining the connectivity of a graph, finding matchings in bipartite and general graphs, and finding a maximum collection of disjoint paths in a graph. Because of its algorithmic nature, this course is of interest to Computer Science and Engineering students, as well as to Mathematics students.

PREREQUISITE: Math 242 or Math 272

Three lecture hours a week

### 385 SPECIAL TOPICS IN MATHEMATICS

This course provides students with an opportunity to pursue special topics in mathematics or statistics. Content varies from year to year. Prospective students should contact the department for a more detailed description of any particular year's offering.

PREREQUISITE: Permission of the instructor

Three lecture hours per week and (possibly) one tutorial session per week

### 391 MATHEMATICAL MODELLING

This course studies the process of mathematical modelling, namely, formulating a "real-world" problem in mathematical terms, solving the resulting mathematical problem, and interpreting the solution. Major topics include the modelling of optimization problems (using the techniques of linear programming), and deterministic

and probabilistic dynamical processes (with models formulated as differential and difference equations).

Applications are taken from physics, chemistry, biology and other areas, according to class interest.

PREREQUISITE: Math 261 and Math 301; a statistics course is recommended.

Three lecture hours a week

### 392 NUMERICAL ANALYSIS

Approximate solution of equations, various interpolative or iterative methods, especially Newton's; convergence tests and rates of convergence; roundoff and truncation errors; propagation of error in calculations; interpolating polynomials; Gauss-Jordan and other methods for simultaneous linear equations; inversion of matrices; determinants and eigenvalues; simultaneous nonlinear equations; evaluation of definite integrals; approximate derivatives; initial-value ordinary differential equations; least-squares curve fitting.

Cross-listed with Computer Science (cf. Computer Science 392)

PREREQUISITE: Math 301 and CS 151 or equivalent

Three lecture hours a week

### 402 POINT-SET TOPOLOGY

A first course in topology, covering some review of set theory; cardinal numbers; binary relations; metric spaces, convergence and continuity in metric spaces; topological spaces, bases, sub-spaces; continuity in general; homeomorphism; product spaces; separation axioms; compactness; connectedness.

PREREQUISITE: Math 351

Three lecture hours a week

### 424 EXPERIMENTAL DESIGN

This course builds upon the basis of inference studied in Math 221 and Math 324 to include statistical techniques commonly used in experimental studies. Students will study topics such as analysis of variance models, hypothesis testing in ANOVA models, randomization, and blocking techniques.

PREREQUISITE: Math 324

Three lecture hours a week

### 452 REAL ANALYSIS II

This course follows directly from Mathematics 351. Topics include: the Riemann-Stieltjes Integral, series tests for convergence and divergence, sequences and series of functions, special functions, and topics chosen from functions of several variables, integration of differential forms, the Lebesgue Theory, and metric spaces.

PREREQUISITE: Math 351

Three lecture hours a week

### 462 ABSTRACT ALGEBRA II

This is a second course in abstract algebra which continues the study of abstract algebraic structures which was introduced in Mathematics 361. Topics include: quotient groups, group homomorphisms and automorphisms, direct products, the decomposition of finite abelian groups, ideals and quotient rings, field of quotients of an integral domain, Euclidean rings and principal ideal domains, rings of polynomials, unique factorization domains, extension fields.

PREREQUISITE: Math 361

Three lecture hours a week

### 471 PARTIAL DIFFERENTIAL EQUATIONS

This course is an introduction to the theory and application of partial differential equations. Topics include: first-order equations and characteristic curves; classification of second-order equations as parabolic, hyperbolic or elliptic; Laplace, wave and diffusion equations, and their physical origins; solution using Fourier series; and separation of variables.

PREREQUISITE: Math 252 and Math 301

Three lecture hours a week

### 472 DYNAMICAL SYSTEMS

This course is a study of the long-term qualitative behaviour of solutions of systems of differential or difference equations. Topics include: non-linear systems, linearization, numerical and graphical methods, equilibria, phase space, stability, bifurcations, strange attractors, and chaos. Applications to physics, biology and other sciences are studied.

PREREQUISITE: Math 261 and Math 301

Three lecture hours a week

#### 480 HONOURS PROJECT

This course is intended to give research experience to students planning to pursue graduate studies in mathematics or a related area, or planning a career where research experience would be an asset. It provides students with the opportunity to do an independent research project on a mathematical topic, under the supervision of a faculty member. Some or all of the work may be done during the summer months.

PREREQUISITE: Acceptance to the Honours program (see Calendar listing for entrance requirements)

Six semester hours of credit

#### 485 SPECIAL TOPICS IN MATHEMATICS

This course provides students with an opportunity to pursue special topics in mathematics or statistics. Content varies from year to year. Prospective students should contact the department for a more detailed description of any particular year's offering.

PREREQUISITE: Permission of the instructor

Three lecture hours per week and (possibly) one tutorial session per week

#### 491-492 DIRECTED STUDIES

These courses are recommended and designed for Mathematics Majors to encourage independent initiative and study. Reading and research will be conducted in one or more specialized areas.

NOTE: Interested students should see the Chair for a list of possible topics.

(See Academic Regulation 9 for Regulations Governing Directed Studies.)

### Modern Languages

<http://www.upei.ca/arts/modern-languages>

#### Modern Languages Faculty

Carlo Lavoie, Associate Professor, Chair

Sanda Badescu, Associate Professor

Doreley Coll, Associate Professor

Scott Lee, Associate Professor

Pamela Bastante, Assistant Professor

The Department of Modern Languages provides its students with the opportunity to study various languages and to obtain a good grounding in these, but sees languages within its appropriate cultural contexts, i.e., the acquisition is seen as a vehicle to enter the thought, history, literature, cinema etc., with which each of the languages is associated. The Department offers full programs in both German and Spanish. In the case of the latter, students other languages are made available in response to student interest and availability of instructor. In the past, introductory courses have been offered in Chinese, Irish, Italian, Japanese, Russian, and Scottish Gaelic. For Japanese or other Asian languages see Asian Studies.

#### French

The Department of Modern Languages provides courses for several categories of students: for persons with little or no French, for those who have had French through high school, and for students who are fluent in French through residence, or through family, etc. A placement test must be taken prior to the beginning of classes to confirm the level at which these students should register. The Placement Test is available on the web during the summer months via the Department of Modern Languages website. During the rest of the year please contact the departmental secretary.

## **REQUIREMENTS FOR A MAJOR IN FRENCH**

1. A major consists of a minimum of 42 semester hours of French.
2. French 241 and French 242 are required courses.
3. At least 24 semester hours must be taken from upper-level courses above 242.
4. In the case of students transferring credits for courses taken elsewhere at least 6 semester hours at the upper level must be taken at UPEI.

## **ELECTIVES**

Students must include at least 12 semester hours in a modern language or modern languages other than French. In addition to the University's requirement of one of UPEI 101, UPEI 102, or UPEI 103 and one writing intensive course, they should also include courses in History and Philosophy. Students should discuss these courses or other alternatives with the Chair of Modern Languages as early as possible.

## **REQUIREMENTS FOR A MINOR IN FRENCH**

1. A minor in French consists of 21 semester hours of courses.
2. French 241 and French 242 are required courses.
3. At least 9 semester hours must be taken from among upper-level courses above French 242.
4. In the case of students transferring credits for courses taken elsewhere, at least 6 semester hours at the upper level must be taken at UPEI.

## **COURSE SEQUENCES AND RESTRICTIONS**

Students may not reverse the sequence of any courses taken from French 101 to French 242.

## **FRENCH COURSES**

### **101 FRENCH I**

This course takes the student from the most elementary vocabulary to an ability to function adequately in simple everyday situations. The concentration is on aural/oral skills.

**PREREQUISITE:** French Placement Test

Three hours a week plus lab

### **102 FRENCH II**

This course is a continuation of French 101.

**PREREQUISITE:** French 101 or French Placement Test

Three hours a week plus lab

### **121 FRENCH III**

This course is designed for students who have completed (or almost completed) the high school French core program, for those who have completed 102, or those who are placed into the course through the Placement Test. All major grammar points are covered, with an emphasis on both written and oral expression.

**PREREQUISITE:** French 102 or French Placement Test

Three hours a week plus lab

### **122 FRENCH IV**

This course is a continuation of French 121.

**PREREQUISITE:** French 121 or French Placement Test

Three hours a week plus lab

### **209 SPECIAL TOPICS**

Creation of a course code for special topics offered by Modern Languages at the 200 level.

#### 211 FRENCH V

This course is a detailed review of all areas of French grammar.

It is designed for students who have completed the high school French Immersion Program or French 122, or who have been identified through the Placement Test.

PREREQUISITE: French 121 or French Placement Test

Three hours a week plus lab

#### 212 FRENCH VI

This course is a continuation of French 211.

PREREQUISITE: French 211 or French Placement Test

Three hours a week plus conversation class

#### 221 LANGUE ET LECTURES I

This course is designed for students who have completed the high school French Immersion Program, or who have completed 212, or who are placed into the course through the Placement Test. This course entails a detailed and accelerated study of all areas of French grammar, accompanied by analysis of short texts.

PREREQUISITE: French 212 or French Placement Test

Three hours a week plus conservation class

#### 222 LANGUE ET LECTURES II

This course is a continuation of French 221.

PREREQUISITE: French 221 or French Placement Test

Three hours a week plus conversation class

#### UPPER-LEVEL COURSES

NOTE: Only three or four upper-level courses per semester are offered. For courses offered each year check the timetable.

#### 241 FRENCH COMPOSITION AND ANALYSIS I

This course is designed for students who have completed French 222, or who have been placed into it through the Placement Test. The aim of this course is to improve writing skills through an advanced analysis of both French grammar and short literary and critical texts. Various writing tasks such as the portrait, description, narration, letter-writing, and critical analysis of literary texts are practiced.

PREREQUISITE: French 222 or French Placement Test

Three hours a week plus conversation class

#### 242 FRENCH COMPOSITION AND ANALYSIS II

This course is a continuation of French 241.

PREREQUISITE: French 241 or French Placement Test

Three hours a week plus conversation class

#### 251 INTRODUCTION TO FRENCH LITERATURE

This course is a survey of the dominant movements and major authors of French literature. It comprises lectures in simple French and readings of the representative passages chosen for their literary importance and their accessibility.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

#### 252 LE FRANÇAIS DES AFFAIRES

This course is oriented towards French oral and written communication in the business setting. The world of business is examined from the angle of its vocabulary related to job searches, the C.V., administrative and commercial correspondence, as well as communication as it is used in and outside of the workplace.

PREREQUISITE: French 222 or permission of the instructor  
Three hours a week plus conversation class

### 261 INTRODUCTION À L'ÉDUCATION EN FRANÇAIS AU CANADA (See Education 213)

PREREQUISITE: French 222 or permission of the instructor  
Three hours a week plus conversation class

While the progression of courses is normally from the 300-level to the 400-level, there is no difference in the level of difficulty, and the available timetable in any given year may involve taking 400-level courses before 300-level courses.

### 309 SPECIAL TOPICS

Creation of a course code for special topics offered by Modern Languages at the 300 level.

### 311 ADVANCED WRITING

This course is an upper-level grammar course designed for students who already have a good knowledge of French. It focuses on the acquisition of practical knowledge and skills to improve writing in specific contexts such as essays, activity reports, summaries, CVs, etc. The course covers various types of writing and, at the same time, reviews important basics essential for good writing in French.

PREREQUISITE: French 222 or permission of the instructor  
Three hours a week plus conversation class

### 312 COMMENT LE DIRE ET L'ÉCRIRE? LE FRANÇAIS ET SES VARIÉTÉS

This upper-level course, designed for students who have a good knowledge of French, focuses on the construction of the French language norm and variations through different contexts, times, and places. Topics include the origins of the French language; the differences between French spoken and written in Acadia, Québec, France, and other regions of the Francophonie, and why there are these differences; archaisms, regionalisms, and neologisms; and how context affects our way of speaking or writing. The study of linguistic variation and the construction and functioning of standard French helps students better understand their own speaking and writing skills and assists them in enunciating their ideas.

PREREQUISITE: French 222 or permission of the instructor  
Three hours a week plus conversation class

### 313 LITTÉRATURE FRANÇAISE CONTEMPORAINE I

This course is a study of the leading writers and movements and the historical and social changes which influenced them up to the outbreak of the Second World War.

PREREQUISITE: French 222 or permission of the instructor  
Three hours a week plus conversation class

### 321 XIX<sup>e</sup> SIÈCLE: 1800-1850

This course consists of a study of what has traditionally been known as the Romantic period (1800-1850) in French literature, illustrated by authors such as Chateaubriand, Musset, Hugo, Nerval, and Sand. However, other literary figures of the period such as Stendhal, Balzac, Gautier, Mérimée, whose works (by turns realist, fantastic, or a hybrid mixture of diverse influences) resist easy classification, are also studied.

PREREQUISITE: French 222 or permission of the instructor  
Three hours a week plus conversation class

### 322 XIX<sup>e</sup> SIÈCLE: 1850-1900

This study of French literature focuses on the second half of the nineteenth-century. The main themes and trends of realism, naturalism and symbolism are studied through texts by authors such as Flaubert, les Goncourt, Baudelaire, Rimbaud, and Zola.

PREREQUISITE: French 222 or permission of the instructor  
Three hours a week plus conversation class

### 333 XVIII<sup>e</sup> SIÈCLE: L'ÂGE DES LUMIÈRES I

This course provides an introduction to the French literary world of the XVIII<sup>th</sup> century, from 1715 to 1750, with emphasis on the historical and political context which led to the age of Enlightenment, as well as on the study of various works of prose and drama produced by famous authors of the time, such as Montesquieu, Diderot, Marivaux and l'Abbé Prévost.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

### 334 XVIII<sup>e</sup> SIÈCLE: L'ÂGE DES LUMIÈRES II

As a continuation of 333, this course focuses on the literary productions of the second half of the century, with emphasis on the critical and philosophical aspects of the works selected, as well as on the development of a pre-romantic sensibility towards the end of that period.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

### 338 INTRODUCTION à la SOCIÉTÉ QUÉBÉCOISE

This course discusses the history and more specifically the culture of Québec. Students examine social productions of Québec throughout history: politics, the family, language, the arts, literature, the educational system, ideologies, fêtes, etc. The course is accompanied by a multimedia presentation including a multitude of images, videos, and films.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

### 339 THÉÂTRE CANADIEN-FRANÇAIS

This course proposes an introduction to theatrical production in French Canada from its origins to the present day. Questions to be discussed include: the representation of history, cultural appropriations, dominant themes, the mixing of genres, time and space, discourse analysis, theatrical language, etc.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

### 343 XVII<sup>e</sup> SIÈCLE: LE GRAND SIÈCLE I

This course is a study of the major writers associated with the concept of Classicism. The focus is on the first half of the seventeenth century.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

### 344 XVII<sup>e</sup> SIÈCLE: LE GRAND SIÈCLE II

This course focuses on writers in the Age of Louis XIV.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

### 401 RENAISSANCE

This course focuses on French literature of the XVI<sup>th</sup> century, with emphasis on the historical and political contexts which have led to the development of Humanism in France, as well as on the study of various works of prose and poetry produced by authors of the time such as Rabelais, Marguerite de Navarre, DuBellay and Montaigne.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

### 402 LEMOYEN-ÂGE

This course focuses on French literature from the IX<sup>th</sup> century to the XV<sup>th</sup> century, with emphasis on the historical and political contexts which led to the development of literary and cultural discourses in Old French. As well, various works of prose and poetry produced by the authors of the period are studied.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

#### 403 LA NOUVELLE FRANÇAISE

This course comprises a study of the French short story across the centuries, including such authors as Cazotte, Sade, Gautier, Balzac, Maupassant, Flaubert, Mauriac, Camus, and Yourcenar. The readings are coupled with a theoretical attempt to define the genre such as nouvelle, conte, nouvelle contée.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

#### 409 SPECIAL TOPICS

Creation of a course code for special topics offered by Modern Languages at the 400 level.

#### 421 LE ROMAN CONTEMPORAIN I

This course examines the French novel by exploring the various literary and philosophical movements of the contemporary era (existentialism, the new novel, and beyond). These trends are illustrated through readings of representative authors.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

#### 432 LITTÉRATURE ET CINEMA

This course consists of the study of the relation between French-language literary texts and their film adaptation, ranging from the seventeenth century to the modern day. Various questions of the inter-textual relationship are explored, including aspects specific to each genre.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

#### 433 LA CRITIQUE LITTÉRAIRE

This course provides an overview of various critical schools and methods whose object is the study of literary texts. Among the approaches studied are narratology, psychoanalysis, sociocriticism, deconstruction, and structuralism. The study of these methodologies is combined with practical applications to literary texts.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

#### 434 THE AUTOBIOGRAPHICAL GENRE IN FRENCH LITERATURE

This course examines French literary works classified as autobiographical, including essays, memoirs, letters, and diaries. It takes as its focus, representative authors starting from the Renaissance up to the present day. The texts studied illustrate historical and cultural movements through several centuries of French literature.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

#### 441 LITTÉRATURE CANADIENNE-FRANÇAISE I: DE LA NOUVELLE-FRANCE AU XIX<sup>e</sup> SIÈCLE

This course proposes a study of the emergence of writing in New France and of the status of the novel in the cultural life of the nineteenth century, specifically the conditions of writing, and the relationship between the novel and the ideologies of the era. It includes a study of works which are thematically and stylistically significant.

Cross-listed with English (cf. English 323)

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

#### 442 LITTÉRATURE CANADIENNE-FRANÇAISE II: XX<sup>e</sup> SIÈCLE

This course proposes a reading of Québec novels representative of the most important social and literary movements in the 20th century: the roman de la terre, the urban novel, the psychological novel, the novel of the Révolution tranquille, and the contemporary novel. The evolution of literary forms is studied as a function of the ideological shifts in Québec society throughout the 20th century.

Cross-listed with English (cf. English 324)

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class



#### 443 CULTURE ET LITTÉRATURE ACADIENNES I

This course comprises a critical reflection on Acadian literature and culture, with a particular emphasis on the oral tradition. Many aspects of Acadian culture are considered, including how the Deportation of 1755 is represented in historical documents and literature, the works of contemporary authors, and the Acadian culture of Prince Edward Island.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

#### 444 CULTURE ET LITTÉRATURE ACADIENNES II

This course comprises a critical reflection on modern Acadia, from the 1970s to the present day. It looks at many aspects of Acadian culture, including novels, songs, and poetry, and the emerging importance of the visual arts.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

#### 446 TRADUCTION: ANGLAIS-FRANÇAIS

This course covers a wide range of everyday material, e.g., government documents, letters, news items, advertising material, and literary extracts in English. Close attention will be paid to the style of language appropriate to each different type of translation.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

#### 447 TRADUCTION: FRANÇAIS-ANGLAIS

This course covers a wide range of everyday material, e.g., government documents, letters, news items, advertising material, and literary extracts in French. Close attention will be paid to the style of language appropriate to each different type of translation.

PREREQUISITE: French 222 or permission of the instructor

Three hours a week plus conversation class

#### 451-452 DIRECTED STUDIES

Centered around an author or a topic, this course is specifically designed to enable students to express themselves and to do research on their own. Students will be given topics to research and to present to the class. (See Academic Regulation 9 for Regulations Governing Directed Studies.)

### Spanish

#### REQUIREMENTS FOR A MAJOR IN SPANISH

Under the supervision of the Department, a student is allowed to major in Spanish if he/she shows a high level of interest and competency in the subject and intends to cover the minimum requirement of 42 semester hours.

This would be done under the approval of a Departmental Committee and the Dean of Arts after all courses taken or intended to be taken, at UPEI or another Canadian or foreign institution, have been considered. It is highly recommended that students take part of the exchange programs available with the University of Salamanca (Spain) and/or the University of la Republica (Uruguay).

A major consists of a minimum of 42 semester hours of Spanish.

#### ELECTIVES

Students must include at least 12 semester hours in a modern language or modern languages other than Spanish.

Students should discuss these courses or other alternatives with the Chair of Modern Languages as early as possible.

#### REQUIREMENTS FOR A MINOR IN SPANISH

A minor in Spanish consists of 21 semester hours of courses in the following sequence:

1. 12 semester hours:

Spanish 101/102 Introductory

Spanish 201/202 Intermediate

2. At least 9 semester hours at the 300 or 400 level in Spanish, at least 6 semester hours must be taken at UPEI at the upper level.

### **REQUIREMENTS FOR A CERTIFICATE OF PROFICIENCY IN CONVERSATIONAL SPANISH**

Studies leading to a Certificate of Proficiency in Conversational Spanish are designed for individuals with no background in Spanish. The program accommodates people wanting to learn Spanish so that they can communicate proficiently with people in another culture, increase professional qualifications, or gain new skills and expertise. Courses at the 100- and 200-level focus on basic language skills in listening, speaking, reading, and writing. Courses at the 300-level emphasize oral linguistic competence through discussion of cultural and socio-political issues in the Hispanic world.

A Certificate of Proficiency in Conversational Spanish consists of:

1. 18 semester hours of courses in the following sequence:

- 101-102 Introductory Spanish
- 201-202 Intermediate Spanish
- 303-304 Advanced Spanish

After completion of the required course work, success in an oral examination of linguistic competence in Spanish and knowledge of civilization and culture pertaining to the Hispanic world.

### **SPANISH COURSES**

#### **101-102 INTRODUCTORY SPANISH**

Spanish 101 is intended for students with no knowledge of Spanish. Spanish 102 is a continuation of 101. These courses give students solid grounding in the fundamentals of the Spanish language by engaging them, in both classroom and language laboratory settings, in communicative use of the four language skills: listening, speaking, reading and writing. By the end of Spanish 102, students obtain a comprehensive outline of Spanish grammar and are able to sustain a conversation on a variety of daily topics.

Three hours a week plus lab

#### **201-202 INTERMEDIATE SPANISH**

These courses are intended for students who have successfully completed Introductory Spanish. They enhance students' linguistic proficiency, allowing them to handle a variety of social situations. Students also develop cultural and historical understanding of Spain and Latin America. By the end of Spanish 202, students have insight into the grammatical structures of the language, are able to sustain conversations in real-life situations, and are able to discuss aspects of the Hispanic world.

PREREQUISITE: Spanish 102 or permission of the instructor

Three hours a week plus lab

#### **203 INTENSIVE STUDY ABROAD**

This is an intensive second-year level language course offered in cooperation with the University of Salamanca, Spain. Over a four-week period students attend 100 hours of language classes designed to consolidate grammar and common idiomatic expressions, and to increase active vocabulary. In addition, students take part in daily two-hour oral-culture sessions. Students are also encouraged to participate in activities of the university community and in weekend field trips.

PREREQUISITE: Spanish 102

Six semester hours of credit

#### **209 SPECIAL TOPICS**

Creation of a course code for special topics offered by Spanish at the 200 level.

#### **215 SPANISH FOR BUSINESS**

This course is designed to prepare students who have an intermediate competence in Spanish with the skills necessary to conduct business in Spanish-speaking countries successfully. Students will continue to develop their listening, speaking, reading and writing proficiency through a variety of exercises, such as preparing written documents (CVs, letters and memos), and oral presentations. In addition, students can expect to learn specialized vocabulary and important cultural aspects of business language that will be useful for meetings in Spain and Latin America.

PREREQUISITE: Spanish 202

### 301 COMPOSITION AND ORAL PRACTICE I

This course aims to develop a high degree of competence in written and oral Spanish. Two hours a week are devoted to “composition,” including grammar, vocabulary, translation, stylistics, and original expression. The third hour is devoted to oral work in a small “conversation” class. (Also offered in Salamanca and Uruguay)

PREREQUISITES: Spanish 202 or permission of the instructor

### 302 COMPOSITION AND ORAL PRACTICE II

This course is a continuation of Spanish 301. The course focuses on reading and composition, and is intended to give students the opportunity to acquire and use new vocabulary, resolve persistent grammatical difficulties, and learn techniques for the development of a good writing style. Requirements include completion of an anthology of readings in Spanish, and regular short essay assignments. (Also offered in Salamanca and Uruguay)

PREREQUISITES: Spanish 301 or permission of the instructor

### 303 ASPECTS OF SPANISH CIVILIZATION AND CULTURE

This course offers a general view of the development of civilization and culture in Spain from its beginnings to the present. It is organized to introduce students to the major political and social movements in Spanish history and the principal trends in the arts that have given Spain an idiosyncratic culture within the broader context of Western Civilization. A variety of language models, including classroom discussions, set the stage for assimilation of the conversational function of the language. The course is conducted in Spanish and is intended to complement language studies as well as provide a foundation for subsequent courses in Hispanic literature.

PREREQUISITE: Spanish 202 or permission of the instructor

### 304 ASPECTS OF SPANISH-AMERICAN CIVILIZATION AND CULTURE

This course provides an overview of the beginnings of civilization and culture in Latin America from the Pre-Colombian civilizations of the Mayas, the Aztecs and the Incas to modern times. Five periods are studied in detail: the Pre-Conquest, the Conquest, Colonial Life, Independence Movements, and Modern Times. These historical periods also integrate artistic, cultural and literary movements. The course is conducted in Spanish and is intended to complement language studies as well as provide a foundation for subsequent courses in Hispanic literature.

PREREQUISITE: Spanish 202 or permission of the instructor

Three hours a week

### 309 SPECIAL TOPICS

Creation of a course code for special topics offered by Spanish at the 300 level.

### 312 IBERO-AMERICAN LITERATURE

This is a course on Contemporary Ibero-American Literature (from 1810 to the present) with emphasis on the study of the different stylistic trends of this period. Selected works representative of the three traditional literary genres are analyzed in class. Students are also introduced to the basic concepts of theoretical and methodological approaches in the study of literature: narratology, post-structuralism, feminism, and phenomenological hermeneutics. The course is conducted in Spanish and is intended to complement language studies as well as provide a foundation for subsequent courses in Hispanic Literature.

PREREQUISITE: Spanish 202 or permission of the instructor

Three hours a week

### 313 SPANISH PENINSULAR LITERATURE

This course introduces the literary tradition of Spain through consideration of the characteristics of its major literary periods: the Renaissance, the Baroque Age, Romanticism, and the Modern Era. Students are introduced to

the basic concepts within theoretical and methodological approaches in the study of literature: narratology, post-structuralism, feminism, and phenomenological hermeneutics. The course is conducted in Spanish and is intended to complement language studies as well as provide a foundation for subsequent courses in Hispanic Literature. PREREQUISITE: Spanish 202 or permission of the instructor

### 315 TRANSLATION AND COMPOSITION I

This course is intended for students who have an intermediate level in Spanish and wish to perfect their grammatical, speaking, and reading comprehension skills. This course is dedicated to intensive practice in advanced translation from English to Spanish and Spanish to English with a focus on lexical and syntactic matters. In addition, students can expect to write compositions based on current literary and cultural issues. PREREQUISITE: Spanish 202 or permission of instructor

### 401 THE STRUCTURE OF SPANISH

This advanced Spanish grammar course aims to perfect students' ability to write and speak correctly and fluently. This course provides an introduction to the formal analysis of the language, covering topics in basic grammatical construction, Spanish morphology (the analysis of word structure), Spanish syntax (the analysis of sentence structure), and Semantics (the study of sentences and word meanings). Central issues in phonological, morphological, and syntactic variations are analyzed from geographical and social points of view. (Also offered in Uruguay).

PREREQUISITES: Spanish 302 or permission of the instructor

### 402 PRACTICAL TRANSLATION

This course is designed for students who have an adequate command of the language, but who have an interest in a professional orientation. Translations from English to Spanish and Spanish to English include materials from diverse subjects such as business, sciences, politics, arts, theatre, and literature. (Also offered in Uruguay)

PREREQUISITES: Spanish 302 or permission of the instructor

### 405 THE LEGACY OF THE SPANISH MYSTICS

This course provides a brief introduction to the study of the mystical tradition that reached Spain in the 16th century and the influence it has had on contemporary women writers. The works of Saint Therese of Jesus and those of St. John of the Cross are studied in detail. Students are introduced to the latest critical trends in literary and feminist theory. Classes are in the form of lectures and seminars, and are conducted in English.

Cross-listed with English (cf. English 369)

PREREQUISITE: Spanish 202 or permission of the instructor. No prerequisite for English 369

Lecture/Seminar: Three hours a week in Spanish

NOTE: Students taking this course as a Spanish credit must submit their written assignments in Spanish. The instructor will provide a weekly tutorial for Spanish students, conducted in Spanish.

### 407 SPANISH MEDIEVAL LITERATURE

This course proposes to give students an overview of the literature produced in the Spanish Middle Ages through a variety of canonical texts from the eleventh to the fifteenth century. The texts selected for this course are studied in their socio-historical and socio-political contexts. Some of the literary genres studied are: the early lyric, the epic (Poema de Mío Cid), courtly and ecclesiastical poetry, didactic literature, and theatre. In addition to these genres, the French, Muslim and Jewish influences in the literary production of Medieval Spain are studied, as well as the problematic of the "originality" of medieval texts and the medieval "author".

PREREQUISITE: Spanish 202 or permission of instructor

### 409 SPECIAL TOPICS

Creation of a course code for special topics offered by Spanish at the 400 level.

### 415 CERVANTES' DON QUIXOTE AND THE FORMATION OF THE MODERN NOVEL

This course studies Don Quixote in the context of Cervantes' life and times. It examines the novel's social, political, and historical context; its reception in seventeenth-century Spanish society; the narrative structure and its determinants of gender and class; the intertextuality with major classical works of the Renaissance; and the metafictional, self-reflexive characteristics of the text. A variety of literary theory approaches are studied. The course is generally given in Spanish.

PREREQUISITES: Spanish 202 or permission of the instructor

#### 451-452 DIRECTED STUDIES

Centered around an author or a topic, this course is specifically designed to enable students to express themselves and to do research on their own. Students will be given topics to research and to present to the class. (See Academic Regulation 9 for Regulations Governing Directed Studies.)

### German

#### REQUIREMENTS FOR A MAJOR IN GERMAN

Under the supervision of the Department, a student is allowed to major in German if he/she shows a high level of interest and competency in the subject and intends to cover the minimum requirement of 42 semester hours.

This would be done under the approval of a Departmental Committee and the Dean of Arts after all courses taken or intended to be taken, at UPEI or another Canadian or foreign institution, have been considered.

A major consists of a minimum of 42 semester hours of German.

#### ELECTIVES

Students must include at least 12 semester hours in a modern language or modern languages other than German. Students should discuss these courses or other alternatives with the Chair of Modern Languages as early as possible.

#### REQUIREMENTS FOR A MINOR IN GERMAN

A minor in German consists of 21 semester hours of courses in the following sequence:

1. 12 semester hours:

- German 101/102 Introductory
- German 201/202 Intermediate

2. At least 9 semester hours at the 300 or 400 level in German, at least 6 semester hours must be taken at UPEI at the upper level.

### GERMAN COURSES

#### 101 INTRODUCTION TO GERMAN I

Course for students with no prior knowledge of German. It will pave the way towards competence in the oral and written usages of the modern German colloquial idiom.

Three hours a week plus lab

#### 102 INTRODUCTION TO GERMAN II

Continuation of the program designed for beginners. The ultimate aim is to provide the student with the practice and knowledge necessary to handle questions pertaining to his daily life and realm of work.

PREREQUISITE: German 101

Three hours a week plus lab

#### 201 INTERMEDIATE GERMAN I

Continuing in the vein established in the previous semesters, the course will start out with a vocabulary of about 1,000 words and will promote further oral and written fluency in contemporary German to enable the student to establish social and professional contacts with a German milieu. Work in the language laboratory forms an integral part of the course.

PREREQUISITE: German 102 or Grade 12 German

Three hours a week

#### 202 INTERMEDIATE GERMAN II

By the end of this course the student will be in command of all important structures of spoken and written German, and the active vocabulary will consist of about 2,000 lexical units.

**PREREQUISITE:** German 201

Three hours a week

### **301 THE GERMAN NOVELLE I**

This is the first of two courses comprising the study of the history of the German Novelle, and views representative works by Goethe, Tieck, Brentano, Hoffman, and Kleist as being characteristic of the genre, of their authors, and of the literary periods to which they belong. At the same time the student will continue to study the German language through translation, composition, and oral practice.

**PREREQUISITE:** German 202 or permission of the instructor

Three hours a week

### **302 THE GERMAN NOVELLE II**

Completion of the study of the Novelle by focusing on examples of the genre taken from various Realistic writers, from Hauptmann, Kafka and Thomas Mann. Written and oral practice of the language continued.

**PREREQUISITE:** German 301

Three hours a week

### **312 MODERN GERMAN DRAMA**

Representative dramas by Hauptmann, Hofmannsthal, Kaiser, and Brecht are studied, taking into consideration their artistic merit and their contribution to the development of modern drama.

**PREREQUISITE:** German 202 or equivalent, and permission of the instructor, or German 302

Three hours a week

### **451-452 DIRECTED STUDIES**

Centred around an author or a topic, this course is specifically designed to enable students to express themselves and to do research on their own. Students will be given topics to research and to present to the class. (See Academic Regulation 9 for Regulations Governing Directed Studies.)

## **MODERN LANGUAGES**

Whenever circumstances warrant it, the Department offers courses in languages other than French, German or Spanish. In the past introductory courses have been offered in Chinese, Irish, Italian, Japanese, Russian, Mi'kmaq and Scottish Gaelic. For Japanese or other Asian languages see Asian Studies.

### **101 INTRODUCTION TO [A SELECTED MODERN LANGUAGE] I**

This course is intended for students with no proficiency in the language. This course provides an introduction to the language in question, through the study of pronunciation, vocabulary and grammar. It includes numerous oral drills, frequent written exercises, short oral presentations and simple readings.

Three hours a week

### **102 INTRODUCTION TO [A SELECTED MODERN LANGUAGE] II**

This course is intended for students with no proficiency in the language. This course is a continuation of Modern Languages 101. It provides further study of vocabulary and grammar and introduces aspects of civilization.

Three hours a week

### **209 SPECIAL TOPICS**

A lecture course in which various topics or issues are explored in an introductory manner. Detailed descriptions of each year's Special Topics courses will be available in the Department's Calendar Supplement.

### **211 LATIN AMERICAN STUDIES: SOUTH AMERICA**

This course is an introduction to the socio-political history and theories of cultures in Brazil, the Andean, and the Southern Cone regions of South America. Some of the topics examined are the construction of the nation state, populist governments, military dictatorships, the search for social reform in the 20th century, and the transition to economic development. Subtopics include: slavery and native servitude, acculturation, immigration and urbanization, machismo and marianismo, and current native and women's movements. Classes are conducted in English.

NOTE: Students taking this course as a Spanish credit must submit their written assignments in Spanish. The instructor will provide a weekly tutorial for Spanish students conducted in Spanish.

### 212 LATIN AMERICAN STUDIES: MEXICO AND THE CARIBBEAN

An introductory course studying the development of societies in Mexico and the Caribbean from its pre-Columbian past to this heterogeneous present. Cultural, geographical, historical, literary, political and social topics are examined combining traditional historical narratives with art, cinema and other texts from popular culture and mass media. The course is structured thematically around significant themes and events. Some of the themes covered are the Mexican, Cuban and Nicaraguan revolutions, gender relations and U.S. imperialism and hegemony policies in the region. Classes are conducted in English.

NOTE: Students taking this course as a Spanish credit must submit their written assignments in Spanish. The instructor will provide a weekly tutorial for Spanish students conducted in Spanish.

### 309 SPECIAL TOPICS

A lecture course in which various topics or issues are explored in an introductory manner. Detailed descriptions of each year's Special Topics courses will be available in the Department's Calendar Supplement.

### 409 SPECIAL TOPICS

A lecture course in which various topics or issues are explored in an introductory manner. Detailed descriptions of each year's Special Topics courses will be available in the Department's Calendar Supplement.

## Music

<http://upei.ca/music>

### Music Faculty

Frances M. Gray, Professor Emerita

F. Alan Reesor, Professor Emeritus

Andrew M. Zinck, Associate Professor, Chair

Karem J. Simon, Professor

Gregory B. Irvine, Associate Professor

Sung Ha Shin-Bouey, Associate Professor

Richard Covey, Lecturer

G. David Shephard, Lecturer

## ENTRANCE REQUIREMENTS

In addition to the standard University of Prince Edward Island entrance requirements, candidates for the Bachelor of Music and Bachelor of Music education programs are expected to have obtained a minimum equivalency of RCM (Royal Conservatory of Music) Grade VIII in any instrument or voice and RCM Grade II Theory, as shown in an audition, theory and ear test, and interview.

A personal interview, audition and theory test with faculty of the Music Department will be arranged prior to registration for each student wishing to enter a Music Program. The sole prerequisite for entrance into the BA program with a major in Music is a personal interview and the equivalent of RCM Grade II Theory. Students are encouraged to seek advice from music faculty in choosing their arts or science electives.

## Bachelor of Music

The Bachelor of Music Program is a four-year program (120 semester hours) designed to provide students with sufficient flexibility to reflect their interests. The first two years are common to the Bachelor of Music Education Program. During years three and four, students may focus on Theory, History, or Applied Music. Upon graduation, students may wish to continue studies at the graduate level in Theory and Composition, Music History, or Performance. Graduation with a Bachelor of Music will not qualify a student for music teacher certification on Prince Edward Island.

## **Bachelor of Music Education**

### **Application Process**

At the end of the second year of study, students wishing to complete the Bachelor of Music Education program must submit a letter of application to the Chair of the Music Department outlining why they consider the field of music education to be an appropriate career path, and why they feel they would be good teachers. The music education faculty will interview the applicants to determine their suitability for this program. Students must have an overall average of 70% and a music average of 75% in the second year of study and must maintain those minima in order to continue in the BMusEd program.

The Bachelor of Music Education Program is a five-year program (150 semester hours) designed to qualify graduates for the teaching of music as specialists in elementary and secondary school music. Upon the completion of this program, a student will qualify for a Prince Edward Island Teaching Certificate 5. Bachelor of Music Education students who wish to specialize in grades K-6 are advised, when choosing arts or science electives, to select from a variety of areas. Bachelor of Music Education students who wish to specialize in grades 7-12 are advised, when choosing arts or science electives, to elect an area in which they are prepared to continue at least to the 300 level, to provide them with a second teaching area.

### **Bachelor of Arts with a Major in Music**

The BA with a Major in Music Program is a four-year program (120 semester hours) designed for those who wish to study music in a more general Arts curriculum. As a general program, it will not prepare students for teaching music, but will prepare them for further study toward careers such as music librarian, musicology, music publishing, communications media, and sound recording.

### **REQUIREMENTS FOR A MINOR IN MUSIC**

Students wishing to receive a Minor in Music must complete a total of twenty-one semester hours of music courses, selected from the following list (or others in consultation with the Chair), with at least nine semester hours at the 200 level or above: Music 113, 114, 115, 123, 124, 201, 202, 213, 214, 215, 223, 315, 412, 413, 422, or 423.

Students interested in the Minor in Music are encouraged to contact the Music Department for course advisement. Those students wishing to register for Music 113 (Music Theory) must write a diagnostic theory test to determine the level of learning support that might be needed prior to (or during) the course, and should contact the Music Department before 10 July to arrange an appropriate time to write this test.

### **COURSES FOR NON-MUSIC MAJORS**

Understanding Music as a Socio-Cultural Practice 201 and Explorations in Music 202 may be offered to any non-music major. Students should check with the Chair of the Department in which they are majoring to ensure that these courses may be counted as electives. Note: These courses are not offered every year.

### **BACHELOR OF MUSIC PROGRAMS**

**NOTE:** Completion of UPEI 101, 102, or 103 is strongly recommended before taking any music courses beyond the 100 level.

#### **Year 1**

**(common to both Bachelor of Music and Bachelor of Music Education Programs)**

	<b>Semester hours of credit</b>
Music 113-114 Theory	6
Music 115 Sight Singing and Dictation	3
Music 123-124 History	6
Music 131-132 Major Instrument or Voice	6
Arts and/or Science Electives	9
Total	30



NOTE: ENSEMBLE REQUIREMENTS: All students enrolled in a music program must satisfactorily complete the requirements for participation in a minimum of six full-year ensembles for the Bachelor of Music and Bachelor of Music Education Degrees as follows:

- Brass/ Woodwind/Percussion majors - 2 years Concert Choir, 4 years Wind Symphony
- Piano majors - 2 years Concert Choir, 4 years Collaborative Piano\*
- Voice majors - 4 years Concert Choir, 4 years Diction Lab
- Guitar & Bass Majors - 2 years Concert Choir, 4 years of another recognized ensemble

\*Pianists are required to take Collaborative Piano as their ensemble in lieu of large ensembles unless they are performing as pianist in those large ensembles. Placement is at the discretion of faculty.

Unless the ensemble requirement is fulfilled, graduation will be denied.

## **Year II**

### **(common to both Bachelor of Music and Bachelor of Music Education Programs)**

	<b>Semester hours of credit</b>
Music 213-214 Theory	6
Music 215 Sight Singing and Dictation	3
Music 223 History	3
Music 231-232 Major Instrument or Voice	6
Music Elective	3
Arts and/or Science Electives at 100-200 level	9
Total	30

NOTE: Ensembles required (see note at end of Year I).

## **Year III**

### **Bachelor of Music**

	<b>Semester hours of credit</b>
Music 331-332 Major Instrument or Voice	6
Theory and History Electives	9
Music Electives	9
Arts and/or Science Electives	6
Total	30

NOTE: Ensembles required (see note at end of Year I)

## **Year III**

### **Bachelor of Music Education**

	<b>Semester hours of credit</b>
Music 331-332 Major Instrument or Voice	6
Music 353-354 Elementary Music Education Methods	4
Music Education Elective	5
Theory/History Electives	6
Arts and/or Science Electives	9
Total	30

NOTE: Ensembles required (see note at end of Year I).

## **Year IV**

### **Bachelor of Music**

	<b>Semester hours of credit</b>
Music 431-432 Major Instrument or Voice	6
Music Electives	12
Theory/History	3

Arts and/or Science Electives	9
Total	30

#### **Year IV**

##### **Bachelor of Music Education**

##### **Semester hours of credit**

Music 431-432 Major Instrument or Voice	6
Music 453-454 Secondary Music Education Methods	4
Music 462 Teaching Internship I	3
Music Education Elective	3
Music Electives (not from Music Education Electives)	6
For Primary/Elementary (K-6) – 1 of these 3:	3
Education 402 Meeting the Needs of the Young Learner	
OR	
Education 411 Learners and Learning	
OR	
Education 415 Inclusive Classroom	
For Secondary (7-12) Students: 1 of these 3:	3
Education 417 Meeting the Needs of the Adolescent Learner	
OR	
Education 411 Learners and Learning	
OR	
Education 415 Inclusive Classroom	
Arts and/or Science Electives	6
Total	31

NOTE: Ensembles required (see note at end of Year I).

#### **Year V**

##### **Bachelor of Music Education**

##### **Semester hours of credit**

Music 455-456 Conducting	4
Music 464 Teaching Internship II	3
Music Education Electives	10
Education 431 Differentiated Education	3
<b>1 of these 3:</b>	3
Education 403 The Arts and Social Transformation	
OR	
Education 463 Perspectives on Culture and Society	
OR	
Education 482 Assessment and Evaluation	
<b>For Elementary (K-6) Students: (1 pair of these)</b>	6
Education 432/433 Primary/Elementary Languages and Literacies I & II	
OR	
Education 423-428 Primary/Elementary	
OR	
Mathematics I & II	
OR	
Education 454 Primary/Elementary Social Studies)	
and One other primary/elementary subject method course	6

<b>For Secondary (7-12) Students: (1 pair of these)</b>	<b>6</b>
Education 426-427 Intermediate/Senior Mathematics I & II	
OR	
Education 436-437 Intermediate/Senior English I & II	
OR	
Education 446-447 Intermediate/Senior Science I & II	
OR	
Education 456-457 Intermediate/Senior Social Studies I & II	
OR	
Education 476 French Methods I (3) and one other intermediate/senior subject method course (3)	
OR	
Education 486 Didactique du français langue seconde: Une Introduction	
And	
one other intermediate/senior subject method course	
<b>Total</b>	<b>29 semester hours</b>

### **BACHELOR OF ARTS WITH A MAJOR IN MUSIC**

#### **Semester hours of credit**

#### **Year I**

Music 113-114 Theory	6
Music 115 Sight Singing and Dictation	3
Music 123-124 History	6
Arts and/or Science Electives	15
OR	
Arts and/or Science Electives (12) and Music 105 Studio Minor (3)	15
<b>Total</b>	<b>30</b>

NOTE: Students in the BA with a major in Music program will be required to take part in at least one ensemble for each semester they are in the program. This is equal to a minimum of four full-year ensembles for a BA Major in Music degree, two of which must be in large ensembles. Unless the ensemble requirement is fulfilled, graduation will be denied.

NOTE: Students wishing to take Studio Minor must successfully pass an audition.

#### **Semester hours of credit**

#### **Year II**

Music 213-214 Theory	6
Music 215 Sight Singing and Dictation	3
Music 223 History	3
Music Elective	3
Arts and/or Science Electives (15)	
OR	
Arts and/or Science Electives (9) and Music Electives (6)	
OR	
Arts and/or Science Electives (12) and Music 205 (3)	
OR	
Arts and/or Science Electives (9) and Music Electives (3) and Music 205 (3)	15
<b>Total</b>	<b>30</b>

NOTE: Ensembles required (see note at end of Year I).

	<b>Semester hours of credit</b>
<b>Year III</b>	
Theory/History Electives	6
Music Electives (see Electives for Music Majors)	6
Arts and/or Science Electives (18)	
OR	
Arts and/or Science Electives (15) and Music 305 (3)	18
<b>Total</b>	<b>30</b>

NOTE: Ensembles required (see note at end of Year I)

COMMENT: Students may take a maximum of six (6) semester hours credit in Music Education toward the Music electives required for Years III and IV.

<b>Year IV</b>	
	<b>Semester hours of credit</b>
Music Electives	12
Arts and/or Science Electives (18)	
OR	
Arts and/or Science Electives (15) and Music 405 (3)	18
<b>Total</b>	<b>30</b>

NOTE: Ensembles required (see note at end of Year I). See Comment at the end of Year III regarding Music Electives.

PLEASE NOTE: AT LEAST 30 SEMESTER HOURS (10 COURSES) OF THE NON-MUSIC ELECTIVES MUST BE ARTS COURSES.

### **COURSES FOR NON-MUSIC MAJORS**

105 Studio Minor  
 201 Understanding Music as a Socio-Cultural Practice  
 202 Explorations in Music  
 205 Studio Minor  
 305 Studio Minor  
 405 Studio Minor

### **ELECTIVES FOR MUSIC MAJORS**

Music Theory:  
 311 Special Topics in Music Theory  
 315-316 Composition I  
 317-318 Form and Analysis  
 319 Advanced Topics in Music Theory  
 411 Special Topics in Music Theory  
 412 Music Cognition  
 413 Orchestration  
 415-416 Composition II  
 419 Advanced Topics in Music Theory

Music History:

321 Special Topics in Music History  
322 Popular Music  
325 Studies in Film Music  
326 Musical Theatre  
329 Advanced Topics in Music History  
421 Special Topics in Music History  
422 Global Musics (may also be counted as a Music Education elective)  
423-424 Canadian Music  
428 Inquiry Methods  
429 Advanced Topics in Music History

Applied Music:

335 Chamber Music I  
336 Recital Performance I  
337 Special Topics in Applied Music  
338-339 Directed Studies in Applied Music  
433-434 Literature and Pedagogy of Major Instrument or Voice  
435 Chamber Music II  
436 Recital Performance II  
437 Special Topics in Applied Music  
438-439 Directed Studies in Applied Music

Music Education:

245-246 Percussion Techniques  
341 Special Topics in Music Education  
343-344 Choral Techniques  
345-346 Woodwind Techniques  
347-348 String Techniques  
351 Philosophy of Music Education  
353-354 Elementary Music Education Methods  
359 Advanced Topics in Music Education  
422 Global Musics (may also be counted as a Music History elective)  
441 Special Topics in Music Education  
445-446 Brass Techniques  
447 Jazz Techniques  
453-454 Secondary Music Education Methods  
455-456 Conducting  
458 Musicianship Workshop (Note: may also be counted as Applied or Theory elective, with approval of the Chair)  
459 Advanced Topics in Music Education

**MUSIC COURSES**

**105 STUDIO MINOR**

Individual instruction is given on all standard orchestral, band and keyboard instruments, as well as voice and guitar. Instruction is offered either as a one-half-hour lesson per week over two semesters, or a one-hour lesson per week in one semester.

PREREQUISITE: A successful audition and permission of the instructor

3 hours credit

NOTE: This course will not be counted on the Bachelor of Music or Bachelor of Music Education, but can be used as a credit towards the Bachelor of Arts with a major in Music.

**107 HIGHLAND BAGPIPES**

This course consists of individual instruction in Highland bagpipes.

PREREQUISITE: A successful audition

3 hours credit

### 108 HIGHLAND BAGPIPES

This course consists of individual instruction in Highland bagpipes.

PREREQUISITE: Music 107

3 hours credit

### 113 THEORY

This course briefly reviews the basic rudiments of music theory and introduces the principles of diatonic harmony.

PREREQUISITE: Diagnostic Theory Test

3 hours credit

### 114 THEORY

This course is a continuation of Music 113.

PREREQUISITE: Music 113

3 hours credit

### 115 SIGHT SINGING AND DICTATION

This course is designed to nurture the basic musicianship skills required to recognize music aurally and either to transcribe it into written notation or to sing it at sight. Meter, rhythm patterns, contour, key relationships, and intervals are examined to improve dictation skills; and the moveable doh system is used to improve score reading skills, musical memory, and inner hearing.

NOTE: A passing grade must be achieved in both Sight Singing and Dictation skills.

3 hours credit over two semesters

### 123 INTRODUCTION TO MUSIC AND CULTURE

This course prepares students to study music as a product of cultural expression through an examination of how diverse socio-cultural, economic, and political forces shape the production, transmission, and reception of music. Through the exploration of diverse repertoire from a variety of music cultures and historical periods, students develop foundational skills in critical listening, research, and writing within the discipline.

3 hours credit

Note: A basic ability to read music is recommended

### 124 PERSPECTIVES IN MUSIC AND CULTURE I

This course provides a topical exploration of Western Art music and other musical traditions through a variety of cultural, historical, and theoretical lenses. Students examine the complex relationships that exist among music and concepts of identity, power, ideology and belief, conflict and crisis, technology, commerce, and visual culture.

Topics will vary each year.

PREREQUISITE: Music 123

3 hours credit

### 131 MAJOR INSTRUMENT OR VOICE

Individual instruction is given on all standard orchestral and band instruments (woodwinds, percussion, brass), as well as in voice, piano, organ and guitar.

PREREQUISITE: A successful audition

3 hours credit

### 132 MAJOR INSTRUMENT OR VOICE

This is a continuation of Music 131.

PREREQUISITE: Music 131

3 hours credit

### 201 UNDERSTANDING MUSIC AS A SOCIO-CULTURAL PRACTICE

This course provides non-music students with an introduction to intelligent listening to music and to critical thinking about musical experiences. While engaging with musical examples from a wide variety of styles, students develop critical listening skills as they consider music as a social art, performance practice, spontaneous creation,

historical artifact and a cultural signifier. No musical background is required. This course cannot be counted toward the credits required for Music degrees.

PREREQUISITE: Second-year standing or permission of the instructor  
3 hours credit

#### 202 EXPLORATIONS IN MUSIC (Not offered every year)

This course provides an opportunity for non-music majors to explore contemporary topics in music (such as identity, belief systems, and power structures). Drawing on various styles and genres of music, the course examines the ways in which music plays significant cultural and political roles in contemporary societies. This course cannot be counted toward the credits required for Music degrees.

PREREQUISITE: Second-year standing or permission of the instructor  
3 hours credit

#### 205 STUDIO MINOR

This course is a continuation of Music 105.

PREREQUISITE: Music 105

3 hours credit

NOTE: This course will not be counted on the Bachelor of Music or Bachelor of Music Education, but can be used as a credit towards the Bachelor of Arts with a major in Music.

#### 207 HIGHLAND BAGPIPES

This course consists of individual instruction in Highland bagpipes.

PREREQUISITE: Music 108

3 hours credit

#### 208 HIGHLAND BAGPIPES

This course consists of individual instruction in Highland bagpipes.

PREREQUISITE: Music 207

3 hours credit

#### 209 SPECIAL TOPICS

Special Topics course for music majors.

#### 213 THEORY

This course introduces the elements of chromatic harmony and modulation.

PREREQUISITE: Music 114

3 hours credit

#### 214 THEORY

This course is a continuation of Music 213.

PREREQUISITE: Music 213

3 hours credit

#### 215 SIGHT SINGING AND DICTATION

This course is a continuation of Music 115.

PREREQUISITE: Music 115

2 hours credit over two semesters

NOTE: A passing grade must be achieved in both Sight Singing and Dictation skills.

#### 216 KEYBOARD HARMONY

Students who have completed Music 116 continue to work on the skills necessary to be able to harmonize melodies at the keyboard and to play from figured bass, and are taught the skills necessary to transpose at sight and to read 4-part scores at the keyboard.

PREREQUISITE: Music 116

2 hour credit over one semester (2nd semester of second year)

### 223 PERSPECTIVES IN MUSIC AND CULTURE II

This course examines aspects of Western Art music from the eighteenth century to the present through a variety of cultural, historical, and theoretical lenses. Topics will vary each year.

PREREQUISITE: Music 124

3 hours credit

### 231 MAJOR INSTRUMENT OR VOICE

This course is a continuation of Music 132.

PREREQUISITE: Music 132

3 hours credit

### 232 MAJOR INSTRUMENT OR VOICE

This course is a continuation of Music 231.

PREREQUISITE: Music 231

3 hours credit

### 245 PERCUSSION TECHNIQUES

This course provides group instruction in percussion instruments, including snare drum, tympani, mallet instruments and accessory percussion. It introduces materials and procedures used in teaching these instruments.

2 hours credit

### 246 PERCUSSION TECHNIQUES

This course is a continuation of Music 245.

PREREQUISITE: Music 245

2 hours credit

### 305 STUDIO MINOR

This course is a continuation of Music 205.

PREREQUISITE: Music 205

3 hours credit

NOTE: This course will not be counted on the Bachelor of Music or Bachelor of Music Education, but can be used as a credit towards the Bachelor of Arts with a major in Music.

### 307 HIGHLAND BAGPIPES

This course consists of individual instruction in Highland bagpipes.

PREREQUISITE: Music 208

3 hours credit

### 308 HIGHLAND BAGPIPES

This course consists of individual instruction in Highland bagpipes.

PREREQUISITE: Music 307

3 hours credit

### 311 SPECIAL TOPICS IN MUSIC THEORY

PREREQUISITE: Music 214 and permission of the instructor

### 315 COMPOSITION

This course is an introductory course in composition which includes analysis of contemporary works. Students write compositions in smaller forms and structures for voices and instruments.

PREREQUISITE: Permission of the Chair

3 hours credit

### 316 COMPOSITION

This course is a continuation of Music 315.

PREREQUISITE: Music 315

3 hours credit



### 317 FORM AND ANALYSIS

This course involves the detailed analysis and study of works, large and small forms, representing a variety of structures from 1650 to the present.

PREREQUISITE: Music 214 and 223

3 hours credit

### 318 FORM AND ANALYSIS

This course is a continuation of Music 317

PREREQUISITE: Music 317

3 hours credit

### 319 ADVANCED TOPICS IN THEORY

This course allows advanced study in a particular area of music theory for students who possess a special expertise or interest in one facet of the discipline. Written application must be made to the Chair of the Department.

PREREQUISITE: Restricted to 3rd, 4th and 5th year music majors

3 hours credit

### 321 SPECIAL TOPICS IN MUSIC HISTORY

PREREQUISITE: Music 214 & 223

### 322 POPULAR MUSIC (Not offered every year)

This course explores the range of North American and British popular music from the early 1950s to the present, with an emphasis on rock music. Students will examine selected repertoire while exploring relevant critical methodologies used in the study of popular music.

PREREQUISITE: Music 214 and 223

3 hours credit

### 325 STUDIES IN FILM MUSIC

This course introduces students to the ways in which music contributes to the cinematic experience. Through a series of case studies involving analysis of videos and accompanying musical scores, students explore the techniques of film music composition and develop the analytical skills necessary to consider music in a multi-media context.

PREREQUISITE: Music 214, 215 and 223

3 hours credit

### 326 MUSICAL THEATRE (Not offered every year)

This course explores the development of the Broadway musical from the early 1940s to the present. Students examine selected repertoire while exploring relevant critical methodologies used in the study of the genre.

PREREQUISITE: Music 214 and 223

3 hours credit

### 329 ADVANCED TOPICS IN MUSIC HISTORY

This course allows advanced study in a particular area of music history for students who possess a special expertise or interest in one facet of the discipline. Written application must be made to the Chair of the Department.

PREREQUISITE: Restricted to 3rd, 4th and 5th year music majors

3 hours credit

### 331 MAJOR INSTRUMENT OR VOICE

This course is a continuation of Music 232.

PREREQUISITE: Music 232

3 hours credit

### 332 MAJOR INSTRUMENT OR VOICE

This course is a continuation of Music 331.

PREREQUISITE: Music 331

3 hours credit

### 335 CHAMBER MUSIC I

This course develops chamber music performance skills and competencies through the study of music for the genre selected. Ensembles are formed before the academic year. Each ensemble meets for two hours each week, one of which is with instruction. Public performances are encouraged and at least two must be presented in order to complete the course satisfactorily.

PREREQUISITE: Permission of instructor

Two hours a week for two semesters

3 hours credit

### 336 RECITAL PERFORMANCE I

This course is open to students who wish to pursue a concentration in performance. Students are required to present a public recital consisting of a minimum of 30 minutes of music.

PREREQUISITE: 80% average in Music 231-232 and 70% average in Music courses in the previous academic year

1 hour credit

### 337 SPECIAL TOPICS IN APPLIED MUSIC

Restricted to 3rd, 4th and 5th year music majors, or permission of the instructor.

3 hours credit OR three hours credit over two semesters

### 338 DIRECTED STUDIES IN APPLIED MUSIC

This course allows advanced study in a particular area of applied music for students who possess a special expertise or interest in one facet of the discipline. Written application must be made to the Chair of the Department.

PREREQUISITE: Restricted to 3rd, 4th and 5th year music majors

3 hours credit OR three hours credit over two semesters

NOTE: See Academic Regulation 9 for Regulations Governing Directed Studies.

### 339 DIRECTED STUDIES IN APPLIED MUSIC

This course allows advanced study in a particular area of applied music for students who possess a special expertise or interest in one facet of the discipline. Written application must be made to the Chair of the Department.

PREREQUISITE: Restricted to 3rd, 4th and 5th year music majors

3 hours credit

NOTE: See Academic Regulation 9 for Regulations Governing Directed Studies.

### 341 SPECIAL TOPICS IN MUSIC EDUCATION

Restricted to 3rd, 4th and 5th year music majors.

### 343 CHORAL TECHNIQUES

Instruction is given in the principles of vocal production, basic functional choral techniques, and choral conducting. Repertoire from the sixteen century to the present will be selected in order to facilitate development in both singing and conducting techniques. Three main activities of this course include: sight singing at an advanced level, group and solo singing, and choral conducting.

PREREQUISITE: Music 115 and at least one year of UPEI Concert Choir. Non-music majors must have some choral/singing background, or pass a vocal and aural skills audition.

2 hours credit

### 344 CHORAL TECHNIQUES

This course provides a continuation of Music 343, with more demanding repertoire. It concentrates on changing tempo, changing meter, and cueing problems.

PREREQUISITE: Music 343

2 hours credit

### 345 WOODWIND TECHNIQUES (Offered in alternating years)

This course provides group instruction in clarinet, saxophone, flute, oboe, and bassoon. Students familiarize themselves with materials used in teaching these instruments.

2 hours credit

### 346 WOODWIND TECHNIQUES (Offered in alternating years)

This course is a continuation of Music 345.

PREREQUISITE: Music 345

2 hours credit

### 351 PHILOSOPHY OF MUSIC EDUCATION (Offered in alternating years)

This course introduces students to philosophical concepts in music education as well as to key debates and advocacy rationales used in improving and promoting music in the schools. In addition to providing an introduction to historical and contemporary trends in music education, the course aims to develop students' critical thinking through research, debates, discussion, and writing.

Restricted to 3rd, 4th and 5th year music majors.

2 hours credit

### 353 ELEMENTARY MUSIC EDUCATION (Offered in alternating years)

This course examines four major approaches to teaching elementary school music—Dalcroze, Kodaly, Orff and Comprehensive Musicianship. Students interrogate curriculum expectations and repertoire choices and they develop pedagogical skills, focusing on the young child, Grades K-3.

PREREQUISITE: Music 215

2 hours credit

### 354 ELEMENTARY MUSIC EDUCATION (Offered in alternating years)

The investigations begun in Music 353 are continued in Music 354, focusing on children in Grades 4-6. Learning theories as they relate to music are examined.

PREREQUISITE: Music 353

2 hours credit

### 359 ADVANCED TOPICS IN MUSIC EDUCATION

This course allows advanced study in a particular area of music education for students who possess a special expertise or interest in one facet of the discipline. Written application must be made to the Chair of the Department.

PREREQUISITE: Restricted to 3rd, 4th and 5th year music majors

3 hours credit

### 405 STUDIO MINOR

This course is a continuation of Music 305.

PREREQUISITE: Music 305

3 hours credit

NOTE: This course will not be counted on the Bachelor of Music or Bachelor of Music Education, but can be used as a credit towards the Bachelor of Arts with a major in Music.

### 407 HIGHLAND BAGPIPES

This course consists of individual instruction in Highland bagpipes.

PREREQUISITE: Music 308

3 hours credit

### 408 HIGHLAND BAGPIPES

This course consists of individual instruction in Highland bagpipes.

PREREQUISITE: Music 407

3 hours credit

#### 411 SPECIAL TOPICS IN MUSIC THEORY

PREREQUISITE: Music 214 and permission of the instructor

#### 412 MUSIC COGNITION

See Psychology 412

#### 413 ORCHESTRATION

This course introduces the techniques of orchestration for large ensembles (band and orchestra) and small ensembles.

PREREQUISITE: Music 214

3 hours credit over two semesters

#### 415 COMPOSITION

This course provides instruction in the composition of works in larger forms for solo instruments, chamber ensembles, and large ensembles. Students are expected to complete several works.

PREREQUISITE: Music 316

3 hours credit

#### 416 COMPOSITION

This course is a continuation of Music 415.

PREREQUISITE: Music 415

3 hours credit

#### 419 ADVANCED TOPICS IN MUSIC THEORY

This course allows advanced study in a particular area of music theory for students who possess a special expertise or interest in one facet of the discipline. Written application must be made to the Chair of the Department.

PREREQUISITE: Restricted to 3rd, 4th and 5th year music majors

3 hours credit

#### 421 SPECIAL TOPICS IN MUSIC HISTORY

PREREQUISITE: Music 214 and 223

#### 422 GLOBAL MUSICS (not offered every year)

This course explores traditional and contemporary musics from various world cultures—both the actual sounds of diverse musical traditions and the uses of and beliefs about music within those traditions. Part of each class involves listening to a performing music from various cultures. Students have the opportunity to investigate a specific musical culture in some depth.

PREREQUISITE: Music 223

3 hours credit

#### 423 CANADIAN MUSIC I

This course introduces the music of Canada from the colonial era to the end of World War I, within the context of the socio-cultural, political, and economic history of the country.

PREREQUISITE: Third-year standing or permission of the instructor

3 hours credit

#### 424 CANADIAN MUSIC II

This course introduces the music of Canada from the end of World War I to the present, within the context of the socio-cultural, political, and economic history of the country.

PREREQUISITE: Third-year standing or permission of the instructor

3 hours credit

#### 428 INQUIRY METHODS

This course introduces students to the skills and methods of inquiry in music history, music theory, and music education. Each student conducts an independent research project. Class time is devoted to discussion of works-in-progress and to research strategies and tools.

PREREQUISITE: Music 214 and Music 223, plus permission of the instructor

3 hours credit over two semesters

#### 429 ADVANCED TOPICS IN MUSIC HISTORY

This course allows advanced study in a particular area of music history for students who possess a special expertise or interest in one facet of the discipline. Written application must be made to the Chair of the Department.

PREREQUISITE: Restricted to 3rd, 4th and 5th year music majors

3 hours credit

#### 431 MAJOR INSTRUMENT OR VOICE

This course is a continuation of Music 332.

PREREQUISITE: Music 332

3 hours credit

#### 432 MAJOR INSTRUMENT OR VOICE

This course is a continuation of Music 431.

PREREQUISITE: Music 431

3 hours credit

#### 433 LITERATURE AND PEDAGOGY OF MAJOR INSTRUMENT OR VOICE

Students examine literature in their major field and investigate the teaching problems related to their major instrument or voice. Students teach at least one private student for the year.

PREREQUISITE: Music 232

3 hours credit

#### 435 CHAMBER MUSIC II

This course is a continuation of Music 335 in which chamber music performance skills are advanced further. Ensembles are formed before the academic year. Each ensemble meets for two hours each week, one of which is with instruction. Public performances are encouraged and at least two must be presented in order to complete the course satisfactorily.

PREREQUISITE: Music 335 and permission of instructor

Two hours a week for two semesters

3 hours credit

#### 436 RECITAL PERFORMANCE II

This is a continuation of Music 336. Students are required to present a public recital consisting of a minimum of 50 minutes of music.

PREREQUISITE: Music 336, 80% average in Music 331-332 and 70% average in Music courses in the previous academic year.

2 hours credit

#### 437 SPECIAL TOPICS IN APPLIED MUSIC

Restricted to 3rd, 4th and 5th year music majors or permission of the instructor.

3 hours credit OR three hours credit over two semesters

#### 438 DIRECTED STUDIES IN APPLIED MUSIC

This course is a continuation of Music 432. An emphasis is placed on a high level of performance in the major instrument or voice.

PREREQUISITE: Music 432 and permission of the Chair

3 hours credit

NOTE: See Academic Regulation 9 for Regulations Governing Directed Studies.

#### 439 DIRECTED STUDIES IN APPLIED MUSIC

This course is a continuation of Music 491.

PREREQUISITE: Music 438 and permission of the Chair

3 hours credit

NOTE: See Academic Regulation 9 for Regulations Governing Directed Studies.

#### 441 SPECIAL TOPICS IN MUSIC EDUCATION

Restricted to 3rd, 4th and 5th year music majors.

#### 445 BRASS TECHNIQUES (offered in alternating years)

This course provides group instruction in trumpet, trombone, French horn, euphonium, and tuba. It focuses on materials and procedures used in teaching these instruments.

2 hours credit

#### 446 BRASS TECHNIQUES (offered in alternating years)

This course is a continuation of Music 445.

PREREQUISITE: Music 445

2 hours credit

#### 447 JAZZ TECHNIQUES (not offered every year)

In this course, students examine all of the components of the jazz/stage band and are introduced to the styles, techniques, and special effects needed to develop a school jazz ensemble.

PREREQUISITE: Restricted to 3rd, 4th and 5th year music majors, or permission of the Chair

3 hours credit

#### 453 SECONDARY MUSIC EDUCATION METHODS (Offered in alternating years)

This course examines music in the junior and senior high schools with emphasis on methods and materials for general music, choral, and instrumental classes. The teaching of musicianship through performance is examined, as is the growing trend toward integrating performance, analysis, and composition in the secondary schools.

PREREQUISITE: Music 215

2 hours credit

#### 454 SECONDARY MUSIC EDUCATION METHODS (Offered in alternating years)

This course is a continuation of Music 453.

PREREQUISITE: Music 453

2 hours credit

#### 455 CONDUCTING (offered in alternating years)

This course involves the study of instrumental conducting with an emphasis on techniques and repertoire for the modern wind band. It focuses on basic conducting techniques through more advanced technical problems, as well as rehearsal techniques and score study.

PREREQUISITE: Restricted to 3rd, 4th and 5th year music majors

2 hours credit

#### 456 CONDUCTING (offered in alternating years)

This course is a continuation of Music 455.

PREREQUISITE: Music 455

2 hours credit

#### 458 MUSICIANSHIP WORKSHOP

This performance-based course will provide opportunities for upper year students to apply their musicianship skills to improvisational situations in a variety of musical styles and forms (from various oral traditions, the Western composed tradition and various popular music styles). The course will emphasize the development and

refinement of skills in the melodic and harmonic aspects of spontaneous composition both vocally and instrumentally. Singers will improvise vocally and on piano or guitar. Instrumentalists will vocalize, use their major instrument, and use piano or guitar.

**PREREQUISITE:** Successful completion of Year II of the music program or by permission of the instructor.

#### **459 ADVANCED TOPICS IN MUSIC EDUCATION**

This course allows advanced study in a particular area of music education for students who possess a special expertise or interest in one facet of the discipline. Written application must be made to the Chair of the Department.

**PREREQUISITE:** Restricted to 3rd, 4th and 5th year music majors

3 hours credit

#### **462 TEACHING INTERNSHIP I**

This course is the first pre-service teaching component of in-school teaching experience for music education students. In school settings, students begin to develop teaching skills, to implement lesson and rehearsal plans, and to consider the role of classroom methods, learning outcomes, and evaluation procedures. Pre-service teaching commences immediately following the April examinations, and continues for six consecutive weeks.

**PREREQUISITE:** Music 353-354 or Music 453-454, minimum music average of 75% minimum overall average of 70%, and permission of the Music Education faculty.

3 hours credit

#### **464 TEACHING INTERNSHIP II**

This course is the second pre-service teaching component of in-school teaching experience for music education students. In school settings, students further develop their teaching skills, lesson planning, rehearsal techniques, and their ability to focus on learning outcomes while becoming reflective practitioners. Pre-service teaching commences immediately following the April examinations, and continues for six consecutive weeks.

**PREREQUISITE:** Music 462, minimum music average of 75%, minimum overall average of 70%, and permission of the Music Education faculty.

3 hours credit

## **Nursing**

<http://upeu.ca/nursing>

### **Nursing Faculty**

Jo-Ann MacDonald, Associate Professor, Interim Dean

Kim Critchley, Professor

William Montelpare, Professor

Janet Bryanton, Associate Professor

Barb Campbell, Associate Professor

Rosemary J. Herbert, Associate Professor

Gloria McInnis-Perry, Associate Professor

M. Patrice Drake, Assistant Professor

Vicki Foley, Assistant Professor

B. Dawn Inman-Flynn, Assistant Professor

Terri Kean, Assistant Professor

Janet MacIntyre, Assistant Professor

Janis MacLellan-Peters, Assistant Professor

Christina Murray, Assistant Professor

Brandi Bell, Adjunct Professor

Carol McClure, Adjunct Professor

Kathleen MacMillan, Adjunct Professor

Donna Murnaghan, Adjunct Professor

Carolyn Sandford, Adjunct Professor

Lamont Sweet, Adjunct Professor

## **Bachelor of Science in Nursing Program**

The mission of this School is to generate, advance, and disseminate knowledge for excellence in nursing; to create an academic environment which encourages creative and critical inquiry; to prepare competent practitioners grounded in the principles of Primary Health Care; and to provide leadership to a changing system of health care. Nursing is a unique health profession which integrates studies in the social sciences and the life sciences. Its practitioners must be competent in critical thinking, problem-solving, and psychomotor skills. Their practice is based on research findings and the fundamental beliefs of caring, and is guided by a code of ethics. The goal of nursing is to promote wellness and to provide health care for individuals, families, groups, and communities.

The curriculum of the School of Nursing is based on the concepts and principles of Primary Health Care. Primary Health Care is defined by the World Health Organization (1978) as “essential health care made universally accessible to individuals and families in the community by means acceptable to them, through their full participation and at a cost that the community and country can afford.” In keeping with the basis in Primary Health Care nurses collaborate with clients, other health care providers, and people from other sectors of society in promoting wellness. Nursing roles range from direct caregiver to formulator of healthy public policy and include advocate, leader, educator, researcher, and program developer.

## **DEGREE REQUIREMENTS**

The following regulations govern students’ progression through the program:

### **PROFESSIONAL CONDUCT**

1. a) Nursing students are expected to be safe, ethical practitioners in all nursing practice situations. Student performance must be in accordance with the legal, ethical, moral and professional standards identified in the profession’s Code of Ethics (CNA, 2002), the Standards for Nursing Practice (ANPEI, 1999), and the UPEI School of Nursing clinical course objectives. Nursing students are also expected to behave in a professionally appropriate manner, regardless of the setting.
- b) The Dean may prohibit a student from attending a clinical placement or dismiss a student from the nursing program if there is reasonable evidence that the student’s professional behaviour, level of clinical competency, or physical or psychological health might be detrimental to clients.

### **CLINICAL/LABORATORY PERFORMANCE**

2. Although clinical/laboratory components of nursing courses may be evaluated by a pass-fail system, students must pass the clinical/laboratory component for successful completion of the course.
3. Attendance at all activities related to clinical/laboratory components of nursing courses is mandatory. Students who are repeatedly absent from clinical/laboratory sessions without just cause will be removed from the course by the Dean and assigned a grade of “F”.
4. Students must successfully complete designated nursing courses that have a clinical component in each semester before progressing to subsequent nursing courses with a clinical component in a subsequent semester.
5. Students who are absent from nursing courses that have a clinical component for more than twelve months must reapply to UPEI through the Office of the Registrar. If readmitted, they will be permitted to register for subsequent nursing courses with a clinical component, only with the permission of the Dean. The Dean may require the student to complete preparatory remedial work before granting this permission to register.

### **ACADEMIC PERFORMANCE**

6. A student may withdraw voluntarily from the clinical component of a course only once during the program. Special consideration may be given for a student with extenuating circumstances.



7. The minimal grade for successful completion of any course with a Nursing acronym is 60%. Supplementals will not be permitted in these courses.
8. The minimal grade for successful completion of all non-nursing courses is 50%.
9. Students must obtain an overall average of at least 60% in all courses successfully completed in each academic year.
10. Students may not take any required course specifically identified under the heading “Bachelor of Science in Nursing Program” more than twice.
11. Students who fail two nursing courses (courses with a nursing number) will be dismissed from the program.
12. Any student who has completed a lab or class on medication or intravenous therapy must write a Mathematics Competency Test, and achieve a grade of 85%. Calculators are not permitted during the test. Detailed information on this policy can be obtained in the School of Nursing Handbook located on the School of Nursing website.

## BACHELOR OF SCIENCE IN NURSING PROGRAM

Course	Weekly Lecture	Contact Tutorial	Lab/Seminar	Clinical	Semester Hours of Credit
<b>First Year Required</b>					
BIO 121 – Human Anatomy and Physiology I (Note 3)	3		3		3
BIO 122 – Human Anatomy and Physiology II (Note 3)	3		3		3
VPM 101 – Intro. Microbiology for Nursing Students (Note 6)	3		2		3
NURS 101 – Foundations of Nursing I	3		2	2.5	3
NURS 102 – Foundations of Nursing II	3		2	7.5	6
FN 102 – Nutrition for Nursing Practice (Note 5)	3				3
PSY 101 – Introduction to Psychology I (Note 4)	3		1		3
PSY 102 – Introduction to Psychology II (Note 4)	3				3
Electives (Notes 1 and 2)					3
<b>TOTAL</b>					<b>30</b>
<b>Second Year Required</b>					
Either PSY 201 – Developmental Psychology OR FS 241 – Human Development (Note 5)	3	1			3
VBS 212 – Pathophysiology for Nursing Students (Note 6)	3		3		3
NURS 203 – Health Assessment	3		3		3
NURS 213 – Nursing of Young Families	3		3	11	6
NURS 223 – Nursing of Individuals and Families in Wellness and Illness	3		3	13	6
NURS 232 – Introductory Pharmacology (Note 3)	3	1			3
Electives (Notes 1 and 2)					6
<b>TOTAL</b>					<b>30</b>
<b>Third Year Required</b>					
NURS 303 – Issues in Nursing and Health Care	3				3
NURS 304 – Nursing Research Methods	3				3
NURS 305 – Health Teaching	3				3
NURS 306 – Nursing of the Childbearing Family		1.5	1.5		3
NURS 313 – Developing Partnerships with Clients in the Community	3			16	6
NURS 323 – Partnerships with Clients and Families Living with Chronic Illness	3		2	17	6
Electives (Notes 1 and 2)					3 / 6
<b>TOTAL</b>					<b>30</b>
<b>Spring Term Required</b>					
NURS 310 – Integrated Clinical Experience			2	297 hrs. / 9 weeks	6
<b>Fourth Year Required</b>					
NURS 401 – Nursing and Population Health	3	1.5		22.5	9
NURS 402 – Advanced Nursing Focus	2			322 hrs. / 9 weeks	6
NURS 403 – Nursing Leadership and Primary Health Care	3				3
NURS 404 – Conceptual Models and Nursing Theories	3				3
Electives (Notes 1 and 2)					3
<b>TOTAL</b>					<b>30</b>

## STUDENT DISMISSALS

13. Students who have been dismissed from the nursing program as a result of a clinical failure are not eligible for readmission to the program. Students dismissed for reasons other than clinical failures are eligible to apply to the program after eight months following the date of dismissal. Reapplication must be made to the Registrar's Office. Readmission is not automatic and the Dean may require students who are readmitted to complete preparatory remedial work before returning to the program.

## TIME LIMIT

14. Except with special permission of the Dean, students must complete their BScN degree within seven calendar years from the date of their first registration in the program. Except with special permission from the Dean, registration in nursing courses which have a clinical/laboratory component is restricted to students registered in the School of Nursing.

\*NOTES (\*Please see table above).

Within their electives, students will be required to complete the following semester hours of credit:

1.
  - a. One of UPEI 101, UPEI 102, or UPEI 103 and one writing intensive course;
  - b. 3 semester hours in statistics
2. Students will then be free to choose their remaining 9 semester hours of electives keeping in mind that no more than forty-eight (48) semester hours of credit may be taken at the introductory level in the degree program.
3. For course descriptions of BIO 121 and BIO 122, see Biology.
4. For course descriptions of PSY 101, PSY 102 and 201, see Psychology.
5. For course description FN 102, see Applied Human Sciences.
6. For course descriptions VPM 101 and VBS 212, see Veterinary Medicine.

## Accelerated Bachelor of Science in Nursing Program

The Accelerated Bachelor of Science in Nursing (BScN) Program is intended for applicants with a university degree who wish to become professional nurses. Students apply through the Registrar's Office, and must submit the UPEI undergraduate application form. Students in the Accelerated Program are required to take the same courses and have the same number of clinical hours as students in the four-year BScN program. They are governed by the academic regulations for Nursing as outlined in the Calendar.

To be eligible for the Accelerated BScN Program, applicants must have:

- successfully completed Grade 12 or equivalent courses in English, Math, Chemistry, and Biology;
- completed an undergraduate degree with a minimum average of 75% (GPA 3.0 or B) in the last 20 courses of the degree and normally registered as a full-time student;
- students who have completed courses after being granted a degree must have a minimum 75% average based on the best 20 course of the last 22 courses taken;
- completed courses for credit in Human Anatomy, Physiology, Microbiology, Developmental Psychology, Statistics, an introductory Nutrition course, two introductory Psychology courses, and two English courses.

Note: Required courses in Pathophysiology and Pharmacology can be taken during the Accelerated Program.

Enrolment is limited to 14 students per year. Application for admission is February 15. Applicants receive conditional acceptance into the Accelerated Program based on completion of the required prerequisites.

First Year Required:

**January – April**

NURS 103 - Fundamentals of Nursing Practice  
NURS 245 - Health Assessment  
NURS 232 - Introductory Pharmacology  
VBS 212 - Pathophysiology for Nursing Students

**Mid-April – August**

NURS 213 - Nursing of Young Families  
NURS 223 - Adult Nursing: Transitions in Health

Students in the accelerated BScN Program merge with the year three BScN student cohort in N323 and remain with this group until NURS 402X.

**September – December**

NURS 323 - Partnerships with Clients and Families Living with Chronic Illness  
NURS 303 - Issues in Nursing and Health Care OR  
NURS 304 - Nursing Research Methods  
NURS 305 - Health Teaching

Second Year Required:

**January – April**

NURS 313 - Developing Partnerships with Clients in the Community  
NURS 403 - Leadership for Health Professionals in a Primary Health Care Context  
NURS 303 - Issues in Nursing and Health Care OR  
NURS 304 - Nursing Research Methods  
NURS 306 - Nursing of the Childbearing Family

**May – June**

NURS 310 - Integrated Clinical Experience

**July – August**

NURS 402 - Advanced Nursing Focus

\* Upon completion of NURS 402, students in the Accelerated Program merge with year four students in NURS 401 and remain with this group until completion of their program in December.

**September – December**

NURS 401 - Nursing and Population Health  
NURS 404 - Conceptual Models and Nursing Theories

**NURSING COURSES**

**101 FOUNDATIONS OF NURSING I**

This course is an introduction to the discipline of nursing. Students are introduced to the philosophy of primary health care and the framework for nursing at UPEI. Clinical experiences occur in community settings with well elderly clients. Students learn beginning skills in communication, assessment and psychomotor techniques through active involvement in classroom discussions, labs, tutorials and clinical practice.

PREREQUISITE(S): For Accelerated Nursing Students - Admission to the Accelerated Program

Semester hours of credit: 3

Hours per week: Lecture: 3 Lab: 2 Other - Clinical Practice: 30 hours total (includes weekly tutorial)

### 102 FOUNDATIONS OF NURSING II

Students are introduced to the theoretical concept of caring for clients within a primary health care context. Using primary health care as a framework, nursing concepts are explored and strategies for nursing care considered. Students begin to develop a conceptual framework to guide their nursing practice while working with clients in long term care settings.

PREREQUISITE(S): Four Year Program - Nursing 101, Biology 121; Accelerated Nursing Students - Admission to Accelerated Program and Nursing 101

Semester hours of credit: 6

Hours per week: Lecture: 3 Lab: 2 Other - Clinical Practice: 55 hours total

### 103 FUNDAMENTALS OF NURSING PRACTICE

Nursing 103 examines fundamental principles and skills for nursing practice. Students are introduced to Primary Health Care and to the Prince Edward Island Conceptual Model of Nursing: A Nursing Perspective of Primary Health Care. Through this theoretical framework, nursing concepts are explored and strategies for nursing care considered. Students are introduced to beginning communication, assessment, and psychomotor skills through active participation in online and onsite lectures, lab and clinical seminar settings. Students have an opportunity to apply theoretical knowledge to clinical practice by partnering with healthy older adults living independently in the community and in long term care settings.

PREREQUISITE(S): Admission to the Accelerated Program and completion of non-nursing required courses

Semester hours of credit: 9

Hours per week: Lecture: 3 Lab: 2 Other – Clinical Practice: 86 hours total

### 203 HEALTH ASSESSMENT

This course provides the student with knowledge and skills for holistic assessment of individuals. Students learn data collection techniques (interviewing skills, critical thinking skills, and the physical examination techniques of inspection, palpation, percussion, and auscultation). The focus is on the well individual.

PREREQUISITE(S): Nursing 102, Biology 121 and Biology 122

Semester hours of credit: 3

Hours per week: Lecture: 3 Lab: 3

### 213 NURSING OF YOUNG FAMILIES

The focus of this course is on caring for healthy children and families in a variety of settings. Students are introduced to the concepts of family-centred care and empowerment and examine structure, function, and tasks of families at various stages of their development. Determinants of health are used as the framework for exploring factors which influence the health of children and families. Common childhood illnesses are also discussed.

PREREQUISITES: (Four Year Program - Nursing 102, Biology 121, Biology 122, VPM 101 and Psychology 201 can be taken concurrently); (Accelerated Program - Admission to Accelerated Program, Nursing 101 and 102)

Semester hours of credit: 6

Hours per week: Lecture: 3 Lab/Seminar: 3 Other – Clinical Practice: 120 hours total

### 223 ADULT NURSING: TRANSITIONS IN HEALTH

In this course, the student focuses on the experience of illness and the impact of illness, both acute and chronic, on the hospitalized client. The primary focus is the individual client; however, the individual is considered within the context of the family. Each student has clinical rotations working with adults in a hospital setting who are experiencing an acute episode of illness or an exacerbation of a chronic illness. Students learn to apply the principles of primary health care to nursing practice in the acute care setting.

PREREQUISITES: Four Year Program – Nursing 203, Nursing 213; Accelerated Program – Nursing 213, 245, and admission to the Accelerated Program

Semester hours of credit: 6

Hours per week; Lecture: 3 Lab/Seminar: 3 Other – Clinical Practice: 168 hours total

### 232 INTRODUCTORY PHARMACOLOGY

This course is an introduction to the discipline of pharmacology and the response of the human body to pharmacological agents used to manage disease and promote wellness. The principal objective is to provide an introduction to the pharmacokinetics and pharmacodynamics of each major class of drugs used in nursing practise.

As well, clinical case studies are included so the student gains knowledge of nursing assessments of drug efficacy, side effects and drug interactions, special considerations for geriatric and pediatric patients, drugs used in public health, emergencies and over-the-counter medications, and non-pharmacological ways to manage or prevent disease.

PREREQUISITES: Biology 122, Nursing 203, and 213. Exceptions are made with permission of the Dean

Semester hours of credit: 3

Hours per week: Lecture 3; Tutorial 1

#### 242W HEALTH ASSESSMENT FOR PRACTICING NURSES

Health Assessment is a three credit, 13-week course which emphasizes the knowledge and skills required for comprehensive health assessment. Specifically, the content focuses on helping learners' develop health history interviewing skills, physical examination techniques, and nutritional assessment techniques for clinical practice and to identify the wide range of "normal" health states for adults. Emphasis will be placed on analyzing assessment findings to identify health concerns as a basis for planning care.

PREREQUISITE: Available for any practising nurse

Web-based course

#### 245W HEALTH ASSESSMENT

This course provides the student with knowledge and skills for holistic assessment of individuals. Students learn data collection techniques (interviewing skills, critical thinking skills, and the physical examination techniques of inspection, palpation, percussion, and auscultation). The focus is on the well individual.

PREREQUISITE: Four-Year Program - Biology 121 and Biology 122. Accelerated Program - Admission to the Accelerated Program

Semester hours of credit: 3

Hours per week: Web-based learning Lecture: 2 Lab: 3

#### 291 SPECIAL TOPICS

Creation of course code for special topics offered by Nursing at the 200 level.

#### 303 ISSUES IN NURSING AND HEALTH CARE

In this course students examine ethical, legal, political, and economic issues in a changing health care system and issues related to the profession and to patient care. Students apply principles of organizational theory and ethical decision making models in analyzing issues in nursing and health care. This course offers a study of the professional practice of nursing and the values upon which to analyze current issues in Canadian nursing. Strategies for resolving issues in nursing will be emphasized.

PREREQUISITE: Permission of the instructor if not currently enrolled in the third year of the program.

Semester hours of credit: 3

Hours per week: Lecture: 3

#### 304 NURSING RESEARCH METHODS

This course is an introduction to quantitative and qualitative nursing research. It provides students with a solid foundation for the continued study of research and nursing scholarship. Students will develop an understanding of and appreciation for all phases of the research process, with an emphasis on the novice professional's role as an informed consumer of research. Students will develop skills in critiquing published studies and in making judgements about the usefulness of research for nursing practice.

PREREQUISITE: A course in statistics and permission of the instructor if not currently enrolled in the third year of the program.

Semester hours of credit: 3

Hours per week: Lecture: 3 Lab/Seminar: 3 Other – Clinical Practice: 120 hours total

#### 305 HEALTH TEACHING

In this course, students are introduced to theories and principles of teaching and learning within a primary health care context. The course focuses on the nurse's role as health educator and change agent in promoting healthier lifestyles and enhancing wellness through the use of an empowering approach. Students have an opportunity to

apply theory and to develop teaching skills through participation in a variety of community-based teaching activities throughout the semester.

PREREQUISITE: Nursing 101 and permission of instructor if not currently enrolled in the third year of the program. Semester hours of credit: 3

Hours per week: Lecture/Teaching practice: 3

### 306 NURSING OF THE CHILDBEARING FAMILY

This course focuses on theories, issues, and trends related to the care of the childbearing family. Pregnancy, childbirth, and postpartum are viewed as normal life processes with family members as partners in care. The roles of the nurse are considered in relation to family-centred care and primary health care with an emphasis on the determinants of health and premature, preventive, and curative services. Students apply theory from this course to their clinical practice in Nursing 313 and Nursing 310.

PREREQUISITE: Four Year Program - Nursing 323; Accelerated Program—Nursing 223 and admission to the Accelerated Program

Semester hour of credit: 3

Hours per week: Four Year Program - 1.5 hours tutorial/seminar, Clinical Practice: 184 hours in total between N 313 and 306; Accelerated Program - Lecture: 3 Tutorial: 1.5 hours; Other - Clinical Practice: 184 hours in total

### 310 INTEGRATED CLINICAL EXPERIENCE

This course provides a consolidated clinical experience in which students can integrate theory and practice on a daily basis. Clinical experiences prepare students for the final year of study. Placements are arranged in a variety of settings with clients across the life span. This course is graded Pass/Fail.

PREREQUISITE(S): Nursing 306, 313, 323

Semester hours of credit: 6

Hours per week: Other - Clinical Practice: 288 hours in total

### 313 DEVELOPING PARTNERSHIPS WITH CLIENTS IN THE COMMUNITY

This course focuses on promoting and maintaining health and providing support and assistance to individuals, families, and groups in the home and community. Students work in situations of increasing complexity, assessing health, providing and evaluating interventions, and building partnerships and supportive relationships. Students become more aware of community agencies and resources and begin to participate actively in the referral process. The course involves extensive travel throughout the province.

PREREQUISITE: Nursing 323

Semester hours of credit: 6

Hours per week: Lecture: 3 Other - Clinical Practice: 184 hours total between N313 and N306

### 323 PARTNERSHIPS WITH CLIENTS AND FAMILIES LIVING WITH CHRONIC ILLNESS

This course encourages students to develop partnerships with clients and families to enhance the quality of life of those experiencing increasingly complex chronic illnesses. The principles of primary health care pertaining to accessibility, intersectoral collaboration and public participation for clients and their families with chronic illness will be examined in depth. Application of these principles to the population of adults experiencing increasingly complex illnesses in acute medical/surgical and mental health settings will be emphasized.

PREREQUISITE: Nursing 223, Nursing 232, and VBS 212

Semester hours of credit: 6

Hours per week: Lecture /Seminar: 3 Lab: 2 Other – Clinical Practice: 192 hours in total

### 324 MENTAL HEALTH NURSING OF OLDER PEOPLE

This specialty course focuses on theories, issues, and trends related to the care of older persons who have, or who are at risk of developing, mental health needs. Emphasis is on a person-centered holistic approach to care, which focuses on older persons within the context of their lives, experiences, and relationships. The roles of the nurse as advocate, care provider, and educator are considered in relation to the services of primary health care. Concepts such as collaboration, prevention, promotion of mental health, as well as the treatment, care, and rehabilitation of mental health disorders in later life are reviewed.

PREREQUISITE: Available for any practising nurse or nursing student

Semester hours of credit: 3

### 342W CULTURE IN NURSING (web-based course)

This course focuses on multi-cultural awareness and recognition of specific health care beliefs and values, exploring the role of the nurse within each country's health care system, and participating in a cultural immersion experience. Opportunities are provided to allow students to achieve a better understanding of cultural similarities and differences in a selected setting.

PREREQUISITE: Available for any practising nurse or nursing student

### 391 SPECIAL TOPICS

Creation of a course code for special topics offered by Nursing at the 300 level.

### 401 NURSING AND POPULATION HEALTH

This course provides theoretical and clinical opportunities to examine and apply concepts and skills related to population health. Emphasis is placed on the determinants of health, populations at risk for both physical and psychosocial disruptions in health, strategies to promote the health of populations and the role of the nurse in an interdisciplinary and intersectoral approach to health promotion. A unit on epidemiology is included. Students work with community members in the development of a program to promote the health of the community. Students are assigned to work with a preceptor and gain experience in one or two of a wide variety of settings in rural and urban communities.

PREREQUISITE: Nursing 310

Semester hours of credit: 9

Hours per week: Lecture: 3 Tutorial: 1.5 Other - Clinical Practice: 290 hours in total

### 402 ADVANCED NURSING FOCUS

This course provides a final opportunity for students to synthesize their knowledge, skills, and professional values in a selected nursing practice setting. Emphasis is on the complexity of comprehensive nursing care and the significance of health promotion measures. Students select an area of focus in consultation with a faculty member and a clinical preceptor. Placement is dependent on the availability of appropriate clinical experience. Students work with selected clients (individuals, families, and/or aggregates) to enhance their current level of health and maximize their active participation within various facets of health care.

PREREQUISITE: Nursing 401

PREREQUISITE for Accelerated Program: Nursing 310 and admission to the Accelerated Program

Semester hours of credit: 6

Hours per week: Four Year Program - Lecture/Seminar: 2 Other: Clinical Practice: 320 hours in total; Accelerated Program - Lecture/Seminar: 2 Other - Clinical Practice: 329 hours in total.

### 403 NURSING LEADERSHIP AND PRIMARY HEALTH CARE

This course extends the student's ability to examine theoretical and practice concepts in nursing leadership/management and primary health care. Students discuss concepts in health care organization(s) and management and the implications of those concepts when analyzing leadership styles in a clinical setting. Students explore leadership roles assumed by nurses and examine challenges confronting nursing leaders in an era of change. Emphasis is placed on strategies to enhance nursing influence on the evolving Canadian health care system. Models of partnership, decision making, collaboration and communication and the importance of teamwork are stressed.

PREREQUISITE: Nursing 310 or permission of the instructor if not currently enrolled in the fourth year of the program. Semester hours of credit: 3

Hours per week: Lecture: 3

### 404 CONCEPTUAL MODELS AND NURSING THEORIES

In this course, students are introduced to the works of selected nurse theorists. Students develop skills in critical analysis and application of conceptual models and theories to practice.

PREREQUISITE: Nursing 310

Semester hours of credit: 3

Hours per week: 3

Lecture: 3



#### 405 LEADERSHIP FOR HEALTH PROFESSIONALS IN A PRIMARY HEALTH CARE CONTEXT

This web-based course will include blended learning techniques that examine theoretical and practice concepts in health care leadership/management within the context of Primary Health Care. Students will critically analyze concepts in health care organization(s) and management and the implications of those concepts using a variety of leadership styles in a clinical setting. Students explore leadership roles assumed by health care professionals and examine challenges confronting these leaders. Emphasis is placed on strategic methods that enhance leadership to influence the evolving Canadian health care system. Models of partnership, decision making, collaboration and communication and the importance of teamwork are stressed.

PREREQUISITE: Accelerated Program - Admission to the Accelerated Program

Semester hours of credit: 3

Hours per week: Lecture 3

### Philosophy

<http://upei.ca/philosophy>

#### Philosophy Faculty

Verner Smitheram, Professor Emeritus

Malcolm Murray, Professor, Chair

Pamela Courtenay-Hall, Associate Professor

Tony Couture, Associate Professor

Peter Koritansky, Associate Professor

Neb Kujundzic, Associate Professor

#### REQUIREMENTS FOR A MAJOR IN PHILOSOPHY

Students must complete a minimum of 42 semester hours in Philosophy with at least six courses (18 hours) at the 300 or 400 level. NOTE: All courses are 3 hours.

The Department strongly recommends that the following courses should be completed by philosophy majors intending to pursue graduate studies in Philosophy: PHIL 221 (Social Philosophy); PHIL 251 (Formal Logic); PHIL 262 (Plato and Aristotle); PHIL 303 (History of Ethical Theory in 1900); PHIL 373 (Philosophy of Language); PHIL 384 (Rationalists and Empiricists); PHIL 385 (The Philosophy of Kant).

#### HONOURS IN PHILOSOPHY

##### Admission

To be admitted to the honours program, the student must submit a letter of application to the chair of the department. The letter must include a brief proposal of the intended research, a naming of the student's potential supervisor (we recommend prior consultation with the potential supervisor), and a copy of the student's updated transcripts. Applicants must have registered in, or have completed, the major program in philosophy.

Normally, students should submit their applications during their fifth semester. The department, acting as a committee, will determine who is admitted based on the following considerations:

- The student has an average of at least 75% in all Philosophy courses
- The student has an overall average of at least 70% in all academic courses
- The student has shown the ability of, or has the potential for, completing independent philosophical research
- Availability of suitable supervisors

Since the demand for the program may exceed the resources available, meeting the minimum entry requirements does not guarantee admission.

##### Requirements

To receive an honours in Philosophy, an honours philosophy student must satisfy the following requirements:

- At least 126 semester hours of academic credit (42 courses).

- At least 54 semester hours of credit (18 courses) in Philosophy, including seven courses from the following menu:

A) PHIL 251 (Formal Logic);  
 B) PHIL 221 (Social Philosophy), OR PHIL 222 (Political Philosophy);  
 C) PHIL 262 (Plato and Aristotle), OR PHIL 384 (Rationalists and Empiricists), OR Phil 385 (Kant);  
 D) PHIL 303 (Ethical Theory), OR PHIL 203 (Environmental Philosophy);  
 E) PHIL 373 (Philosophy of Language), OR PHIL 301 (Philosophy of Science);  
 F) PHIL 480 (Research Seminar), AND PHIL 490 (Honours Thesis)

- Of the remaining eleven courses, at least ten courses should be completed at the 300 or 400 level, including any of the courses satisfying (C), (D), (E), and (F) above.
- A requirement of Philosophy 490 will be a written thesis (7000-9000 words) and an oral defence. The defence committee consists of at least three faculty members, including the student's supervisor. The committee decides final grades, not the supervisor.
- A student must complete the above requirements while maintaining a minimum average of 75% in all philosophy courses.

### **REQUIREMENTS FOR A MINOR IN PHILOSOPHY**

1. A minor in Philosophy consists of twenty-one semester hours in Philosophy.
2. At least three courses (9 semester hours) should be at the 300 or 400 level. The Department strongly recommends that Philosophy minors complete the following courses to ensure development of basic philosophical knowledge: Philosophy 101 (Introduction to Philosophy) and Philosophy 111 (Critical Thinking).

### **PHILOSOPHY COURSES**

#### **101 INTRODUCTION TO PHILOSOPHY**

This course introduces philosophical inquiry and explores questions such as: What are the principles of rational inquiry? Are there different types of knowledge? How is it possible to know something, and what can one know? How do religious beliefs differ from other types of beliefs? What are some of the traditional arguments regarding the existence of God?

Lectures: Three hours a week

#### **102 INTRODUCTION TO ETHICS AND SOCIAL PHILOSOPHY**

This general course introduces values in personal situations and community conflicts, and emphasizes great books such as Plato's Republic, Thoreau's Walden or J.S. Mill's On Liberty. Possible questions include: Which way of life would make living most worthwhile for each of us? What is the good life? What is a just society? How does one evaluate different life- styles and values?

Lectures: Three hours a week

#### **105 TECHNOLOGY, VALUES, AND SCIENCE**

This course explores the connections among technology, human values, and science that are manifested in society, economic systems, and relationships between humans and the natural world. The study of the connections reveal the vast impact that science and technology have on our understanding of the world and our views on the future as well as on personal identity and the human body. It exposes students to critical examination of objectivity in scientific research, progress in technology and science, scientific risk assessment, and genetic engineering. No particular background in science is assumed in this course.

Lectures: Three hours a week

#### **111 CRITICAL THINKING**

This course helps students identify and evaluate various types of arguments couched in ordinary language. Different types of errors of reasoning are critically evaluated, such as argument from authority, begging the question, faulty causal correlation, appeal to emotions, inadequate sample, and deceptive use of statistics. The course aids the student in recognizing occurrences of these fallacies, and the conditions for logical error and weak

argumentation in general. Emphasis is placed on the identification of weak arguments and the construction of strong arguments. Examples for critique and counter argument are derived mainly from the popular media. Lectures, discussion and group presentation.  
Three hours a week

## 202 CONTEMPORARY MORAL ISSUES

Specific moral issues of contemporary concern such as abortion, euthanasia, welfare, and capital punishment form the basic content of the course. Although some basic ethical theory is discussed, the course's primary concern is with applied ethics (as opposed to ethical theory as taught in Philosophy 303). Students learn to distinguish justifiable ethical arguments from those more problematic.  
Lectures: Three hours a week

## 203 ENVIRONMENTAL PHILOSOPHY

This course explores the contours of contemporary environmental thought and the diversity of approaches to environmental ethics. Emphasis is on critically understanding historical, cultural and ideological diversity while exploring the moral contours of human-nature interactions, both locally and globally. Topics may include the question of values in nature; environmental movements; aboriginal and postcolonial perspectives; social justice as related to the environment; spirituality; sustainability and consumption; the privatization of environmental morality; inhabiting vs. residing; place, art and environmental education.  
Lectures: Three hours a week

## 204 BIO-MEDICAL ETHICS

This course explores questions in health care that require philosophical clarification and appraisal in addition to medical knowledge. Topics such as reproductive decision-making, contract motherhood, allocation of scarce resources, conditions for the withdrawal of treatment, rights to health care, euthanasia, AIDS, eugenics and consent are discussed. The emphasis is on evaluating competing arguments.  
Lectures: Three hours a week

## 205 BUSINESS ETHICS

Students explore ethical issues specific to business, industry, and professional conduct. Topics range from corporate responsibilities, product and worker safety, ethnicity sensitivity, sexual harassment, advertisement, insider trades, and environmental stewardship. Students become familiar with the ethical issues regarding business, and are equipped with the conceptual tools necessary to respond to moral conflicts sensitively and responsibly.  
Cross-listed with Business (Business 213)  
Semester hours of credit: 3

## 206 ANIMAL ETHICS

This course introduces the recent paradigm shift from anthropocentric ethics to biocentric ethics. The main objectives of the course are 1) to develop understanding of the main arguments concerning the moral status of nonhuman animals; 2) to cover the full range of different ethical positions regarding animals and discuss their advantages and disadvantages; and 3) to identify ideologies associated with thinking about animals and develop a critique which liberates us from one-dimensional thinking about animals. Topics addressed include whether animals have minds, whether animals have rights analogous in some way to human rights, and how to balance the interests of animals with other environmental goods. Other topics include animals as food, animal research ethics, animals in entertainment, cloning, biotechnology, companion animals, and legal and moral issues associated with animal activism.

## 207 PHILOSOPHIES OF WAR AND PEACE

This course investigates the complex issue of war and violence, peace and justice, and the future of war. Is war a necessary part of the human condition? What are the ethics of war? The course examines the opposing positions of political realism, just war theory, and pacifism. The course will focus on the meaning of war for philosophers in particular, and study World War II veterans who became philosophers such as Stuart Hampshire, R.M. Hare, J. Glenn Gray, John Rawls and others. Michael Walzer's classic account, *Just and Unjust Wars*, and additional

historical writings by Tolstoy, Arendt, Hobbes, Marx, Gandhi, and Martin Luther King may be studied to understand the debate over the meaning of the problem of war for philosophers and how they attempt to cope with it.

#### 209 SPECIAL TOPICS

Creation of a course code for special topics offered by Philosophy at the 200 level.

#### 211 ORIGINS OF WESTERN PHILOSOPHY

This course traces the development of philosophical thought from the Pre-Socratics to the Neo-Platonists and Christian thinkers of late antiquity. The great questions posed by these early philosophers concerning the origins of the universe, the ultimate nature of reality, the frequent conflict between human nature and moral/social obligation, together with their bold answers, are examined thoroughly.

Lectures: Three hours a week

#### 213 EXISTENTIALISM

Themes studied in this course may include consciousness, subjectivity, authenticity, fact versus interpretation, the role of faith and emotions in a meaningful life, intersubjectivity and community, freedom, alienation, noncognitivism, anti-theory, and moral responsibility. Writers such as Nietzsche, Kierkegaard, Sartre, de Beauvoir, and Camus are the primary focus of discussion.

Lectures: Three hours a week

#### 214 PHILOSOPHY OF HUMOUR

This course emphasizes the overlapping aspects of philosophy and humour, as well as the role of humour in culture and valuing life. What is comedy? What is humour? What is laughter? What is the difference between laughing at people and laughing with them? Students explore the three traditional theories of humour (Superiority theory, Incongruity theory and Relief theory) as found in thinkers such as Plato, Hobbes, Kant, Schopenhauer, Spencer, and Freud. Students discuss Lenny Bruce's autobiography as a case study in problematic humour and free speech controversies.

Lectures: Three hours a week

#### 221 SOCIAL PHILOSOPHY

This course explores a series of basic questions about the nature of social existence. It emphasizes the concept of a "social contract," and analyzes historical development in Western philosophers such as Hobbes, Locke, Hume and Rousseau. It discusses twentieth century development, such as the philosophy of John Rawls.

Lectures: Three hours a week

#### 222 POLITICAL PHILOSOPHY

This investigation of the philosophical problems of life in communities focuses primarily on the concept of rights. What is a right? Are there any inalienable rights? How are rights justified? When is discourse in terms of rights appropriate and inappropriate? Students consider the history of human rights and international differences regarding rights, with special attention to the development of women's rights.

Lectures: Three hours a week

#### 235 SKEPTICISM, AGNOSTICISM, ATHEISM, BELIEF

(See Religious Studies 235)

#### 242 PHILOSOPHIES OF LOVE AND SEXUALITY

This course explores philosophical issues related to love and sexuality as constructed and experienced in particular cultural and historical contexts in Anglo-American culture. Topics may include analysis of love and sexuality as portrayed in music, literature, film and art; kinds of love; conceptions of self and community underlying different accounts of love; sexual activity as expressive, communicative, sacred, profane, athletic, goal-oriented; the commodification of sex; competing conceptions of sexual health and sexual liberation; conservative, liberal, radical and feminist perspectives; ethical issues in intimate relationships, families, sex-trade work and pornography.

Cross-listed with Family Science (cf. Family Science 244)

PREREQUISITE: When taken as Family Science 244, Family Science 114 is required

Lecture: Three hours a week

### 251 FORMAL LOGIC

This course is an introduction to the theory and techniques of classical and modern logic. Students are exposed to the basic concepts of classical propositional and quantificational logic and methods of testing inference. As well, students are exposed to several logical systems that purport to extend classical logic.

Lectures: Three hours a week

### 262 PLATO AND ARISTOTLE

This course examines theories of knowledge and beliefs about the fundamental structure of the cosmos in relation to aspects of the human condition found in the works of the two most influential ancient philosophers, Plato and Aristotle. Students study selected primary texts such as the *Meno*, the *Symposium*, the *Republic* and the *Timaeus* of Plato and the *Physics* and the *Metaphysics* of Aristotle.

Cross-listed with Classics (cf. Classics 262)

Lectures: Three hours a week

### 264 CHINESE RELIGION AND PHILOSOPHY

(See Religious Studies 261)

### 284 INTRODUCTION TO MEDIEVAL THEOLOGY AND PHILOSOPHY

(See Religious Studies 284)

### 301 PHILOSOPHY OF SCIENCE

Science involves a set of attitudes, a system of beliefs, and a group of activities oriented to explaining the natural world. This course examines both the classical positivist accounts of scientific theory and practice and the more recent accounts of development and change in the global scientific culture.

PREREQUISITE: One course in Philosophy or permission of the instructor

Lectures: Three hours a week

### 303 HISTORY OF ETHICAL THEORY

This course offers an historical and critical examination of influential ethical theories proposed by philosophers ranging from Aristotle to Nietzsche. The focus is on the philosophical justification for morality, and not on applied issues.

PREREQUISITE: At least two completed courses in Philosophy or permission of the instructor

Lectures: Three hours a week

### 309 SPECIAL TOPICS

Creation of a course code for special topics offered by Philosophy at the 300 level.

### 322 RELIGIOUS ETHICS EAST AND WEST

(See Religious Studies 322)

### 351 PHILOSOPHY OF LAW

This course is designed to acquaint students with important philosophical concepts underlying the notion of legality and justice. These include the concepts of equality and inequality, legal obligation, punishment, and rights.

Various traditional theories of law will be examined from that proposed by Plato in the *Republic* and Aristotle's *Politics* through Aquinas to John Locke, Jean-Jacques Rousseau, Jeremy Bentham and John Stuart Mill.

Contemporary theories of H.L.A. Hart, Gregory Vlastos and John Rawls may be examined as well.

PREREQUISITE: One course in Philosophy or permission of the instructor

Lectures: Three hours a week

### 353 PHILOSOPHIES OF COMMUNICATION

This course explores the history of thinking about communication, including technologies such as printing, relevant disciplines such as journalism, human rights, and the role of media as agents of social change. Topics include the history of free expression, censorship, the emergence of the public sphere, techniques for influencing public opinion, communication and war, propaganda and truth. Thinkers such as Condorcet, Godwin, J.S. Mill, Ellul, McLuhan, Habermas, Chomsky, Mattelart, and contemporary theorists may be discussed.

Lecture: Three hours a week

### 354 PHILOSOPHY OF MIND

This course examines basic problems in philosophical psychology, such as the mind/body problem, intentionality, artificial intelligence, functionalism, the nature of consciousness, and virtual realities. Thinkers such as J. Searle, D. Dennett, J.J.C. Smart, J. Fodor, P. Churchland, F. Dretske, and K. Sterelny may be discussed.

PREREQUISITE: One course in Philosophy or permission of the instructor

Lectures: Three hours per week

### 361 PHILOSOPHY AND LITERATURE

An examination of the ways in which similar basic human concerns are expressed and developed in philosophy and literature. The course focuses on the use of literature in learning philosophy, with particular attention to the novel as a vehicle for bringing philosophy to the masses and the connections between literature and social change. It also explores the history of theories of literature and popular culture, including work by Habermas, McLuhan, Camus, Sartre, Rorty and Kundera.

Cross-listed with English (cf. English 313)

Lectures: Three hours a week

### 362 PHILOSOPHY OF RELIGION

An examination of the nature of religion and the logic of religious belief. Some of the traditional and recent arguments for and against belief in God will be critically evaluated. The differences between rational and non-rational approaches to religion will be considered, especially as these illustrate the differences between Western and Eastern philosophies and religions. Special emphasis will be given to concepts of "God" and the problems posed by religious language.

Cross-listed with Religious Studies (cf. Religious Studies 362)

PREREQUISITE: One course in Philosophy or Religious Studies

Lectures: Three hours a week

### 363 PHILOSOPHY OF BIOLOGY

Students explore how biology informs our philosophical conceptions of nature and our place in it. Topics include evolutionary theory, human nature, adaptation, development, units of selection, function, species, altruism, the human genome project, conceptions of progress, and creationism.

Lecture: Three hours a week

### 371 COMMUNITY-BASED ETHICAL INQUIRY I

This course will engage students in work placements and dialogue in ethical inquiry with community leaders in one of the following areas (set by the instructor at the start of the year): Agriculture and globalization; Poverty and illiteracy in PEI; World hunger and international aid; Environmental problems and issues of sustainability on PEI. Students will explore the nature of moral experience and ethical inquiry while gaining on-the-ground work experience, so that class discussions will be informed by first-hand understanding of the issues, as well as by recent and classic ethical texts. This course will be led by a faculty member in collaboration with recognized community leaders in the field.

PREREQUISITE: Successful completion of a first or second year course in philosophy, or permission of the instructor.

Seminar/field work: Averaged across the semester, 1.5 hours per week unpaid field placement in a relevant setting, supervised by a mentor.

Three semester hours of credit

### 373 PHILOSOPHY OF LANGUAGE

This course introduces philosophical problems concerning language and provides a grounding in analytic philosophy. Students discuss truth and meaning, reference, speech acts, interpretation and translation, and metaphor. Questions such as the following are examined: What are the relationships among language, mind, and the world? How does language colour our thoughts about reality? Does each language bring with it a distinct conceptual system?

PREREQUISITE: One course in Philosophy or permission of the instructor

Lectures: Three hours a week

### 383 RADICAL PHILOSOPHY

This course explores attempts by philosophers, in the 19th and 20th centuries, to create alternative social movements that are highly critical of existing social organizations and the state form of life. It provides an historical introduction to Marxism, anarchism and feminist social theory. Texts are selected from Godwin, Marx, Engels, Proudhon, Kropotkin, Emma Goldman and Simone de Beauvoir.

Lectures: Three hours a week

### 384 RATIONALIST AND EMPIRICISTS

This course is an introduction to early modern philosophy through the study of the most important works of the rationalists (Descartes, Spinoza, and Leibniz) and the empiricists (Locke, Berkeley, and Hume).

Lectures: Three hours a week

### 385 THE PHILOSOPHY OF KANT

This course examines the philosophy of Immanuel Kant (1724–1804), with a particular focus on his influence on the discipline of epistemology and his major work, *A Critique of Pure Reason*. If time permits, students may also consider Kant's approach to philosophy, as well as his main critics.

Lectures: Three hours a week

### 403 METAETHICS

This course extends the history and discussion of ethics begun in Philosophy 303. This course explores the meaning of moral concepts. Is morality real or not? Are our moral utterances cognitive or non-cognitive? If morality is natural, in what sense? Is morality relativistic, universal, objective, subjective, instrumental, intrinsic, or a fiction?

PREREQUISITE: Philosophy 303 or permission of the instructor

Lectures: Three hours a week

### 409 SPECIAL TOPICS

Creation of a course code for special topics offered by Philosophy at the 400 level.

### 422 20th CENTURY BRITISH AND AMERICAN PHILOSOPHY

This course is a critical examination of the development of analytical philosophy in Britain and America in the 20th Century with a focus on the relations between logic, science, language, and conceptualization. Logical Positivism, the linguistic turn, and pragmatism are examined through readings from such authors as G.E. Moore, B. Russell, Wittgenstein, A.J. Ayer, W. James, Quine, and Rorty.

PREREQUISITE: Philosophy 373, and one other Philosophy course, or permission of the instructor.

Lectures: Three hours a week

### 427 THEORIES OF JUSTICE

This course explores the basic ethical concepts of the right and the good by focussing on three recent classics in political philosophy: John Rawls' *A Theory of Justice*, Robert Nozick's *Anarchy, State and Utopia* and Michael Walzer's *Spheres of Justice*. The contrasts between libertarian and socialist ideas of society, individual rights and communitarian thinking, the nature of the state, equality, cultural relativism, and liberal pluralism are considered. Contemporary secondary literature about Nozick and Walzer may also be studied.

PREREQUISITE: One course in Philosophy or permission of the instructor

Lectures: Three hours a week

### 428 20th CENTURY FRENCH AND GERMAN PHILOSOPHY

This course introduces German philosophers such as the Frankfurt School and Jurgen Habermas and French philosophers such as Michel Foucault. Students consider the idea of a critical theory, the public sphere, rationality and ideology, and the disciplinary society.

PREREQUISITE: One course in Philosophy or permission of the instructor

Lectures: Three hours a week

#### 431 DIRECTED STUDIES

Student and teacher will jointly investigate problems or authors chosen by the student in consultation with the chair and approved by the Dean. Without prejudice to other choices, the Department is prepared to offer Directed Studies in the following areas beyond the regular course offerings. (See Academic Regulation 9 for Regulations Governing Directed Studies)

#### 480 HONOURS SEMINAR

This is an intensive literature review course in the area of the student's honours thesis. The reading material will be developed by the student and supervisor. As part of this course, the student will be required to produce a substantive proposal for his or her honours thesis (Philosophy 490). Other requirements may include an annotated bibliography, preliminary draft work, reading journals, and critical reviews.

#### 490 HONOURS THESIS

In consultation with a supervisor, each student will be required to write a 7,000–9,000 word thesis, and defend it orally in front of a committee. The three-member committee will be comprised of the supervisor, a second reader from the Philosophy Department, and a third reader from either the Philosophy Department or another department at the University. Students must complete Philosophy 480 before beginning Philosophy 490.

### Physics

<http://upei.ca/physics>

#### Physics Faculty

William Whelan, Professor, Chair

Douglas C. Dahn, Associate Professor

Derek W. Lawther, Associate Professor

Sheldon Opps, Associate Professor

James Polson, Associate Professor

#### REQUIREMENTS FOR A MAJOR IN PHYSICS

Candidates for the BSc with a major in physics must fulfill the general requirements set by the University Senate and the Departmental requirements listed below. It is suggested that students progress through these requirements in the order given below. However, the courses may be taken in a different sequence provided that the pertinent prerequisites are fulfilled.

#### Semester hours of credit

First Year	
Physics 111-112	6
Mathematics 151-152	6
Chemistry 111-112	6
Computer Science 151	
(or Engineering 132)	3
Electives (Biology 131-132 are highly recommended)	9
Second Year	
Physics 201	3
Physics 202	3
Physics 221	3
Physics 272	3
Mathematics 251-252	6
Mathematics 261	3
Electives	9
Third and Fourth Years	
Physics 312	3
Physics 372	3



Physics 381	3
Physics—At least five courses taken from among Physics 241, 291, 292, 322, 342, 382, 391, 402, 412, 414, 421, 422, 431, 441, 451, 471, 472. At least one of the courses chosen must be at the 400 level	15
Electives (Mathematics 301 is highly recommended)	36
Total	120

NOTE: Students who intend to major in Physics are advised to consult the Department before registration. The Departmental requirements and the prerequisites indicated in the Physics courses should normally be followed. In exceptional cases these may be discussed with the Department.

### REQUIREMENTS FOR HONOURS IN PHYSICS

The Honours program in Physics is intended to provide research experience at the undergraduate level. It is designed for students who are interested in continuing their studies at the graduate level in Physics or related fields, or who are planning careers where research experience would be an asset.

The Honours program comprises a total of 126 semester hours of course credit, including a research project worth 12 semester hours. A total of at least 60 semester hours of Physics is required (16 courses plus project).

### COURSE REQUIREMENTS

The normal University requirements must be met in addition to the Departmental requirements listed below. Biology 131-132 are highly recommended electives.

	Semester hours of credit
First Year	
Physics 111-112	6
Mathematics 151-152	6
Computer Science 151 (or Engineering 132)	3
Chemistry 111-112	6
Electives (Biology 131-132 are highly recommended)	9
Second Year	
Physics 201	3
Physics 202	3
Physics 221	3
Physics 272	3
Mathematics 251-252	6
Mathematics 261	3
Electives	9
Third and Fourth Years	
Physics 312	3
Physics 322	3
Physics 372	3
Physics 381	3
Physics 402	3
Physics 412	3
Physics 421	3
Physics 441	3
Physics 451	3
Physics 490	12
Mathematics 301	3
Mathematics 331, 471, or 472	3

Electives, at least one of which must be a Physics elective chosen from the following: Physics 382, 391, 414, 422, 431, 461, 462, 463, 464, 471, 472, 481	21
Total	126

### ENTRANCE REQUIREMENTS

For admission to the program, students must normally have a minimum average of 70% in all previous courses. First-class or high second-class standing in all previous Physics courses is expected. Permission of the Department is required.

Acceptance will be contingent upon the student's finding a project advisor, approval of the research project topic, and the Department's assessment of the student's suitability for the program. Students interested in doing Honours should consult the Department Chair as early as possible, normally before the beginning of the student's third year, and no later than January 31 of the third year. Before registering for Physics 490, the student must have been accepted into the Honours program, and the project topic must be approved by the Department.

To graduate with Honours in Physics, the student must maintain a minimum average of 75% in all Physics courses combined. Students must also maintain a minimum overall average of 70% in each of the four years of study.

### PROJECT PHYSICS 490—ADVANCED RESEARCH AND THESIS

This is a 12 semester hour course required of all Honours Physics students. An independent research project or study is done under the supervision of a faculty advisor. Before registering for Physics 490, the student must have been accepted into the Honours program, and the project topic must be approved by the Department. The objective of this course is to provide research experience for the student who intends to pursue further studies at the graduate level, or who is planning a career where research experience in Physics or related areas would be an asset.

### REQUIREMENTS FOR A BSC WITH A MAJOR IN PHYSICS FOR ENGINEERING DIPLOMA STUDENTS

Students enrolled in the Engineering Diploma program may wish to take additional Physics courses and work towards a Bachelor of Science degree. Students intending to enter this program should consult the Physics Department for detailed advice on course selection.

	Semester hours of credit
First Year	
Physics 111-112	6
Second Year	
Physics 201	3
Physics 202 (for students enrolled in the Engineering Diploma Program, this may be replaced by Engineering 321	3
Physics 221	3
Third and Fourth Years	
Physics 312	3
Physics 381	3
Physics—At least seven additional courses taken from the following: Physics 202 (if not already counted above), 241, 272, 322, 342, 372, 382, 391, 402, 412, 414, 421, 422, 431, 441, 451, 481, and Engineering 342, 382. At least one of the courses chosen must be at the 400 level	21

The student must also complete all the requirements for the Engineering Diploma, and take sufficient courses (including Engineering courses) to satisfy the general requirements for a University degree. A total of 120 semester hours of credit is required.

## **Physics Co-operative Education Program**

The Physics Co-op program is an integrated approach to university education which enables students to alternate academic terms on campus with work terms in suitable employment.

The success of such programs is founded on the principle that students are able to apply theoretical knowledge from course studies in the workplace and return to the classroom with practical workplace experience. The Physics Co-op program consists of eight academic terms and a minimum of four work terms. It is available as an option for students in both the Major and Honours Physics Programs. Students who successfully complete all the requirements of the program will have the notation entered on their transcripts and their degree parchments.

### **ACADEMIC COURSE REQUIREMENTS**

Academic course requirements for the Physics Co-op Major and Physics Co-op Honours are identical to those for the conventional degrees except for the inclusion of the work-term courses as follows: Physics 280, Physics 380, and Physics 480 are required three-semester hour physics courses (these replace three general electives); and Physics 580 is an optional physics course with no semester-hours of credit awarded. Students admitted to the co-op program should consult with the department concerning their course selection.

### **ADMISSION REQUIREMENTS**

Students interested in entering the Physics Co-op program should submit a completed application to the Physics Co-op Program Director no later than the fall semester of their second year of study. Early applications are encouraged. Applicants must be full-time students in either a major or the honours physics program, and must have a cumulative average of at least 70% in the required physics courses taken to date. Students will be admitted to the program based on their interest, aptitude, and assessed ability to combine successfully the academic requirements with the work-term requirements of the Physics Co-op program. Students not admitted may reapply at the next opportunity.

### **CONTINUANCE REQUIREMENTS**

Students admitted to the program must continue to be enrolled full-time (except while on work terms). Students are expected to maintain the minimum academic performance as may be specified for the applicable Physics Major or Honours program. Students who fail to meet these standards or who fail a required course will be placed "on notice" for the next academic semester. Students who do not meet these standards for two consecutive academic semesters may be dismissed from the program. Dismissal from, discontinuance of, or failure of a work-term course may result in immediate withdrawal from the Physics Co-op program.

### **WORK TERM REQUIREMENTS**

Satisfactory fulfilment of the work-term component of the Physics Co-op program requires:

1. Successful completion of a minimum of three work terms (normally no more than two during the summer months) in approved, academically-related, paid employment situations of 12 to 16 weeks duration;
2. Fulfilment of other requirements specified by the Department of Physics, such as the participation in seminars and workshops.

Although successful work-term placement is not guaranteed by the University, every reasonable effort is made to assist Physics Co-op students. In the event that a placement outside the University is unsuccessful, the option to complete the work term within the Physics Department will be considered.

### **REGISTRATION AND GRADING**

It is the responsibility of the students to register for the work-term courses. Work-term courses are graded on a pass/fail basis.

### **MINOR IN PHYSICS**

Students in the Minor Program in Physics must complete a total of 21 semester hours of Physics including:

Physics 111 – 3 hours  
Physics 112 – 3 hours  
Physics 221 – 3 hours  
Four additional Physics courses (12 semester hours) at the 200 level or above.

Students intending to do a Minor in Physics are advised to take Mathematics 151-152 instead of 112.

### **Minor in Biomedical Physics**

Students in the Minor Program in Biomedical Physics must complete a total of 21 semester hours of course credit, including these 3 core Physics courses:

General Biomedical Physics for the Life Sciences:

Physics 121 Physics for Life Sciences I – 3 hours  
Physics 122 Physics for Life Sciences II – 3 hours  
Physics 222 Modern Physics for Life Sciences – 3 hours

In addition, four electives (12 semester hours) must be chosen from the following suite of Physics and Biology courses:

Foundations of Biomedical Physics:

Physics 331 (formerly 241) Physics of the Human Body – 3 hours  
Physics 342 Introduction to Biomedical Physics – 3 hours  
Physics 391 Radiation Detection and Measurement – 3 hours  
Physics 442 Biomedical Imaging – 3 hours  
Biology 353 Human Anatomy and Histology – 3 hours  
Biology 401 Human Physiology & Pathophysiology – 3 hours

### **PHYSICS COURSES**

#### **111 GENERAL PHYSICS I**

This course emphasizes the fundamentals of mechanics and is intended as a first course in physics for students in the physical sciences and engineering, or who are planning to take Physics courses beyond the first-year level. Topics include vectors, kinematics, Newton's laws of motion, gravitation, circular motion, static equilibrium, moment of inertia, torque, rotational motion, and conservation of energy and momentum.

**PREREQUISITE:** Proficiency in High School algebra, trigonometry and graphing is expected. Grade 12 Physics is required; however, in exceptional cases a student who has not taken Grade 12 Physics but has demonstrated outstanding performance in other High School Math and Science courses may apply to the Department for special permission. It is required that Mathematics 191 be taken at least concurrently.

Three hours lecture, three hours laboratory or tutorial per week

#### **112 GENERAL PHYSICS II**

This course is a continuation of Physics 111 and is intended for, but not restricted to, those students who wish to pursue further studies in the physical sciences or engineering. Topics include oscillations, wave motion, sound and light, thermodynamics, fluid mechanics, and electricity and magnetism.

**PREREQUISITE:** Physics 111, and Mathematics 191 or permission of the instructor. Mathematics 192 must be taken at least concurrently

Three hours lecture, three hours laboratory or tutorial per week

**NOTE:** Students may obtain credit for Physics 122 or 112 but not both.

#### **121 PHYSICS FOR LIFE SCIENCES I**

This course is intended for life science and health science students. Students are introduced to the fundamental concepts of physics and some of their applications to biological systems. Topics include vectors, kinematics, force, energy and power, torque, linear and angular momentum, and fluid mechanics.

**PREREQUISITE:** Proficiency in High School algebra, trigonometry and graphing is expected. It is required that Mathematics 112 or Mathematics 191 be taken at least concurrently. High school physics is strongly recommended.

Three hours lecture, three hours laboratory or tutorial per week

**NOTE:** Students may obtain credit in Physics 121 or 111, but not in both.

## 122 PHYSICS FOR LIFE SCIENCES II

This course is a continuation of Physics 121 intended for students in the life sciences, introducing additional physics concepts with emphasis on their application to biology. Topics include properties of waves, acoustics and hearing, optics and vision, thermodynamics, and basic electricity and magnetism.

**PREREQUISITE:** Physics 121 or 111 and either Mathematics 112 or Mathematics 191, or permission of the instructor.

Three hours lecture, three hours laboratory or tutorial per week

**NOTE:** Students may obtain credit for Physics 122 or 112 but not both.

## 151 LIFE IN THE UNIVERSE

Beginning with a history of the evolving scientific thought on Earth's place in the universe, students will learn the fundamental physics and biology concepts necessary to assess what makes a planet and solar system suitable for life. Topics will include current research missions within our solar system, the search for extrasolar planets, the search for extraterrestrial intelligence, and the social implications of discovering life elsewhere. This course is intended for non-science students but science students are welcome to enrol also.

Three credit-hour lecture

## 201 WAVES AND OSCILLATIONS

This course provides a basic introduction to the physics of mechanical waves. It begins with a study of the free, forced and damped harmonic oscillator and is followed by a study of discrete coupled oscillators in one dimension. This is used to derive the one-dimensional wave equation, which is used to study traveling and standing waves in continuous media. The course also provides an introduction to relevant mathematical concepts and methods, including complex numbers, partial derivatives, techniques for solving ordinary and partial differential equations, and Fourier series.

**PREREQUISITE:** Physics 112 and Math 152, or permission of the instructor

Three hours lecture, three hours laboratory per week

## 202 MECHANICS

Using a more advanced treatment than in the 100-level physics courses, this course gives the student a deeper understanding of the principles of mechanics. Topics include: vector kinematics, Newton's laws, momentum, work and energy, rotational motion, and central force motion.

**PREREQUISITE:** Physics 112 and Mathematics 291, or permission of the instructor

Three hours lecture per week

## 221 MODERN PHYSICS

This course is a survey of the fundamental concepts of modern physics intended for both physics majors and other science majors. Topics include: relativity, photons and matter waves, the photoelectric effect, Compton scattering, the uncertainty principle, quantum tunnelling, the hydrogen atom, line spectra, orbital and spin angular momentum, magnetic dipole moments, x-rays, the laser, electron energy bands in solids, nuclear properties, radioactive decay, fission, fusion, quarks, leptons, and the Big Bang.

**PREREQUISITE:** Physics 112 and Mathematics 191, or permission of the instructor

Three hours lecture per week

## 222 MODERN PHYSICS FOR LIFE SCIENCES

This course is a continuation of Physics 122 intended for students in the life sciences, introducing additional physics concepts with emphasis on their application to biology and applied clinical physics. Topics include atomic physics, nuclear physics, x-rays, diagnostic nuclear medicine, radiation therapy, nuclear magnetic resonance.

**PREREQUISITE:** Physics 122, or Physics 112

Three hours lecture per week

## 242 INTRODUCTION TO BIOMECHANICS

(See Kinesiology 312)

## 243 (Formerly 331) PHYSICS OF THE HUMAN BODY

This course provides students with an introduction to the physics of the human body. Physics concepts such as mechanics, energy, work, fluid statics and dynamics, sound, optics, electricity, and magnetism will be applied to better understand the functioning of the human body.

PREREQUISITE: Biology 131, and Physics 112 or Physics 122. Otherwise, permission of the instructor is required  
Three hours lecture per week

## 261 ENERGY, ENVIRONMENT AND THE ECONOMY

This course is directed to both science and non-science students who wish to improve their understanding of this major technological issue. Topics include: the basic concepts necessary to understand photosynthesis, nuclear power, acid deposition, the greenhouse effect, ozone depletion and pollution. Particular emphasis is placed on Canadian and PEI examples, and on the implications for Third World development.

PREREQUISITE: Permission of the department

Three hours lecture (seminars and/or field visits to be arranged)

## 272 ELECTRONICS AND INSTRUMENTATION

This course is a practical introduction to analog electronics, and to electronic techniques useful in the sciences. Topics include alternating current circuits, transistors, operational amplifier circuits, feedback, noise, and an introduction to computer data acquisition.

PREREQUISITE: Physics 201 or Engineering 341, and Mathematics 152, otherwise permission of the instructor is required  
Three hours lecture, three hours laboratory per week

## 280 CO-OP WORK TERM I—PROFESSIONALISM

This course is available only to Physics Co-op students, and is an integration of the first work-term experience with the learning of professional skills related to job placement such as the writing of resumes and cover letters, job-search strategies, and interviewing. Students are required to submit a work-term report. Students are assessed on a pass/fail basis.

PREREQUISITE: Acceptance into the Physics Co-op program

Semester hours of credit: 3

## 282 (FORMERLY 381) MATHEMATICAL PHYSICS

This course is an introduction to some of the mathematical methods commonly used in the physical sciences and engineering, with an emphasis on applications in physics. Topics include: vector analysis in curvilinear coordinates, tensor analysis (with applications in fluid mechanics), introduction to complex variables, Fourier series, calculus of variations and applications.

Cross-listed with Mathematics (cf. Mathematics 282)

PREREQUISITE: Math 291 and either Physics 112 or Physics 122

Three hours lecture per week

## 292 STARS, GALAXIES, AND THE UNIVERSE

This course is an introduction to the study of astronomical objects and phenomena. Topics of study include observation of Earth's sky, gravity, light, and its use in astronomical instruments; properties and energy production of our Sun; methods of measuring astronomical distances; the structure, energy, and evolution of stars; interstellar matter and the structure of the Milky Way galaxy; other galaxies; cosmology; and some other related topics of interest.

Note: Credit will not be allowed for Physics 292 if a student has already received credit for Physics 251 or 252.

PREREQUISITES: A first-year physics course or permission of the instructor.

Three-credit hour lecture; three-credit hour laboratory or field observations.

### 312 ELECTROMAGNETISM I

This course develops fundamental concepts in electricity and magnetism. Topics include electric fields and potentials, capacitance, dielectric materials, magnetic fields, magnetic properties of materials, electromagnetic induction, inductance, Maxwell's equations, and an introduction to electromagnetic waves.

PREREQUISITE: Physics 112 and Math 252

Three hours lecture, three hours laboratory per week

### 322 QUANTUM PHYSICS I

This course introduces some of the fundamental methods of quantum mechanics. Topics include the postulates and mathematical formalism of quantum mechanics, the Dirac description of quantum mechanics, applications to a variety of one-dimensional problems such as quantum tunnelling, and the harmonic oscillator.

PREREQUISITE: Physics 202, Physics 221 and Mathematics 252 or permission of the instructor

Three hours lecture per week

### 342 INTRODUCTION TO BIOMEDICAL PHYSICS

This course provides students with an introduction to physics methods and methodology in medicine. Topics include: basic concepts in medical imaging, optical and fluorescence imaging, lasers in medicine, radiation transport in tissues, nuclear medicine, radiation dosimetry and therapy, and biomedical optics and acoustics applications.

PREREQUISITE: Biology 131, and Physics 221 or Physics 222. Otherwise, permission of the instructor is required

Three hours lecture per week

### 351 ADVANCED BIOMECHANICS

(See Kinesiology 481)

### 352 (Formerly 442) BIOMEDICAL IMAGING

This course concentrates on recent advanced modalities in medical imaging, and includes digital imaging, computed tomography, and digital fluoroscopy, as well as an introduction to bone mineral densitometry and magnetic resonance imaging.

PREREQUISITE: Physics 221 or Physics 222, or permission of the instructor

Three lecture hours and three hours laboratory per week

### 372 STATISTICAL PHYSICS I

This course provides students with an introduction to the statistical description of macroscopic systems and focuses on both statistical and classical thermodynamics. Topics include the microcanonical and canonical ensembles, the perfect quantal and classical gas, black body radiation, the Einstein and Debye description of solids, and the laws of thermodynamics and some of their consequences and applications.

PREREQUISITE: Physics 112 and Mathematics 252, or permission of the instructor

Three hours lecture per week

### 380 CO-OP WORK TERM II—SCIENTIFIC WRITING

This course is available only to Physics Co-op students, and is an integration of the second work-term experience with the learning of scientific-writing skills. Students learn how to write scientific abstracts and papers for publication in science journals. Students are required to submit a work-term report in the form of a science publication. Students are assessed on a pass/fail basis.

PREREQUISITE: Physics 280

Semester hours of credit: 3

### 382 COMPUTATIONAL PHYSICS

This course is designed to provide students with direct experience in the use of advanced computer-based techniques for modelling physical systems. A variety of computational techniques are used to study a number of phenomena, including realistic projectile motion, chaotic motion, planetary dynamics, electromagnetism, wave motion, and quantum wave function dynamics. The course also provides an introduction to advanced molecular simulation methods, including Monte Carlo and molecular dynamics techniques.

PREREQUISITE: Physics 202 or Physics 221, Mathematics 252, and Computer Science 151 or Engineering 132

Three hours lecture per week

### 391 RADIATION DETECTION AND MEASUREMENT

This course provides students with an understanding of the theory and operation of radiation detectors. Topics include: radiation sources; the interaction of ionizing radiation with matter; the principles of operation and use of gas-filled, scintillation and semiconductor diode detectors; spectroscopy techniques and the use of related electronics; and shielding.

PREREQUISITE: Physics 221 or Physics 222 or permission of the instructor

Three hours lecture per week

### 402 STATISTICAL PHYSICS II

This course builds upon the material presented in Statistical Physics I and covers the basic elements of equilibrium statistical mechanics. Topics include an introduction to the grand canonical ensemble, thermodynamic equilibrium, stability, fluctuations, phase transitions, quantum statistics, and interacting systems. A variety of applications to systems such as ideal gases, Bose gases, Fermi gases, and paramagnets is included.

PREREQUISITE: Physics 322 and Physics 372

Three hours lecture per week

### 412 ELECTROMAGNETISM II

This is an advanced course covering classical electromagnetic theory based on Maxwell's equations. Topics include: electro-statics, magnetostatics, solutions to boundary value problems, electric and magnetic properties of materials, electromagnetic wave propagation, electromagnetic radiation, and an introduction to relativistic electrodynamics.

PREREQUISITES: Physics 312 and 381

Three hours lecture per week

### 414 OPTICS AND PHOTONICS

This course focuses on the fundamentals of optics and photonics with biomedical applications. Topics include energy flow in electromagnetic fields, reflection and transmission, interference and diffraction, optical properties of materials, dispersion and losses, waveguides, spectra and spectral line broadening, partially polarized radiation, lasers and modulators, crystal optics, detectors and couplers.

PREREQUISITE: Physics 201, Physics 312 and Physics 381

Three hours lecture, three hours laboratory per week

### 421 QUANTUM PHYSICS II

This course further develops the fundamental concepts and methodology of quantum mechanics. Topics include angular momentum, the hydrogen atom, spin, matrix mechanics, and time-independent and time-dependent perturbation theory.

PREREQUISITE: Physics 322 and Physics 381

Three hours lecture per week

### 422 ADVANCED TOPICS IN QUANTUM PHYSICS

This is an advanced course in which important physical problems are solved using the basic methods of quantum mechanics. Topics include the quantum mechanics of atoms and molecules, scattering theory, and an introduction to relativistic quantum mechanics.

PREREQUISITE: Physics 421

Three hours lecture per week

### 431 SOLID STATE PHYSICS

This is an introductory course in Solid State Physics, which covers the basic physics of crystalline solids. Topics include: crystal structures; structure determination by x-ray diffraction; crystal bonding; lattice vibrations and phonons; the free and nearly-free electron models; and the energy band structures of metals, insulators and semiconductors.

PREREQUISITE: Physics 322

Three hours lecture per week



#### 441 EXPERIMENTAL PHYSICS

This advanced laboratory course introduces students to all phases of an experimental project, from design, planning, and setup of the apparatus, to detailed analysis and formal presentation of the results. Students choose a small number of in-depth experiments to perform.

PREREQUISITE: Physics 272, Physics 312, and at least Third Year standing in a Science program

One hour lecture, six hours laboratory per week

#### 451 ADVANCED MECHANICS

The Lagrangian and Hamiltonian formulations are presented as alternatives to the conventional treatment of Newton's laws and are applied to classical problems such as harmonic and anharmonic oscillators, the two-body central force problem, and rigid body motion.

PREREQUISITE: Physics 202 and Physics 381 or Mathematics 301

Three hours lecture per week

#### 461-462 DIRECTED STUDIES

These courses are either reading courses, or research projects, which require the students to investigate a specific topic to a much greater depth than is possible in the department's usual course offerings.

PREREQUISITE: Physics Majors with at least third-year standing, or permission of the department

Three semester hours of credit

(See Academic Regulation 9 for Regulations Governing Directed Studies.)

#### 463-464 SPECIAL TOPICS

These courses take advantage of unusual opportunities such as the availability of a visiting researcher to teach a course related to his/her field of expertise, or a course offer on an experimental basis, etc.

PREREQUISITE: Physics Majors with at least third-year standing, or permission of the department

Three semester hours of credit

#### 471 PARTICLE PHYSICS

This course provides an introduction to the field of particle physics. The course begins with a historical background of elementary particles, followed by a review of relativistic kinematics. A main focus of the course is the development of the Standard Model, including a detailed discussion of the electromagnetic, weak, and strong forces that govern particle interactions. Topics include: conservation laws; symmetries; particle decays, bound states, and scattering processes; and Feynman rules.

PREREQUISITE: Physics 312 and Physics 322

Three hours lecture per week

Semester hours of credit: 3

#### 472 GENERAL RELATIVITY

This course provides an introduction to the field of general relativity. The course begins with a development of special relativity in tensor form and the introduction of the stress-energy tensor. Essential tensor calculus in relation to curved Riemannian manifolds is developed and the Einstein field equations are introduced. Applications include the structure of stars and black holes, planetary trajectories in strong gravitational fields, and gravitational waves.

PREREQUISITE: Physics 202, Physics 221 and Physics 381

Three hours lecture per week

Semester hours of credit: 3

#### 480 CO-OP WORK TERM III—SCIENCE COMMUNICATION

This course is available only to Physics Co-op students and is an integration of the third work-term experience with the learning of science communication skills. Students learn how to prepare and present oral and poster presentations. Students are required to submit a work-term report in the form of a science publication, and present their work during a public presentation. Students are assessed on a pass/fail basis.

PREREQUISITE: Physics 380

Semester hours of credit: 3

#### 490 ADVANCED RESEARCH AND THESIS

The objective of this course is to provide research experience for the student who intends to pursue further studies at the graduate level, or who is planning a career where research experience in Physics or related areas would be an asset. An independent research project is done under the supervision of a faculty advisor. The research results are reported in thesis format and are presented orally at a department seminar.

PREREQUISITE: Acceptance into the Honours Physics program

Twelve semester hours of credit

#### 580 CO-OP WORK TERM IV

This course is available only to Physics Co-op students and is the fourth work term. Students are required to submit a work-term report in the form of a science publication, and present their work during a public presentation. Students are assessed on a pass/fail basis.

PREREQUISITE: Physics 480

Semester hours of credit: 0

### Political Science

<http://upei.ca/politicalscience>

#### Political Science Faculty

David Milne, Professor Emeritus

Peter McKenna, Professor, Chair

Donald Desserud, Professor

Henry Srebrnik, Professor

Gil Germain, Associate Professor

David Bulger, Adjunct Professor

David L. Cook, Adjunct Professor

### POLITICAL SCIENCE PROGRAM

The Department offers courses covering four fields in Political Science: Canadian Politics, Political Theory, Comparative Politics, and International Politics.

Courses in these fields are indicated in the listing below.

#### INTRODUCTORY COURSES

The Department offers two introductory courses as normal entries to the discipline. While not required, either of these courses will be counted toward a major in Political Science.

Introductory Politics

101 Introductory Politics I Government and Politics in Liberal Democracies

102 Introductory Politics II Political Ideologies in Liberal Democracies

#### Canadian Politics

201 Canadian Politics I: Government

202 Politics and Government of Prince Edward Island

211 Law, Politics and the Judicial Process I

212 Law, Politics and the Judicial Process II

262 Canadian Politics II: Environment and Processes

301 Federalism and Federation

302 Canadian Federalism

311 Canadian Public Administration

314 Canadian Public Policy

315 Canadian Foreign Policy

353 The Politics of Canadian-American Relations

401 Law, the Courts and the Constitution I  
402 Law, the Courts and the Constitution II  
411 Political Parties and Elections in Canada  
485 Internship: Legislatures, Politics and Practice

### **Political Theory**

222 Political Ideologies  
253 Introduction to Political Theory  
331 Twentieth-Century Political Thought  
332 Postmodernism and Contemporary Political Thought  
335 Utopia  
431 Political Thinkers  
432 Politics and the Mass Media  
434 Leo Strauss, Neo-conservatism, and American Foreign Policy  
435 The Globalization Debate

### **Comparative Politics**

221 Political Economy and Social Change in the Developing World  
233 Political Geography  
343 Comparative Politics of South Asia  
351 The Political Culture of the United States  
352 The Political System of the United States  
354 Contemporary British Politics  
361 Comparative Politics of Africa  
362 Comparative Politics of Latin America and the Caribbean  
363 The Comparative Politics of the Middle East  
371 Political Transition in Central and Eastern Europe  
372 The Politics of Russia and Its Borderlands  
414 Public Policy in Small Island Jurisdictions  
422 Ethnic Nationalism in Comparative Perspective  
441 Comparative European Politics I  
442 Comparative European Politics II  
445 Political Economy of East and Southeast Africa  
451 Contending Approaches in Comparative Politics  
461 Seminar in the History of Canadian External Relations

### **International Politics**

231 War and Peace  
282 Introduction to International Politics  
391 Comparative Foreign Policy  
392 International Political Economy  
393 International Theory  
436 European Intellectual History Since 1789  
471 International Organizations  
390 US Foreign Policy  
472 International Law  
475 International Human Rights  
481 Small States and Micro-States in the International  
482 The Politics of European Integration  
483 American-European Relations in the Post-Cold War

### **REQUIREMENTS FOR A MAJOR IN POLITICAL SCIENCE**

To obtain a major in Political Science, students must complete a minimum of 42 semester hours (14 courses) in Political Science, and must include the following four core courses:

253 Introduction to Political Theory, 262 Canadian Politics, 282 International Politics, and 451 Comparative Politics; one further course from each of the following fields: Canadian Politics, Comparative Politics, and International Politics; and an additional seven electives in the discipline.

Majors will normally complete Political Science 253 (Introduction to Political Theory) by the end of their second year of study; they must do so no later than the end of their third year of studies. A major program must contain a minimum of six courses at the 300 or 400 level. The four required core courses cover four areas in the discipline: Introduction to Political Theory (253), Canadian Politics (262), International Politics (282), and Comparative Politics (451).

The purpose of the core-course requirement is to ensure that every graduate of the Department has a solid grounding in fields integral to the discipline. In addition, the core courses promote the development of analytical skills and lay the foundations for more effective work in advanced-level courses. All majors and prospective majors are advised to consult with the Department Chair at the beginning of each term. This consultation is intended to ensure that each student's program satisfies the Department's requirements and satisfies the student's needs.

### **REQUIREMENTS FOR A MINOR IN POLITICAL SCIENCE**

To obtain a minor in Political Science, students must complete the following requirements: 21 semester hours in the discipline at the 200 level and above, distributed over at least three of the four fields (Canadian Politics, Political Theory, Comparative Politics, and International Politics). At least three courses (nine semester hours) must be from the 300 level or above. Those taking a minors program in Political Science should also meet with the Department Chair at the beginning of each term to review their program.

### **RECOMMENDED ELECTIVES FOR MAJORS**

Beyond the core courses, majors are encouraged to consult their faculty advisor in order to build a well-balanced program of study. Furthermore, majors are reminded that Political Science is but one of several social sciences and is closely related in its concerns to many other academic disciplines. Individual programs should emphasize appropriate electives in Anthropology, Economics, History, Philosophy, Psychology, Sociology, Religious Studies, Business Administration or other related disciplines.

### **SPECIAL TOPICS**

209—A lecture course in which contemporary topics or issues are explored in an introductory/general manner

309—A lecture course in which contemporary topics or issues are explored in an intermediate manner

409—A lecture course in which contemporary topics or issues are explored in an advanced manner

### **DIRECTED STUDIES**

Courses offered under Directed Studies 491-492 permit intensive study and specialized research under the supervision of faculty. Areas of special interest of the regular faculty are listed at the end of the course descriptions.

### **SUMMER SESSIONS**

The Department has a tradition of inviting distinguished visiting Professors to teach courses in the summer session not offered in the regular program. These courses broaden coverage in each area of the discipline. Majors are advised to take advantage of these offerings. Titles for these courses are available at registration.

NOTE: Most courses in the program are offered in alternate years. Please consult the timetable for availability of these courses or check with the Department. All courses are three hours a week unless otherwise indicated.

## **POLITICAL SCIENCE COURSES**

### *INTRODUCTORY COURSES*

101 INTRODUCTORY POLITICS I: GOVERNMENT AND POLITICS IN LIBERAL DEMOCRACIES

This course is a comprehensive introduction to politics. Initially students explore the nature of political activity and basic concepts such as political culture, the nation-state, the various roles of government, and the international system. The course examines differences among democratic, authoritarian, and totalitarian political systems just as it introduces students to such contemporary ideologies as liberalism, conservatism, socialism and nationalism.  
Lecture/Seminar: Three hours a week

#### 102 INTRODUCTORY POLITICS II: POLITICAL IDEOLOGIES IN LIBERAL DEMOCRACIES

This course introduces students to a comparative analysis of the political systems of major nations, among them Canada, the United States, the United Kingdom, France, Germany, Russia, China, Brazil, India, Japan, and South Africa. Among the topics covered are political parties and electoral systems; interest groups and public opinion; and decision-making and public policy formulation in the areas of commerce, education, health and welfare.  
Lecture/Seminar: Three hours a week

#### CORE COURSES

These courses provide Political Science majors with grounding in all areas integral to the discipline. Non-majors may register in these courses only with permission of the Department. Majors in Political Science must complete all core courses (253, 262, 282 and 451). Note that majors will normally complete 253 (Political Theory) by the end of their second year of studies.

Students not concentrating in the discipline will be admitted to Political Science 253 only with the permission of the instructor.

#### 253 INTRODUCTION TO POLITICAL THEORY

This course offers students a thematic overview of the history of Western political thought. The meaning and relevance for politics of issues such as justice, leadership, law, democracy, freedom, and the common good are reviewed through a careful reading of major ancient and modern thinkers, including Plato, Machiavelli, Hobbes, Locke, and Nietzsche.

PREREQUISITE: None

Seminar: Three hours a week

#### 262 CANADIAN POLITICS II: ENVIRONMENT AND PROCESSES

This course introduces non-constitutional aspects of Canadian politics: political culture, nationalism, regionalism, and biculturalism. It also treats electoral politics, interest group activities and the role of the mass media.

PREREQUISITE: Political Science 201 or permission of the instructor

Lecture: Three hours a week

#### 282 INTRODUCTION TO INTERNATIONAL POLITICS

This course examines the evolution and structure of the contemporary global system and considers the perennial questions of peace and stability in a world of independent polities. It treats the diverse capabilities, roles and relationships of state and non-state actors, and considers major patterns of change in the post-war world. Principal attention is directed to recurring theoretical concerns in the study of international politics. Both lectures and readings make generous use of case studies and contemporary issues.

PREREQUISITE: Permission of the instructor

Lecture: Three hours a week

#### 451 CONTENDING APPROACHES IN COMPARATIVE POLITICS

This course gives students a theoretical overview of the field of comparative politics, the different treatments of recurring questions in the discipline, and the historical and geographic frameworks within which contemporary polities have developed. The course is retrospective in its critical examination of various models and classification schemes.

PREREQUISITE: At least one course from the Comparative stream or permission of the instructor

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 461)

Note: Some background in the empirical literature of comparative politics is essential.

Seminar: Three hours a week

## CANADIAN POLITICS

### 201 CANADIAN POLITICS I: GOVERNMENT

This course introduces and surveys the basic constitutional components of Canadian politics: Parliament (including the Crown, the House of Commons, the Senate, Cabinet, courts, and the bureaucracy), federalism (including the distribution of legislative authority, inter-governmental decision making, and fiscal federalism), and the Charter of Rights and Freedoms. Constitutional principles and actual practices of government are discussed.  
Lecture: Three hours a week

### 202 POLITICS AND GOVERNMENT OF PRINCE EDWARD ISLAND

This course examines the evolution of Prince Edward Island's political parties, electoral system, pressure groups, and political culture. The politics of Prince Edward Island are compared to those of other Canadian provinces. The provincial government's development programs are examined in the broader framework of federal-provincial relations.

Lecture/Seminar: Three hours a week

### 211 LAW, POLITICS AND THE JUDICIAL PROCESS I

This course is designed to acquaint interested students with the nature of law. It has a Canadian focus with special reference to Prince Edward Island. The areas covered in this semester include sources of law, interests protected by the law, and fundamental legal and political concepts. Major areas of concentration are constitutional and civil law.

Lecture: Three hours a week

### 212 LAW, POLITICS AND THE JUDICIAL PROCESS II

In this course, students examine various areas of civil law. The politics of Prince Edward Island are used to illustrate the relationships between legal and political systems.

Lecture: Three hours a week

### 302 CANADIAN FEDERALISM

This is a seminar course on the theory and practice of divided political authority. The aim is to understand the logic and attraction of federalism as a political theory and the problems of working out that idea in Canadian government, politics, and society. This course examines the constitution as a fundamental contract for shared rule between Ottawa and the provinces and traces federalism in intergovernmental relations and public policy. The course concludes with an overview of the important approaches and schools of thought in this field.

PREREQUISITE: One of Political Science 201, 262 or permission of the instructor

Seminar: Three hours a week

### 311 CANADIAN PUBLIC ADMINISTRATION

This course introduces the study of public administration. It examines the theories, practices, and politics that shape decision-making and management in the Canadian public sector. Among the topics explored are theories of decision-making, organization, motivation, and democracy influencing public administration; the policy-making and political role of public servants; the growth and expansion of the Canadian state; and the evolution of financial and personnel management systems.

PREREQUISITE: One of Political Science 201, 202, 262 or permission of the instructor

Lecture: Three hours a week

### 314 CANADIAN PUBLIC POLICY

This course examines the evolution, nature, instruments, and consequences of Canadian public policy, particularly that of the Federal Government. In the first half of the course, students discuss the tools and frameworks used in public policy research and analysis and review the broad structure of Canadian public policy. In the second half of the course, students research areas or issues in Canadian public policy and present their findings in seminars and essays.

PREREQUISITE: None

Seminar: Three hours a week

### 315 CANADIAN FOREIGN POLICY

This course examines Canada's growing involvement in the post-1945 international environment. It focuses on the determinants of Canadian foreign policy, the major actors involved, and the various constraints on decision-makers. Particular attention is paid to key issues, themes, and foreign policy initiatives over the last forty years.

PREREQUISITE: Political Science 201 or 262

Three hours a week

### 353 THE POLITICS OF CANADIAN-AMERICAN RELATIONS

This course examines the important areas of cooperation and contention between Canada and the United States. Discussions focus on such issues as attempts to protect Canadian culture from American influences, the politics surrounding trade between the two countries, and the creation and operation of joint agencies.

PREREQUISITE: One of Political Science 201, 262 or permission of the instructor

Seminar: Three hours a week

### 401 LAW, THE COURTS AND THE CONSTITUTION I

In this course, students read and analyze some important constitutional decisions in Canada. This intensive examination of legal cases shows the complexities of federal-provincial jurisdiction in Canada and the ways in which courts have tried to deal with them. Students become familiar with the necessary "policy-making" role of the courts and see the practical effects that constitutional judgments have had on the powers of provincial and federal governments in this country. Enrolment is limited to a maximum of twenty-one qualified students. Although background in Canadian government and politics is desirable, students with preparation in cognate disciplines and with a strong interest in law are encouraged to enrol.

Seminar: Three hours a week

### 402 LAW, THE COURTS AND THE CONSTITUTION II

In this course, students apply the knowledge acquired in Political Science 401 to a series of constitutional conflicts. In courtroom simulations students gain insight into the methods, rationality and conflicts of constitutional review. Particular attention is paid to human rights issues, especially those raised by the Canadian Charter of Rights and Freedoms. The course concludes with critical analyzes of the role of the courts in distributing power in our federal system, the kind of knowledge required for such adjudication and the strengths and weaknesses of existing practice.

PREREQUISITE: Political Science 401 or permission of the instructor.

Seminar: Three hours a week

### 411 POLITICAL PARTIES AND ELECTIONS IN CANADA

This course analyzes the development of political parties, party systems, elections, and voting behaviour in Canada. It examines both national and provincial parties and elections. It studies and evaluates Canadian practices in the context of democratic theories of representation and participation.

PREREQUISITE: Political Science 262 or permission of the instructor

Seminar: Three hours a week

### 485 INTERNSHIP: LEGISLATURES, POLITICS AND PRACTICE

This course is available to one student per year and are selected by a Departmental vetting process. The over-arching purpose of the course is to introduce the student to the inner/administrative workings of the PEI Legislature. It is designed to encourage the student to incorporate knowledge learned in the classroom with practical skills acquired during the work term.

Three semester hours of credit

## COMPARATIVE POLITICS

### 221 POLITICAL ECONOMY AND SOCIAL CHANGE IN THE DEVELOPING WORLD

This course provides an overview of the legacy of colonization and the consequences of imperial domination in the developing world. It examines crises of state legitimacy resulting from cultural and ethnic tensions within fragmented political systems. The course analyzes authoritarianism, militarism, clientism, and patrimonialism as recurrent problems blocking transitions to democracy.

Lecture/Seminar: Three hours a week

### 233 POLITICAL GEOGRAPHY

The intellectual development and the foundational literature of political geography is an essential tool for students of both Political Science and island studies. This course seeks to provide an introduction to this long-standing body of literature with reference to the most pressing issues and cases in the contemporary international system. It is structured as a foundational course which is open to all interested students in the two cross-listed fields and to students in cognate disciplines. Classes will explore general themes such as boundaries, size and shape, and ethnicity. The classes will consist of lectures and seminars which will address the central themes outlined in the class schedule.

### 343 COMPARATIVE POLITICS OF SOUTH ASIA

This describes political developments since independence in the arc of South Asian countries from Afghanistan to Myanmar. It focuses on state-building in post-colonial societies, regional alliances and rivalries, and the salience of culture, ethnicity, and religion. The course concentrates on the politics of Afghanistan, Pakistan, India, Sri Lanka, Bangladesh, Myanmar, the Maldives, and the Himalayan States.

PREREQUISITE: Political Science 221 or permission of the instructor.

Seminar: Three hours a week

### 351 THE POLITICAL CULTURE OF THE UNITED STATES

This course examines the evolution of the American Republic. Topics include the nature of American pluralism and civil society; the allocation of power and resources among a diversity of ethnic, religious and gender groups; civil liberties and civil rights; the changing demography and political economy of the urban landscape; the political cultures of different regions and states; and environmental issues affecting Americans.

Seminar: Three hours a week

### 352 THE POLITICAL SYSTEM OF THE UNITED STATES

This course focuses on the fundamentals of American government and politics. It examines institutional structures such as Congress, the Presidency and the Supreme Court, and the separation of powers among these branches of government as reflections of liberal democratic theory and constitutional practice. The course studies such topics as American federalism and states' rights; elections and voting behaviour; and the role of political parties, interest groups, and the media.

Seminar: Three hours a week

NOTE: Political Science 351 and 352 may be taken in any sequence.

### 354 CONTEMPORARY BRITISH POLITICS

This course introduces students to both the foundations of the British political system and to the issues which have dominated public debate in Britain for the last generation. Early seminars explore the constitutional evolution of the British legal and political cultures and the most critical developments in the evolution of British political parties. Later seminars critically examine such contentious issues as devolution, the Northern Ireland question, the ideological and electoral shifts in the British party system, changing strategies in economic management, Britain's relations with Europe and such constitutional issues as electoral reform, the future of the House of Lords, and the campaign for a Bill of Rights.

PREREQUISITE: None

Seminar: Three hours a week

### 361 COMPARATIVE POLITICS OF AFRICA

This course offers a comparative view of the political systems of sub-Saharan African states. It examines discontinuities between indigenous and externally-imposed political structures; mass-elite cleavages and ethnic rivalries in deeply divided societies; and the economic peripheralization and debt crisis facing many of these nations today.

PREREQUISITE: Political Science 221 or permission of the instructor

Seminar: Three hours a week

### 362 COMPARATIVE POLITICS OF LATIN AMERICA AND THE CARIBBEAN



This course examines the political systems of Caribbean, Central and South American states. It explores the emergence of new social and economic hierarchies and the development of highly complex plural societies. It also analyzes ideological conflicts, civil strife, and non-democratic paradigms of governance, and concludes with case studies of countries such as Jamaica, Mexico and/or other selected states.

PREREQUISITE: Political Science 221 or permission of the instructor

Seminar: Three hours a week

### 363 THE COMPARATIVE POLITICS OF THE MIDDLE EAST

This course offers a comparative study of the political cultures, political economy, governments, and political parties in selected Middle Eastern states. Particular attention is given to the historical and political origins of the contemporary state system, patterns of modernization, revolutionary change, the impact of Islamic and nationalist movements and the Palestine question.

PREREQUISITE: Political Science 221 or permission of the instructor

Seminar: Three hours a week

### 371 POLITICAL TRANSITION IN CENTRAL AND EASTERN EUROPE

This course deals primarily with political transitions in the former Communist countries of central and Eastern Europe. It begins with an historical overview of the region, which has in this century witnessed authoritarian, fascist, Marxist-Leninist and democratic regimes, both indigenous and imposed. The course examines the efforts made since 1989 to transform these polities from command economies into market societies, and from single-party regimes into liberal-democratic states. It considers impediments to democracy, including the lack of minority rights, secessionist movements, religious traditionalism, and economic fragility.

Seminar: Three hours a week

### 372 THE POLITICS OF RUSSIA AND ITS BORDERLANDS

This course examines regime changes and ideological shifts in Russia and other states that have emerged following the breakup of the Soviet Union. It focuses on theoretical questions regarding the nature of the post-Communist state and its relationship to the economy and civil society. It studies the political cultures and institutions within the multi-ethnic Russian Federation as well as successor states in the Caucasus and central Asia, including Armenia, Azerbaijan, Georgia, and Kazakhstan. It also examines secessionist movements in Chechnya, Dagestan, and elsewhere in the post-Soviet states.

Seminar: Three hours a week

### 414 PUBLIC POLICY IN SMALL ISLAND JURISDICTIONS

This course examines the determinants or causes of public policy in small island jurisdictions, with particular emphasis on the impact of "islandness" and size on the patterns, goals, instruments, and consequences of public policy. Students familiarize themselves with various models for understanding the causes of public policy and with selected frameworks for comparing policy across jurisdictions. These models and frameworks are applied to selected island jurisdictions in seminar discussions and research papers.

Seminar: Three hours a week

### 422 ETHNIC NATIONALISM IN COMPARATIVE PERSPECTIVE

This course examines the global dimensions of ethnic nationalism and the "clash of civilizations" both in the developing and advanced industrial states. Following an examination of the theoretical literature on ethnicity and politics, specific case studies focus on multi-ethnic countries such as Bosnia-Herzegovina, Cyprus, Ireland, Fiji, Mauritius and Trinidad/Tobago. Particular attention is paid to historical developments in these countries and to the institutional mechanisms and governmental strategies that have evolved to cope, often unsuccessfully, with ethnic divisions.

PREREQUISITE: Political Science 221 or permission of the instructor

Seminar: Three hours a week

### 441 COMPARATIVE EUROPEAN POLITICS I

This course is a comparative study of the political cultures, governmental institutions and electoral politics of European democracies. Although principal attention is given to Britain, France, Germany and Italy, the course also examines such topics as the politics of the welfare state in the Nordic countries, linguistic and confessional

cleavages in Belgium and the Netherlands, the restoration of democratic governments in the Mediterranean states and the transition from Communism to liberal democracy in Central and Eastern Europe.

Seminar: Three hours a week

#### 442 COMPARATIVE EUROPEAN POLITICS II

In contrast to the case study approach this advanced course focuses on the thematic comparative analysis of European democracies. Among the themes considered are the role of the state, executive-legislative relations, ideologies, political parties and pressure groups and problems of ethnic minorities.

Seminar: Three hours a week

#### 445 POLITICAL ECONOMY OF EAST AND SOUTHEAST ASIA

Students are introduced to selected theoretical perspectives on international political economy and apply them to region building in East and Southeast Asia using relevant case studies. The emergence of the region as a force in international economic and political arenas is examined by focusing on the development of the Association of Southeast Asian Nations, Asian Development Bank, and the Asia Pacific Roundtable. The region's relationship with other groupings such as the Asia-Pacific Economic Cooperation Forum and the European Union also is considered.

PREREQUISITE: None

Seminar: Three hours a week

#### 461 SEMINAR IN THE HISTORY OF CANADIAN EXTERNAL RELATIONS

(See History 431)

PREREQUISITE: Political Science 282. Majors wishing to credit this course toward the international politics field requirement must secure the permission of the Political Science department.

### INTERNATIONAL POLITICS

#### 231 WAR AND PEACE

What are the roots of war and what are the prospects for its end? Arms races, the balance of power, liberation wars, and nuclear proliferation are among the topics considered. Case studies include the World Wars, the Arab-Israeli wars, the Falklands war, and the two Persian Gulf wars. Finally, students explore prospects for world peace in the light of the end of the Cold War. In addition to lectures, there will be open class discussions and video presentations.

Lecture: Three hours a week

#### 390 US FOREIGN POLICY

This course examines the conduct of US foreign policy in the post-1945 period. It focuses on the key determinants and overarching objectives of US foreign policy, the major actors, and the various constraints acting upon these decision-makers—all within a theoretical context. Particular attention is paid to key developments and themes, case studies, various US administrations, and the ramifications of US foreign policy behaviour.

#### 391 COMPARATIVE FOREIGN POLICY

This course emphasizes comparative analysis of foreign-policy formulation in both developed and developing countries. Seminars focus on major powers, selected middle powers and small states. The use of case studies illuminates major theoretical concerns in foreign-policy analysis.

Seminar: Three hours a week

#### 392 INTERNATIONAL POLITICAL ECONOMY

The objective of the course is to provide students with an understanding of international political economy as a critical and analytical approach to the problems of world politics. Seminars focus on the politics of money, the debt crisis, international trade, energy and resource management, technology transfers and international investment. Although many of these issues are particularly significant in the content of North-South relations, the course also examines economic relations among advanced industrialized states including the emerging market economies in the former Communist world. The course explores the evolution of the contemporary international economy, and probes the impact of global economic institutions and regulations on the foreign policies of states.

Seminar: Three hours a week

### 393 INTERNATIONAL THEORY

This course examines the principal theoretical debates in the literature of international relations theory in the post-war period. Students first concentrate on the impact of realism in international theory and move on to explore those currents of theory which have challenged realist analysis. Particular attention is given to systems theories, economic explanations of international relations, decision-making theory, game theory, and theories of regional integration.

Seminar: Three hours a week

### 436 EUROPEAN INTELLECTUAL HISTORY SINCE 1789

(See History 485)

### 471 INTERNATIONAL ORGANIZATIONS

This seminar analyzes the role of both inter-governmental and non-governmental organizations in the international system. Students examine theoretical approaches to international organization as well as the structures and functions of particular global and regional bodies. The focus of the course is the United Nations system and particularly the challenges facing the U.N. in a post-Cold War world.

Seminar: Three hours a week

### 472 INTERNATIONAL LAW

This course examines the sources of international law, the changing nature of international legal principles, and the development of the institutional apparatus for the application of international law. Throughout the course, students weigh the effectiveness of international law as a reflection of the values of a developing international community and as a contribution to world order.

Seminar: Three hours a week

### 475 INTERNATIONAL HUMAN RIGHTS

This course examines the language and legal instruments of human rights, the international human rights agenda since 1945, and the arguments for and against states incorporating a human rights component into their external relations. Particular attention is paid to key issues, such as genocide, women, and transnational corporations, along with how states seek to punish governments that violate the rights of their citizenry.

PREREQUISITE: Political Science 282

Seminar: Three hours a week

### 481 SMALL STATES AND MICRO-STATES IN THE INTERNATIONAL SYSTEM

This course examines the ongoing proliferation of small states and micro-states in the international system. It gives particular attention to problems of legitimacy and status, and to the constraints of small size in undertaking effective diplomacy, ensuring security and achieving some measure of economic autonomy.

Seminar: Three hours a week

### 482 THE POLITICS OF EUROPEAN INTEGRATION

Seminars focus on the principal theoretical schools of integration literature and their relevance to various strategies for advanced co-operation in Europe. Among the topics considered are problems of policy making and institutional development in the European Union, the terms of the Single Europe Act, and the debate over enlargement, the scale and depth of integration in an expanding continental community.

Seminar: Three hours a week

### 483 AMERICAN-EUROPEAN RELATIONS IN THE POST-COLD WAR

In spite of enduring for nearly 60 years, the Atlantic Alliance continues to reflect sharply different perspectives facing the Western world in the 21<sup>st</sup> century. In his landmark essay on the subject Robert Kagan argued that Americans are from Mars and Europeans are from Venus. This course will examine the roots of European-American tensions since 1945 but the essential focus of the seminars will be the contemporary global system and issues confronting both sides that have arisen with the end of Communism, the tragedy of 9/11, international terrorism, nuclear proliferation and challenges in the Middle East since the 2003 invasion of Iraq.

## POLITICAL THEORY

### 222 POLITICAL IDEOLOGIES

This course introduces students to the concept of ideology, or the “science of ideas.” It examines the modern origin of ideologies, their various forms and evolution, and how ideological thought affects political change. Surveyed are Ideologies such as liberalism, conservatism, socialism, anarchism, fascism, feminism, and environmentalism.

Lecture: Three hours a week

### 331 20th CENTURY POLITICAL THOUGHT

This seminar provides an overview of the major trends in 20th century political thought. Special focus is placed on the political implications of various critiques of modern rationality. The writings of conservatives such as Leo Strauss and Eric Voegelin are contrasted against the more radical critiques of modernity offered by prominent Continental Thinkers such as Theodor Adorno and Max Horkheimer.

PREREQUISITE: Political Science 253 or permission of the instructor

Seminar: Three hours a week

### 332 POSTMODERNISM AND CONTEMPORARY POLITICAL THOUGHT

This seminar asks the question: What does it mean to act and think “after modernity?” The question is addressed through readings of those contemporary social and political theorists who were among the first to announce the death of the modern order and to articulate the contours of a new “postmodern” order. Issues to be investigated include the disintegration of the human subject, the retribalizing of the human community, and the impact of the communications revolution on political processes.

PREREQUISITE: Political Science 253 or permission of the instructor

Seminar: Three hours a week

### 335 UTOPIA

This course explores utopian thought and its relation to Western society. The history of utopian literature and imagery is examined through a reading of the genre’s leading proponents, including Plato, More, Bacon, Swift, Butler, Orwell, and Huxley. Questions pertaining to the political context of utopian literature, evolving historical trends in utopian thought, and the relationship between the utopian impulse and the human condition are entertained as well.

PREREQUISITE: None

Seminar: Three hours a week

### 431 POLITICAL THINKERS

This seminar explores in depth the work of one or more political thinkers including theorists whose contribution to the discipline requires extensive treatment, as well as those significant thinkers often neglected in standard survey courses in political theory: Plato, Hegel, Rousseau, Kant, Nietzsche, Arendt, Voegelin, Strauss, Habermas, and Foucault are among those who may be considered.

PREREQUISITE: Political Science 253 or permission of the instructor

Seminar: Three hours a week

### 432 POLITICS AND THE MASS MEDIA

Students review the theory and practice of modern communication primarily as it affects Canadian politics. Principal themes examined include theories of mass communication, ideology and the media, media ownership, the political economy of the media, public regulation, and the political impact of the media. The writings of major communications thinkers such as Innis, McLuhan, and Chomsky are considered.

PREREQUISITE: None

Seminar: Three hours a week

### 434 LEO STRAUSS, NEO-CONSERVATISM, AND AMERICAN FOREIGN POLICY

This course examines the political thought of one of North America’s most influential political theorists and its impact on the foreign policy decisions of recent American administrations. It focuses on Strauss’s teaching, the school of thought that bears his name, the formative influence of Straussian thought on neo-conservatism, the

entry of Straussians into positions of political power, and the impact of this development on American foreign policy, especially as it relates to Iraq and the War on Terror. This extended investigation will speak to the central and abiding tension between politics and truth.

PREREQUISITE: Political Science 253 or permission of the instructor

Seminar: Three hours a week

#### 435 THE GLOBALIZATION DEBATE

This course examines various arguments clustered around the theme of globalization. It investigates theoretical issues pertaining to globalism as an idea, outlines the forces that contribute to 'real world' globalization, reviews the responses and reactions to globalization, and assesses likely future scenarios for an increasingly globalized world.

PREREQUISITE: Political Science 253 or permission of the instructor

Seminar: Three hours a week

#### 491-492 DIRECTED STUDIES

This is a research or reading program available principally to Political Science majors. The student undertakes advanced work in an area such as Canadian Politics, Political Theory, Comparative Politics, and International Politics and is supervised by a member of the Department in either semester. (See Academic Regulation 9 for Regulations Governing Directed Studies).

## Psychology

<http://upei.ca/arts/psychology>

<http://upei.ca/science/psychology>

### Psychology Faculty

Thomy Nilsson, Professor Emeritus

Colleen MacQuarrie, Associate Professor, Chair

Annabel J. Cohen, Professor

Catherine L. Ryan, Professor

Philip B. Smith, Professor

Michael Arfken, Associate Professor

Jason Doiron, Associate Professor

Scott Greer, Associate Professor

Stacey MacKinnon, Associate Professor

Tracy Doucette, Assistant Professor

Nia Phillips, Assistant Professor

Vickie A. Johnston, Lecturer

### REQUIREMENTS FOR A MAJOR IN PSYCHOLOGY

Student may declare a major in Psychology at any time. Majors are expected to take four required courses, Psychology 101-102, Psychology 278 and Psychology 279, in their first two years. A formal review of each student's performance is conducted upon completion of the four core courses. Continuation of the program will be based upon a 70% average with no mark below 60% in the four core courses.

### Bachelor of Arts in with a Major in Psychology

Students pursuing a Bachelor of Arts degree with a major in Psychology must take at least fourteen semester courses (42 semester hours). In selecting these 14 courses, students must satisfy the following course selection criteria:

1. Majors are required to take:

Psychology 101 Introduction to Psychology—Part I

Psychology 102 Introduction to Psychology—Part II

Psychology 278 Statistics and Research Design I

## Psychology 279 Statistics and Research Design II

2. Majors are required to take at least one (1) course in six (6) of the seven areas listed below.
3. Majors must take at least two (2) courses selected at the 300-level or above.
4. Majors must take at least one (1) course selected at the 400-level.

### NOTE 1:

Completion of Psychology 278-279 satisfies the Research Methods and Statistics area requirement.

### NOTE 2:

Criteria (3) and (4) may be met in the process of satisfying criterion (2). That is, a course may satisfy both an area and a level requirement.

### NOTE 3:

Other courses may satisfy an area requirement at the discretion of the Chair (e.g. Directed Studies courses).

### NOTE 4:

Other electives may be drawn from all other courses in Psychology including Directed Studies Courses (Psychology 431-432), cross-listed courses offered by other Departments, and summer session courses in Psychology.

### NOTE 5:

Psychology 480 and 490 are honours thesis courses and do not satisfy this requirement.

#### Behavioural Neuroscience

212 Drugs and Behaviour

311 Physiological Psychology

312 Brain and Behaviour

313 Introduction to Neuropsychology

321 Learning and Motivation: Basic Processes

403 Issues in Developmental Psychopharmacology

#### Clinical and Applied

352 Abnormal Psychology

353 Childhood Psychological Disorders

362 Ergonomics

393 Health Psychology

441 Existential – Phenomenological Psychology

453 Human Services: Integrating Theory and Practice

461 Psychological Assessment

462 Psychotherapy

#### Critical and Historical Perspectives

301 "Psychology" from the Ancient to the Modern World

302 The Emergence of Modern Psychology

333 Ecopsychology

385 Cultural Psychology

391 Psychology of Women

395 Gender and Violence

435 Gender and Sexuality

463 Critical Issues for Contemporary Psychology

472 Social Justice in Psychology

#### Developmental

201 Developmental Psychology—General  
303 Psychology of Aging  
305 Adolescent Development and Adjustment  
308 Child Development  
309 Adult Development

Personality and Social  
222 Psychology of Personal Experience  
242 Introduction to Social Psychology  
291 Contemporary Psychoanalytic Thought  
331 Creativity  
342 Intimate Relationships  
351 Theories of Personality

Perception and Cognition  
261 Sensation and Perception I  
262 Sensation and Perception II  
381 Human Learning and Memory  
382 Cognitive Psychology  
383 Psycholinguistics  
411 Consciousness  
412 Music Cognition

Research Methods and Statistics  
271 Statistics for the Behavioural Sciences I  
278 Statistics and Research Design I  
279 Statistics and Research Design II  
322 Advanced Research Methods in Social Psychology  
371 Advanced Statistics  
374 Advanced Qualitative Research

### **Bachelor of Science in with a Major in Psychology**

Students pursuing a Bachelor of Science degree with a major in Psychology will complete the Psychology course requirements as described above for the Bachelor of Arts degree. Students seeking a BSc will also be required to complete a minimum of eight semester courses (24 semester hours) of course work in the Faculty of Science. Credit in each of the following courses is required

1. Biology 131 and 132
2. Mathematics 112, OR Mathematics 151 and 152
3. Chemistry 111 and 112 OR Physics 111 and 122 (or 112)
4. Two courses which have laboratory components at the 200-level or above in one of Biology, Chemistry, Physics, or Foods and Nutrition. Both courses must be in the same discipline area.

### **REQUIREMENTS FOR A MINOR IN PSYCHOLOGY**

Students may declare a minor in Psychology at any time. Minors complete the following core courses, preferably in their first two years: Psychology 101-102 (Introduction to Psychology I and II) and either Psychology 278-279 (Statistics and Research Design I and II) or Psychology 251 (Thinking Critically about Psychological Research). A formal review of each student's performance is conducted upon completion of the core courses. Continuation in the program requires a 70% average in the core courses with no mark below 60% in the core courses.

Students considering whether to take 278-279 or 251 are advised that many upper-level courses are open only to students who have completed 278-279. Students planning a minor, but wanting the option to change from a minor to a major in Psychology within the same degree, are advised that the major requires 278-279, and that 251 does not count as one of the 14 Psychology courses required for a major (but would count as a non-Psychology elective for someone who becomes a major). Students completing a minor in Psychology complete at least seven Psychology courses, including the core courses, and including at least one course at the 300- or 400-level.

### **PREREQUISITES**

The Psychology Department strongly recommends that English 101 be completed before taking 300 and 400 level Psychology courses. Psychology 101 and 102 are prerequisites for all other courses offered by the Department. Psychology 278 or equivalent and 279 are prerequisites for all 300-400 level courses in Psychology except where extra-departmental requirements are accepted (e.g. Psychology 362). Under exceptional circumstances, Third and Fourth Year students not majoring in Psychology may apply to the course instructor for a waiver of these prerequisites to 300-400 level courses. Prospective majors are expected to take Psychology 278 and 279 during their second year since these courses are required for entrance into the majors program. Courses not specifically listed as “Both semesters” are generally offered during only one semester of each year. Check the timetable to be certain.

### **FACULTY ADVISOR**

Each Psychology major will be assigned a professor to serve as his/her Faculty Advisor. Your Advisor can help make you familiar with the Psychology program and offer assistance in course selection and career planning. Your Advisor will also be a person who will become familiar with you and your interests on an ongoing basis. It is recommended that you consult regularly with your Faculty Advisor to develop a course of study that will best prepare you for your future career plans.

### **RELATED COURSES OF STUDY**

The Psychology Department also encourages its majors to take a wide variety of electives in the Sciences, Social Sciences and Humanities, in recognition of the value of a general education. Specific areas of study recommended because they both broaden the student's basis of knowledge and relate particularly well to the discipline of Psychology include Sociology & Anthropology (because Psychology is a social science), Biology (because Psychology is also a biological science), and Philosophy (because the roots of the discipline are in philosophy and because contemporary psychological issues continue to reflect philosophical issues). Specific electives are, of course, a matter of the student's choice but we encourage serious consideration of the above-mentioned suggestions. Those who wish further guidance should consult with their Faculty Advisor.

### **REQUIREMENTS FOR HONOURS IN PSYCHOLOGY**

#### **COURSE REQUIREMENTS**

Eighteen (18) semester courses (54 semester hours) in Psychology which must include Psychology 101-102, Psychology 278-279, Psychology 480 (Honours Literature Review) and Psychology 490 (Honours Thesis). Students pursuing a Bachelor of Arts degree with Honours in Psychology must complete all of the requirements for a BA with a major in Psychology. Students pursuing a Bachelor of Science degree with Honours in Psychology must complete all of the requirements for a BSc with a major in Psychology. To graduate with an Honours degree requires a total of 42 semester courses (126 semester hours).

#### **THE HONOURS THESIS**

The Honours Thesis will consist of a paper written in the format specified by the Canadian Psychological Association. The thesis will most typically report a small research project, but other alternatives include: (a) a review paper that includes an original theoretical overview of the topic, or (b) a critique of the theory, research, or practice of psychology. The thesis is evaluated by a committee of at least three faculty members including the student's supervisor. There is an oral defence of the thesis. The deadlines for Honours applications are September 1, January 3, and May 1 annually.

#### **ADMISSION REQUIREMENTS**

1. A student must be a Psychology major.



2. A student must have an overall average of at least 70% in all prior courses. To remain in the program, a student must maintain an overall average of 70% in all courses and an average of 75% in Psychology courses.
3. A student must formally apply to the Department of Psychology for admission. The first step is to contact the Honours Co-ordinator or another member of the Psychology faculty who will advise the student of the steps in the application process. This initial contact will normally occur during the first half of the Third Year. Students will be required to fill out an application form, and to provide an updated transcript.

Students will be expected to have selected an area of study, and to provide a preliminary proposal for an Honours Thesis before proceeding with the formal application process. Admission to the program will be competitive, and because the demand for the program will likely exceed the resources, not all applicants who meet the formal requirements will be accepted. The completed Honours application should be submitted to the prospective Honours Thesis supervisor, who will then submit it to the Department for review.

#### **OTHER INFORMATION ABOUT THE HONOURS PROGRAM**

Because of the extra course requirements and the extra time consumed by the process of producing an Honours Thesis, early planning is important. Students may be required to pay part or all of the expenses to produce the Honours Thesis. The Department of Psychology intends to provide some financial support for students, but the amount will depend on (a) the funding the Department receives, and (b) the number of students in the program.

#### **PSYCHOLOGY COURSES**

##### **101 INTRODUCTION TO PSYCHOLOGY: Part I**

A general introductory survey of theory and research on basic psychological processes: research methodology in psychology, biological basis of behaviour, sensation and perception, learning and motivation, memory and cognition.

Three hours a week

##### **102 INTRODUCTION TO PSYCHOLOGY: Part II**

An introduction to psychological theory in the form of application of the basic processes (Psychology 101) to the individual in a social context. Areas include developmental psychology, personality theory and testing, emotion, personal adjustment and problems in living, therapies, and social psychology.

PREREQUISITE: Psychology 101

Three hours a week

##### **201 DEVELOPMENTAL PSYCHOLOGY (offered in both semesters)**

This survey course examines human development across the life span through physical, cognitive, and socio-emotional domains. The course includes discussions surrounding applications of developmental theory in various contexts, including public policy, education, counselling, and health domains. Lectures, in-class assignments, and research papers are designed to encourage students to evaluate developmental change critically and to apply their knowledge to their communities.

PREREQUISITE: Psychology 101-102

Three hours a week

NOTE: Credit will not be allowed for Psychology 201 if a student has already received credit for Family Science/Kinesiology 241.

##### **212 DRUGS AND BEHAVIOUR**

This introduction to psychopharmacology examines drugs which act on the nervous system and their subsequent impact on behaviour. Topics include basic neurophysiology and mechanisms of drug addiction, tolerance and withdrawal. Discussion focuses on the effects and underlying mechanisms of several drug types including antidepressants, antipsychotics, alcohol, cocaine, hallucinogens, nicotine, and caffeine.

PREREQUISITE: Psychology 101-102

Three hours a week

##### **222 PSYCHOLOGY OF PERSONAL EXPERIENCE (offered in both semesters)**

This course introduces students to the basic concepts and ideas in Humanistic and Existential psychologies, and involves applying and integrating psychological theory to personal experience. Students learn about theorists such as Jung, Rogers, Maslow, May, and Frankl, and the ways in which meaning, purpose, choice, and consciousness are fundamental to existence. The development of humanistic psychology from phenomenological and existential approaches is considered, and the differences from experimental psychologies are discussed. As ways of comprehending our lives, themes of personal ('self') and interpersonal ('self-in-relation') experience will be explored within a larger sociocultural context. Topics may include: being/becoming, intentionality, authenticity, values, growth, agency, identity, anxiety, and transcendent experience. Since this course focuses on finding ways for students to apply psychological insights to their everyday lives, experiential learning, personal reflection and class discussion will be emphasized. Active class participation is therefore essential for this course, and may involve journals, small group work, written responses to the readings, or other opportunities for personal reflection, both inside and outside of class.

PREREQUISITE: Psychology 101-102

Three hours a week

## 232 SPECIAL TOPICS

Creation of a course code for special topics offered by Psychology at the 200 level.

## 242 INTRODUCTION TO SOCIAL PSYCHOLOGY (offered in both semesters)

This course focuses on the ways in which an individual's thoughts, feelings, and actions are influenced by the social environment. It provides an introduction to major theories, principles, methods and findings of the discipline. Topics include social perception and cognition, attitudes and attitude change, gender, attraction, aggression, helping, conformity, obedience, group interaction, and cultural influences. Through a variety of assignments students are encouraged to attend to the operation of social psychological principles in daily living. The course includes both lectures and participation in group experiences.

Cross-listed with Sociology and Family Science (cf. Sociology 282 and Family Science 243)

PREREQUISITE: Psychology 101-102 and/or Sociology 101-102

Three hours a week

## 251 THINKING CRITICALLY ABOUT PSYCHOLOGICAL RESEARCH

Designed for non-Psychology majors, this course develops their abilities as consumers of psychological research. Students learn about paradigms of research and knowledge, consider key assumptions in both quantitative and qualitative research, and explore how quantitative and qualitative perspectives influence the construction of knowledge. Students apply critical thinking strategies within the context of psychological research and develop skills to evaluate claims made about psychological phenomena in the popular media and professional literature. Concepts explored include understanding and prediction, description and inference, biases in research conduct and communication, representativeness, evaluating testimonials, correlation and causation, multiple causation, operational definitions, placebo effects, experimental control, and probability.

PREREQUISITES: Psychology 101-102. This course is not open to students who already have earned credit for Psychology 278 or 279, or who are currently enrolled in Psychology 278 or 279.

NOTE: This course cannot be counted as one of the 14 courses required to earn a major in Psychology.

## 261 SENSATION AND PERCEPTION I

This course examines how we see the world around us. It considers principles and theories of how visual information is received, and how it is processed and combined to produce visual images. Starting with optics of the eye, the course proceeds to the conversion of light information into nerve impulses which convey the information to the brain. The course also explains how that information is processed to produce sensations of brightness, shape, color and motion. This course also considers how these sensations are combined into an image of the world. Additional topics include aspects of light measurement, clinical aspects of optometry, and visual aesthetic perception.

PREREQUISITE: Psychology 101-102

Three hours per week

## 262 SENSATION AND PERCEPTION II

This course examines how the more basic senses work and how they contribute to our awareness of the world. The sense of touch seems to give us direct contact with the world. The abilities to sense chemicals in the food we eat and the air we breathe guide not only what we eat but also our emotions. Sensing vibrations in air enables us to detect events out of sight and to receive both verbal and musical communications from others. These vastly different sources of information-mechanical, chemical and gravitational, as well as the electromagnetic basis of vision are sensed by specialized biological receptors that transform the information into nerve impulses. This course examines how the principles used by the brain to interpret the diverse information are surprisingly similar. Three hours per week

#### 271 STATISTICS FOR THE BEHAVIOURAL SCIENCES I (offered first semester)

This course is an introduction to applied statistics as used by behavioural scientists in measurement, data, analysis, and design of experiments. This course stresses both an understanding of the rationale governing the selection of appropriate designs or techniques as well as practical experience in calculation. Topics include: scaling, measures of central tendency and variability, probability, statistical inference and hypothesis testing, means test (z and t), correlational techniques, chi-square and other non-parametric techniques, and analysis of variance.

PREREQUISITE: Psychology 101-102 and enrolment in the School of Nursing, or permission of instructor

Three hours a week

#### 278 STATISTICS AND RESEARCH DESIGN I (offered in first semester)

The first in a two-part series, this course considers paradigms of knowledge and research, introducing students to skills in interpreting and applying descriptive statistics and in basic quantitative and qualitative research design. Students learn how to find and evaluate reports of psychological research. Statistical concepts and applications addressed include frequency tables, graphs, measures of central tendency and variability, z scores, correlation, and probability. Students explore research methods of interviews, observation, and questionnaires. Ethical issues in research are introduced. Laboratory and field projects introduce students to SPSS and to research methodologies.

PREREQUISITE: Psychology 101-102

Three hours a week class; one hour a week laboratory

#### 279 STATISTICS AND RESEARCH DESIGN II (offered second semester)

Building on Psychology 278, this course further explores paradigms of knowledge and research, introducing students to skills in interpreting and applying inferential statistics and in research design. Students learn about framing research questions and developing hypotheses. Statistical concepts and applications include significance, confidence intervals, regression, t tests, analysis of variance, and chi square. Students consider research methods in quasi-experimental and experimental design. Approaches to collecting and analyzing data from qualitative designs are investigated. Students develop skills in written and oral presentation of research, and ethical issues are further explored. Laboratory and field projects further apply SPSS and various research methodologies.

PREREQUISITE: Psychology 101-102, 278 with a minimum grade of 60% required

Three hours a week class; one hour a week laboratory

#### 291 CONTEMPORARY PSYCHOANALYTIC THOUGHT

This course is devoted to exploring the work of Sigmund Freud, with special attention paid to his theory of mind and its emphasis on the unconscious and sexuality. We also consider some of Freud's case studies, his emphasis on narrative, his controversial theory of women, and an overview of his considerable legacy in psychology, psychiatry, and Western culture, including some examples of his reception in music, film, and art.

PREREQUISITES: Psychology 101 and 102

#### 301 "PSYCHOLOGY" FROM THE ANCIENT TO THE MODERN WORLD

Students begin by considering the question "What is history?" and the issues of historiography. Special attention is paid to the early Greek philosophers and the foundational ideas of Socrates, Plato, and Aristotle. The emphasis on a 'soul' by early Christian writers is examined, and various philosophies of mind from the seventeenth and eighteenth centuries are discussed. Emphasis is placed on the social and political context in the construction of knowledge, and an appreciation of this context is fostered through the reading of original texts.

PREREQUISITE: Psychology 101-102, 278-279 or 251

Three hours a week

### 302 THE EMERGENCE OF MODERN PSYCHOLOGY

This course begins with Darwin and the 'naturalization' of the mind. The focus for the course is the founding of psychology as a separate discipline, and how earlier developments in philosophy and experimental science led to the emergence of the field. The origins of psychology in North America are contrasted with the development of German psychology, and the impact of the different social and cultural contexts is explored. Students examine twentieth century psychology, including the social and historical construction of 'normal' and 'abnormal,' the role of psychological testing in the professionalization of psychology, and a summary of the field's major systems of thought.

PREREQUISITE: Psychology 101-102, 278-279 or 251; Psychology 301 is strongly recommended

Three hours a week

### 303 PSYCHOLOGY OF AGING

This course is designed to examine the psychology of aging from a variety of perspectives, theories, and research themes applicable to the later part of adulthood. Situating the psychology of aging within the broader discipline of gerontological studies, this course examines historical and current conceptions of aging along with contemporary research topics ranging across the physical to the psycho-social domains of aging. Lectures, in-class assignments, and research projects are designed to engage students in a critical analysis of gerontological concepts, research directions, and practices.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 303).

PREREQUISITE: Psychology 101-102, 201, 278-279 or 251 or permission of instructor. When taken for Diversity and Social Justice Studies credit, DSJS 109 and at least one other DSJS course at the 200 level

Three hours a week

### 305 ADOLESCENT DEVELOPMENT AND ADJUSTMENT

This course examines both the research and theoretical perspectives in areas that are integral to an understanding of the period of adolescence and of adolescents themselves. We address the following areas: puberty and psychobiology; the development of cognition and social cognition; the formation of identity, including career options, and the development of sexuality and a system of values, factors that influence the formation of identity, such as the family, the peer group, and the media, the school experience; and issues in adolescent development such as some aspects of psychopathology, juvenile justice, and the problems encountered by indigenous youth.

Cross-listed with Family Science (cf. Family Science 305).

PREREQUISITE: Psychology 101-102, 201, 278-279 or 251. For students taking the course as FSc 305, FSc 381 as a co-requisite or prerequisite

Three hours a week

### 308 CHILD DEVELOPMENT

This course explores children's development in depth by focussing on the various domains of change from birth to adolescence. Themes of change and stability throughout childhood are examined using analytical and descriptive theories of development. Implications of developmental approaches are examined for practice and public policy domains. Lectures, in-class assignments, and research projects are designed to encourage students to assess critically these developmental changes and to apply that understanding to other contexts.

Cross-listed with Family Science (cf. Family Science 308).

PREREQUISITE: Psychology 101-102, 201, 278-279 or 251. For students taking the course as FSc 308, FSc 381 as a co-requisite or prerequisite

Three hours a week

NOTE: Students who have taken either 304 or 341 will not be eligible to enrol in 308 without the instructor's permission.

### 309 ADULT DEVELOPMENT

The purpose of this course is to better understand adult development by focussing on themes of change and stability from young adulthood through to older adulthood. Students use analytical and descriptive theories of adult development to explore how adults negotiate physical, cognitive, social, and emotional aspects of development. Lectures, in-class assignments, and research projects are designed to encourage students to evaluate critically the contemporary research in adult development and to apply their understanding of adult development to a wide array of contexts and policy environments.

Cross-listed with Family Science (cf. Family Science 309).

PREREQUISITE: Psychology 101-102, 278-279 or 251. For students taking the course as FSc 310, FSc 381 as a co-requisite or prerequisite

Three hours a week

### 311 PHYSIOLOGICAL PSYCHOLOGY

This course focuses on the nervous system as the basis of all experience and behaviour. It examines how a biological perspective of the brain developed, how neuroanatomy defines brain function, how neurons transmit information, how body movement is controlled, and how touch, pain, sleep and arousal work.

PREREQUISITE: Psychology 101-102, 212, 278-279 or Biology 204; or permission of instructor (Biology 131 or 102 is recommended but not essential). Students who do not have Psychology 278-279, but do have equivalent statistics research methods courses may enrol with permission of the instructor.

Three hours a week, two hours a week laboratory

### 312 BRAIN AND BEHAVIOUR

This course builds on Psychology 311 to explore how far human behaviour can be explained in terms of brain physiology. Topics include: the operation of basic motivational mechanisms that regulate breathing, temperature, hunger and thirst; arousal, sleep and sexual behaviour; emotion, brain pathology and mental disorder; learning and memory.

PREREQUISITE: Psychology 101-102, 278-279, 311 or Biology 221; or permission of instructor

Three hours a week class, two hours laboratory a week

### 313 INTRODUCTION TO NEUROPSYCHOLOGY

This course explores current concepts of the function of the human forebrain as revealed through cortical damage and degenerative diseases. The course addresses basic principles of cortical organization and function and how these relate to issues of localization of function, hemispheric dominance, and sex differences in brain and behaviour. These principles are then applied to discussions of the cause and diagnosis of specific language, memory, and sensory dysfunctions resulting from developmental disorders, head trauma, and degenerative diseases.

PREREQUISITE: Psychology 101-102, 212, 278-279, or 311, or permission of instructor. Students who do not have Psychology 278-279, but do have equivalent statistics research methods courses may enrol with permission of the instructor

Three hours a week class, two hours a week laboratory

### 321 LEARNING AND MOTIVATION: BASIC PROCESSES

This course provides a survey of learning theories presented by Thorndike, Pavlov, Hull, Skinner and others. It will concentrate on some of the controversial issues between the S-R and cognitive approaches, and explore some of the findings relating to the fundamental principles of learning, motivation, reinforcement, incentives, effects of punishment and the problem of generalization and discrimination in learning. The applicability of some of the basic principles discovered in the animal laboratory to the everyday behaviour of people will also be examined.

PREREQUISITE: Psychology 101-102, 278-279. Students who do not have Psychology 278-279, but do have equivalent statistics research methods courses may enrol with permission of the instructor.

Three hours a week class, two hours laboratory

### 322 ADVANCED RESEARCH METHODS IN SOCIAL PSYCHOLOGY

This seminar course is designed to expand your knowledge concerning advanced research methods used in social psychology. In this course, students will think critically about experimental research methods in social psychology and acquire hands-on experience designing and conducting social psychological research in collaboration with others (specific topics will vary from year to year). In addition, students will develop their skills in orally presenting research proposals/ results and extend their skills in writing APA format research papers.

PREREQUISITES: Psychology 101, 102, 278-279 & 242 (permission of the instructor is required, enrolment is limited)

Three hours a week

### 331 CREATIVITY

This course examines the nature of creativity as viewed from the psychoanalytic, cognitive problem solving, and humanistic existential perspectives. Topics include personality correlates of creative people, criteria and methods for judging creativity, the creative process, and the facilitation of creative potential. Small group participation is required.

PREREQUISITE: Psychology 101-102, 278-279 or 251

Three hours a week

### 332 SPECIAL TOPICS

Creation of a course code for special topics offered by Psychology at the 300 level.

### 333 ECOPSYCHOLOGY

This seminar-style course examines the important role of the human relationship with nature in order to better understand psychological experience and ecological issues. It explores a variety of factors that may contribute to human disconnection from nature (such as technology, consumerism, psychological views of health and of the self) and ways of developing more sustainable relationships and deepening personal connections with nature (such as direct experience in nature, environmental restoration and activism, nature-based worldviews and psychotherapies, and systems theory). Some "field work" is required.

PREREQUISITE: Psychology 101, 102, 278-279, 251 or permission of the instructor. Other well-qualified students with backgrounds in subjects related to environmental studies are invited to seek permission of the instructor.

Three hours a week seminar, one hour a week laboratory

### 342 INTIMATE RELATIONSHIPS

This course is designed to examine a variety of areas of study within the field of intimate relationships. Through in-class discussion of the major theoretical frameworks of the discipline and by designing their own original relationship research proposals, students will gain an increased understanding of the multifaceted nature of intimate relationships. Topics to be covered include but are not limited to: attraction, social cognition, interdependency, conflict, and love.

Cross-listed with Family Science (cf. Family Science 344)

PREREQUISITES: Psychology 101-102, 242, 278-279 or 251. For students taking the course as FSc 344, Psychology 242 and FSc 381 as a co-requisite or prerequisite

### 351 THEORIES OF PERSONALITY

The purpose of the course is to survey, compare and evaluate different approaches to the study of personality. Relevant personality theory and research will be reviewed within a broad framework including the perspectives of the psychodynamic, behaviour theory, cognitive, and humanistic approaches. The processes of personality organization and disorganization will be examined from different theoretical perspectives. The emphasis will be placed on current personality theory and its relevance to the student as a person as well as its relevance to other psychological theories.

PREREQUISITE: Psychology 101-102, 278-279, or 251

Three hours a week

### 352 ABNORMAL PSYCHOLOGY

A critical review of theories and research in psychopathology and psychotherapy. Special emphasis will be placed on a discussion of what constitutes abnormality and normality, and on the various models of deviance developed by the psychoanalytic, learning, existential-phenomenological and social-interpersonal approaches. Attention will be directed to a study of how these models are generated and the social consequences of designating an individual deviant.

PREREQUISITE: Psychology 101-102, 278-279 or 251

Three hours a week

### 353 CHILDHOOD PSYCHOLOGICAL DISORDERS

This course examines developmental, behavioural, emotional, and social disorders in childhood. Those considered include autism, mental disability, conduct disorders, childhood depression, fears and anxieties, problems in social

relationships, and health-related problems. Students explore the implications of various models for understanding the definitions, origins, and treatments of disorders.

PREREQUISITE: Psychology 101-102, 201, 278-279 or 251, and 352

Three hours a week

### 362 ERGONOMICS

This course in applied psychology explains how to take into account human abilities and requirements in regard to tasks, equipment, facilities, and environment with an emphasis on improving satisfaction, performance, efficiency, and safety. Included for study are examples of jobs, tools, information, and buildings. An individually-designed project provides an opportunity for students to apply ergonomic principles.

PREREQUISITE: Psychology 101-102, 278-279, or Engineering 121 or permission of instructor

Three hours a week

### 371 ADVANCED STATISTICS

A more advanced course in applied statistics as used by behavioural scientists in designing and analyzing experiments and field studies. The major concentration of the course is analysis of variance and linear regression. In addition students are introduced to a variety of topics in multivariate statistics, including multiple regression and correlation, discriminant analysis, Hotelling's  $T^2$  and multivariate analysis of variance.

PREREQUISITE: Psychology 101-102, 278-279. Students majoring in areas other than psychology may enrol provided they have completed an introductory statistics course

Three hours a week, two hours a week laboratory

NOTE: Psychology 371 and Mathematics 312 may not be double credited without the permission of the Dean and the Chair of the Department in which the second credit is being sought.

### 374 ADVANCED QUALITATIVE RESEARCH

The purpose of this course is to help students gain a theoretical, practical and critical understanding of qualitative research methodology, and to teach skills for the execution of research projects based upon qualitative data. Qualitative research is research that focuses upon understanding, rather than predicting or controlling phenomena. Nine different paradigms of qualitative research methodology, their implications, and applications, are examined in this course. These paradigms are: data display, grounded theory, phenomenology, ethnography, psychobiography and historiography, psychoanalytic approaches, narrative psychology, hermeneutics and textual deconstruction, and social constructivism. Political and ethical issues are also highlighted in order to problematize and promote more critically informed inquiry.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 374)

PREREQUISITE: Psychology 101-102, 278-279

NOTE: For Diversity and Social Justice Studies students: DSJS 109 and at least one other DSJS course at the 200 level or above, or permission of the instructor

Lecture/Tutorial: Three hours a week

### 381 HUMAN LEARNING AND MEMORY

This course provides a survey of contemporary approaches to the problem of human learning and memory. It involves an examination of theories and research relating to the structure and content of human memory, information encoding, and retrieval processes. A variety of related topics including mental imagery, mnemonics, the structure of intelligence tests, and the effects of drugs on memory may also be included. Laboratory exercises will involve work with human subjects.

PREREQUISITE: Psychology 101-102, 278-279. Students who do not have Psychology 278-279, but do have equivalent statistics research methods courses may enrol with permission of the instructor.

Three hours a week class, two hours a week laboratory

### 382 COGNITIVE PSYCHOLOGY

This course examines recent developments in cognitive psychology with special emphasis on the study of thinking, problem solving and decision making. Its topics include theories and research in inductive and deductive reasoning, information processing approaches to thinking and problem solving, and the implications of the cognitive perspective for our understanding of intelligence, creativity and mental development. A lab will provide

students with the opportunity to perform problem solving demonstrations, test representative phenomena, analyze their own data, and examine the results in terms of current theories.

PREREQUISITE: Psychology 101-102, 278-279 or 251

Three hours a week class, two hours a week laboratory

### 383 PSYCHOLINGUISTICS

This course reviews the psychology of language from the perspectives of sensation, perception, cognition, and interpersonal processes. Topics include the nature of speech production and perception, the nature of grammatical and lexical knowledge, semantics and pragmatics, language acquisition, the social bases of human communication, and computer systems for language understanding.

PREREQUISITE: Psychology 101-102, 278-279 or permission of instructor

Three hours a week class, one hour a week laboratory

### 385 CULTURAL PSYCHOLOGY

This course investigates how culture shapes human thought, behaviour, and the field of psychology broadly. The course begins with discussion of theoretical foundations and research methods in cultural psychology, followed by the application of a cultural perspective to psychological concepts including: self and identity, relationships, development, morality and justice, emotions, cognition, and physical and psychological health. Lectures, discussion, and in-class assignments challenge students to consider the sizeable impact of culture on human life. Cross-listed with Diversity and Social Justice Studies (cf. DSJS 384).

PREREQUISITES: When taken as a psychology credit, PSY 101-102, and 278-279 or 251. When taken as a DSJS credit, prerequisites are DSJS 109 and 1 other DSJS course at the 200+ level

### 391 PSYCHOLOGY OF WOMEN

This course will focus on women's development throughout the life span. Topics will include: views of the nature of women, biological influences, the socialization process and its consequences at the individual, interpersonal relationship, and societal levels, as well as recent alternative views of the psychology of women.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 391)

PREREQUISITE: When taken as a Psychology credit, Psychology 101-102, 278-279, 251 or permission of the instructor. When taken as a Diversity and Social Justice Studies credit, DSJS 109, at least one other DSJS course at 200 level or above, or permission of the instructor.

Three hours a week

### 393 HEALTH PSYCHOLOGY

This course examines how psychological, social, and biological factors interact to influence health and illness. Students explore the systematic application of psychology to health promotion and maintenance, illness prevention and treatment, the determinants of health and illness, health care systems, and health policy.

PREREQUISITE: Psychology 101-102, 278-279 or 251

Three hours a week

### 395 GENDER AND VIOLENCE

This course investigates the role of gender in violence and abuse. Adopting a critical perspective, the course considers the limitations of mainstream social constructions of forms of gender-based violence. Topics for consideration may include offenses such as domestic violence, stranger and acquaintance rape, sexual assault, and sexual harassment. The course also explores how traditional, heteronormative understandings of domestic violence may fail to reflect accurately the experience of violence in GLBT relationships. Consideration is given to the psychological consequences of victimization, as well as to how societal institutions could better address the needs of both victims and offenders.

Cross-listed with Diversity and Social Justice Studies and Family Science (cf. DSJS 395 and Family Science 395).

PREREQUISITES: When taken for Psychology credit, PSY 101-102, and 278-279 or 251. When taken for DSJS credit, DSJS 109 and 1 other DSJS course at the 200+ level. For students taking the course as FSc 395, FSc 381 as a co-requisite or prerequisite

### 403 ISSUES IN DEVELOPMENTAL PSYCHOPHARMACOLOGY (offered in alternating years)



This is an advanced course in drugs and behaviour focusing primarily on issues of developmental differences in drug action and drug effects. Because many drug effects are determined by the maturity of the brain, some time is spent on developmental aspects of neuroanatomy and neurophysiology. A large part of the course focuses on factors which determine, or contribute to, developmental deficits/effects consequent to early (pre-and perinatal) drug exposure. Within this developmental framework, current pharmacological models, and debates surrounding pharmacological-based causes and treatments of disorders, such as hyperactivity and Alzheimer's disease, are discussed.

PREREQUISITE: Psychology 101-102, 212, 278-279 and permission of instructor. Students who do not have Psychology 278-279, but do have equivalent statistics research methods courses may enrol with permission of the instructor.

Three hours a week

#### 411 CONSCIOUSNESS

This course focuses on what is arguably the most profound issue to humankind: Consciousness. It is more than our experience of the world around us as compiled by the brain from various sense organs. Also compiled are nerve impulses from within that tell us about our body and our past. We use it to plan what we do both in the next few seconds and for as far ahead as we can envision a future. Consciousness is what and who we are. Until the 1990s the word was almost taboo in psychology - not used by respectable scientists. Yet as cognitive psychology burst forth in the 1970s, the study of consciousness soon followed it into respectability, aided by ever more sophisticated methods of studying the brain. This course reviews the philosophical ideas that preceded and then accompanied the science. It examines the current state of what we know about the operations of the brain that produce consciousness.

PREREQUISITE: Psychology 101-102, 278-279 or 251, and permission of instructor

#### 412 MUSIC COGNITION

This course focuses on the mental processes underlying music perception, performance and composition. Following a discussion of basic hearing mechanisms, students examine research on perception of musical elements (e.g., tone, interval, triad, harmony and rhythm) and then proceed to broader issues (e.g., musical memory, meaning, aesthetics and intelligence). Music cognition is also compared to other kinds of cognition. Students conduct experimental research.

NOTE: While students with musical background would be especially interested in this course, there is no need for prior formal training or knowledge of music.

Cross-listed with Music (cf. Music 412)

PREREQUISITE: Psychology 101-102, 278-279 or permission of instructor

Three hours a week class, one hour a week laboratory

#### 431 DIRECTED STUDIES

These courses may take at least two different forms: (1) Directed Readings in Psychology, (2) Directed Research in Psychology.

PREREQUISITE: Psychology 101-102, 278-279 and permission of instructor.

Three hours a week

*Directed Readings* is a course of supervised readings for individual students on advanced or specialized topics. Selected topics in the student's area of interest are submitted to and discussed with a faculty member. Reading will involve critical evaluation of the literature. Students will be evaluated on the basis of either oral or written performance.

*Directed Research* provides an opportunity for students, with the help of a faculty supervisor, to design and carry out research in Psychology. Students will be expected to write up their study according to the accepted format for publication. This course is recommended for students who intend to do post-graduate work in Psychology.

NOTE: Students should meet with a professor in the Psychology Department well in advance of registration to discuss the nature, design and content of the course. No one will be allowed to register for the course unless he/she has made arrangements with a professor in the Department. In accordance with present Senate regulations, no

student shall take a total of more than 12 semester hours of Directed Studies courses in any one Department. (See Academic Regulation #9 for regulations governing Directed Studies).

#### 432 SPECIAL TOPICS

Special Topics are courses offered by individual members of the Psychology faculty, or visiting instructors, which provide advanced instruction in specialized areas of study, and supplement the general program of courses in Psychology.

PREREQUISITE: Psychology 101-102, 278-279 and permission of the instructor.

Students may receive repeated credit for 432 so long as the course topic varies.

Three hours a week

#### 435 GENDER AND SEXUALITY

This course provides a critical examination of gender and sexuality. It explores the individual, interpersonal, and societal constructions of gender and sexuality within varying biological, cultural, and historical contexts; and uses psychological theory and research to analyze experiences and representations of gender and sexuality.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 435)

PREREQUISITE: When taken as a Psychology credit, Psychology 101-102, 242, 278-279, one of 301, 302, 391, or 392, OR permission of the instructor. When taken as a Diversity and Social Justice Studies credit, DSJS 109, at least two other DSJS courses, at least one of which is at 300 level or above, OR permission of the instructor.

Three hours a week seminar

#### 441 EXISTENTIAL – PHENOMENOLOGICAL PSYCHOLOGY

This is an inquiry into a psychology of the experience of the person. This part of the course is an attempt to understand the personal world through a critical examination of the problems of becoming a person in our time. The approach to be taken is problem-centred with the person as a focal point. Each student is encouraged to formulate questions by which his/her inquiry will be guided. Extensive reading lists on existential themes will be provided. Possible topics include alienation, values, meanings, and identity.

PREREQUISITE: Psychology 101-102, 222, 278-279, 251 or permission of instructor.

Enrolment is limited

#### 453 HUMAN SERVICES: INTEGRATING THEORY AND PRACTICE

This course focuses on the connections between theories about human behaviour, cognition, and emotion, and the experience of clients and workers in human service settings. Students participate in service provision at an assigned agency and independently study and write about theoretical perspectives in psychology relevant to their field placement. Discussions include ethical issues in human services.

PREREQUISITE: Psychology 101-102, 278-279 or 251 and permission of instructor

One hour a week class, three to four hours field placement

#### 461 PSYCHOLOGICAL ASSESSMENT

This course provides an introduction to the theory and practice of psychological assessment with an emphasis on psychometric issues. The major approaches within the process are examined within multiple contexts such as clinical, school, and forensic settings. Students also gain experience in the application of fundamental assessment-related skills such as active listening, interviewing, and test administration.

PREREQUISITE: Psychology 101-102, 278-279, 352, and permission of the instructor

Three hours a week

#### 462 PSYCHOTHERAPY

This course provides an introduction to the theory and practice of psychological treatment of mental health problems. In addition to learning about the dominant contemporary approaches to psychotherapy, students are expected to continue to build on the fundamental skills introduced in Psychology 461 as they relate to psychotherapy.

PREREQUISITE: Psychology 101-102, 278-279, 352, 461 and permission of instructor

Three hours a week

#### 463 CRITICAL ISSUES FOR CONTEMPORARY PSYCHOLOGY

This course focuses on the way the major systems of psychology engage in explanation and description. Students review psychology's main theoretical systems, including psychoanalysis, behaviourism, cognitive psychology, and humanistic psychology, and then examine specific critical issues within the field. Topics may include consciousness, emotion, the self, psychotherapy, neuroscience, gender, sexuality, and postmodernism.

PREREQUISITE: Psychology 101- 102, 278-279 or 251

Psychology 301 and 302 are recommended.

Three hours a week

#### **472 SOCIAL JUSTICE IN PSYCHOLOGY**

This course examines the praxis (practice and theory) of social justice through psychologies of liberation and decolonization. The focus is on a critical understanding of radical moments of theorizing and action and will examine psychologies created to resist broad social systems of colonization and control. Students interrogate contemporary issues of inequity embedded within systems of privilege and how these systems create as much as reflect psychological phenomena.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 472).

PREREQUISITES: When taken as a Psychology credit, Psychology 101-102, and 278-279 or 251, at least one course from Psychology 333 or Psychology 391, or permission of the instructor. When taken as a Diversity and Social Justice Studies credit, DSJS 109 and at least 2 other DSJS courses, or permission of the instructor.

Three hours a week

### **HONOURS COURSES**

#### **480 HONOURS LITERATURE REVIEW**

Under the supervisor's direction, the student seeks out and studies reports of previous research and theoretical essays that relate to the conducting of a research project for an Honours degree in Psychology. Evaluation is based on the student's written review of the literature.

PREREQUISITE: Acceptance into the Psychology Honours Program.

Six semester hours of credit

#### **490 HONOURS THESIS**

This is a course that offers selected students the opportunity to conduct a research project and to write a thesis on that subject under the direction of a faculty supervisor. The topic of this project is established through consultation with one or more faculty members who have agreed to supervise the student in pursuing an Honours degree. The thesis is to be written in the professional format specified by the Canadian Psychological Association. The thesis is evaluated by a committee of at least three faculty members including the student's supervisor.

PREREQUISITE: Psychology 480

Six semester hours of credit

### **Public Administration**

#### **Co-ordinator**

Susan C. Graham

#### **THE PROGRAM**

The University of Prince Edward Island, through the School of Business, offers an interdisciplinary program of studies leading to a Certificate and a Diploma in Public Administration. The program is intended for working federal, provincial, and municipal public servants who wish to prepare themselves for higher administrative and management positions. Others with similar interests may apply. Every effort is made to schedule the compulsory and elective courses for the program at times convenient for those employed.

#### **ADMISSION:**

Admission requirements to the Certificate and Diploma Programs are as for the School of Business.

## OBJECTIVES

The UPEI Public Administration program has three basic objectives:

- to develop, along with specific skills, an understanding of the interpersonal and interorganizational roles of an individual within the public service;
- to assist in the training and development of individuals for policy and administrative positions in the public service; and
- to equip individuals with knowledge and techniques for efficient and effective decision making.

## CERTIFICATE PROGRAM

The Certificate program is designed and intended for advancement to the middle management in the public service. To qualify for a Certificate, a student must complete ten (10) three semester-hour courses for a total of thirty (30) semester hours. Eight (8) of the three semester hour courses are compulsory and two (2) are chosen from the list of approved electives.

### COMPULSORY CERTIFICATE COURSES

Organizational Behaviour - Business 171

Introductory Microeconomics - Economics 101

Introductory Macroeconomics - Economics 102

One of UPEI 101, UPEI 102, or UPEI 103 and a writing intensive course

Professional Writing - English 381

Canadian Politics I: Government - Political Science 201

Law Politics and the Judicial Process I - Political Science 211

Canadian Public Administration - Political Science 311

## DIPLOMA PROGRAM

The Diploma program is designed and intended for more advanced Public Administration education. To qualify for a Diploma, a student must complete an additional ten (10) three semester hour courses beyond the Certificate. Six (6) of the additional three semester hour courses are compulsory and four (4) are chosen from the list of approved electives. In addition, candidates for the Diploma in Public Administration must satisfy the Co-ordinator that they have completed a public service work experience of four months, full-time, in a public administration environment.

### COMPULSORY DIPLOMA COURSES

Human Resource Management – Business 441

Communications – Business 461

Organizational Development and Change – Business 471

Canadian Economic Problems – Economics 304

Canadian Federalism – Political Science 302

Canadian Public Policy – Political Science 314

### APPROVED ELECTIVES

Electives from the following list may be selected for either the Certificate or the Diploma requirement but an elective cannot be used for both Certificate and Diploma.

#### Certificate and Diploma Electives

Management Information Systems – Business 241

Industrial Relations – Business 372

Business Law I – Business 301

Business Law II – Business 302

Prince Edward Island in the 20th Century – History 489

The Canadian Experience – Canadian Studies 301 and 302

Public Finance – Economics 412

Politics and Government of Prince Edward Island – Political Science 202



**Second Year (after admission to the program)**

QEH Orientation	Compulsory	0
QEH 201/202	Anatomy & Physiology I & II	6
QEH 211/212	Radiographic Technique I & II	6
QEH 221	Patient Care I	2
QEH 231	Radiography Physics	3
QEH 242	Digital Imaging	3
QEH 251	Clinical Experience I	0
QEH 252	Clinical Experience II	0
QEH 272	Image Quality	3
QEH 282	Apparatus	3
QEH 292	Clinical Rotation	0
Psychology 101	Introduction to Psychology	3
1 Free Elective		3
<b>Total</b>		<b>32</b>

**Third Year**

QEH 311	Clinical Rotation	0
QEH 321	Radiographic Technique III	3
QEH 331	Pathology I	3
QEH 342	Radiation Protection	2
QEH 353	Specialized Imaging	2
QEH 362	Sectional Anatomy	3
QEH 351	Clinical Experience III	0
QEH 391	Clinical Radiography I	3
Mathematics 221	Introductory Statistics I	3
Psychology 102	Introduction to Psychology – Part II	3
Group II Elective	Philosophy 101, or 102 or any course above the first year level in the Faculty of Arts	3
2 Free Electives		6
<b>Total</b>		<b>31</b>

**Fourth Year**

Writing Intensive Course		3
Family Science 261	Communications	3
Physics 241 or 342	Biophysics I or II	3
Family Science 331	Introduction to Research Methods	3
Group I Elective	Any Psychology course above first year level	3
QEH 403	Quality Management	3
QEH 412	Patient Care II	3
QEH 432	Pathology II	3
QEH 452	Clinical Experience IV	0
QEH 492	Clinical Radiography II	3
<b>Total</b>		<b>27</b>

1. In order for students to progress to the next year of the program, the student must obtain a weighted average of 60% or higher overall courses taken in the previous academic year. All facets of the clinical requirements (as determined by the clinical coordinator) must be met before advancing to the next semester or academic year.
2. In order for any student to advance to the next semester of the program, the student must obtain a grade of at least 70% in each course taken in the previous semester.
3. Attendance in all activities related to clinical/laboratory components of Radiography courses is mandatory. A student who is absent repeatedly from clinical/laboratory sessions may be required by the Dean to withdraw from a course. The Program Co-ordinator may prohibit a student from attending a clinical session if there is

reasonable evidence that the student's physical or psychological health may be detrimental to patients or patient care.

4. Once admitted to the program, students must complete all of the required Radiography (QEH) courses in the following three academic years. Any exceptions are by special permission of the Dean.
5. Because Radiography has a strong clinically-based component, radiographic course work does not necessarily fit within the formal academic calendar. Certain second semester Radiography courses may continue until the summer months, with completion as late as August. Students are encouraged to consult with the School of Radiography.

## **RADIOGRAPHY POST-DIPLOMA DEGREE PROGRAM**

### **ADMISSION REQUIREMENTS**

The admission requirements are a minimum of three years full-time, consecutive, equivalent work experience with a diploma in radiography from an accredited institution. Completing an additional 60 semester hours (20 courses) at UPEI will fulfill the degree requirements. Applicant must be a member in good standing with the Canadian Association of Medical Radiation Technologists.

Students who have courses equivalent to any of the prescribed courses will be required to substitute other courses in place of these. In such cases, students must consult with the Dean of Science who will make the appropriate decisions.

### **COURSE SEQUENCING**

#### **Year 1**

Business 101	Introduction to Business	3
One of UPEI 101, 102, or 103	University Studies	3
One Writing Intensive Course		3
Math 112 or Math 151/152	Calculus	3 or 6
Psychology 101	Introduction to Psychology: Part I	3
Psychology 102	Introduction to Psychology: Part II	3
QEH 331	Pathology I	3
QEH 353	Advanced Imaging	3
QEH 403	Quality Management	3
One Free Elective		3
Sub Total		30 or 33

#### **Year 2**

Business 171	Organizational Behaviour	3
Family Science 261	Communications	3
Family Science 331	Introduction to Research Methods	3
Math 221	Introductory Statistics I	3
Nursing 303	Issues in Nursing and Health Care	3
Psychology 212	Drugs and Behaviour	3
Four Free Electives		12
Sub Total		30

Total		60
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## **RADIOGRAPHY COURSES**

### **NOTES:**

1. Radiography courses must be taken in the program sequence.
2. No Radiography course may be taken unless the student has first completed the Program Orientation, offered by the QEH after admission and prior to the beginning of the program.

## **201/202 ANATOMY AND PHYSIOLOGY I & II**

These courses provide students with a comprehensive review of skeletal anatomy, and with a review of the organ systems involved with the regulation, control and the continuity of the human organism.

LECTURES/DEMONSTRATIONS: 3 hours

Three hours of credit

### 211/212 RADIOGRAPHIC TECHNIQUE I & II

These courses provide students with the theory and practical skills necessary to produce diagnostic radiographs of all body parts with and without contrast media. Students learn to operate radiographic equipment, position patients, set technical factors, prepare and administer and/or assist with administration of contrast media, deliver radiation within the diagnostic range as prescribed by physicians, and use radiation protective devices.

LECTURES/LABORATORIES: 4 hours, plus approximately

6 hours a week of "hands on" clinical experience.

Three hours of credit

### 221 PATIENT CARE I

This course places emphasis on the technical and interpersonal skills needed in meeting the physical and emotional needs of patients. Students learn techniques of therapeutic communication; clinical, legal and ethical responsibilities; infection control, and medical assistance in certain areas.

LECTURES/LABORATORIES: 2 hours

Two hours of credit

### 231 RADIOGRAPHIC PHYSICS

This course begins with fundamental physics principles such as the atom, properties of photons, electricity, magnetism, and electromagnetism and discuss how they apply to radiography. The circuitry and equipment required to produce radiation is covered. It concludes with knowledge of the x-ray tube, its safe use and how radiation is actually produced.

LECTURES/LABORATORIES: 4 hours

Three hours of credit

### 242 DIGITAL IMAGING

This course introduces students to the principles of digital image acquisition and processing with its applications in radiography. Topics include a comparison of film-based radiography to digital radiography, structure of a digital image, digital image quality and a comparison of storage and flat panel digital radiography.

LECTURES/LABORATORIES: 2 hours

Three hours of credit

### 251 CLINICAL EXPERIENCE I

Commencing immediately after Program orientation, students in the second year of the Radiography Program will spend approximately 1.5 days per week, in mandatory clinical practice at the Queen Elizabeth Hospital. This is in addition to all 200 level QEH courses listed in the Program calendar.

0 credit hours

### 252 CLINICAL EXPERIENCE II

In the second semester of second year, students in the second year of the Radiography Program will spend approximately 1.5 days per week, in mandatory clinical practice at the Queen Elizabeth Hospital. This is in addition to all 200 level QEH courses listed in the Program calendar.

0 credit hours

### 272 IMAGE QUALITY

This course provides students with background in the operation of the x-ray tube and with in-depth knowledge of the factors that determine a good quality image.

LECTURES/LABORATORIES: 3 hours

Three hours of credit

### 282 APPARATUS



This course builds on knowledge acquired in Digital imaging 242 and Radiographic Physics 231. This course further explores the x-ray tube and circuitry and their relationships to automatic exposure controls and digital imaging receptors including digital fluoroscopy, mammography, nuclear medicine, Ultrasonography, and Bone Mineral Densitometry. A brief overview of SPECT, PET, MRI and hybrid imaging is also covered. Several guest speakers from each modality will be utilized.

Three hours of credit

### 292 CLINICAL ROTATION

This course provides a clinical experience in which students can integrate theory and practice at the end of 2nd year.

Contact hours: 10 weeks

Non-credit course

### 311 CLINICAL ROTATION

This course provides a clinical experience in which student can integrate theory and practice at the end of 3rd year.

Contact hours: 14 weeks

Non-credit course

### 321 RADIOGRAPHIC TECHNIQUE III

This course is a continuation of Radiographic Technique II, QEH 212, and focuses on the clinical aspects of body systems. Emphasis is placed on invasive, therapeutic, and specialized contrast procedures performed in an imaging department. The course also familiarizes students with procedure protocols, and contrast media preparation with indications and contraindications.

LECTURES/LABORATORIES: 3 hours

Three hours of credit

### 331 PATHOLOGY I

This course examines the terminology used in the study of disease. Emphasis is placed on means of recognizing signs and symptoms of specific diseases in which radiography offers a major contribution in reaching a diagnosis. The radiographic appearance of these diseases and the effect played in diagnosis by the correct selection of technical factors are considered.

LECTURES/DEMONSTRATIONS: 3 hours

Three hours of credit

### 342 RADIATION PROTECTION

This course provides students with a comprehensive review of the biological risks associated with ionizing radiation, and instruction in the methods and practices which ensure that radiation doses are held to the lowest practical levels.

LECTURES/SEMINARS: 2 hours

Three hours of credit

### 351 CLINICAL EXPERIENCE III

Students in first semester of the third year of the Radiography Program will spend approximately 2.5 days per week in mandatory clinical practice at the Queen Elizabeth Hospital. Clinical placements in Clinical Experience III may include weekends and evenings. This is in addition to all 300 level QEH courses listed in the program calendar.

0 credit hours

### 353 SPECIALIZED IMAGING

This course provides students with the theoretical background and fundamental principles of operation for several advanced digital modalities, including computed tomography, digital fluoroscopy, digital subtraction, and bone mineral densitometry.

LECTURES/LABORATORIES: 2 hours

Two hours of credit

### 362 SECTIONAL ANATOMY

This course places emphasis on the physical relationships among anatomic structures. Teaching materials provide a learning aid for students to better understand anatomy in sectional images. Students learn to recognize and identify cross-sectional anatomy that is needed for technology advances in diagnostic imaging.

LECTURES/LABORATORIES: 3 hours

Three hours of credit

### 391 CLINICAL RADIOGRAPHY I

In this course, students enhance their skills in clinical Radiography with hands-on clinical experience, advanced image analysis and critique, and with labs focused on special topics.

Three hours of credit

### 403 QUALITY MANAGEMENT

This course examines the principles of total quality management, including a review of pertinent radiographic equipment and quality-control testing procedures. A laboratory component allows students to become familiar with the testing equipment and to understand corrective action that may be required.

LECTURES/LABORATORIES: 3 hours

Three hours of credit

### 412 PATIENT CARE II

This course is a continuation of Radiography 221, and focuses on patients with special needs such as infection, altered body image, unconsciousness, and critical illness or terminal illness. Students learn basic nursing skills, the pharmacology of common drugs and reactions, and basic first aid.

LECTURES/LABORATORIES: 3 hours

Three hours of credit

### 432 PATHOLOGY II

This course is a continuation of Pathology I, and emphasizes the characteristics and radiographic significance of pathological conditions and their impact on producing a radiographic examination.

LECTURES/DEMONSTRATIONS: 3 hours

Three hours of credit

### 452 CLINICAL EXPERIENCE IV

Students in second semester of the fourth year of the Radiography Program will spend approximately 2.5 days per week in mandatory clinical practice at the Queen Elizabeth Hospital. Clinical placements in Clinical Experience IV may include weekends, evenings and nights. This is in addition to all 400 level QEH courses listed in the program calendar.

0 credit hours

### 492 CLINICAL RADIOGRAPHY II

This course provides final clinical preparation for writing national certification examinations. Time is spent in the clinical setting with a didactic component focused on advanced image analysis and special topics of interest.

Three hours of credit

## Religious Studies

<http://upei.ca/religiousstudies>

### Religious Studies Faculty

Peter Koritansky, Associate Professor, Chair

Edward Y.J. Chung, Associate Professor

Joe Velaidum, Associate Professor

Robert H. Dennis, Assistant Professor

Ron Srigley, Assistant Professor

## **THE RELIGIOUS STUDIES PROGRAM**

The Department of Religious Studies offers courses of general interest on religion as well as Major and Minor programs. Religion is one of the vital elements of human existence. Religious inspirations and aspirations help to shape the personal, cultural and social life of human beings; in turn, religious systems reflect and respond to the historical and social settings in which they find themselves. No understanding of human life is complete without some consideration of the basic questions of truth and meaning posed by religions and the rich variety of answers professed and lived within the religious traditions of the world.

### **REQUIREMENTS FOR A MAJOR IN RELIGIOUS STUDIES**

Forty-two semester hours in Religious Studies are required for the Major. These must include:

- \* RS 105 or both RS 101 and RS 102,
- \* At least one course each from groups B and F,
- \* At least two courses (one of which must be at the 300 level) from each of groups C, D, and E.

The remaining hours of credit may be chosen from among all Religious Studies offerings, including cross-listed courses.

### **REQUIREMENTS FOR A MINOR IN RELIGIOUS STUDIES**

Twenty-one semester hours in Religious Studies are required for the Minor. These must include:

- \* RS 105 or both RS 101 and RS 102,
- \* At least one course from each of groups B, C, D, and E,
- \* At least two courses in total must be at the 300 or 400 level.

The remaining hours of credit may be chosen from among all Religious Studies offerings, including cross-listed courses.

## **Christian Studies Program**

The Department of Religious Studies offers a Minor program in Christian Studies. Christianity is not only the single most powerful influence on the history and development of Western civilization and culture, but the largest and most widespread religion in the world today. The Minor in Christian Studies offers an academic and scholarly exploration, open to students of all backgrounds, of the fundamental Christian teachings and values, and of Christianity's continuing role in the shaping of the contemporary world and its issues.

### **REQUIREMENTS FOR A MINOR IN CHRISTIAN STUDIES**

- a. Three core courses: 202, 211, 232
- b. Two courses from group C (Western Religious History)
- c. Two courses from group E (Religion and Modernity)
- d. At least two courses in total should be at the 300 level

## **Catholic Studies Program**

The Department of Religious Studies offers a Minor program in Catholic Studies. The Catholic tradition has had a profound impact on all aspects of Western culture and civilization, from learning and the arts to moral values and social structures. The Minor in Catholic Studies offers an academic and scholarly exploration, open to students of all backgrounds, of Catholicism's rich heritage and its contemporary engagement with both Western and global issues.

### **REQUIREMENTS FOR A MINOR IN CATHOLIC STUDIES**

- a. One core course — 171
- b. Two courses from 211, 387, 331, 332
- c. Two courses from 275, 279, 374, 375, 376
- d. Two courses from 276, 277, 278, 286

At least two courses in total should be at the 300 level.

## **RELIGIOUS STUDIES COURSES**

### **A. General Introductions**

- 101 Religions of the World: Western Traditions
- 102 Religions of the World: Eastern Traditions
- 105 World Religions

### **B. Thematic Introductions**

- 103 Myths of Love, Sex and Marriage
- 104 Myths of Hate and Evil

### **C. Western Religious History**

- 171 Introduction to Catholic Christianity
- 202 Christianity
- 211 The Bible
- 243 Judaism
- 244 Islam
- 275 Crises in Religious Authority
- 278 Spirituality of the Sacraments
- 284 Introduction to Medieval Theology and Philosophy
- 286 Spiritual Journey of Christian Mystics
- 302 Cults, Sects, and New Religions
- 331 History of Christianity to Reformation (see History 321)
- 332 History of Christianity from the Reformation to the Present (see History 322)
- 376 Thomas Aquinas and the Thomist Tradition
- 387 The New Testament

### **D. Eastern Religions and Comparative Religion**

- 221 Buddhism East and West
- 242 Hinduism
- 251 Japanese Religion and Culture
- 261 Chinese Religion and Philosophy
- 279 Catholicism, Christian Unity, and World Religions
- 304 Alternative Spiritualities
- 322 Religious Ethics East and West
- 323 Interreligious Dialogue
- 352 Mysticism in Buddhism and Christianity

### **E. Religion and Modernity**

- 212 Why are we Here: Explorations on the Meaning of Life
- 232 Christianity and the Moral Imagination
- 235 Skepticism, Agnosticism, Atheism and Belief
- 236 Religion and Politics
- 262 Psychology of Religion
- 276 Catholic Moral Thought
- 277 Social Ethics: Free and Faithful
- 351 Religion and Society (see Sociology/Anthropology 421)
- 362 Philosophy of Religion (see Philosophy 362)
- 374 Beauty and Belief
- 375 Faith and Reason in Modern Catholic Thought
- 386 (formerly 234) Science and Religion

### **F. Advanced Seminar**

- 401 Theory and Method in the Study of Religion

## **Special Topics and Directed Studies**

288, 388, and 488 Special Topics

451 and 452 Directed Studies

## **Other**

121 Classical Mythology (see Classics 121)

272 Medieval Art (see Fine Arts 212)

## **RELIGIOUS STUDIES COURSES**

### **101 RELIGIONS OF THE WORLD: WESTERN TRADITIONS**

This course is an introduction to the major living religions of the West: Judaism, Christianity and Islam. Attention is directed to the ways in which each defines and promotes human fulfilment. Various audio-visual materials complement the lectures to convey an awareness of the spiritual and cultural dimensions of religion.

Three hours a week

NOTE: Credit will not be permitted if a student has already received credit for RS 105.

### **102 RELIGIONS OF THE WORLD: EASTERN TRADITIONS**

This course is an introduction to the major living religions of the East: Hinduism, Buddhism, Confucianism, and Taoism. Attention is directed to the ways in which each defines and promotes human fulfilment. Various audio-visual materials complement the lectures to convey an awareness of the spiritual and cultural dimensions of religion.

Three hours a week

NOTE: Credit will not be permitted if a student has already received credit for RS 105.

### **103 MYTHS OF LOVE, SEX, AND MARRIAGE**

This course explores the great mythologies of love. The historical significance of religion and love is discussed, leading to a better understanding of our current religious values and secular presuppositions. Recurring themes drawn from various Western religious traditions may include the topics of fidelity, marriage, divine love, human love, sexuality, and personal identity.

Three hours a week

### **104 MYTHS OF HATE AND EVIL**

This course explores the great mythologies of hate and evil. The historical development of this topic in Western literature is discussed, leading to a better understanding of our current religious and secular presuppositions of hatred and evil. Recurring themes may include scapegoating, the Devil, theodicy, heresy, violence, immorality, and religious intolerance.

Three hours a week

### **105 WORLD RELIGIONS**

This course is an introduction to the major western and eastern religions of the world: Judaism, Christianity, Islam, Hinduism, Buddhism, Confucianism, and Taoism. Students will explore the origins of each religion, its core beliefs and its central practices.

Three Credit Hours

NOTE: Credit will not be permitted if a student has already received credit for RS 101 and/or 102.

### **121 CLASSICAL MYTHOLOGY**

(See Classics 121)

### **171 INTRODUCTION TO CATHOLIC CHRISTIANITY**

This course provides an introduction to the central aspects of Catholic Christianity. Topics may include faith, revelation, the Trinity, creation, the human person, the problem of sin and evil, grace, salvation, and the church's relation with the world.

Three hours a week

### **202 CHRISTIANITY**

This course begins with an examination of the basic teachings of the Christian religion, particularly the nature of God, Christ, the Church, and the process of salvation. The course explores the characteristic doctrines and practices of Orthodox, Roman Catholic and Protestant churches, with special consideration of their roles in Canadian society and culture. Smaller groups like the Hutterites, Mennonites, and Quakers may also receive attention.

Three hours a week

#### 211 THE BIBLE

The Bible lies at the heart of three major world religions – Judaism, Christianity, and Islam – and it has been shaping Western civilization and culture for over 1500 years. This course examines the essentials of the Bible: its origins, its contents, its themes, and the ways it has been used in religion and society.

Three credit hours

#### 212 WHY ARE WE HERE: EXPLORATIONS ON THE MEANING OF LIFE

This course explores various religious, secular, scientific, and philosophical answers to the question: “why are we here”?

Three credit hours

#### 221 BUDDHISM EAST AND WEST

This course is an introduction to Buddhism, the most influential and popular religion in East Asia. There is special emphasis on the historical development of its major doctrines, practices, and institutions in India, and their transformation in East Asia (China, Japan and Korea). The course studies the recent spread of schools such as Zen in Europe and North America, and also investigates their impact on Western religion and thought.

Three hours a week

#### 232 CHRISTIANITY AND THE MORAL IMAGINATION

This course explores the place of morality in Christian thought and life, the basis and content of Christian moral teaching, and Christian approaches to contemporary moral and ethical issues.

Three hours a week

#### 235 SKEPTICISM, AGNOSTICISM, ATHEISM, BELIEF

This course is an historical examination of the meaning of existence for several theologians, religious thinkers, philosophers, and scientists, and the importance or irrelevance that religious faith and values hold in their systems of thought and various historical circumstances. The historical meanings of skepticism, agnosticism, atheism and belief are studied alongside various contemporary issues, such as the problems posed by science and technology. Writers with both philosophical and theological perspectives are considered.

Cross-listed with Philosophy (cf. Philosophy 235)

Three hours a week

#### 236 RELIGION AND POLITICS

This course examines the intersection between religion and politics, primarily from the perspective of the western intellectual tradition. With the help of both classical and contemporary texts, students will explore such issues as the separation between church and state, the role of religious argument and authority in public reason, the difference between a secular society and a secularist society, and the basis and implications of the freedom of religion.

Three credit hours

#### 242 HINDUISM

This course explores the development of Hinduism from its origins in the Indus Valley Civilization and the arrival of the Indo-Aryans through to the maturation of Hindu culture and civilization. The course covers myths of the Hindu gods and goddesses, approaches to personal and social life, karma and reincarnation, yoga, meditation and the quest for absolute truth. The influences of Islam and European colonialism on Hinduism, and Hindu influences on modern Western religion and thought, also receive attention.

Three hours a week

### 243 JUDAISM

This course follows the development of Judaism from biblical times to the present day. After considering the religious beliefs and practices of the ancient Israelites, Jews and Samaritans, the course examines the character of Jewish life and community as it was formed by the laws of the Torah, the commentaries of the Talmud, and the spirituality of Kabbalism and Hasidism. The course also explores the shaping of modern Judaism by such factors as emancipation, the Holocaust, and the establishment of the state of Israel.

Three hours a week

### 244 ISLAM

Beginning with the establishment of Islam as a religion and a community under Muhammad, the course follows the spread of Islamic culture and civilization, and gives a thorough introduction to the main Islamic teachings and their basis in the Qur'an and Hadith. Finally, it covers some current issues such as relations with the modern West, the Palestinian-Israeli conflict, and contemporary "Islamist" movements.

Three hours a week

### 251 JAPANESE RELIGION AND CULTURE

This course is an introduction to Japanese religion and culture. It examines the role of the "New Religions" as well as the transformation of the older traditions (Shinto, Buddhism, Confucianism) in Japanese society. The course also explores the impact of Western thought and modern developments on traditional Japanese religion and the balance between tradition and modernity in Japan.

Three hours a week

### 261 CHINESE RELIGION AND PHILOSOPHY

This course is an introduction to Chinese religion and philosophy. It examines the so-called "Three Teachings" in China: Confucianism, Taoism, and Buddhism. Most of the course deals with the basic philosophical concepts, moral values and religious beliefs of these major traditions. Attention is directed also to their impact on traditional China, as well as on other East Asian countries, including Japan and Korea. The course concludes by considering the contemporary situation of each tradition in response to recent economic, social and political changes.

Cross-listed with Philosophy (cf. Philosophy 264).

Three hours a week

### 262 PSYCHOLOGY OF RELIGION

Psychological theories and insights are used to explain and inquire into the nature of religious phenomena.

Cross-listed with Psychology (cf. Psychology 262).

Three hours a week

### 272 MEDIEVAL ART

(See Fine Arts History 212)

### 275 CRISES IN RELIGIOUS AUTHORITY

This course explores challenges to religious authority that were precipitated by the discoveries of the New World, Galileo's theory of the universe, the critical reading of the Bible, and the claim of emerging nations to democratic forms of government.

Three hours a week

### 276 CATHOLIC MORAL THOUGHT

This introduction to Catholic moral theology explores the foundational questions regarding the person as a moral agent, natural law, conscience, freedom, responsibility, Church magisterium, and the beatitudes.

Three hours a week

### 277 SOCIAL ETHICS: FREE AND FAITHFUL

This course provides a survey of Catholic thought on social ethics by exploring the principles of the common good and their influence on global issues such as human rights, the family, economics, politics, peace, and the environment.

Three hours a week

### 278 SPIRITUALITY OF THE SACRAMENTS

This course explores the relationship between the various mysteries of life and the liturgical rites of the Catholic faith. Topics may include community life, spiritual maturity, forgiveness, marriage, suffering, and death.  
Three hours a week

### 279 CATHOLICISM, CHRISTIAN UNITY, AND WORLD RELIGIONS

This course is a study of the texts and practices of dialogue, hospitality, and prayer that form the foundation of the Catholic Church's participation in the movement to promote relations with other Christian communities and world religions.  
Three hours a week

### 284 INTRODUCTION TO MEDIEVAL THEOLOGY AND PHILOSOPHY

This course introduces major medieval thinkers and ideas, their sources in Neoplatonism and Aristotelianism, and their influences upon later philosophers and theologians. Topics may include the problem of evil, the relationship between faith and reason, the idea of salvation, and the certainty of human knowledge.  
Cross-listed with Philosophy (cf. Philosophy 284).  
Three hours a week

### 286 SPIRITUAL JOURNEY OF CHRISTIAN MYSTICS

This course provides a study of the spiritual journey and its impact on the transformation of the self. Themes from Catholic mystical literature may include: interiority, ascent, light, and darkness.  
Three credit hours

### 288 SPECIAL TOPICS

This is a course in which topics or issues in Religious Studies are explored and analyzed at an introductory level.

### 302 CULTS, SECTS AND NEW RELIGIONS

This course investigates various marginal or unorthodox religious movements which have existed in Europe and North America during the past two centuries. After an introductory discussion of the ways in which religious groups can be classified, the course is devoted to examining the origins, beliefs and practices of movements such as Jehovah's Witnesses, the Latter-Day Saints (Mormons) and the Unification Church (Moonies).  
Three hours a week

### 304 ALTERNATIVE SPIRITUALITIES

This course examines how the quest for fresh and direct ways of encountering the sacred has driven much of human religious history. Increasingly, people in Western societies express dissatisfaction with both the traditional Judaeo-Christian religions and the purely materialistic and secular understanding of existence. This is a comparative survey of alternative forms of spirituality, focusing upon those arising from three major sources: Western occultism, Eastern religions and mysticism, and revived or reconstructed ancient spiritualities.  
Three credit hours

### 322 RELIGIOUS ETHICS EAST AND WEST

This course is a study of religious ethics focusing on two major traditions: Confucianism, an "ethical humanism" that emphasizes wisdom, and Christianity, a "prophetic religion" that emphasizes revelation. Specific ethical doctrines (e.g., suffering and sin, human nature, good and evil, love/jen, moral self-cultivation, ideal human life and society) are compared from cross-cultural perspectives.  
Cross-listed with Philosophy (cf. Philosophy 322).  
PREREQUISITE: Religious Studies 105 or both Religious Studies 101 and 102, or permission of the instructor  
Three hours a week

### 323 INTERRELIGIOUS DIALOGUE

This lecture-seminar course explores interreligious dialogue, a growing topic in comparative religion. The major models, methodological questions, practical issues, and their ongoing developments are discussed from Western, Eastern, and comparative perspectives: e.g., Jewish-Christian-Islamic dialogue, ecumenical dialogue, Hindu-



Christian dialogue, Buddhist-Christian dialogue, and Confucian-Christian dialogue. Various readings are selected from the current scholarship on relevant topics, theories, and ideas.

PREREQUISITES: Religious Studies 105 or both Religious Studies 101 and 102, or permission of the instructor  
Three hours a week

### 331 HISTORY OF CHRISTIANITY TO THE REFORMATION

An examination of the growth and development of Christianity from the time of Jesus up to the Reformation. Special emphasis on the relationship between the growth of the Church and the broader historical context within which it occurred.

Cross-listed with History (cf. History 321).

Three hours a week

### 332 HISTORY OF CHRISTIANITY FROM THE REFORMATION TO THE PRESENT

An examination of some of the principal developments within Christianity from, and including, the Reformation until the present. Special emphasis on the relationship between these developments and the broader historical context within which they occurred.

Cross-listed with History (cf. History 322).

Three hours a week

### 351 RELIGION AND SOCIETY

(See Sociology/Anthropology 421)

### 352 MYSTICISM IN BUDDHISM AND CHRISTIANITY

This course is an introduction to mysticism in two major traditions: Buddhism and Christianity. Some of the major Buddhist doctrines and practices are compared with those of Christianity. Special attention is given to notions of mystical experience, I-Thou relationship, God/Emptiness, sainthood/Buddhahood, and self-transformation. The approach is textual and comparative, using cross-cultural perspectives.

PREREQUISITE: Religious Studies 105 or both Religious Studies 101 and 102, or permission of the instructor

Three hours a week

### 362 PHILOSOPHY OF RELIGION

(See Philosophy 362)

### 374 BEAUTY AND BELIEF

This course is an analysis of the relationship between artistic creativity and Catholic belief. Various visual, literary, musical and dramatic arts will be explored.

Three hours a week

### 375 FAITH AND REASON IN MODERN CATHOLIC THOUGHT

This course studies major Catholic debates on the relation between faith and reason. Particular attention is directed to a reading of Pope John Paul's encyclical, Faith and Reason; 19th- and early 20th-century background; and its setting in the contemporary university.

Three hours a week

### 376 THOMAS AQUINAS AND THE THOMISTIC TRADITION

This course is intended as an introduction to the philosophical and theological thought of Thomas Aquinas. In addition to investigating Thomas' thoughts on questions of knowledge, God, and morality, and the relationship between faith and reason, we will also raise questions concerning his contribution to the history of philosophy, Christianity, and the development of western civilization. To accomplish all this, we will consider the writings of St. Thomas himself, as well as the writings of some key contributors to what is now called the "Thomistic renewal" of the twentieth century, such as Etienne Gilson, Jacques Maritain, and Josef Pieper.

Three hours a week

### 386 SCIENCE AND RELIGION

This course focuses on the current and historical interactions between science and religion. Readings from scientists, philosophers of science, theologians, and scholars of religion are included in this investigation of the interaction, conflict, and continuing dialogue between science and religion. This course aims to provide a better understanding of the current relationship between these two forces and a greater appreciation of their long history.

Three hours a week

### **387 THE NEW TESTAMENT**

This course examines the New Testament's historical context, literary genres, and impact on the formation of faith within early Christian communities.

Three credit hours

### **388 SPECIAL TOPICS**

This is a course in which topics or issues in Religious Studies are explored and analyzed at an intermediate undergraduate level.

### **401 THEORY AND METHOD IN THE STUDY OF RELIGION**

This course explores various methods, theories, and research tools employed in the academic study of religion.

**PREREQUISITE:** At least four previous courses in Religious Studies, two of which must be at the 200-level or above.

Three hours a week

### **451-452 DIRECTED STUDIES**

This is a course in selected topics in Religious Studies offered by visiting professors, or by way of supervised reading, or other special circumstances approved by the Chair and the Dean. Suggested topics include modern research on Jesus; biblical prophetic and apocalyptic literature; Jewish messianism and early christology; interreligious dialogue; Christianity in Asia; shamanism and folk religion in Asia; the thought of Paul Tillich and Karl Barth; the Ecumenical Movement (Protestant, Catholic, Jewish); religion, politics and the economy. (See Academic Regulation 9 for Regulations Governing Directed Studies.)

### **488 SPECIAL TOPICS**

This is a course in which topics or issues in Religious Studies are explored and analyzed at an advanced undergraduate level.

## **Science Seminars**

### **SCIENCE 444 EXPERIENTIAL LEARNING PLACEMENT IN THE SCIENCES**

This course recognizes a student's learning experience as a volunteer outside the traditional framework of a university course in a context or organization that closely relates to the major; equates with skills, knowledge, or perspectives currently taught in courses required for the major; involves analysis or reflection at the undergraduate level or higher. Placements will need to be approved by the department and the Dean of Science prior to the beginning of the experience. Students will be required to submit a detailed report of their activities and present their work during a public presentation.

**PREREQUISITE:** Third or fourth year standing in Science

Three semester hours of credit

## **Social Studies of Science**

### **Co-ordinators:**

James Moran (History)

Udo Krautwurst (Sociology and Anthropology)

Science Studies is an interdisciplinary field whose primary object is the study of science as an institution. Going beyond familiar ideals, the field aims to understand how science was and is practised, how it shapes and is shaped

by its objects of study, how science represents itself and is represented beyond its institutional boundaries, and how various technosciences increasingly blur the boundaries between nature and society. Within that, there is tremendous scope in terms of what to study (disciplines, technologies, skills, objects, traditions, non-human and human animals, scientists and their discourses) and how to study it (the whole range of humanities, natural science, and social science methodologies and theories). As such, a minor in Social Studies of Science (SSS) speaks to students throughout the Schools and Faculties on campus including Nursing, Music, Science, Business, and Arts.

### **REQUIREMENTS FOR A MINOR IN SOCIAL STUDIES OF SCIENCE**

The minor's structure consists of 21 semester hours of credit as follows:

- a) taking EITHER SSS/History 222 'Science and Society in Historical Perspective' OR SSS/SocAnth 266 'Science, Culture, and Society' as a mandatory core course in the program;
- b) taking at least one additional SSS course at the 200-level, with SSS 222 or SSS 266 as the prerequisite;
- c) taking at least two 300-level courses, with SSS 222 or SSS 266 as the prerequisite;
- d) taking at least two 400-level courses, with at least one 300-level SSS course as the prerequisite;
- e) the remaining course at the 200- 300-, or 400- level.

Below is a preliminary list of courses instructors/departments have agreed to cross list into the minor. (Some additional courses are still in the process of being developed).

DSJS 412 - Theories of the Body  
SOC 412 - Sociology of Health  
SOC/ANTH 266 - Science, Culture, and Society  
PHIL 203 - Environmental Philosophy  
PHIL 204 - Bio-medical Ethics  
PHIL 301 - Philosophy of Science  
PHIL 363 - Philosophy of Biology  
HIST 222 - Science and Society in Historical Perspective  
HIST 311 - Science, Magic, Witchcraft, and the Occult in Premodern Europe  
HIST 333 - Healthcare and North American Society in Historical Perspective  
HIST 434 - Madness and Society  
ENG 224 - Literature and Science  
ANTH 401 - Medical Anthropology  
ANTH 403 - Cybercultures

Additional courses not on the above list may be applied to the minor with permission of the Program Co-ordinator and the course instructor.

### **Sociology and Anthropology**

<http://www.upei.ca/arts/sociology-anthropology>

#### **Sociology and Anthropology Faculty**

Satadal Dasgupta, Professor Emeritus  
Udo Krautwurst, Associate Professor, Chair  
Godfrey Baldacchino, Professor  
Charles Adeyanju, Associate Professor  
Benet Davetian, Associate Professor  
Jean Mitchell, Associate Professor  
Judy Lynn Richards, Associate Professor  
Richard Wills, Associate Professor  
Natasha Hanson, Adjunct Professor  
Helen Kristmanson, Adjunct Professor

### **PROGRAMS IN SOCIOLOGY AND ANTHROPOLOGY**

The Department of Sociology and Anthropology offers eight programs:

1. An honours in Anthropology
2. An honours in Sociology
3. An honours in Sociology/Anthropology
4. A major in Anthropology
5. A major in Sociology
6. A major in Sociology/Anthropology
7. A minor in Anthropology
8. A minor in Sociology

### **GENERAL PREREQUISITES**

A. Sociology 101, completed with a minimum grade of 60%, will qualify a student for admission into any 200-level Sociology or Sociology/Anthropology course.

B. Anthropology 105, completed with a minimum grade of 60%, will qualify a student for admission into any 200-level Anthropology or Sociology/Anthropology course.

C. All students must complete Anthropology 105 and Sociology 101, with a combined average of 60%, and at least one Anthropology, Sociology, or Sociology/Anthropology course at the 200-level in order to enrol in any Anthropology, Sociology, or Sociology/Anthropology course at the 300-level. Normally, students take 200 level courses before proceeding to higher levels.

D. Students registering for their first 400-level course are required to have completed at least two 300-level courses.

E. Courses designated as Sociology/Anthropology (S/AN) are designed for both sociology and anthropology students and are appropriate for both majors.

NOTE: Introductory courses do not count as electives within any of the programs offered by the Sociology and Anthropology Department.

### **DEPARTMENT PROGRAMS**

The following are the departmental requirements for each program:

#### **REQUIREMENTS FOR A MAJOR IN SOCIOLOGY**

a. Sociology 101 and Anthropology 105

b. Four core courses (Sociology 301, Sociology 302, Sociology 331 and Sociology 332)

c. Eight electives, of which:

- one must be an area course
- two must be at the 200-, 300-, or 400-level in Sociology or Sociology/Anthropology
- three must be at the 300-400 level in Sociology or Sociology/Anthropology
- two must be at the 400-level in Sociology or Sociology/Anthropology

d.

- i. Prospective majors have to complete the prerequisite introductory courses with a combined average of 60%.
- ii. When applying for a major the student must have a combined average of 65% in a minimum of four or more Anthropology, Sociology, or Sociology/Anthropology courses at or above the 200 level.

- iii. It is strongly recommended that students take 200-level courses in their second year.
- iv. It is recommended that students apply for a major at the end of their second year or at the beginning of their third year.

### **REQUIREMENTS FOR A MAJOR IN ANTHROPOLOGY**

a. Sociology 101 and Anthropology 105

b. Three core courses (Anthropology 321, Anthropology 332, and Anthropology 361)

c. Nine electives, of which

- two must be area courses
- two must be 200-, 300-, or 400-level courses in Anthropology or Sociology/Anthropology
- three must be 300-400 level courses in Anthropology or Sociology/Anthropology
- two must be 400-level courses in Anthropology or Sociology/Anthropology

d.

- i. Prospective majors have to complete the prerequisite introductory courses with a combined average of 60%.
- ii. When applying for a major the student must have a combined average of 65% in a minimum of four or more Anthropology, Sociology, or Sociology/Anthropology courses at or above the 200-level.
- iii. It is strongly recommended that students take 200-level courses in their second year.
- iv. It is recommended that students apply for a major at the end of their second year or at the beginning of their third year.

### **REQUIREMENTS FOR A JOINT MAJOR IN SOCIOLOGY/ANTHROPOLOGY**

a. Sociology 101 and Anthropology 105

b. Six core courses (Sociology 301, Sociology 302, Sociology 332, Anthropology 332, Anthropology 361, and either Sociology 331 or Anthropology 321)

c. At least nine electives, of which

- two must be area courses
- two must be Sociology/Anthropology courses at the 200-, 300-, or 400- level
- four must be at the 300-400 level
- one must be any Anthropology, Sociology, or Sociology/Anthropology course at the 200-, 300-, or 400-level

d.

- i. Prospective majors have to complete the prerequisite introductory courses with a combined average of 60%.
- ii. When applying for a major the student must have a combined average of 65% in a minimum of four or more Anthropology, Sociology, or Sociology/Anthropology courses at or above the 200-level.
- iii. It is strongly recommended that students take 200-level courses in their second year.
- iv. It is recommended that students apply for a major at the end of their second year or at the beginning of their third year.

### **HONOURS PROGRAM REQUIREMENTS**

Research Component

The Honours research course (Sociology/Anthropology 490) constitutes the research component of the Honours program. The course involves supervised reading and research on specific topics. The student is required to write a substantial Honours essay or research report, which will be assessed by a three-member committee consisting of the supervisor, one additional member of the Department of Sociology and Anthropology, and a member from another Department.

#### Admission Requirements

Students intending to join the program must apply to the Department of Sociology and Anthropology. Applicants must be registered in, or have completed, the combined Sociology/Anthropology major program. Applications are normally submitted during the sixth semester. To be eligible to apply for admission to the program, students must have an average of 70% in all prior courses and an average of 75% in all previous Sociology and Anthropology courses taken. To continue in the Honours program, students must maintain an overall average of 70% in all courses and an average of 75% in Sociology and Anthropology courses.

Admission to the program is competitive, and subject to the availability of a full-time faculty supervisor in the student's chosen thesis area.

#### **REQUIREMENTS FOR HONOURS IN SOCIOLOGY/ANTHROPOLOGY**

For an Honours in Sociology/Anthropology, which is a combined Honours in Sociology and Anthropology, the student will take fifty-seven semester hours of courses as listed below:

- a. Sociology 101 and Anthropology 105
- b. Twenty-one semester hours of required courses as follows:
  - i. Sociology 301 (Sociological Theory I), Sociology 302 (Sociological Theory II), Sociology 331 (Methodology and Research I), and Sociology 332 (Methodology and Research II).
  - ii. Anthropology 321 (Field Methods), Anthropology 332 (Knowledge and Culture), and Anthropology 361 (Anthropological Theory).
- c. A six semester hour research course: Sociology/Anthropology 490 (Honours Research).
- d. Twenty-four semester hours of elective courses, of which:
  - i. two must be area courses
  - ii. two must be any Anthropology, Sociology, or Sociology/Anthropology course at the 200-, 300-, or 400-level
  - iii. four must be at the 300-400 level.

To graduate with an Honours degree in Sociology/Anthropology a student requires a total of 42 semester courses (126 semester hours).

#### **REQUIREMENTS FOR HONOURS IN SOCIOLOGY**

For an Honours in Sociology, the student will take fifty-seven semester hours of courses as listed below:

- a. Sociology 101 and Anthropology 105
- b. Twelve semester hours of required Sociology courses as follows: Sociology 301, Sociology 302, Sociology 331 and Sociology 332
- c. A six semester-hour research course—Sociology/ Anthropology 490

d. Twenty-one semester hours of Sociology or Sociology/ Anthropology elective courses as follows:

1. one must be an area course
2. two must be at the 200-, 300-, or 400-levels
3. two must be at the 300- or 400-level
4. two must be at the 400-level (excluding S-AN 490)

e. Twelve semester hours of Anthropology or Sociology Anthropology as follows:

- i. one of either Anthropology 321 (Field Methods); Anthropology 332 (Knowledge and Culture); or Anthropology 361 (Anthropology Theory). Please talk to your advisor. Course selection would depend on the nature of your thesis research.
- ii. Sociology/Antropology 442 (Social and Cultural Change)
- iii. Sociology 335 (Globalization)
- iv. one of either Sociology 432 (Comparative Sociology) or Sociology 401 (Doing Social Research) or Sociology 462 (Applied Sociology). Please talk to your supervisor or prospective supervisor. Course selection would depend on the nature of your thesis research.

To graduate with an Honours degree in Sociology, a student requires a total of 42 semester courses (126 semester hours).

### **REQUIREMENTS FOR HONOURS IN ANTHROPOLOGY**

For an Honours in Anthropology, the student will take fifty-seven semester hours of courses as listed below:

a. Sociology 101 and Anthropology 105

b. Twelve semester-hours of required anthropology courses as follows: Anthropology 321; Anthropology 332; Anthropology 361; Anthropology 402

c. A six semester hour research course—Sociology/ Anthropology 490

d. Twenty-one semester hours of Anthropology or Sociology/ Anthropology elective courses as follows:

- i. two must be area courses;
- ii. three must be at the 300-level; and
- iii. two must be at the 400-level (excluding SAN490)

e. Twelve semester-hours of Sociology or Sociology/ Anthropology as follows:

- i. one of Sociology 301; Sociology 302; Sociology 331; Sociology 332
- ii. three other Sociology or Sociology/Antropology courses at the 300-400 level

To graduate with an Honours degree in Anthropology, a student requires a total of 42 semester courses (126 semester hours).

### **REQUIREMENTS FOR A MINOR IN ANTHROPOLOGY**

a. Sociology 101 and Anthropology 105

b. Five electives of Anthropology or Sociology/Antropology as follows:

- two courses must be at the 200-, 300-, or 400-levels
- two courses must be at the 300-400 level

- one course must be at the 400-level

c. To qualify for a minor, students are required to have an overall average of 65% in all courses required for the minor with no mark below 60%.

**NOTE:** A minor in Anthropology is not available to students with a joint major in Sociology/Anthropology.

## **REQUIREMENTS FOR A MINOR IN SOCIOLOGY**

a. Sociology 101 and Anthropology 105

b. Five additional Sociology or Sociology/Anthropology courses:

- two must be at the 300 or 400 300-400 level
- three must be at the 200-, 300-, or 400-level.

c. To qualify for a minor, students are required to have an overall average of 65% in all courses with no mark below 60%.

**NOTE:** A minor in Sociology is not available to students with a joint major in Sociology and Anthropology.

## **COURSES**

The Department offers the following courses in Sociology, Anthropology and Sociology/Anthropology:

### **Sociology**

101 Introduction to Sociology  
 105 Civility and Society  
 201 Deviance and Control  
 202 Criminology  
 209 Special Topics  
 211 Marriage and the Family  
 242 Social Problems  
 271 Self and Society  
 275 Social Inequality  
 282 Social Psychology  
 290 Introduction to Social Work  
 292 Work and Society  
 301 Sociological Theory I (core course)  
 302 Sociological Theory II (core course)  
 305 Population and Society  
 309 Special Topics  
 311 Small Groups  
 331 Methodology and Research I (core course)  
 332 Methodology and Research II (core course)  
 362 Urban Sociology  
 370 Penology and Corrections  
 371 Canadian Society  
 372 Collective Behaviour and Social Movements  
 374 Victims of Crime: An Introduction to Victimology  
 391 Sociology of Organizations  
 392 Media and Society  
 394 Movies and Culture  
 401 Doing Social Research  
 409 Evaluation  
 412 Sociology of Health  
 432 Comparative Sociology



451 Sociology of the Body  
461 Directed Studies  
462 Approaches in Applied Sociology

### **Anthropology**

105 Introduction to Anthropology  
201 Cultural Anthropology  
202 Evolution of Humankind and Culture  
209 Special Topics  
211 Introduction to Archaeology  
291 Introduction to Forensic Anthropology  
309 Special Topics  
310 Identity and Popular Culture  
321 Field Methods (core course)  
332 Knowledge and Culture (core course)  
352 Kinship and Family  
361 Anthropological Theory (core course)  
382 Understanding Folklore  
401 Medical Anthropology  
402 Issues in Contemporary Anthropology  
403 Cybercultures  
404 Applied Public Interest Anthropology  
431 Directed Studies

### **Sociology/Anthropology**

208 Developing the Socio-cultural Imagination  
212 Peoples of South Asia (area course)  
222 Native Canadians (area course)  
242 Peoples of Oceania (area course)  
251 Peoples of Africa (area course)  
252 Aging and Society  
256 Anatomy of Addictions  
259 Special Topics  
261 Sex, Gender, and Society  
263 Global Youth Cultures  
266 Science, Culture, and Society  
303 International Migration, Transnationalism, and the Canadian Mosaic  
306 Demography of Aging  
307 Constructing Difference and Identity  
312 Rural Society in Canada  
331 The Community  
341 Technology, Society, and the Environment  
355 Globalization  
359 Special Topics  
371 Evolution of the Brain and Social Behaviour  
374 Tourism  
421 Religion and Society  
431 Minority/Ethnic Groups and Canadian Multiculturalism  
442 Social and Cultural Change  
456 Visual Culture  
461 Special Topics  
481 Directed Studies in Sociology and Anthropology  
490 Honours Research

### **SOCIOLOGY COURSES**

### 101 INTRODUCTION TO SOCIOLOGY

This course introduces many of the main concepts within the field of sociology such as culture, socialization, norms, social roles, values, deviance, and social structure. In addition, this course utilizes the basic concepts and perspectives in sociology to examine critically and to interpret the kinds of interaction experienced in social institutions such as the economy, the polity, the family, education, and religion.

PREREQUISITE: None

Three hours a week

### 105 CIVILITY AND SOCIETY

Civility and its practice is the backbone of social interaction in all settings. This multi-media course provides all students, regardless of their major, with a fascinating introduction to the important roles played by civility (courtesy) and incivility (discourtesy) in social life. Students will gain a very useful understanding of how conceptions and practices of civility have changed over the years. They will also be introduced to the fascinating social and emotional processes that are involved in the creation and maintenance of a civil culture.

Three hours a week

**NOTE:** All 200-level Sociology courses have Sociology 101 as a prerequisite.

### 201 DEVIANCE AND CONTROL

An objective analysis of different sociological approaches to the meaning of deviance and to the nature of social control. The causes and consequences of social deviance are critically examined utilizing the following theories: social disorganization, functionalism, anomie and opportunity, value-conflict, interactionism, labelling, and critical conflict. Ideologies associated with each approach are compared. Substantive areas include: crime and delinquency, suicide, drug use, as well as various forms of sexual, occupational, and institutional deviance.

PREREQUISITE: Sociology 101

Three hours a week

### 202 CRIMINOLOGY

This course examines the historical and contemporary structure and functions of the Canadian criminal justice system, including legislation, policing, courts, corrections, and parole. Various forms of law breaking are studied such as youth offences, conventional street crime, family violence, white collar and corporate crime, and organized and political crime. Topics include social, cultural, and demographic correlates of crime; patterns of victimization; the role of the community and of society's institutions; and various theoretical explanations used in criminology

PREREQUISITE: Sociology 101

Three hours a week

### 209 SPECIAL TOPICS

Course code for Special Topics offered by the Department of Sociology at the second year level.

PREREQUISITE: Sociology 101

Three hours a week

### 211 MARRIAGE AND THE FAMILY

Family and courtship are examined from a variety of perspectives: the origins and development of the family institutions, the family's present position in Canadian society, the social, political and economic factors affecting modern marriage and the manner in which these are leading to the emergence of new family forms (e.g., single-parent and blended families).

PREREQUISITE: Sociology 101

Three hours a week

### 221 INTRODUCTION TO THE SOCIOLOGY OF SPORT AND EXERCISE

(See Kinesiology 262)

### 242 SOCIAL PROBLEMS

A sociological approach to the nature and definition of social problems, their theoretical explanations, and their interventions. Topics are selected from: alcoholism and drug addiction, the criminal justice system, poverty, racism, sexism, familial instability, aging, mental disorders, alienation, political and religious dissent and overpopulation.

PREREQUISITE: Sociology 101

Three hours a week

### 271 SELF AND SOCIETY

This course presents students with the concepts and theories used in the study of social definitions of the Self and its relationship to social institutions and structures. Emphasis is placed on ideas regarding personality, communication, motivation, and the interpersonal forces at play in face-to-face and group processes. The course is based on a study of the “symbolic interactionist” paradigm, as well as important new sociological research emerging in the area of cross-cultural interaction.

PREREQUISITE: Sociology 101

Three hours a week

### 275 SOCIAL INEQUALITY

This course examines how social, economical and political inequality is organized along the lines of class, age, gender, race, and ethnicity. Students are introduced to the major theoretical and ideological explanations (and justifications) for such inequalities and given the opportunity to engage in a critical examination of how power, ideology, and the distribution of material, cultural, and social resources continue to contribute to social injustice.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 275)

PREREQUISITE: Sociology 101 or permission of the instructor. For students taking the course as DSJS 275 see DSJS prerequisites.

Three hours a week

### 282 SOCIAL PSYCHOLOGY

(Cross-listed with Psychology 242)

PREREQUISITE: Sociology 101

### 290 INTRODUCTION TO SOCIAL WORK

This course provides students with an overview of the foundations and practice of social work. Students will gain a comprehensive understanding of the historical development of social work in Canada, what social workers do, the setting and methods used as part of social work and the opportunities available to professionally trained social workers. The course includes an evaluation of emerging issues and future directions.

PREREQUISITE: Sociology 101

Three hours a week

### 292 WORK AND SOCIETY

This survey of the sociology of work will focus on the study of the following aspects of work: how work has changed through history in keeping with technological and political change, the new workplace, work and inequality, work and the family, types of work, training for work, and future trends in a workplace increasingly affected by globalization.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 292)

PREREQUISITE: Sociology 101. For students taking the course as DSJS 292 see DSJS prerequisites.

Three hours a week

**NOTE:** All 300- level Sociology courses require Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course as prerequisites, unless otherwise stated.

### 301 SOCIOLOGICAL THEORY I

This course examines the social and political contexts in which sociology was formally constituted as an academic discipline. It also offers an interpretive analysis of some of the major ideas, systems of explanation, and modes of analysis generated by the early sociologists. It is strongly recommended that Sociology 301 and 302 not be taken in the same year as Sociology 331 and 332.

PREREQUISITES: Sociology 101, Anthropology 105, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course  
Three hours a week

### 302 SOCIOLOGICAL THEORY II

This course offers critical assessments of the varieties, structures, and directions of modern social theories, with major emphasis on their relevance and usefulness for understanding contemporary social systems. It is strongly recommended that Sociology 301 and 302 not be taken in the same year as Sociology 331 and 332.

PREREQUISITES: Sociology 101, Anthropology 105, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course  
Three hours a week

### 305 POPULATION AND SOCIETY

This course is an introduction to the study of human population. It exposes students to the essential theories and methods of analysis of populations, while focusing on the major elements of all population systems - composition, distribution, demographic processes, change and the interrelationships among these elements. Students are introduced to a number of "population problems", and to the role of demographics and of population policy in modern society.

PREREQUISITES: Sociology 101, Anthropology 105, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course  
Three hours a week

### 309 SPECIAL TOPICS

Course code for Special Topics offered in Sociology at the third year level.

PREREQUISITES: Sociology 101, Anthropology 105, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course  
Three hours a week

### 311 SMALL GROUPS

Students combine the use of theory and practical techniques to learn about and to participate in the processes that are unique to small groups. Micro-level theories, such as symbolic interactionism and systems theory, are employed to examine small groups as social systems. In addition, students learn how to apply theory to elementary, everyday relationships among individuals in small groups.

PREREQUISITES: Sociology 101, Anthropology 105, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course  
Three hours a week

### 331 METHODOLOGY AND RESEARCH I

An examination with practical experience, of current data-gathering techniques including experimental and quasi-experimental designs, surveys and interviewing, the use of available documents, and participant observation. Also covered are large scale sampling techniques, coding and procedures, composite and simple measures, and panel analysis. It is strongly recommended that Sociology 331 and 332 not be taken in the same year as Sociology 301 and 302.

PREREQUISITES: Sociology 101, Anthropology 105, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course  
Three hours a week

### 332 METHODOLOGY AND RESEARCH II

An introductory course in the sociological inquiry process giving the student a working knowledge of applied techniques in sociological data manipulation and analysis. Topics include measurement of sociological phenomena, association, elaboration of relationships between two or more variables, path and space analysis, and the logic and methods of hypothesis development and testing in sociological research. It is strongly recommended that Sociology 331 and 332 not be taken in the same year as Sociology 301 and 302.

PREREQUISITES: Sociology 101, Anthropology 105, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, Sociology 331 or Anthropology 321, and permission of instructor

Three hours a week

### 362 URBAN SOCIOLOGY

A critical review of major theoretical and methodological approaches to the study of urban communities. Specific topics include: the nature of urbanization, city growth patterns, urban life styles, suburbia, ethnic and racial urban groups, transportation problems, urban power structures, some world cities, and cities of the future. Emphasis is on Canadian urban development, particularly the role of developers, financial institutions, and government in shaping the nature of Canadian cities and in creating various urban problems.

PREREQUISITES: Sociology 101, Anthropology 105, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course

Three hours a week

### 370 PENOLOGY AND CORRECTIONS

This course provides a critical analysis of the major theoretical orientations associated with the Canadian penal system, highlighting a variety of perspectives, ranging from the origins of the prevailing correctional philosophy in Canada, to a discussion of the various forms of punishment utilized over the centuries. Upon completion of the course, students will be able to critically assess past and future developments within the field of Penology and Corrections.

PREREQUISITES: Sociology 101, Anthropology 105, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course

Three hours a week

### 371 CANADIAN SOCIETY

A sociological analysis of the overall structural and dynamic character of contemporary Canadian society. Several macro-level explanatory theories, such as functional and conflict, on the nature of Canadian society provide a framework for an integrated study of the following issues: the Canadian identity, regionalism, various elites, the class structure and class conflict, Quebec's status, Canadian-American relations, and Canadian nationalism.

PREREQUISITES: Sociology 101, Anthropology 105, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course

Three hours a week

### 372 COLLECTIVE BEHAVIOUR AND SOCIAL MOVEMENTS

A sociological review and analysis of the various forms of collective norm-challenging social action: crowds, mobs, riots, fads, cults, revolutions and social movements. Students are introduced to their structural sources, their political content and their implications for social change. Specific movements are studied via textual and video records.

PREREQUISITES: Sociology 101, Anthropology 105, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course

Three hours a week

### 374 VICTIMS OF CRIME: AN INTRODUCTION TO VICTIMOLOGY

The fairly recent area of Victimology has given victims of crime their rightful place in the Criminal Justice System. This course provides a survey of the evolution of victim rights, the emergence of victim-friendly legislation, and the establishment of victim services within the broader criminal justice system. Upon completion of the course, students should possess a comprehensive understanding of the complicated, sensitive and difficult issues associated with this long-overlooked segment of society.

PREREQUISITES: Sociology 101, Anthropology 105, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course

Three hours a week

### 391 SOCIOLOGY OF ORGANIZATIONS

Formal/complex organizations are analyzed using classical and contemporary sociological theory and research. The course uses three levels of analysis which focus on individual/ group behaviour, organizational structures and processes, and organizations as social actors in their environments. Topics will include the nature of

power/authority, conflict, decision- making, organizational change, effectiveness, socialization, goals, organizational technologies, and inter-organizational relations.

PREREQUISITES: Sociology 101, Anthropology 105, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course

Three hours a week

### 392 MEDIA AND SOCIETY

This course looks at how media play significant cultural and political roles in contemporary societies. Drawing upon various media, including television, film, and the Internet, the course examines the social, economic, and political organization of media; the content of media messages; and the role the media plays in preserving and reforming social values at the local and global levels.

PREREQUISITES: Sociology 101, Anthropology 105, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course

Three hours a week

### 394 MOVIES AND CULTURE

This course examines the powerful role played by movies in the preservation of social traditions as well as the introduction of new ways of thinking, feeling and behaving. Students will learn how to watch films from a critical perspective, and will use content analysis methods to probe into a film's historical context, its explicit and implicit themes, and how its story-line and cinematographic methods contribute to the presentation of the social norms and values embedded in the film.

PREREQUISITES: Sociology 101, Anthropology 105, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course

Three hours a week

**NOTE:** All 400- level Sociology courses require Anthropology 105, Sociology 101, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses as prerequisites, unless otherwise stated.

### 401 DOING SOCIAL RESEARCH

Students engage in sociological inquiry at an intermediate level. Using statistical computer software, such as SPSS and SAS, students learn to code, manipulate, analyze, and interpret data from a variety of data sources. Students learn also how to carry out multi-variate data analysis (including how to store and retrieve data and create graphic presentations).

PREREQUISITES: Sociology 101, Anthropology 105, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and Soc 331 and Soc 332 or Anth 321 and Soc 332, and permission of the instructor

Seminar: Three hours per week

### 409 EVALUATION

This course is an introduction to the theories, methods and models of evaluation. The major focus of the course is on policy and program evaluation with an emphasis on the purpose, design, data collection/analysis, and application of results of evaluation research. The student gains some practical experience in the field of evaluation. A previous course in statistics is recommended.

PREREQUISITES: Sociology 101, Anthropology 105, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, Sociology 331 or an equivalent course in Research Methodology, and one additional 300-level Anthropology, Sociology, or Sociology/Anthropology course, permission of the instructor

Seminar: Three hours a week

### 412 SOCIOLOGY OF HEALTH

Students adopt a salutogenic (health promotion and illness prevention) approach to examine the relationship between social factors (lifestyle, environment, and organization of the health care system) and health. Health is posited as a multi-dimensional construct. The implications of adopting a mainstream theoretical view of the relationship between social factors and health are investigated, i.e., how adopting a certain theoretical perspective can help to explain further or to hinder our understanding of the effect of social factors on health.

**PREREQUISITES:** Sociology 101, Anthropology 105, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses, and permission of the instructor  
**Seminar:** Three hours a week

#### **432 COMPARATIVE SOCIOLOGY**

This course provides students with the opportunity to acquire a multinational and multidisciplinary understanding of a chosen topic in Comparative Sociology, which is the study of a given social phenomenon across national and cultural boundaries and/or different periods of time. Offered in the form of a seminar, themes are selected from year to year, and may include such topics as civility, sociology of emotions and the body, youth culture, socialization, childhood, and courtship.

**PREREQUISITES:** Sociology 101, Anthropology 105, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses, and permission of the instructor  
**Seminar:** Three hours a week

#### **451 SOCIOLOGY OF THE BODY**

What are the social forces that affect human bodies and human emotions? What is the body's relation to the self? How do conceptions (and treatments) of the body vary in different societies and different historical periods? In this course, we will study the body as the product of complex social interactive processes and political-economic values; as the expression of the self; and as the object of social control. Particular attention will be paid to race, gender, identity symbols, and body awareness within a culture of consumption.

**PREREQUISITES:** Sociology 101, Anthropology 105, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses, and permission of the instructor  
**Seminar:** Three hours a week

#### **461 DIRECTED STUDIES**

Offered as a seminar in which selected topics are studied in depth and/or as a directed reading course within the specialized area selected by the student in consultation with one or more members of the Department and approved by the Dean.

**PREREQUISITES:** Sociology 101, Anthropology 105, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses, and departmental permission; generally restricted to the majors in Sociology at Third and Fourth Year levels.  
(See Academic Regulation 9 for Regulations Governing Directed Studies)

#### **462 APPROACHES IN APPLIED SOCIOLOGY**

Sociologists are increasingly having influence in the development of public policy. Research projects in aging, work and globalization, social injustice, families, crime and media have contributed to the improvement of society. This course reviews the development of applied sociology and provides students with practical applications in a selected area of social life in which sociologists have had a strong impact.

**PREREQUISITES:** Sociology 101, Anthropology 105, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses, or permission of the instructor  
**Seminar:** Three hours a week

### **ANTHROPOLOGY COURSES**

#### **105 INTRODUCTION TO ANTHROPOLOGY I**

This course introduces students to the field of cultural anthropology through an examination of cultural practices (religious, political, familial, economic) in various areas of the world.

**PREREQUISITE:** None  
Three hours a week

**NOTE:** All 200-level Anthropology courses have Anthropology 105 as a prerequisite, except where permission of the instructor is allowed.

#### 201 CULTURAL ANTHROPOLOGY

This course provides a survey of the development, contributions, and contemporary socio-cultural issues of selected non-Western peoples and cultures. In addition, the course addresses how contact with non-Western cultures over the last 5 centuries has played a substantial role in developing modern Western thought.

PREREQUISITE: Anthropology 105

Three hours a week

#### 202 EVOLUTION OF HUMANKIND AND CULTURE

This course is a survey of the origin of humankind and culture from the earliest times to the end of the stone age; prehistoric humans and their primate ancestors; the development of modern human populations; and principles of evolutionary theory and prehistory of the old world during the stone age.

PREREQUISITE: Anthropology 105 or permission of the instructor

Three hours a week

#### 209 SPECIAL TOPICS

Course code for Special Topics offered in Anthropology at the second year level.

PREREQUISITE: Anthropology 105

#### 211 INTRODUCTION TO ARCHAEOLOGY

This course describes how archaeologists discover, reconstruct and interpret cultures of the past. Topics include: the development of archaeology as a discipline; the framework of archaeological enquiry; the techniques of site identification, survey, and excavation; the methods used in artifact analysis; dating methods; and the theoretical approaches underlying the interpretation of archaeological remains.

PREREQUISITE: Anthropology 105 or permission of the instructor

Three hours a week

#### 291 INTRODUCTION TO FORENSIC ANTHROPOLOGY

This course is an overview of forensic anthropological methods and practices in the study of death, crime, and other relevant medico-legal concepts. Identification of the variation in human remains (gender, age, and ancestry, etc.) is of primary concern, but trauma, causes of death, decomposition, and the cultural contexts of death and crime are also examined.

PREREQUISITE: Anthropology 105 or permission of the instructor

Three hours a week

**NOTE:** All 300-level Anthropology courses require Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course as prerequisites, unless otherwise stated.

#### 309 SPECIAL TOPICS

Course code for Special Topics offered in Anthropology at the third year level.

PREREQUISITES: Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course

Three hours a week

#### 310 IDENTITY AND POPULAR CULTURE

(Cross-listed with Diversity and Social Justice Studies 311)

PREREQUISITES: Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course

#### 321 FIELD METHODS

This course explores the different research methods used in cultural anthropology. In the evaluation of these methods, the course combines readings with field experience.



PREREQUISITES: Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course  
Seminar: Three hours a week

### 332 KNOWLEDGE AND CULTURE

An advanced course on how the forms of knowledge production used influence social anthropology's perspectives on structure and organization in human society. The principal focus is on comparing scientific and interpretive approaches to social organization in a range of societies through case studies. Two area courses are strongly recommended, but not required.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 332)

PREREQUISITES: Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course. For students taking the course as DSJS 332 see DSJS prerequisites.  
Three hours a week

### 352 KINSHIP AND FAMILY

A cross-cultural examination of marriage, family, descent groups and kin-like groups with the fundamental objective of understanding the primary and natural features of human values and organization, and their variations.

Cross-listed with Diversity and Social Justice Studies and Family Science (cf. DSJS 352 and Family Science 354)

PREREQUISITES: Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course. For students taking the course as DSJS 352 see DSJS prerequisites; for students taking the course as FSc 354 see FSc prerequisites  
Three hours a week

### 361 ANTHROPOLOGICAL THEORY

History, construction, and evaluation of anthropological theory; anthropological theory as a response to changing social-cultural conditions.

PREREQUISITES: Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course  
Three hours a week

### 382 UNDERSTANDING FOLKLORE

The course begins with a survey of the history and approaches to the study of folklore as an aspect of culture with emphasis on Canadian examples. Students then analyze folklore with emphasis on structures and cultural contexts. Study of local data is encouraged.

PREREQUISITES: Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course  
Three hours a week

**NOTE:** All 400-level Anthropology courses require Anthropology 105, Sociology 101, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses as prerequisites, unless otherwise stated.

### 401 MEDICAL ANTHROPOLOGY

This course provides an overview of medical anthropology and its approaches to understanding human illness and healing systems in a cross-cultural context. Students examine theoretical and applied approaches to topics which include: ethno-medical systems; biomedical models; symbolism in the healing process; the interrelationships of gender, class, and race in the cultural construction of illness and well-being. The impact of colonialism and globalization, infections and inequalities, as well as cross-cultural conceptualizations of the body, are also considered.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 401)

PREREQUISITES: Anthropology 105, Sociology 101, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses. For students taking the course as DSJS 401 see DSJS prerequisites, or permission of the instructor.  
Three hours a week

#### 402 ISSUES IN CONTEMPORARY ANTHROPOLOGY

This course examines selected issues of an interdisciplinary nature which have contributed to the emergence and development of current interpretative theories in anthropology. Students explore issues relating to the concepts of culture and hybridity; representation and power; colonialism and postcolonialism. Feminist anthropology and recent ethnographies are of central interest as are issues related to modernity, memory, and identity.

**PREREQUISITES:** Anthropology 105, Sociology 101, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses or permission of the instructor

Three hours a week

#### 403 CYBERCULTURES

This course examines how cyberspace in its various guises (e.g., web pages, virtual communities) and its associated technologies create numerous and often conflicting identities while shaping and being shaped by local and global cultural forces. It provides students with the opportunity to reflect critically upon, and engage with, the symbolic meanings and social effects of cyberspace. The course examines recent anthropological theories of technology, and looks at the impact of social organization and cultural practices of communities around the world and on the identities of individuals within those different cultural contexts.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 402)

**PREREQUISITES:** Anthropology 105, Sociology 101, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses. For students taking the course as DSJS 402 see DSJS prerequisites

Three hours a week

#### 404 APPLIED AND PUBLIC INTEREST ANTHROPOLOGY

This course reviews the history of applied anthropology and investigates major case studies, research methodologies, intervention strategies, and theoretical issues. One of the fastest-growing areas within the discipline of anthropology, applied anthropology is also known as public interest anthropology.

**PREREQUISITES:** Anthropology 105, Sociology 101, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses

Three hours a week

#### 431 DIRECTED STUDIES

Offered as a seminar in which topics are studied in depth and/or as a directed reading course within the specialized area selected by the student in consultation with one or more members of the Department and approved by the Dean.

**PREREQUISITES:** Anthropology 105, Sociology 101, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, two 300-level Anthropology, Sociology, or Sociology/Anthropology courses and Anthropology, Sociology, or Sociology/Anthropology permission; generally restricted to majors in Anthropology at Third and Fourth Year levels.

(See Academic Regulation 9 for Regulations Governing Directed Studies)

### **SOCIOLOGY/ANTHROPOLOGY COURSES**

**NOTE:** All 200-level Sociology/Anthropology courses require either Anthropology 105 or Sociology 101 as a prerequisite, except where permission of the instructor is allowed.

#### 208 DEVELOPING THE SOCIO-CULTURAL IMAGINATION

This course introduces students to the basic theoretical and methodological tools necessary for critical and analytical thinking. Explored are major anthropological and sociological concepts, with reference to selected readings and current events. Emphasis is placed on identifying assumptions and using both theory and research in the analysis of socio-cultural behaviour.

**PREREQUISITE:** Anthropology 105 or Sociology 101

Three hours a week

**211 ISLAND TOURISM: THE SEARCH FOR PARADISE**  
(See Island Studies 211)

**212 PEOPLES OF SOUTH ASIA**

A survey of the peoples of South Asia; an integrated description and analysis of their cultural history and present-day economics, social, political and religious ways of life.

PREREQUISITE: Anthropology 105 or Sociology 101

Three hours a week

**222 NATIVE CANADIANS**

A survey of the major cultural areas of the aboriginal North Americans, including a description and analysis in detail of selected cultures, their material culture, social organization and religious systems.

PREREQUISITE: Anthropology 105 or Sociology 101

Three hours a week

**242 PEOPLES OF OCEANIA**

This course provides an introduction to the peoples and the complex cultures of the Pacific Islands (Oceania) in the areas known as Melanesia, Polynesia and Micronesia. Topics include gender, social stratification, leadership and exchange, conflict and war, ritual and symbolism as well as the relationship between tradition and modernity. The course examines the past and the present and the ways in which contact, colonization, the introduction of Christianity, and the cash economy shaped and continue to shape life in the Island Pacific.

PREREQUISITE: Anthropology 105 or Sociology 101

Three hours a week

**251 PEOPLES OF AFRICA**

A survey of the principal cultures of sub-Saharan Africa with an emphasis on social and cultural change as a result of colonialism, urbanization and nationalization.

PREREQUISITE: Anthropology 105 or Sociology 101

Seminar: Three hours a week

**252 AGING AND SOCIETY**

This is an introduction to the study of aging which provides an overview of the field of social gerontology, the variation of individual aging within societies and the social structures of aging. Special emphasis will be given to social gerontology in the context of the Maritime Provinces.

PREREQUISITE: Anthropology 105 or Sociology 101

Three hours a week

**256 ANATOMY OF ADDICTIONS**

This course provides an in-depth introduction to addictions and their impact on families, communities and societies. Students are given the opportunity to study various forms of addictions and the manner in which professionals intervene to help addicts as well as those who are impacted by them in a secondary way. An important part of the course focuses on the unintended additional social consequences and problems that emerge when communities are distracted from their usual norms and routines by substance abuse.

PREREQUISITE: Anthropology 105 or Sociology 101

Three hours a week

**259 SPECIAL TOPICS**

Course code for Special Topics offered in Sociology/Anthropology at the second year level.

PREREQUISITE: Anthropology 105 or Sociology 101

Three hours a week

**261 SEX, GENDER, AND SOCIETY**

This course examines gender (the social concept of masculinity and femininity) and compares it to current views about sex (the biological distinction of female and male). Several sociological and/or anthropological issues are

examined, such as the biological bases and evolutionary development of sexual differences; abortion; homosexuality; sexual violence; and affirmative action. Cross-cultural information is introduced throughout the course.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 261)

PREREQUISITE: Anthropology 105 or Sociology 101. For students taking the course as DSJS 263 see DSJS prerequisites, or permission of the instructor

Three hours a week

### 263 GLOBAL YOUTH CULTURES

The emergence of global youth cultures of desire, self expression, consumption and representation will be considered from a number of perspectives including gender, age and globalization. Issues related to youth, which are a critical factor in understanding contemporary change, conflict, and cleavages, will be explored cross-culturally. Attention will be given to theoretical developments as well as ethnographic case studies.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 263)

PREREQUISITE: Anthropology 105 or Sociology 101. For students taking the course as DSJS 263 see DSJS prerequisites, or permission of the instructor

Three hours a week

### 266 SCIENCE, CULTURE, AND SOCIETY

This course considers three centuries of modern Western science as it has been imagined and practised in Europe, initially, and eventually the rest of the globe. It especially considers the relationships between contemporary science and its socio-cultural contexts; discrepancies between the ideal of Science and its actual practice; the role of gender, class, and race in the production of scientific knowledge; and some important debates within the field of science studies, such as the place of subjectivity and objectivity, or whether science is universal or dependent on time, place and field of study.

PREREQUISITE: Anthropology 105 or Sociology 101

Three hours a week

**NOTE:** All 300-level Sociology courses require Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course as prerequisites, unless otherwise stated.

### 303 INTERNATIONAL MIGRATION, TRANSNATIONALISM, AND THE CANADIAN MOSAIC

This course focuses on some of the central issues and debates concerning immigration to Canada, and the experiences of immigrants within Canada. The course examines both historical and contemporary sources that synthesize thematic issues of globalization, transnational migration, and ethno-racial diversity in Canada. Topics may include theories of migration, Canadian immigration policies and forces that shape them, the economic adjustment of immigrants, immigrants and the labour market, ethno-racial diversity and racism, and migrant agricultural workers and domestics in Canada.

Three semester hours of credit

### 306 DEMOGRAPHY OF AGING

Students examine the relationship between demographic forces and our aging population. Considered are the effects of: migration on forming an aged ethnic population, social policies as related to the economics and health of an aged population, mortality levels as related to aging as a woman's issue, and baby boom and echo fertility levels. Demographic theories will be used to understand better these and other demographic forces.

PREREQUISITES: Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course

Three hours a week

### 307 CONSTRUCTING DIFFERENCE AND IDENTITY

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 302)

PREREQUISITES: Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course

Three hours a week

### 312 RURAL SOCIETY IN CANADA

A basic course in the sociology of rural life with emphasis on Canadian rural life. The course systematically examines the structure of Canadian society in terms of distinctive features of its population, family, community, church, school and local government and how they have all been traditionally shaped by farming as the predominant economic activity. The course further explores how the mechanization and commercialization of farming and the forces of urbanization are revolutionizing Canadian rural life and threatening its very existence.

PREREQUISITES: Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course

Three hours a week

### 331 THE COMMUNITY

A course on the social realities of rural and urban communities in Canada: rural neighbourhoods, villages, small towns, rural-urban fringe communities, and cities. The course examines the structure of each type of community and how structural features influence social lives and interactions of residents. Different theoretical perspectives used in the study of the community are examined and compared, in order to deepen understanding of how processes of centralization and urbanization are influencing the patterns of relationships among the various types of communities.

PREREQUISITES: Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course

Three hours a week

### 341 TECHNOLOGY, SOCIETY AND THE ENVIRONMENT

This course explores the interaction between technology, science, society, and the environment in the past and present, and examines the potential implications of such interaction in the future.

PREREQUISITES: Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course

Three hours a week

### 355 GLOBALIZATION

Students in this course study globalization as an ongoing, dynamic process as it affects societies, cultures, environments, communities, organizations, groups, and individuals. Debates over these effects are addressed by various theoretical perspectives, including structural-functionalism, conflict analysis, interactionism, cultural studies, and postmodernism. Issues include technological advances, free-market capitalism, cultural homogenization, national policies and programs, international relations, global institutions and organizations, social inequality, demographic trends, asocial problems, social conflicts, and opposition to globalization.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 355)

PREREQUISITES: Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course. For students taking the course as DSJS 355 see DSJS prerequisites

Three hours a week

### 359 SPECIAL TOPICS

Course code for Special Topics offered in Sociology/Anthropology at the third year level.

PREREQUISITES: Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course

### 371 EVOLUTION OF THE BRAIN AND SOCIAL BEHAVIOUR

This course examines the evolutionary factors underlying human behaviour as well as the behaviour of other species. It examines case materials in order to evaluate the existing theories concerning the development of behaviour from the proto-human period to the present.

PREREQUISITES: Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course

Three hours a week

### 374 TOURISM

This course examines both the sociological and anthropological theory/research in tourism and travel. Since tourism is a significant force in shaping both travellers and their destinations, the course employs several analytical models to understand the nature, dynamics and effects of modern tourism. Topics include tourist behaviour, tourist systems, socio-cultural impact, tourist-local relations, tourism carrying capacity, commodification, and mass tourism.

Cross-listed with Island Studies (cf. Island Studies 374)

**PREREQUISITES:** Anthropology 105, Sociology 101, and one 200-level Anthropology, Sociology, or Sociology/Anthropology course. For students taking the course as I ST 374 see I ST prerequisites

Three hours a week

**NOTE:** All 400-level Sociology/Anthropology courses require Anthropology 105, Sociology 101, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses as prerequisites, unless otherwise stated.

#### 421 RELIGION AND SOCIETY

This course examines religion as an institution in society. The principal functions of religion both for the person and for the whole society are explored; and the major processes and changes in modern religion are examined.

Cross-listed with Religious Studies (cf. Religious Studies 351)

**PREREQUISITES:** Anthropology 105, Sociology 101, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses. For students taking the course as RS 351 see RS prerequisites

Seminar: Three hours a week

#### 431 MINORITY/ETHNIC GROUPS AND CANADIAN MULTICULTURALISM

A study of minority and ethnic groups (native and immigrant) within Canadian “multicultural” society. The course also includes a review of Canada’s immigration policies and their effects on Canada’s multicultural landscape.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 431)

**PREREQUISITES:** Anthropology 105, Sociology 101, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses. For students taking the course as DSJS 431 see DSJS prerequisites

Seminar: Three hours a week

#### 442 SOCIAL AND CULTURAL CHANGE

Introduction to the study of various processes and theories of social and cultural change including innovation, acculturation and directed social change.

**PREREQUISITES:** Anthropology 105, Sociology 101, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses

Seminar: Three hours a week

#### 456 VISUAL CULTURE

This course addresses in a critical manner the importance of visual representation in Western thought. Topics include: analysis of stereotypes of non-Western people as portrayed in print and information media, advertising, ethnographic documentary production, and the entertainment industry. Students will also examine the export of Western visual culture to non-Western cultures.

Cross-listed with Diversity and Social Justice Studies (cf. DSJS 456)

**PREREQUISITES:** Anthropology 105, Sociology 101, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses. For students taking the course as DSJS 456 see DSJS prerequisites.

Seminar: Three hours a week

#### 461 SPECIAL TOPICS

Course code for Special Topics offered in Sociology and Anthropology at the fourth year level.

**PREREQUISITES:** Anthropology 105, Sociology 101, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses

Three hours a week

#### **481 DIRECTED STUDIES IN SOCIOLOGY AND ANTHROPOLOGY**

This interdisciplinary course is offered for advanced students as a seminar in which selected topics are studied in depth and/or as a directed reading course within a specialized area selected by the student in consultation with one or more members of the Department and approved by the Dean.

**PREREQUISITES:** Anthropology 105, Sociology 101, one 200-level Anthropology, Sociology, or Sociology/Anthropology course, and two 300-level Anthropology, Sociology, or Sociology/Anthropology courses, and departmental permission; generally restricted to majors in Sociology/Anthropology at third and fourth year levels

(See Academic Regulation 9 for Regulations Governing Directed Studies)

#### **490 HONOURS RESEARCH**

The course involves supervised reading and research on specific topics. The student is required to write a substantial honours essay or research report which is assessed by a three-member committee consisting of the supervisor, one additional member of the Department of Sociology and Anthropology, and a member from another Department.

Six semester hours of credit

### **Theatre Studies**

#### **Co-ordinator**

Greg Doran, English

Theatrical performance is one of the most significant art forms in the history of civilization; it exemplifies the connection between Art and people. Unlike most forms of studied literature, dramatic literature is intended to be performed for and experienced by an audience. As a result, Dramatic literature exists between scholarly and practical realms. It requires the acquisition of both analytic and practical skills. UPEI's Minor in Theatre Studies offers students the opportunity to develop their analytic, practical, and creative skills required for theatrical production. The Minor in Theatre Studies provides students with foundational skills on which they can pursue their interest in the Theatre, or any area of study.

#### **REQUIREMENTS FOR A MINOR IN THEATRE STUDIES**

A Minor in Theatre Studies consists of twenty-one (21) semester hours of credit taken from the list of approved courses. Theatre 244, Theatre 344, Theatre 434, and Theatre 444 are compulsory for the Minor. Prospective students should note, however, that Theatre 444 requires students to make a significant contribution to a Theatre Studies production, or another production approved by the Coordinator of Theatre Studies. Theatre 444 will, typically, be only offered in the Winter Term of the academic year. Students enrolled in Theatre 444 will be under the direct supervision of the Coordinator of Theatre Studies, or an approved supervisor. In addition, students must select three elective courses. Students using any of the approved courses to complete the Minor in Theatre Studies may not also use them to complete a Major.

#### **THEATRE STUDIES CORE COURSES**

##### **244 INTRODUCTION TO THEATRE STUDY – TEXT, CHARACTER, AND PERFORMANCE**

This course introduces students to core performance skills: voice, movement, and character development. Through a series of practical performance exercises and assignments, students will develop these skills. Students will also learn how to break down a script and prepare for a performance. Using a selection of plays, students will learn how to translate a text into a performance.

Cross-listed with English (English 244)

**PREREQUISITE:** Permission of the Coordinator of Theatre Studies

Three hours a week

##### **344 ADVANCED THEATRE STUDIES – DIRECTING, CRITICISM, AND PLAY-CREATION**

In this course, students will build on the performance skills developed in Theatre 244. Students will complete units in Performance Criticism, Directing, and Play-Creation. Through a series of hands-on, practical assignments, students will come to understand the steps to take a script from the page to the stage. Students will also learn how to transform an empty space into a theatre.

**PREREQUISITES:** Successful completion of Theatre 244 and permission of the Coordinator of Theatre Studies.  
Three hours a week

#### 434 SPECIAL TOPICS IN THEATRE STUDIES

This course is designed to expand students' understanding of Theatre. Theatre 434 is a variable topic course taught by Theatre Practitioners, who teach in their area of expertise. For course information, please contact the Coordinator of Theatre Studies.

**PREREQUISITES:** Theatre 344, enrolment in the Theatre Studies Minor, and the permission of the Coordinator of Theatre Studies  
Three hours a week

#### 444 THEATRE PRACTICUM

Theatre 444 is the capstone course for the Theatre Studies Minor. It provides students with the opportunity to put the skills and theories into practice. Students are expected to make a significant contribution to a production. Each Practicum is tailored to the individual student, in consultation with the Coordinator of Theatre Studies. The production must be approved by the Coordinator of Theatre Studies.

**PREREQUISITES:** Theatre 344, enrolment in the Theatre Studies Minor, and the permission of the Coordinator of Theatre Studies  
Three hours of credit

### **ELECTIVES**

**NOTE:** Students who are in the Majors or Honours English programs must take at least one elective outside the English Department.

#### *English*

English 195 Introduction to Drama  
English 222 Reading Film: Introduction to Film Studies  
English 255 Introduction to Shakespeare  
English 256 Shakespeare in Film and Media  
English 285 Linguistics I: The Sound System of English  
English 303 Contemporary Drama  
English 315 English-Canadian Drama  
English 341 Modern Drama  
English 357 Renaissance Drama  
English 367 Restoration and Eighteenth-Century Drama  
English 455 Advanced Studies in Early Modern Literature

#### *Classics*

Classics 212 Ancient Tragedy  
Classics 222 Ancient Comedy

#### *Fine Arts Studio*

111 Studio Arts

#### *Modern Languages (French)*

339 Théâtre Canadienne-Français  
344 XVIIe Siecle: Le Grand Siecle II

#### *Diversity and Social Justice Studies*

302 Constructing Difference and Identity  
311 Identity and Popular Culture



## DIRECTED STUDIES

With the approval of the Co-ordinator, the Dean of Arts, and the relevant Department, a student may credit three hours of Directed Studies in any subject towards the Minor in Theatre Studies.

## University 100

### Co-ordinator

Vickie A. Johnston

University 100 is a course for First Year students. It provides an introduction to the university, to university studies, to the varieties and methods of intellectual inquiry, and an opportunity to develop communications and research skills.

### NATURE AND GOALS OF THE COURSE

University 100 is a six semester-hour course restricted to students in their first year of university studies. The course is taught in sections of no more than 25 students in order to permit individual attention. Various teaching techniques are used, including lectures, discussions, individual research, film and video tapes, and frequent written exercises. Various occupational and personality inventories are employed to assist students in forming career plans and developing self-awareness. Specifically, the course has the following goals:

1. To develop oral and written communication skills;
2. To develop study and research skills;
3. To introduce effective critical thinking and argumentation;
4. To introduce the varieties of knowledge and methods of inquiry;
5. To encourage the development of self-knowledge and self-discovery;
6. To develop an awareness of the university both past and present.

Generally, the course seeks to afford entering students the opportunity to obtain the maximum benefits from university education by developing both practical studentship skills and a broad perspective which will help them to realize their potentials.

### UNIVERSITY 193 CAREER AND LEARNING PORTFOLIO DEVELOPMENT

This course is designed to review and clarify a student's learning and career objectives, and to document and demonstrate experiential learning. Learners understand the various purposes of portfolios; know the conventions of developing and professionally presenting a portfolio; and are capable of articulating acquired learning in job descriptions or degree requirements.

Cross-listed with Education (cf. Education 319) and Integrated Studies (cf. Integrated Studies 193)

Three semester hours

### UNIVERSITY 199 SPECIAL TOPICS

### UNIVERSITY 203 INTRODUCTION TO LEADERSHIP STUDIES

This course introduces leadership using a personal experience perspective and framework. Students will be exposed to various leadership models, best practices, and concepts essential to leadership such as sustainability and community development. University 203 will assist students in developing an understanding of self, their role in community and in their profession. Students will be required to develop and implement a service learning project as part of the course work.

PREREQUISITE: Second year standing  
Three semester hours

#### UNIVERSITY 303 LEADERSHIP THEORY AND PRACTICE

This course is designed to merge theory and professional practice. A leadership field placement (32 hours) is a requirement of the course. The field placement will allow students to explore and actively engage in the community through educational efforts, activism, organizational efforts or other means. The placement will provide experiential learning and an opportunity to practice skills and knowledge related to leadership, and content acquired in previous university courses. Leadership portfolio models will be introduced and practiced. The portfolio will allow the student to identify strengths, learning experiences and competencies that they may wish to develop.

PREREQUISITE: University 203 or permission from instructor  
Three semester hours

### University Writing Minor

#### Co-ordinator

Wendy Shilton, English

The University Writing Minor is a cross-disciplinary program designed to give special emphasis to writing throughout a student's education. In this age of information and knowledge-based economies, the Writing Minor will help prepare students to be effective communicators and active participants in civic and cultural life. The Minor has four primary goals: first, to enhance learning through writing across the disciplines; second, to ensure continuous development of student writing throughout the educational experience; third, to promote awareness of the rhetorical function of language across the disciplines; fourth, to provide students with a means of indicating a writing emphasis in their education for purposes of graduate school and/or future employment.

#### REQUIREMENTS FOR A MINOR

A Minor in University writing consists of twenty-one semester hours of credit taken from the list of approved Writing Intensive (WI) courses.\* Nine semester hours (three WI courses) are compulsory for the Minor: English 286, English 381 and the core course, Writing 404. The remaining twelve semester hours are fulfilled by taking four WI elective courses after the prerequisite courses, one of UPEI 101, UPEI 102, or UPEI 103 and one writing intensive course as specified in Academic Regulation 1(g), have been taken.

A maximum of 3 semester hours from the major subject may be credited towards the Minor, but only if at least three semester hours of credit in the major subject additional to those required for the Major are taken. WI elective courses are designated by the Coordinating Committee and published before the registration period begins for each semester. Students are strongly encouraged to consult the Coordinator before registering.

Electives must be in at least two disciplines.

#### COMPULSORY WRITING MINOR COURSES

English 286 Linguistics II: The Grammar and Vocabulary of English  
English 381 Professional Writing  
Writing 404 Communication and Rhetoric in Context

#### WRITING MINOR ELECTIVES

Course offerings are determined on a semester-by-semester basis. See current offerings consult the UPEI web pages, or communicate directly with the Co-ordinator.

#### \* WRITING-INTENSIVE COURSES

Writing-intensive (WI) courses at UPEI use writing as a major means of developing thinking and learning in the disciplines. Such courses integrate a significant amount of writing (and opportunities for revision) into the work of the course, providing a variety of formal and informal occasions for students to write and learn the goals, assumptions and key concepts of a course. Formal writing opportunities allow students to learn the formats characteristic of a discipline, such as a research report, a critical essay, an essay examination, or a laboratory report. Formal writing is used primarily as a means for demonstrating learning outcomes.

Informal writing opportunities allow students to use writing as an instrument of learning through write-to-learn strategies, such as journals, letters, logs, lists, questions, short in-class responses to readings, lectures, and discussion. Informal writing enhances the quality and depth of the learning process.

Although no definitive quantity of writing can be stipulated for a WI course because of disciplinary differences, writing opportunities, both formal and informal, should account for a minimum of 50% of the grade weight. In addition, apart from informal writing and examinations, at least 10-15 pages of writing should be assigned (e.g., reports and essays); and, on at least one occasion, students should be allowed opportunities for revision, with critical comments on drafts, before a final grade is awarded.

#### 404 COMMUNICATION AND RHETORIC IN CONTEXT

This course examines rhetorical effects in language in a variety of contexts. It offers a comprehensive examination of the history of rhetoric, how words are used to talk about other words, questions about truth, and the connections between persuasion and power. The goal of the course is to explore a rhetorical understanding of language and other communicative practices in context.

PREREQUISITE(S): English 101 and a writing intensive course

Three hours a week

## Veterinary Medicine

<http://upei.ca/avc>

### ACADEMIC REQUIREMENTS—DVM

#### REGULATIONS

##### Course Load and Course Prerequisites

Except in rare circumstances, each student will take a full course load each year. Students must pass prerequisite courses prior to enrolling in courses which require a listed prerequisite.

##### Materials in Exams

No materials of any kind, other than pencils and pens, may be brought into an examination room without explicit permission of the course coordinator.

##### Pass-Fail Option

The pass-fail option for courses (Academic Regulation 10c) will apply in the DVM Program only in certain specified courses at the recommendation of the course coordinator and upon approval of the AVC Curriculum Committee and AVC Dean's Council.

##### Grading in Year 4

Internal and external courses (rotations) in year 4 are graded according to the following 3-point scale:

1. Passing Performance - achieves entry-level competency.
2. Marginal Performance - approaches entry-level competency.
3. Failing Performance - does not achieve entry-level competency.

##### Challenge for Credit by Examination

Challenge for credit by examination is normally not permitted in the DVM Program. Students who are able to demonstrate to the satisfaction of the relevant chair that they have previously taken an equivalent course at the Atlantic Veterinary College, may challenge for credit by examination as outlined in Academic Regulation 15.

## **Advancement and Probation**

### **Years 1 - 3**

In order to advance to the next semester a student must:

1. achieve a grade of at least 50% in all courses taken for credit, regardless of the total number of credits taken. In any multicomponent course a passing grade will be assigned only if each component identified by the course coordinator (e.g., laboratory and didactic sections) has been successfully completed.
2. achieve a weighted average of at least 65%. However, a student with a weighted average of at least 55% but under 65% in first semester of year 1, and at least 60% but under 65% in all other semesters, will be placed on academic probation and allowed to advance.

**NOTE:** Weighted averages are not rounded up. The following criteria will apply to a student on academic probation:

- a. the student will be permitted only one probationary period (up to a maximum duration of 2 semesters) in the DVM program.
- b. failure to achieve a weighted average of at least 65% by the end of the probationary period will result in academic dismissal.
- c. return to a weighted average of under 65% after coming off probation will result in academic dismissal.
- d. except with permission of the Dean, or designate, a student cannot advance to year 4 without a weighted average of at least 65%.

### **Year 4**

In Year 4 a student:

1. must achieve a "Marginal Performance" or better in all courses taken for credit regardless of the total number of credits taken. In any multi-component course, a passing grade will be assigned only if each component identified by the course coordinator (e.g. patient management and knowledge-based sections) has been successfully completed.
2. with a "Failing Performance" in a rotation will be required to successfully repeat the failed rotation or complete an equivalent alternative experience (approved by the course coordinator of the failed rotation and Associate Dean Academic and Student Affairs). The performance assessment attained in the repeated rotation will be recorded on the student's transcript. Students who are unsuccessful when repeating the rotation will be dismissed from the program.
3. with "Failing Performance" in a second rotation, after successfully repeating a first failed rotation, will be dismissed from the program.
4. with "Marginal Performance" for 9 or more rotation credit hours (9 or more weeks) will be dismissed from the program.

## **Academic Dismissal**

1. The following will result in academic dismissal:
  - a. failure to achieve a grade of 50% in any course taken for credit.
  - b. failure to achieve a weighted average of: (i) at least 55% in semester 1 of year 1, and (ii) at least 60% in any semester (other than semester 1 of year 1) in years 1-3.

- c. failure to achieve a weighted average of at least 65% by the end of a probationary period in year 1-3 or return to a weighted average of under 65% after coming off probation in years 1-3
- d. "Failing Performance" in a single rotation that is not successfully repeated
- e. "Failing Performance" in a second rotation after successfully repeating a first failed rotation in year 4.
- f. receive 9 or more rotation credit hours of a "Marginal Performance" in year 4. NOTE: Weighted averages are not rounded up.

### **Petition for Readmission**

1. Dismissed students may petition the Dean for readmission to the program. Dismissed students who are successful in their petition for readmission in years 1 – 3 will normally be required to:

- a. repeat all courses in the semester in question if dismissed for failing one or more courses.
- b. repeat all courses in the academic year in question if dismissed for failing to attain a weighted average of at least 60% in years 1 - 3.
- c. re-enter the program at the beginning of the academic year in which they were first placed on probation if dismissed for failing to achieve the required weighted average of at least 65% at the end of a two semester probationary period.

2. Dismissed students who are successful in their petition for readmission in year 4 will normally be required to repeat year 4.

### **SUPPLEMENTAL EXAMINATION**

A supplemental examination provides an opportunity for a student who failed a course to be re-examined in that course.

With the exclusion of certain specified courses (see list below), a student who fails a course in years 1 - 3 of the DVM program will be granted a supplemental examination if the following criteria are met:

- a. a student will be granted only two (2) supplemental examinations in the DVM program.
- b. to be eligible for a supplemental examination the overall course grade, including performance in the final examination, must be at least 40%.
- c. the maximum grade attainable in a course or course component (as specified by the course coordinator) in which a supplemental examination is written shall be 50%.
- d. if the maximum grade of 50%, attainable in a course in which a supplemental examination is written, contributes to a weighted average that will allow the student to remain in the program.

The scope of the supplemental examination is at the discretion of the course coordinator and will be communicated to the student in advance. In order to pass the supplemental examination, the student must achieve a grade of at least 60% in that exam.

A student who fails a course in semester 1, and is granted a supplemental examination, will normally be required to write the examination before being permitted to continue with courses in semester 2 of the DVM program. A student who fails a course in semester 2 of the DVM program, and is granted a supplemental examination, will normally be expected to write the examination no later than the end of the third week of May.

Supplemental examinations are not offered in the following courses:

- a. Clinical rotations in Year 4
- b. VHM 124 Clinical Orientation I,

VHM 251 Clinical Orientation II,  
VCA 340 Surgical Exercises in Companion Animals,  
VHM 324 Clinical Techniques in Large Animals,  
VHM 337 Advanced Equine Theriogenology Techniques,  
VHM 338 Advanced Bovine Theriogenology Techniques,  
VHM 343 Advanced Equine Medicine Techniques,  
VHM 346 Techniques in Advanced Food Animal Anaesthesia and Surgery,  
VHM 348 Techniques in Equine Surgery and Anaesthesia,  
VHM 351 Techniques in the Evaluation of Equine Musculoskeletal diseases, and  
VHM 353 Techniques in Integrative Medicine.

## **ATTENDANCE POLICY**

### **Lectures and Laboratories**

Student attendance at didactic lectures and laboratories is strongly encouraged but not mandated. Individual course coordinators may choose to make attendance mandatory for a particular course or course component, and points may be assigned based on attendance. If attendance at didactic lectures or laboratories is required for an individual course, it must be specified in the course outline. Submission of a "Pre-Clinical Absence Request" form is not required for missed lectures or laboratories, unless mandated by a particular course coordinator.

### **Assessments**

1. Student attendance at scheduled quizzes, in-class or in-lab graded learning experiences, and midterm and final examinations is required. Permission to make-up missed work involving any of these will be granted for excused absences only. Excused absences may be planned or unplanned. In the event of an excused absence, the instructor may provide a make-up assignment or examination that is different from the one given during regularly scheduled class time.

2. Unplanned absences are due to unavoidable, unpredictable circumstances and include illness, family emergency, or death in the family. The student should follow the procedure below for requesting an excused absence. The student is responsible for communicating with the course coordinator(s) to make arrangements for making up missed work. In emergency situations, the Associate Dean of Academic and Student Affairs may be contacted to assist with these arrangements.

(a) If the student is able, he/she should complete a "Pre-Clinical Absence Request" form before the day of missed work and submit it to the Office of Academic and Student Affairs. If this is not possible, the student should contact the Office by phone (902 894-2827) or email ([avc-acad-stu@upeu.ca](mailto:avc-acad-stu@upeu.ca)) as soon as possible. The Office will contact the necessary course coordinator(s) to notify them of the student's absence. In the case of illness, a doctor's certificate may also be required at the discretion of the Associate Dean of Academic and Student Affairs.

3. Planned absences may be excused when they are for legitimate reasons and when the appropriate procedure for requesting permission has been followed. Legitimate reasons for planned absences include attendance at a scientific meeting where the student is making a scholarly presentation, receiving an award, or representing the AVC in an officially approved capacity; or in observance of a religious holiday. The student should follow the procedure below for requesting an excused absence. If a planned absence is excused, the student is responsible for communicating with the course coordinator(s) to make arrangements for making up missed work.

(b) Adequate documentation detailing the reason for the absence must be provided and a "Pre-Clinical Absence Request" form must be submitted to the Office of Academic and Student Affairs within the first three weeks of the semester and at least four weeks prior to the planned absence. Students will be notified of the decision regarding their request by the Office of the Academic and Student Affairs. Students should not schedule travel without prior approval and incurred travel expenses do not in themselves warrant an excused absence.

4. Absences not falling into one of the above categories will be considered on a case-by-case basis according to their merit. Students should follow the procedure outlined above for requesting an excused absence. If the absence is excused, the student is responsible for communicating with the course coordinator(s) to make arrangements for making up missed work.

### **Consequences of Unexcused Absences**

1. In the event that a quiz, in-class or in-lab graded assignment, or midterm examination is missed and the absence was unexcused, the student will be assigned a grade of zero for the missed work. In the case of multiple absences, the student may be withdrawn from the course and assigned a grade of F.

2. In the case of missed final examinations academic regulations 13b (Special Examinations and Missed Final Examinations), and 10e (Incomplete Courses) in the UPEI calendar apply.

### **Clinical Rotations**

1. Attendance in clinical rotations is mandatory. In total, eight personal days are allowed during the fourth year. Examples of personal days include, but are not limited to, job interviews, personal or family illness, attendance at scientific meetings, etc.

2. All absences must be excused by the rotation coordinator and duty clinician.

3. In all cases of missed rotation days, students must complete a "Clinical Rotation Absence Request" form and have it signed by the rotation coordinator and, if applicable, the duty clinician. A copy of the form will be forwarded by the rotation coordinator to the Office of Academic and Student Affairs so that a central record of absences can be kept.

4. Make-up of missed clinical experiences is normally not required for absences of up to 15% of the rotation duration. The Associate Dean of Academic and Student Affairs will notify rotation coordinators of total absences in excess of eight personal days and coordinate make-up of missed clinical experiences.

### **FOURTH YEAR ROTATIONS**

1. Attendance in Fourth Year Rotations is mandatory. In total, eight personal days are allowed during the fourth year. Examples of personal days include, but are not limited to: job interviews, personal or family illness, attendance at conferences, etc.

2. All absences require permission of the rotation Co-ordinator and duty clinician.

3. In all cases of missed rotation days, course Co-ordinators should complete the form "Record of Missed fourth year rotation" and forward a copy to the office of the Associate Dean of Academic and Student Affairs so that a central record may be kept.

4. Make-up is normally not required for absences comprising 15% of the rotation duration. The Associate Dean of Academic and Student Affairs will notify rotation Co-ordinators of total absences in excess of the eight personal days and coordinate make-up.

### **IMMUNIZATION**

The Atlantic Veterinary College has a mandatory rabies vaccination policy which requires that all students be vaccinated or sign a waiver declining vaccination. The Rabies vaccination program is administered by the UPEI Health Centre on behalf of the Atlantic Veterinary College. The Atlantic Veterinary College shares the cost of the Rabies vaccination program with its students.

### **COURSE SUPPLIES**

Students requiring course materials or supplies over and above what is normally provided by the Atlantic Veterinary College may be responsible for the additional costs that are incurred.

### **ANIMAL USE**

The humane use of animals in teaching is a normal part of the Atlantic Veterinary College (AVC) curriculum and a necessary component of the veterinary medical education. Examples of such uses include, but are not limited to, dissection of cadavers in Macroscopic Anatomy; post-mortem examination of animals in the Diagnostic Laboratory; handling, restraint, and physical examination of animals in Clinical Orientation; and performing surgery and invasive diagnostic procedures in Medical and Surgical Exercises laboratories. All teaching animal use at the

Atlantic Veterinary College is approved by the UPEI Animal Care Committee and conforms to the principles and guidelines of the Canadian Council on Animal Care (CCAC).

## DOCTOR OF VETERINARY MEDICINE PROGRAM

### First Year Semester 1

		Weekly Contact		Credit
Course		Lecture	Lab	
VBS 101	Macroscopic Anatomy I	2	5	4
VBS 111	Microscopic Anatomy I	1	2	2
VBS 121	Physiology I	2	0	2
VBS 141	Integration of Structure and Function I	0	5	2
VHM 101	Introduction to Veterinary Medicine	2	0	2
VHM 111	Animal Production Systems	2	3	3
VHM 125	Animal Behaviour and Animal Welfare	1	2	2
VPM 111	Immunology	2	1	2
		<b>12</b>	<b>18</b>	<b>19</b>

### Semester 2

		Weekly Contact		Credit
Course		Lecture	Lab	
VBS 102	Macroscopic Anatomy II	2	5	4
VBS 112	Microscopic Anatomy II	1.4	1.7	3
VBS 122	Physiology II	2	0	2
VBS 142	Integration of Structure and Function II	0	3	1
VHM 112	Principles of Veterinary Epidemiology	2	1	2
VHM 124	Clinical Orientation I	0	3	1
VPM 122	Parasitology	2	2	3
VPM 152	General Pathology	2	2	3
		<b>11.4</b>	<b>17.7</b>	<b>19</b>

### Second Year Semester 3

		Weekly Contact		Credit
Course		Lecture	Lab	
VBS 241	Veterinary Pharmacology & Toxicology I	3	2	4
VCA 252	Principles of Diagnostic Imaging	1	1	1
VHM 231	Veterinary Public Health	2	0	2
VHM 241	Principles of Health Management	1	1	1
VHM 251	Clinical Orientation II	1	2	1
VPM 201	Bacteriology and Mycology	3	4	5
VPM 211	Virology	2	2	3
VPM 221	Systemic Pathology I	2	2	3
		<b>15</b>	<b>14</b>	<b>20</b>

### Semester 4

		Weekly Contact		Credit
Course		Lecture	Lab	
VBS 242	Veterinary Pharmacology & Toxicology II	2	1	2
VCA 212	Principles of Medicine	2	0	2
VCA 231	Principles of Surgery	1.5	2	2
VCA 233	Clinical Behaviour in Companion Animals	0	0	0.5
VCA 241	Principles of Anaesthesiology	1.5	2	2
VHM 222	Principles of Theriogenology	2	0	2



VPM 222	Systemic Pathology II	2	2	3
VPM 242	Clinical Pathology	2	2	3
VPM 262	Aquaculture and Fish Health	2	2	3
		<b>15</b>	<b>11</b>	<b>19.5</b>

### THE THIRD YEAR

The third year of the DVM program consists of core and elective courses. Students are required to take all of the core courses and 6 credit hours of Health Management elective courses. The majority of elective courses are delivered in 5-week modules (M) in semester 6.

#### Third Year Semester 5

		Weekly Contact		Credit
		Lecture	Lab	
Course				
VCA 311	Cardiorespiratory Diseases of Small Animals	2	0	2
VCA 321	Musculoskeletal Diseases of Small Animals	2	0	2
VCA 331	Neurologic and Ophthalmologic Diseases of Small Animals	2	0	2
VCA 340	Surgical Exercises in Companion Animals	0	2	0
VCA 341	Diagnostic Radiology	1	1	0
VCA 342	Medical Exercises in Companion Animals	0	1	0
VHM 322	Food Animal Health and Disease	5	0	5
VHM 323	Equine Health and Disease	4	0	4
VHM 324	Clinical Techniques in Large Animals	0	1.5	0.5
		<b>16</b>	<b>5.5</b>	<b>15.5</b>
<b>Elective(s)</b>				
VCA 351	Introduction to Exotic Pet Medicine	1	0	1
VHM 352	Principles of Integrative Medicine	1	0	1

#### Semester 6

		Weekly Contact		Credit
		Lecture	Lab	
Course				
VBS 312	Clinical Pharmacology and Toxicology	1	1	1
VCA 312	Gastrointestinal, Hepatic, and Dental Diseases of Small Animals	2	0	2
VCA 322	Endocrine and Dermatologic Diseases of Small Animals	2	0	2
VCA 332	Renal, Genitourinary, Immunologic and Hemolymphatic Diseases of Small Animals	2	0	2
VCA 340	Surgical Exercises in Companion Animals	0	2	2
VCA 341	Diagnostic Radiology	1	1	2
VCA 342	Medical Exercises in Companion Animals	0	1	1
		<b>8</b>	<b>5</b>	<b>12</b>
<b>Elective(s)</b>				
VCA 352	Introduction to Exotic Pet Medicine II	1	0	1
VHM 325	Production and Infectious Diseases of Food Animals	M		0.5
VHM 326	Bovine Herd Management and Nutrition	M		0.5
VHM 327	Advanced Bovine Mastitis and Quality Milk Production	M		1.0
VHM 328	Current Issues in Bovine Lameness, Welfare and Cow Comfort	M		0.5
VHM 329	Topics in Poultry and Swine	M		0.5
VHM 333	Topics in Small Ruminants	M		1.0
VHM 334	Health of Aquatic Animals and the Ecosystem	M		1.0

VHM 339	Topics in Advanced Equine Medicine	M	1.0
VHM 343	Advanced Equine Medicine Techniques	M	0.5
VHM 344	Equine Preventative Medicine	M	0.5
VHM 345	Food Animal Anaesthesia and Surgery	M	0.5
VHM 346	Techniques in Food Animal Anaesthesia and Surgery	M	0.5
VHM 347	Equine Anaesthesia, Surgery and Lameness	M	1.5
VHM 348	Techniques in Equine Anaesthesia and Surgery	M	0.5
VHM 351	Techniques in the Evaluation of Equine Musculoskeletal Diseases	M	0.5
VHM 353	Techniques of Integrative Medicine	M	0.5
VHM 336	Topics in Advanced Equine Theriogenology	M	0.5
VHM 337	Advanced Equine Theriogenology Techniques	M	0.5
VHM 335	Topics in Advanced Bovine Theriogenology	M	0.5
VHM 338	Advanced Bovine Theriogenology Techniques	M	0.5

***M designates modular course format***

## THE FOURTH YEAR

The fourth year of the DVM program consists of at least 41 semester-hours of credit comprising one two-semester-hour didactic course (VHM 411) and elective clinical rotations.

### Fourth Year Semester 7 or 8

		Weekly Contact		Credit
		Lecture	Lab	
VHM 411	Clinical Conference	0	2	2

Clinical rotations in Fourth Year must consist of at least 39 semester-hours of credit selected from among approved one-to three-credit-hour core and elective rotations. Fourth-year rotations require a minimum time commitment of 28 hours per week of each student, and emergency and out-of-hours duties may be required. Normally, one week of fourth-year rotation experience equates to one semester-hour of credit.

Fourth-year rotation selections comprising the required 39 semester-hours of credit must meet the following criteria:

- All students must take a core consisting of 15 weeks of internal rotations as follows:
  - a. Radiology (VCA 440)—3 weeks
  - b. Anaesthesiology (VCA 400)—3 weeks
  - c. Companion Animal (VCA 410) or Large Animal Medicine (VHM 440) or Large Animal Medicine and Theriogenology (VHM 410) or Large Animal Medicine and Surgery (VHM 460)\*—3 weeks
  - d. Companion Surgery (VCA 430) or Large Animal Surgery (VHM 450) or Large Animal Medicine and Surgery (VHM 460)\*—3 weeks
  - e. Diagnostic Services (VPM 450) or Morphologic Pathology (VPM 460)—3 weeks
- 27 semester-hours of credit must consist of internal rotations offered by the AVC.
- 6 semester-hours of credit may consist of internal rotations offered by the AVC and/or external clinical experiences in institutional/specialist practices (VBS 490, VCA 490, VHM 490, VPM 490), and/or international veterinary medicine (VPM 410)
- 6 semester-hours of credit may consist of internal rotations offered by the AVC, and/or external clinical experiences in institutional/specialist practices (VBS 490, VCA 490, VHM 490, VPM 490), and/or international

veterinary medicine (VPM 410), and/or external clinical experiences in general private practice (VCA 494 and VHM 494)

- A minimum of 20 of the 39 rotation weeks must involve primary patient care as designated for internal rotations (P), or as designated by chairs for external rotations
- Either within the core, or in addition to the core, students must take at least 2 weeks in rotations that qualify as a large animal (LA) discipline and 2 weeks in rotations that qualify as a companion animal (CA) discipline.

**CA Discipline** - a course in which the student's time is largely devoted to veterinary clinical practice of dogs or cats or both.

**LA Discipline** - a course in which the student's time is largely devoted to veterinary clinical practice of horses or cattle or both. While some part of the student's efforts may be devoted to herd health, there must be a substantial component of the course given to individual animal medicine.

**NOTE:** VHM 460\* can be counted as either a Large Animal Medicine or a Large Animal Surgery rotation, but not both. A maximum of 3 credit-hours will be assigned to an individual experience external to the AVC regardless of its duration. The expenses associated with external clinical experiences are the responsibility of the student. Students participating in an external clinical experience may receive a stipend to offset living and travel expenses, but cannot receive credit for experiences where they are salaried employees.

Students are required to select rotations from the following list of courses:

VBS 440 Exotic and Laboratory Animal Medicine (P)  
VBS 490 External Clinical Experience-Institutional or Specialist Practice  
VBS 495 Special Topics in Biomedical Sciences  
VCA 400 Clinics in Anaesthesiology (P)  
VCA 402 Clinics in Anaesthesiology II (P)  
VCA 410 Clinics in Companion Animal Medicine I (P)(CA)  
VCA 420 Clinics in Companion Animal Medicine II (P)(CA)  
VCA 422 Clinical Nutrition in Companion Animals  
VCA 430 Clinics in Companion Animal Surgery I (P)(CA)  
VCA 432 Clinics in Companion Animal Surgery II (P)(CA)  
VCA 434 Community Practice (P)(CA)  
VCA 440 Clinics in Radiology I  
VCA 442 Clinics in Radiology II  
VCA 450 Clinics in Large Animal Anaesthesiology and Pain Management (P)(LA)  
VCA 460 Clinics in Dermatology (P)(CA)  
VCA 462 Clinics in Companion Animal Behaviour  
VCA 470 Issues in Animal Welfare  
VCA 475 Client Communications  
VCA 480 Clinics in Companion Animal Cardiology (P)(CA)  
VCA 481 Zoo, Exotic Animal and Wildlife (P) (CA)  
VCA 482 Clinics in Ophthalmology (P)(CA)  
VCA 490 External Clinical Experience-Institutional or Specialist Practice  
VCA 494 External Clinical Experience-General Private Practice  
VCA 495 Special Topics in Companion Animals  
VHM 401 Career and Practice Management  
VHM 402 Applied Epidemiology  
VHM 403 Short Course in Applied Epidemiology  
VHM 404 Aquaculture Health Management I (P)  
VHM 405 Aquaculture Health Management II (P)  
VHM 406 Topics in Regulatory Veterinary Epidemiology  
VHM 410 Clinics in Large Animal Medicine and Theriogenology (P)(LA)

VHM 412 Animal Welfare Assessment & Regulations  
 VHM 413 Fish Health  
 VHM 420 Clinics in Theriogenology—General (P)(LA)  
 VHM 422 Clinics in Theriogenology—Equine (P)(LA)  
 VHM 431 Clinics in Farm Service - Ruminants and Swine I (P)(LA)  
 VHM 432 Clinics in Farm Service—Dairy (P)(LA)  
 VHM 434 Ecosystem Health  
 VHM 435 Clinics in Ambulatory Services—Equine I (P)(LA)  
 VHM 436 Clinics in Farm Services—Swine (P)  
 VHM 437 Clinics in Ambulatory Services—Equine II (P)(LA)  
 VHM 438 Ecosystem Health—Case Studies  
 VHM 440 Clinics in Large Animal Medicine I (P)(LA)  
 VHM 441 Clinics in Farm Service - Ruminants and Swine II (P)(LA)  
 VHM 443 Clinics in Farm Service—Feedlot Management  
 VHM 445 Clinics in Farm Service—Ruminant Nutrition  
 VHM 446 Clinics in Farm Service—Ruminant Mastitis  
 VHM 447 Clinics in Farm Service—Ruminant Production Record Analysis  
 VHM 448 Clinics in Farm Service—Ruminant Reproduction (P) (LA)  
 VHM 449 Clinics in Farm Service - Cow/Calf Management (P)(LA)  
 VHM 450 Clinics in Large Animal Surgery I (P)(LA)  
 VHM 452 Clinics in Large Animal Surgery II (P)(LA)  
 VHM 460 Clinics in Large Animal Medicine & Surgery I (P)(LA)  
 VHM 461 Clinics in Large Animal Medicine & Surgery II (P)(LA)  
 VHM 464 Clinics in Large Animal Medicine II-I (P)(LA)  
 VHM 465 Clinics in Large Animal Medicine II-2 (P)(LA)  
 VHM 466 Clinics in Large Animal Medicine II-3 (P)(LA)  
 VHM 467 Swine Health Monitoring  
 VHM 468 International Small Holder Dairy Health Management (LA)  
 VHM 480 Clinics in Regulatory Medicine  
 VHM 481 Clinics in Ruminant Medicine and Surgery Rotation at the University of Montreal – Faculty of Veterinary Medicine (English Rotation) (P) (LA)  
 VHM 482 Veterinary Acupuncture  
 VHM 484 Veterinary Chiropractic Techniques (Cooperative Section)  
 VHM 486 Veterinary Acupuncture (cooperative section)  
 VHM 490 External Clinical Experience-Institutional or Specialist Practice  
 VHM 492 Advanced Equine Dentistry and Health Care (P)  
 VHM 494 External Clinical Experience—General Private Practice  
 VHM 495 Special Topics in Health Management  
 VPM 410 International Veterinary Medicine  
 VPM 421 Foreign Animal Diseases  
 VPM 422 Foreign Animal Diseases with Practicum  
 VPM 430 Clinical Virology  
 VPM 450 Diagnostic Services  
 VPM 460 Morphologic Pathology  
 VPM 472 Wildlife Health  
 VPM 490 External Clinical Experience—Institutional or Specialist Practice  
 VPM 495 Special Topics in Pathology and Microbiology

## **Biomedical Sciences**

<http://upei.ca/biomedical>

## **Biomedical Faculty**

John Burka, Professor Emeritus

Amreek Singh, Professor Emeritus

Tarek M. Saleh, Professor, Chair  
Luis A. Bate, Professor  
Susan D. Dawson, Professor  
Spencer J. Greenwood, Professor  
Russell Kerr, Professor  
David E. Sims, Professor  
R. Andrew Tasker, Professor  
Michael R. van den Heuvel, Professor  
William Whelan, Professor  
Glenda M. Wright, Professor  
Collins Kamunde, Associate Professor  
Sandra McConkey, Associate Professor  
Jonathan Spears, Associate Professor  
Sunny Hartwig, Assistant Professor  
Tammy Muirhead, Assistant Professor  
John Burka, Adjunct Professor  
Jeff Chisholm, Adjunct Professor  
Fraser Clark, Adjunct Professor  
Daphne Gill, Adjunct Professor  
Brad Haltli, Adjunct Professor  
Bobby Khan, Adjunct Professor  
Harold Robertson, Adjunct Professor  
Don Stevens, Adjunct Professor  
Jackalina VanKampen, Adjunct Professor  
Yanwen Wang, Adjunct Professor  
Jeff Zidichowski, Adjunct Professor

## **BIOMEDICAL SCIENCES COURSES**

### **VBS 101 MACROSCOPIC ANATOMY I**

This course provides a foundation in macroscopic (gross) anatomy, including radiographic anatomy, using the dog as the primary dissection model. Study of mammalian anatomy is followed by investigation of basic vertebrate structure based on fish. In addition to exploring the anatomy of these animals, this course prepares the student for the comparative anatomy studies of the Macroscopic Anatomy II course.

Two hours of lecture and five hours of laboratory per week

### **VBS 102 MACROSCOPIC ANATOMY II**

The course reviews comparative macroscopic and radiologic anatomy of the horse, ruminant, pig, and fowl, with special emphasis on aspects of clinical and physiological significance. A ruminant, horse, and fowl are dissected. Lectures supplement information gained by dissection.

Two hours of lecture and five hours of laboratory per week

### **VBS 111 MICROSCOPIC ANATOMY I**

The course presents the student with an understanding of microscopic organization of basic tissues, blood vessels, lymphoid and respiratory systems of domestic animals.

One hour of lecture and two hours of laboratory per week

### **VBS 112 MICROSCOPIC ANATOMY II**

The course provides the student with an understanding of microscopic organization of various organ systems, embryonic development, and congenital anomalies of domestic animals.

One or Two hours of lecture and two hours of laboratory per week (variable)

### **VBS 121 PHYSIOLOGY I**

This course provides lecture instruction to acquaint students with system, cell and biochemical functions of importance in nervous, musculoskeletal, cardiovascular, and respiratory systems. These are related to major domestic species of importance in veterinary medicine.

Two hours of lecture per week

#### VBS 122 PHYSIOLOGY II

The course employs lecture instruction to acquaint students with system, cell, and biochemical functions of importance in renal and body fluid, gastrointestinal, endocrine, reproductive and environmental regulatory systems.

Two hours of lecture per week

#### VBS 141 INTEGRATION OF STRUCTURE AND FUNCTION I

Using problems from small animal veterinary medicine, this course provides students with an opportunity to review and apply basic concepts from macroscopic and microscopic anatomy, and physiology, in an integrated fashion. Students practice the critical reasoning process through analysis of data, development of hypotheses, and their justification.

Five hours per week

#### VBS 142 INTEGRATION OF STRUCTURE AND FUNCTION II

Using problems from large animal veterinary medicine, this course provides students with an opportunity to review and apply basic concepts from macroscopic and microscopic anatomy, and physiology, in an integrated fashion. The critical reasoning process is further developed and students are increasingly independent in meeting their learning objectives.

PREREQUISITE: VBS 141

Three hours of tutorial per week

#### VBS 212 PATHOPHYSIOLOGY FOR NURSING STUDENTS

This course is an overview of pathophysiological mechanisms of disease states. Concepts and processes of abnormal physiology in various body systems are presented using selected diseases as illustrations. Unique features of child and adult responses are presented.

PREREQUISITE: Biology 122, Nursing 203 and Nursing 213

Three hours of lecture and three hours of laboratory per week

#### VBS 241 VETERINARY PHARMACOLOGY AND TOXICOLOGY I

This course provides veterinary students with a basic understanding of the principles of pharmacology and toxicology, including pharmacokinetics/toxicokinetics, biotransformation, pharmacodynamics, receptor action, mechanisms of toxicosis, and a basic understanding of some of the major classes of drugs and toxins important in veterinary medicine. The course emphasizes drugs affecting the autonomic and central nervous systems, the musculoskeletal system, and the immune and other systems. The toxins to be covered include those that act on the same systems as those listed for the drugs.

PREREQUISITE: Second year standing in the DVM program

Three hours lecture and two-hour tutorial per week

#### VBS 242 VETERINARY PHARMACOLOGY AND TOXICOLOGY II

This course provides veterinary students with a basic understanding of the major classes of drugs used in veterinary medicine for the treatment of conditions affecting the cardiovascular system, the respiratory system, the gastrointestinal system, the urogenital and other systems; and for the treatment of infection or infestation. The course discusses toxins that affect the same systems as those listed for the drugs. Industrial and home chemical exposures, food-related toxins, air- and water-borne toxins, metals, poisonous plants, and animal and insect toxins are also covered.

PREREQUISITE: Second year standing in the DVM program

Two hours lecture and one-hour tutorial per week

#### VBS 261 DIRECTED STUDIES

This elective course provides an opportunity for students to participate in intensive research and/or clinical experiential learning opportunities under the supervision of a faculty member. In addition to research and clinical skills, students will also develop leadership and communication skills. This course will be graded Pass/Fail.

PREREQUISITE: Successful completion of year one of the DVM program

Variable 1, 2 or 3 credit hours

#### VBS 311 COMPARATIVE MEDICINE

This elective course introduces students to the basic tenets of laboratory animal medicine including ethics of animal use in biomedical research, regulatory requirements (national and international), principles of replacement, reduction, and refinement when designing studies involving animals, animal models of human conditions, animal husbandry, biological safety, and animal welfare. The remainder of the course will be directed towards prevention, diagnosis, and treatment of common clinical disease conditions in traditional and non-traditional laboratory animal species and associated clinical techniques. Comparative aspects of the biology and medicine among species and their relevance to human and veterinary conditions will be addressed. This course will provide the appropriate background for laboratory animal medicine rotations in the clinical year.

Five-week module with four hours of lecture per week

#### VBS 312 CLINICAL PHARMACOLOGY AND TOXICOLOGY

This course provides instruction in the principles of clinical pharmacology and clinical toxicology as they apply to species of veterinary interest. The lectures are taught on a systems basis and the tutorials are case-based discussions. Half of the course is devoted to principles of clinical pharmacology, and half is devoted to principles of clinical toxicology.

PREREQUISITE: Third year standing in the DVM program

One-hour lecture and one-hour tutorial per week

#### VBS 361 DIRECTED STUDIES

This elective course provides an opportunity for students to participate in intensive research and/or clinical experiential learning opportunities under the supervision of a faculty member. In addition to research and clinical skills, students will also develop leadership and communication skills. This course will be graded Pass/Fail.

PREREQUISITE: Successful completion of year two of the DVM program.

Variable 1, 2 or 3 credit hours

#### VBS 440 EXOTIC AND LABORATORY ANIMAL MEDICINE

In this course students acquire information about laboratory animal medicine as a career path and discuss the challenges and opportunities facing exotic animal and laboratory animal veterinarians. Students practice animal handling, physical examination, and routine procedures such as blood collection and administration of injections, and become familiar with common diseases of exotic pets and laboratory animals. Regulations and guidelines governing animal research and the role of the veterinarian in ensuring humane methods of experimentation are discussed, as are a variety of issues pertaining to animal facilities management.

PREREQUISITE: Fourth year standing in the DVM program

One week in duration

#### VBS 490 EXTERNAL CLINICAL EXPERIENCE— INSTITUTIONAL OR SPECIALIST PRACTICE

This course provides for external clinical experiences related to the specialties of the Department of Biomedical Sciences not available at UPEI. Students may propose an elective or undertake one already approved by the Department. External clinical experiences are limited to academic institutions, non-academic institutions, and approved private practices, where evaluation of performance is routinely completed. In order for an institution or practice to qualify, certain criteria, as outlined in the Senior Rotation Handbook, must be met. All expenses are the responsibility of the student.

PREREQUISITES: Fourth year standing in the DVM Program; and approval by the department Chair, or the Chair's designate, and the Associate Dean of Academic Affairs

#### VBS 495 SPECIAL TOPICS IN BIOMEDICAL SCIENCES

This course is initiated and offered at the discretion of the Department. Entry to the course, course content, and the conditions under which the course may be offered will be subject to the approval of the Chair of the Department, the AVC Curriculum Committee, and the Dean or designate.

**PREREQUISITE:** Fourth year standing in the DVM program  
One to three hours per week

## **Companion Animals**

<http://upei.ca/companion>

### **Companion Animals Faculty**

Stephanie Berry, Assistant Professor, Chair  
Hans C.J. Gelens, Professor  
Darcy H. Shaw, Professor  
Etienne Côté, Associate Professor  
Leigh Lamont, Associate Professor  
LeeAnn Pack, Associate Professor  
David C. Seeler, Associate Professor  
Pierre Amsellem, Assistant Professor  
Shiori Arai, Assistant Professor  
Catherine Creighton, Assistant Professor  
Peter Foley, Assistant Professor  
Peter Moak, Assistant Professor  
Christine Savidge, Assistant Professor  
Tonya Stewart, Assistant Professor  
Trina Bailey, Adjunct Professor  
Clayton MacKay, Adjunct Professor  
Andrea Matthews, Adjunct Professor  
Anne Marie Carey, Lecturer  
Kathy Ling, Lecturer

### **COMPANION ANIMAL COURSES**

#### **VCA 212 PRINCIPLES OF MEDICINE**

In Principles of Medicine, students learn fundamental principles of disease states, pathophysiology of those principles, and indications for diagnostic methods used in examination of abnormal body functions.

Two hours of lecture per week

#### **VCA 231 PRINCIPLES OF SURGERY**

This course introduces students to fundamental principles of surgery with broad species applications through lecture and laboratory instruction. Emphasis is placed on basic surgical concepts, principles of surgical asepsis, surgical instruments and handling, wound healing and application of postsurgical appliances and suturing techniques.

#### **VCA 233 CLINICAL BEHAVIOUR IN COMPANION ANIMALS**

Students who complete this course successfully will have developed skills for observing and understanding normal and abnormal behaviours of domestic animals (dog and cat emphasis). They also will have learned the treatment approaches and prognosis associated with commonly-occurring behaviour disorders. The purposes are to better prepare students for clinical rotations in the fourth year of the DVM curriculum and for students to learn the principles and applications of behavioural medicine that they will be required to have in clinical veterinary practice. This course will continue the initial instruction provided to students in the first year of the DVM program.  
0.5 credit hours

#### **VCA 241 PRINCIPLES OF ANESTHESIOLOGY**



This course introduces students to fundamental principles of anaesthesia with broad species applications through lecture and laboratory instruction. Emphasis is placed on basic concepts, equipment, pain management, relevant physiology and pharmacology and guidelines for patient care in the preanaesthetic, anaesthetic and postanaesthetic periods. Students will begin to cultivate clinical skills necessary for anaesthetic case management that can be further developed in the third and fourth years of the program.

#### VCA 252 PRINCIPLES OF DIAGNOSTIC IMAGING

This course introduces students to fundamental principles of diagnostic imaging across veterinary species through both lecture and tutorial instruction. Emphasis is placed on basic concepts central to performing radiographic procedures.

PREREQUISITE: Second year standing in the DVM program

One hour of lecture and one hour of tutorial (alternate weeks)

#### VCA 261 DIRECTED STUDIES

This elective course provides an opportunity for students to participate in intensive research and/or clinical experiential learning opportunities under the supervision of a faculty member. In addition to research and clinical skills, students will also develop leadership and communication skills. This course will be graded Pass/Fail.

PREREQUISITE: Successful completion of year one of the DVM program

Variable 1, 2 or 3 credit hours

#### VCA 311 CARDIORESPIRATORY DISEASES OF SMALL ANIMALS

This course reviews diagnosis and management of diseases of the cardiovascular and respiratory systems in Companion Animals.

Two hours of lecture per week

#### VCA 312 GASTROINTESTINAL, HEPATIC, AND DENTAL DISEASES OF SMALL ANIMALS

This course deals with the diagnosis and management of diseases of the digestive system of Companion Animals.

Two hours of lecture per week

#### VCA 321 MUSCULOSKELETAL DISEASES OF SMALL ANIMALS

This course covers diagnosis and management of diseases of the musculoskeletal system of Companion Animals.

Two hours of lecture per week

#### VCA 322 ENDOCRINE AND DERMATOLOGIC DISEASES OF SMALL ANIMALS

This course reviews diagnosis and management of diseases of the endocrine and dermatologic systems of Companion Animals.

Two hours of lecture per week

#### VCA 323 ADVANCED LARGE ANIMAL ANAESTHESIOLOGY

In this elective course, students develop a more detailed knowledge of the principles and techniques used in large animal anesthesia. Students participate in case based discussions centered on the perioperative anesthetic management of large animal patients.

One hour per week (one credit)

Course graded as Pass/Fail

Enrolment is open to third year students.

#### VCA 324 ADVANCED SMALL ANIMAL ANAESTHESIOLOGY

In this elective course, students develop a more detailed knowledge of the principles and techniques used in small animal anesthesia. Students participate in case based discussions centered on the perioperative anesthetic management of small animal patients with specific disease processes.

One hour per week (one credit)

Course is graded as Pass/Fail

Enrolment is open to third year students.

#### VCA 331 NEUROLOGIC AND OPHTHALMOLOGIC DISEASES OF SMALL ANIMALS

This course discusses diagnosis and management of diseases of the neurologic system and eyes of Companion Animals.

Two hours of lecture per week

#### VCA 332 RENAL, GENITOURINARY, IMMUNOLOGIC AND HEMOLYMPHATIC DISEASES OF SMALL ANIMALS

This course discusses diagnosis and management of diseases of the renal, urogenital, hemolymphatic and immunologic systems of Companion Animals.

Two hours of lecture per week

#### VCA 340 SURGICAL EXERCISES IN COMPANION ANIMALS

This course introduces and reinforces fundamental knowledge and skills related to anaesthesia and surgery as applied to companion animals.

PREREQUISITE: VCA 231 and VCA 241

Four hours of laboratory per week in first or second semester

#### VCA 341 DIAGNOSTIC RADIOLOGY

In this two-semester course, students develop basic skills needed to interpret radiographs of animals with clinical abnormalities.

PREREQUISITE: VCA 212

One hour of lecture and one hour of laboratory per week

#### VCA 342 MEDICAL EXERCISES IN COMPANION ANIMALS

In this two-semester course, students develop basic skills needed to perform diagnostic tests and procedures on companion animals.

PREREQUISITE: VCA 212

Two hours of laboratory on alternate weeks

LECTURE HOURS: 1

#### VCA 351 INTRODUCTION TO EXOTIC PET MEDICINE I

This elective course introduces students to husbandry, clinical anatomy and physiology, fundamental principles of diagnosis and management of the most common diseases in exotic pets (ferrets, rabbits, rodents & other exotic mammals).

One hour per week

VCA 351 is a prerequisite for VCA 481

#### VCA 352 INTRODUCTION TO EXOTIC PET MEDICINE II

This elective course introduces students to husbandry, clinical anatomy and physiology, fundamental principles of diagnosis and management of the most common diseases in bird, reptiles and other exotic pets.

One hour per week

VCA 352 is a prerequisite for VCA 481

#### VCA 361 DIRECTED STUDIES

This elective course provides an opportunity for students to participate in intensive research and/or clinical experiential learning opportunities under the supervision of a faculty member. In addition to research and clinical skills, students will also develop leadership and communication skills. This course will be graded Pass/Fail.

PREREQUISITE: Successful completion of year two of the DVM program.

Variable 1, 2 or 3 credit hours

#### VCA 400 CLINICS IN ANAESTHESIOLOGY

This course is a clinical rotation in the Anaesthesia section of the Veterinary Teaching Hospital. With faculty supervision, students participate in the practice of clinical veterinary anaesthesiology.

PREREQUISITE: Fourth year standing in the DVM Program

Enrolment is limited

Three weeks in duration

#### VCA 402 CLINICS IN ANAESTHESIOLOGY II

In this second rotation through the Anaesthesia Service of the Veterinary Teaching hospital, students develop a more detailed knowledge of the principles and techniques used in clinical veterinary anaesthesia.

PREREQUISITE: VCA 400

Three weeks clinical contact

#### VCA 410 CLINICS IN COMPANION ANIMAL MEDICINE I

This course is a clinical rotation in the Small Animal Medicine section of the Veterinary Teaching Hospital. With faculty supervision, students participate in the practice of clinical veterinary medicine.

PREREQUISITE: Fourth year standing in the DVM Program

Enrolment is limited

Three weeks in duration

#### VCA 420 CLINICS IN COMPANION ANIMAL MEDICINE II

In this second rotation through the Small Animal Medicine section of the Veterinary Teaching Hospital, students develop a more detailed knowledge of the principles and techniques used in Companion Animal Medicine.

PREREQUISITE: VCA 410

Enrolment is limited

Three weeks in duration

#### VCA 422 CLINICAL NUTRITION IN COMPANION ANIMALS

This course is a clinical rotation taught by veterinarians affiliated with Mark Morris Associates. Case-based discussions emphasize the role of dietary management of disease states as primary or adjunctive therapy.

Currently hospitalized patients may be incorporated in case discussions.

PREREQUISITE: Fourth year standing in the DVM program

One week in duration

#### VCA 430 CLINICS IN COMPANION ANIMAL SURGERY I

This course is a clinical rotation in the Small Animal Surgery section of the Veterinary Teaching Hospital. With faculty supervision, students participate in the practice of clinical veterinary surgery.

PREREQUISITE: Fourth year standing in the DVM Program

Enrolment is limited

Three weeks in duration

#### VCA 432 CLINICS IN COMPANION ANIMAL SURGERY II

In this second rotation through the Small Animal Surgery Service of the Veterinary Teaching Hospital, students develop a more detailed knowledge of the principles and techniques used in Companion Animal Surgery.

PREREQUISITE: VCA 430

Enrolment is limited

Three weeks in duration

#### VCA 434 COMMUNITY PRACTICE

This course is a clinical rotation involving the community practice aspects of the Veterinary Teaching Hospital. Under faculty and staff supervision, senior veterinary students will be responsible for primary care of non-referral/non-emergency medicine and surgery cases.

CO-REQUISITE: Have to be enrolled in the following rotations: VCA 410 and VCA 430

#### VCA 440 CLINICS IN RADIOLOGY I

This course is a clinical rotation in the Radiology section of the Veterinary Teaching Hospital. Students perform and interpret various examinations in diagnostic radiology and special procedures. Some experience in alternative imaging (ultrasound, nuclear scintigraphy) may be gained depending on clinical caseload.

PREREQUISITE: Fourth year standing in the DVM Program

Enrolment is limited

Three weeks in duration

#### VCA 460 CLINICS IN DERMATOLOGY

This course, given in the Veterinary Teaching Hospital, is a clinical rotation in the specialty of dermatology. Students participate in the diagnosis and therapy of diseases involving the skin of companion animals.

PREREQUISITE: Fourth year standing in the DVM Program

Enrolment is limited

Two weeks in duration

#### VCA 475 CLIENT COMMUNICATIONS

This one-week clinical rotation will introduce students to communication theory, the impact of feelings, emotions, and values on communication, and to techniques that will aid in building relationships and eliciting information from clients. Through lectures, role plays, and videotaped real client interactions, students will learn about and practise skills to more effectively communicate with clients.

PREREQUISITE: Successful completion of the third year of the DVM program or permission of the instructor

Semester hours credit: 1

#### VCA 480 CLINICS IN COMPANION ANIMAL CARDIOLOGY

This course is a clinical rotation in the cardiology service of the Veterinary Teaching Hospital. With faculty supervision, students participate in the practice of clinical veterinary cardiology.

PREREQUISITE: Fourth year standing in the DVM program

CO-REQUISITE: VCA 410

Enrolment is limited

Two weeks in duration

#### VCA 482 CLINICS IN OPHTHALMOLOGY

This is a clinical rotation in the ophthalmology service of the Veterinary Teaching Hospital. With faculty supervision, students participate in the practice of clinical veterinary ophthalmology.

PREREQUISITE: Fourth year standing in the DVM Program

Enrolment is limited

Two weeks in duration

#### VCA 490 EXTERNAL CLINICAL EXPERIENCE— INSTITUTIONAL OR SPECIALIST PRACTICE

This course provides a clinical experience that is not available to an individual student at UPEI. This 1-3 credit-hour experience is limited to academic institutions and approved private practices and non-academic institutions where evaluation of performance is routinely completed. In order to qualify as an approved private practice or non-academic institution, certain criteria as outlined in the senior rotation handbook must be met. All expenses incurred are the responsibility of the student.

PREREQUISITE: Fourth year standing in the DVM Program and approval of the departmental Chair and Associate Dean of Academic Affairs

#### VCA 494 EXTERNAL CLINICAL EXPERIENCE— GENERAL PRIVATE PRACTICE

This course provides an opportunity for clinical experience in general or community practice settings. This one- to three- credit-hour experience is limited to private practices that meet certain criteria as outlined in the senior rotation handbook. All expenses incurred are the responsibility of the student.

PREREQUISITE: Fourth-year standing in the DVM program and approval of the departmental Chair and Associate Dean of Academic Affairs

#### VCA 495 SPECIAL TOPICS IN COMPANION ANIMALS

This course is initiated and offered at the discretion of the Department. Entry to the course, course content, and the conditions under which the course may be offered will be subject to the approval of the Chair of the Department, the AVC Curriculum Committee, and the Dean or designate.

PREREQUISITE: Fourth year standing in the DVM program One to three hours per week

## **Health Management**

<http://healthmgt.upei.ca>

### **Health Management Faculty**

Ian Dohoo, Professor Emeritus  
Lawrence E. Heider, Professor Emeritus  
Daniel Hurnik, Professor, Chair  
Michael Cockram, Professor  
T. Jeffrey Davidson, Professor  
Wendy Duckett, Professor  
Larry Hammell, Professor  
Gregory Keefe, Professor  
Jeanne Lofstedt, Professor  
J.T. McClure, Professor  
Laurie McDuffee, Professor  
Mary A. McNiven, Professor  
Crawford Revie, Professor  
Henrik E. Stryhn, Professor  
John VanLeeuwen, Professor  
Aimie Doyle, Associate Professor  
Shawn McKenna, Associate Professor  
Arthur Ortenburger, Associate Professor  
Javier Sanchez, Associate Professor  
Elizabeth Spangler, Associate Professor  
Sophie St. Hilaire, Associate Professor  
Brownyn Crane, Assistant Professor  
Luke Heider, Assistant Professor  
Kathleen MacMillan, Assistant Professor  
Horacio Bach, Adjunct Professor  
Herman Barkema, Adjunct Professor  
Vaughn Black, Adjunct Professor  
Visanu Boonyawiwat, Adjunct Professor  
David Buckeridge, Adjunct Professor  
Alejandro Ceballos, Adjunct Professor  
Marcelo Chaffer, Adjunct Professor  
Jette Christensen, Adjunct Professor  
Luc Comeau, Adjunct Professor  
Ruth Cox, Adjunct Professor  
Ian Dohoo, Adjunct Professor  
Andre Dumas, Adjunct Professor  
Ian Gardner, Adjunct Professor  
George Gitau, Adjunct Professor  
David Kelton, Adjunct Professor  
Thomas Landry, Adjunct Professor  
Andrea Locke, Adjunct Professor  
Robert Lofstedt, Adjunct Professor  
Carol McClure, Adjunct Professor  
Paula Menzies, Adjunct Professor  
Suzanne Millman, Adjunct Professor  
Doug Munroe, Adjunct Professor  
Cordell Neudorf, Adjunct Professor  
Zvonimir Poljak, Adjunct Professor  
Jacqueline Quail, Adjunct Professor  
Erin Rees, Adjunct Professor  
Chris Riley, Adjunct Professor

Jean-Philippe Roy, Adjunct Professor  
Lauranne Sanderson, Adjunct Professor  
Anthony Shaw, Adjunct Professor  
Fabienne Uehlinger, Adjunct Professor  
Raphael Vanderstichel, Adjunct Professor  
Paul Veugelers, Adjunct Professor  
Scott J. Weese, Adjunct Professor  
Jeffrey Wichtel, Adjunct Professor  
Maureen Wichtel, Adjunct Professor

## **HEALTH MANAGEMENT COURSES**

### **VHM 101 INTRODUCTION TO VETERINARY MEDICINE**

This course is an introduction to Veterinary Medicine. Students study the principles of veterinary ethics and jurisprudence, develop skills in client communication, and evaluate strategies for professional development. This course is graded pass-fail.

Two hours of lecture per week

### **VHM 111 ANIMAL PRODUCTION SYSTEMS**

This course provides students with a basic understanding of major animal industries, with particular emphasis in nutrition, breeding, reproduction, housing, feeding, general management and marketing characteristics of each industry. In addition, major compounds of nutritional importance in nutrient metabolism, and the role of nutrients in the integration of biological and physiological processes in animals are discussed. Feedstuffs are evaluated in relation to nutrient requirements of various animal species.

Two hours of lecture and three hours of laboratory/field experience per week

### **VHM 112 PRINCIPLES OF VETERINARY EPIDEMIOLOGY**

In this course students learn the basic principles and techniques used in veterinary epidemiology. Students apply quantitative reasoning to common problems in veterinary medicine including estimating the frequency of disease, evaluating and interpreting diagnostic tests, predicting prognosis, evaluating risk factors for disease, and interpreting the veterinary literature.

Two hours of lecture and one hour of laboratory per week

### **VHM 124 CLINICAL ORIENTATION I**

This course develops proficiency in animal identification skills and approach and handling of normal domestic animals. Species of interest include companion, farm, and laboratory animals, and avian species. Students are introduced to communication skills using case modules developed by Bayer.

Three hours of laboratory per week

This course is graded pass-fail

### **VHM 125 ANIMAL BEHAVIOUR AND ANIMAL WELFARE**

This course introduces the principles of animal behaviour, normal behaviour of companion and food producing animals and the influence of systems of management on their behaviour. Animal welfare concepts, the assessment of animal welfare and the welfare implications of the management of different species of animals are discussed.

Three hours of lectures per week

### **VHM 222 PRINCIPLES OF THERIOGENOLOGY**

In this course, students develop an understanding of reproductive physiology and control of the estrous cycle in the common domestic species. Artificial insemination is discussed and companion animal theriogenology is presented in detail.

Two hours of lecture per week

### **VHM 231 VETERINARY PUBLIC HEALTH**

In this course students learn about the role of the veterinarian in public health. Topics covered include risk management and risk communication, the safety of foods of animal origin, the responsibilities of the veterinarian

in control of zoonotic diseases and occupational hazards in veterinary medicine. The emphasis of the course is divided between the role of the private practitioner in food safety and public health, and the role of the veterinarian in federal and provincial inspection and regulatory programs.

Two hours of lecture per week

#### VHM 241 PRINCIPLES OF HEALTH MANAGEMENT

In this course, material from VHM 112 is utilized in a practical way to assist students in becoming better critical thinkers and decision-makers. Students learn a systemic approach to critical reading of literature so that they are able to apply evidence based approaches to all areas of veterinary medicine. The course will alternate between lectures and tutorials, with the tutorials giving the students a change to practice and reinforce principles presented in lectures.

One hour of lecture and one hour of tutorial on alternate weeks

#### VHM 251 CLINICAL ORIENTATION II

This course develops proficiency in general and advanced physical examination skills in normal domestic animals. Species of interest include companion, farm, and laboratory animals, and avian species. Students develop their communication skills using advanced case modules developed by Bayer.

One hour of lecture and two hours of laboratory per week

#### VHM 261 DIRECTED STUDIES

This elective course provides an opportunity for students to participate in intensive research and/or clinical experiential learning opportunities under the supervision of a faculty member. In addition to research and clinical skills, students will also develop leadership and communication skills. This course will be graded Pass/Fail.

PREREQUISITE: Successful completion of year one of the DVM program

Variable 1, 2 or 3 credit hours

#### VHM 322 FOOD ANIMAL HEALTH AND DISEASE

This required core course describes the common medical, surgical, reproductive, and production limiting diseases of food producing animals relevant to the entry level veterinarian engaged in general practice. Disease processes and their diagnosis, treatment and prevention are discussed. The focus of this course is diseases of cattle and swine but important and unique diseases of small ruminants are also covered.

Five hours of lecture per week

#### VHM 323 EQUINE HEALTH AND DISEASE

This required core course describes the common medical, surgical, and reproductive diseases of horses relevant to the entry level veterinarian engaged in general practice. Disease processes and their diagnosis, treatment, indications for anaesthesia, and prevention are discussed. The course also reviews common pharmaceutical agents and biologics used in horses as well as preventative herd health practices for the equine species.

Four hours of lecture per week

#### VHM 324 CLINICAL TECHNIQUES IN LARGE ANIMALS

This required core course describes and provides practice in performing common medical, surgical, and reproductive techniques relevant to the entry-level veterinarian engaged in general practice. Laboratories include per rectum examination of the reproductive tract and abdominal organs, common medical, surgical and reproductive procedures, regional anesthesia, obstetrical manipulation, and examination of clinical cases in the veterinary teaching hospital.

Three hours of lab on alternate weeks

#### VHM 325 PRODUCTION AND INFECTIOUS DISEASES OF FOOD ANIMALS

This elective course emphasizes current research on production limiting diseases of cattle. Topics covered are dictated primarily by issues that are current and important to the cattle industry.

Five-week module with two hours of lecture per week

Enrolment is open for third year students

#### VHM 326 BOVINE HERD MANAGEMENT AND NUTRITION

This elective course reviews bovine nutrition and record analysis as aids for improving dairy herd productivity. It focuses on management of the herd as a whole and on utilization of data management for decision making. Nutritional management and delivery of feeding programs to optimize production are also discussed. Five-week module with two hours of lecture per week  
Enrolment is open for third year students

#### VHM 327 ADVANCED BOVINE MASTITIS AND QUALITY MILK PRODUCTION

This elective course reviews bovine mastitis prevention and control and issues related to milk quality. Topics include herd investigation of mastitis and udder health, management of clinical and subclinical mastitis at the herd level, laboratory testing procedures for evaluation of milk quality, evaluation of milk quality records for trouble shooting of herd problems, and implications of milk quality for the dairy industry. Five-week module with three hours of lecture per week  
Enrolment is open for third year students

#### VHM 328 CURRENT ISSUES IN BOVINE LAMENESS, WELFARE AND COW COMFORT

This elective course discusses bovine lameness and welfare. It focuses on prevention of lameness and issues affecting cow comfort. Accurate diagnosis of the causes of lameness, and the economic consequences of lameness and other welfare issues, are emphasized. Five-week module with two hours of lecture per week  
Enrolment is open for third year students

#### VHM 329 TOPICS IN POULTRY AND SWINE

This elective course reviews diseases of importance to the poultry and swine industries. Recent challenges to these unique production industries are emphasized. Five-week module with two hours of lecture per week  
Enrolment is open for third year students

#### VHM 333 TOPICS IN SMALL RUMINANTS

This elective course emphasizes diseases and techniques unique to small ruminants including sheep, goats, llamas and alpacas. It includes discussion of topics such as nutrition, parasite control, and reproductive management. Five-week module with three hours of lecture per week  
Enrolment is open for third year students

#### VHM 334 HEALTH OF AQUATIC FOOD ANIMALS AND THE ECOSYSTEM

This elective course covers three components: lobster health, finfish health and ecosystem health. The lobster component reviews health issues of lobsters with an emphasis on diseases of impounded lobsters and associated risk factors, and offers a laboratory on sampling procedures for diagnostic purposes. The finfish component addresses production and health related diseases in food fish with an emphasis on farmed salmon and coldwater marine fish. Topics include disease surveillance, disease risk factors, health management methods, and interactions between farmed and wild fish populations. The ecosystem health component introduces the principles of ecohealth using current examples from agriculture, aquaculture and wildlife. Five-week module with three hours of lecture per week  
Enrolment is open for third year students

#### VHM 335 TOPICS IN ADVANCED BOVINE THERIOGENOLOGY

This elective course emphasizes approaches essential to the successful reproductive management of beef and dairy herds. Topics include investigation of herd reproductive status and problems, control of the estrous cycle and ovulation, embryo transfer and advanced reproductive technologies, induction of abortion and parturition, breeding soundness evaluation of bulls, and common surgeries involving the bovine reproductive tract. Five-week module with two hours of lecture per week  
Enrolment is open for third year students

#### VHM 336 TOPICS IN ADVANCED EQUINE THERIOGENOLOGY



This elective course is intended for students who plan to enter equine practice upon graduation. It provides more advanced information on equine reproduction than is available in the core equine course. Broadly speaking, topics include stud management and reproductive disease diagnosis, treatment and prevention.

Five-week module with two hours of lecture per week

Enrolment is open for third year students

#### VHM 337 ADVANCED EQUINE THERIOGENOLOGY TECHNIQUES

This elective laboratory course is intended for students who plan to enter equine practice upon graduation. It provides the opportunity to practice basic and more advanced equine reproductive techniques in the mare and stallion.

Five-week module with three hours of laboratory per week

Enrolment is limited for third year students

This course is graded pass-fail

CO-REQUISITE: VHM 336

#### VHM 338 ADVANCED BOVINE THERIOGENOLOGY TECHNIQUES

This elective laboratory course provides advanced exposure to bovine reproductive techniques including evaluation of herd records, diagnostic reproductive techniques and artificial insemination techniques in cows, and evaluation of bulls for breeding soundness.

Five-week module with three hours of laboratory per week

Enrolment is limited for third year students

CO-REQUISITE: VHM 335

#### VHM 339 TOPICS IN ADVANCED EQUINE MEDICINE

This elective course provides an in-depth discussion of equine internal medicine with an emphasis on neonatology and the respiratory, gastrointestinal and central nervous systems. It also covers topics such as metabolic diseases, emerging infectious diseases, cardiology and dermatology.

Five-week module with three two hours tutorials per week

Enrolment is open to third year students

#### VHM 343 ADVANCED EQUINE MEDICINE TECHNIQUES

This elective laboratory course provides students with the opportunity to practice a variety of medical procedures in live animals and on cadaver specimens and models. It includes techniques related to evaluation of the gastrointestinal, respiratory and central nervous systems as well as techniques in dentistry, ophthalmology, intravenous catheterization, and catheterization of the urinary bladder.

Five-week module with three hours of laboratory per week

Enrolment is limited for third year students

This course is graded pass-fail

CO-REQUISITE: VHM 339

#### VHM 344 EQUINE PREVENTATIVE MEDICINE

This elective course provides an in-depth review of preventative medicine in the foal and adult horse. It includes discussion of neonatal foal care, nutrition, dentistry, parasite control, biosecurity practices, and vaccination for disease prevention.

Five-week module with two hours of lecture per week

Enrolment is open for third year students

#### VHM 345 FOOD ANIMAL ANESTHESIA AND SURGERY

This elective lecture course provides detailed descriptions of the anatomy, physiology, anesthetic protocols, and surgical techniques for common surgical conditions encountered in food animal practice.

Five-week module with two hours of lecture per week

Enrolment is open for third year students

#### VHM 346 TECHNIQUES IN FOOD ANIMAL ANESTHESIA AND SURGERY

This elective laboratory course provides an introduction to the psychomotor skills for basic anesthetic and surgical techniques commonly performed in food animals.

Five-week module with three hours of laboratory per week

Enrolment is limited for third year students

CO-REQUISITE: VHM 345

#### VHM 347 EQUINE ANESTHESIA, SURGERY AND LAMENESS

This elective course provides detailed descriptions of the anatomy, physiology, anesthetic protocols, and surgical techniques for common surgical and lameness conditions encountered in equine practice.

Five-week module with four hours of lecture per week

Enrolment is open for third year students

#### VHM 348 TECHNIQUES IN EQUINE ANESTHESIA AND SURGERY

This elective laboratory course provides an introduction to the psychomotor skills for basic anesthetic and surgical techniques commonly performed in horses.

Five-week module with three hours of laboratory per week

Enrolment is limited for third year students

CO-REQUISITE: VHM 347

#### VHM 351 TECHNIQUES IN THE EVALUATION OF EQUINE MUSCULOSKELETAL DISEASES

This elective laboratory course provides students with the opportunity to work with horses with a variety of musculoskeletal disorders. Physical diagnosis, diagnostic anesthesia, and imaging studies are assessed in the context of patient history and client concerns.

COREQUISITE: VHM 347

Five-week module with three hours of laboratory per week

Enrolment is limited for third year students

#### VHM 352 PRINCIPLES OF INTEGRATIVE MEDICINE

This elective lecture course provides an introduction to some of the principle methods in integrative medicine, including acupuncture, chiropractic, and other methods.

One hour of lecture per week

Enrolment is open for third year students

#### VHM 353 TECHNIQUES OF INTEGRATIVE MEDICINE

This elective laboratory course will provide introduction to the psychomotor skills required in the practice of integrative medicine, including acupuncture, chiropractic, and other methods.

Five-week module with three hours of laboratory per week

Enrolment is limited for third year students

PREREQUISITE: VHM 352

#### VHM 361 DIRECTED STUDIES

This elective course provides an opportunity for students to participate in intensive research and/or clinical experiential learning opportunities under the supervision of a faculty member. In addition to research and clinical skills, students will also develop leadership and communication skills. This course will be graded Pass/Fail.

PREREQUISITE: Successful completion of year two of the DVM program.

Variable 1, 2 or 3 credit hours

#### VHM 401 CAREER AND PRACTICE MANAGEMENT

In this course students acquire the knowledge and skills for successful transition into a practice environment. Topics include resume preparation, interview skills, assessment of offers of employment or practice purchase, personal and business finance, and principles of veterinary practice management. Course delivery includes didactic lectures, facilitated discussions, and learning exercises.

PREREQUISITE: Fourth year standing in the DVM Program (May be offered to students prior to entering 4th year with permission of the course Co-ordinator)

One week in duration

#### VHM 402 APPLIED EPIDEMIOLOGY

This course provides students with the opportunity to work on a population-based problem of clinical relevance and to develop the problem solving, data management and information processing skills necessary to address the problem. The projects will utilize, whenever possible, existing data such as hospital records, APHIN health and production databases and other data sources. Students assemble the necessary data, carry out appropriate analyzes, interpret results and prepare a report of their findings.

PREREQUISITE: Fourth year standing in the DVM Program

Enrolment is limited

Three weeks in duration

#### VHM 403 SHORT COURSE IN APPLIED EPIDEMIOLOGY

This course provides students with the opportunity to work on population-based problems of clinical relevance, and to develop problem solving, data management and information processing skills necessary to address veterinary medicine related problems. The projects utilize, whenever possible, existing data such as hospital records, APHIN and/or ADLIC health and production databases, research data, and other data sources. Students may elect to analyze data that they have obtained from a research or clinical practice experience. With faculty supervision, students assemble the necessary data, carry out appropriate analyzes, interpret results and prepare a report of their findings. This is an abbreviated form of VHM 402, with reduced expectations of students.

PREREQUISITE: Fourth year standing in the DVM program

One semester hour of credit

40 hours per week and clinical rotation

#### VHM 404 AQUACULTURE HEALTH MANAGEMENT I

This course provides students with an opportunity to work on population-based problems of clinical relevance and to develop the problem-solving, data management, and information processing skills necessary to address current health and production problems of fish farms and lobster holding units.

PREREQUISITE: Fourth year standing in the DVM program

One semester hour of credit and clinical rotation

#### VHM 405 AQUACULTURE HEALTH MANAGEMENT II

This course provides students with additional opportunity to work independently on population-based problems of clinical relevance and to develop advanced problem-solving, data management, and information processing skills necessary to address current health and production problems of fish farms and lobster holding units.

PREREQUISITE: VHM 433 or VHM 404, and permission of the instructor

One semester hour of credit and clinical rotation

#### VHM 406 TOPICS IN REGULATORY VETERINARY EPIDEMIOLOGY

This course provides students with the opportunity to work on various topics pertinent to national, regional or local animal disease control programs, including foreign animal disease control and disease monitoring and surveillance. Background information on risk analysis and outbreak investigation is also provided. With faculty supervision, students apply their knowledge of specific animal diseases to scenarios, utilizing the principles discussed.

PREREQUISITE: 4th year standing in the DVM program

One semester hour of credit

40 hours per week and clinical rotation

#### VHM 410 CLINICS IN LARGE ANIMAL MEDICINE AND THERIOGENOLOGY

Students are involved in the management of clinical cases in the Veterinary Teaching Hospital and, together with faculty members, also participate in routine visits to dairy herds.

PREREQUISITE: Fourth year standing in the DVM Program

Enrolment is limited

Three weeks in duration

#### VHM 411 CLINICAL CONFERENCE

This is a clinical seminar course with participation by students, house officers, and other professionals. Each student prepares and presents a seminar based on a case-report format with in-depth discussion of the selected disease condition. A manuscript of the case report is required.

PREREQUISITE: Fourth year standing in the DVM Program

Two hours per week

#### VHM 412 ANIMAL WELFARE ASSESSMENT AND REGULATION

The course provides a basis for students to (a) use ethical and scientific frameworks to conduct comprehensive animal welfare assessments by utilizing multiple indicators of animal welfare, (b) objectively assess the welfare implications of the management of different species of animals and (c) understand animal welfare regulations and veterinary involvement in the recognition, enforcement and prosecution of welfare cases. This course uses animal welfare scenarios of contrasting management systems, and provides information and practice in dealing with cases of cruelty and neglect.

Two weeks in duration

Two semester hours of credit

#### VHM 413 FISH HEALTH

Students will gain experience in the application of veterinary skills to finfish and shellfish species found in aquaculture and public fisheries. Practical experience will include health assessments and disease diagnoses, application of treatment techniques, assessment of biosecurity practices, and development of disease prevention strategies. The course will include farm visits and laboratory testing.

PREREQUISITE: Fourth year standing in the DVM program.

Enrolment is limited.

Three weeks in duration

Three semester hours of credit

#### VHM 420 CLINICS IN THERIOGENOLOGY— GENERAL

In this course, students gain clinical experience in theriogenology involving farm and companion animals. With faculty supervision, students participate in herd visits and the management of cases that are presented to the Veterinary Teaching Hospital. Emergency and out-of-hours duties are required of students enrolled in this course. Students are required to give seminars at the end of the rotation.

PREREQUISITE: Fourth year standing in the DVM Program

Enrolment is limited

Three weeks in duration

#### VHM 422 CLINICS IN THERIOGENOLOGY— EQUINE

In this course, students gain clinical experience in theriogenology with an emphasis on horses. With faculty supervision, students participate in herd visits, the management of a breeding farm, and in cases which are presented to the Veterinary Teaching Hospital. Emergency and out-of-hours duties are required of students enrolled in this course. Students are required to give seminars at the end of the rotation.

PREREQUISITE: Fourth year standing in the DVM Program

Enrolment is limited

Three weeks in duration

#### VHM 431 CLINICS IN FARM SERVICE— RUMINANTS AND SWINE I

This course is a clinical rotation in the Farm Service section of the Veterinary Teaching Hospital. This rotation emphasizes procedures and techniques for the prevention and control of diseases of swine, beef and dairy cattle and small ruminants necessary for food animal practice, including diagnostic techniques, administration of medications through various routes, and health management assessment (rectal palpation). Students participate, with faculty supervision, in the practice of clinical veterinary medicine, and are exposed to the principles of health management of herds and flocks.

PREREQUISITE: Fourth year standing in the DVM program

Enrolment is limited

Three weeks in duration

#### VHM 432 CLINICS IN FARM SERVICE—DAIRY

This course is a clinical rotation in the Farm Service section of the Veterinary Teaching Hospital. This rotation emphasizes procedures and techniques for the prevention and control of diseases of dairy cattle. Students participate, with faculty supervision, in both the practice of clinical veterinary medicine and in planning and delivering programs to enhance production in dairy cows.

COREQUISITE: VHM 431

Enrolment is limited

Three weeks in duration

#### VHM 434 ECOSYSTEM HEALTH

This course demonstrates the complexity of ecosystem decision making and the role of the veterinarian in the assessment, solution and possible management of ecosystem health issues. The field portion of the course involves an in-depth examination of one or several ecosystems and provides an opportunity to apply principles and methods discussed in lectures and reviewed in the literature.

PREREQUISITE: Fourth year standing in the DVM program

Enrolment is limited

Two weeks in duration

#### VHM 435 CLINICS IN AMBULATORY SERVICES— EQUINE I

In this course, students work with clinicians in the diagnosis and treatment of conditions of horses in an ambulatory setting. The rotation emphasizes individual equine problems. Students participate in the management of field cases under veterinary supervision.

PREREQUISITE: Fourth year standing in the DVM program

COREQUISITE: One of VHM 410, VHM 440, VHM 450 or VHM 460

Enrolment is limited

Three weeks in duration

#### VHM 436 CLINICS IN FARM SERVICE—SWINE

This course is a clinical rotation in the Farm Service section of the Veterinary Teaching Hospital. This rotation emphasizes procedures and techniques for the prevention and control of diseases of swine. Students participate, with faculty supervision, in both the practice of clinical veterinary medicine and in planning and delivering programs to enhance swine production.

PREREQUISITE: Fourth year standing in the DVM program

Three weeks in duration

#### VHM 437 CLINICS IN AMBULATORY SERVICES— EQUINE II

In this second rotation through the Equine Ambulatory Service of the Veterinary Teaching Hospital, students develop a more detailed knowledge of the principles and techniques used in the practice of equine medicine and surgery in an ambulatory setting.

PREREQUISITE: Fourth year standing in the DVM program, VHM 435, and permission of the instructor

Three weeks in duration

Three semester hours of credit

#### VHM 438 ECOSYSTEM HEALTH

This course presents case studies to demonstrate the complexity of ecosystem decision making, and the assessment and management of ecosystem health issues. This field-based course allows in-depth examination of one or several ecosystems and provides an opportunity to apply principles and methods from a broad range of disciplines.

PREREQUISITE: Permission of the instructor

One week in duration

One semester hour of credit

#### VHM 440 CLINICS IN LARGE ANIMAL MEDICINE I

A course in which students work with clinicians in the diagnosis and treatment of diseases of large animals presented to the Veterinary Teaching Hospital. Students participate, with faculty supervision, in case management

(including emergency and out-of-hours duties). Emphasis is placed on the principles and practice of large animal veterinary medicine.

PREREQUISITE: Fourth year standing in the DVM Program

Enrolment is limited

Three weeks in duration

#### VHM 441 CLINICS IN FARM SERVICE—RUMINANTS AND SWINE II

In this second rotation through the Farm Service section of the Veterinary Hospital, students further develop the knowledge and skills required for the practice of clinical veterinary medicine on farm, and expand their ability to apply the principles of health management of herds and flocks such as encountered in VHM 431.

PREREQUISITE: VHM 431

Two semester hours of credit

Three weeks in duration

#### VHM 443 CLINICS IN FARM SERVICE—FEEDLOT MANAGEMENT

This course is a clinical rotation in the Farm Service section of the Veterinary Teaching Hospital. Students participate, with faculty supervision, in the practice of clinical veterinary medicine, and in the planning and delivering of programs to optimize production in cattle. This rotation emphasizes procedures and techniques for the management of health and disease on feedlot operations, including processing of calves in the fall. Students are based at Feedlot Health Management Services, Okotoks, Alberta, for the majority of this rotation, to gain experience on feedlots in Western Canada.

COREQUISITE: VHM 431

Two semester hours of credit

40 hours per week and clinical rotation

#### VHM 445 CLINICS IN FARM SERVICE—RUMINANT NUTRITION

This course is a clinical rotation in the Farm Service section of the Veterinary Teaching Hospital. Students participate, with faculty supervision, in the practice of clinical veterinary medicine, and in the planning and delivering of programs to optimize production in dairy cows. This rotation emphasizes procedures and techniques for enhancing nutritional management of dairy cattle.

COREQUISITE: VHM 431

One semester hour of credit

40 hours per week and clinical rotation

#### VHM 446 CLINICS IN FARM SERVICE—RUMINANT MASTITIS

This course is a clinical rotation in the Farm Service section of the Veterinary Teaching Hospital. Students participate, with faculty supervision, in the practice of clinical veterinary medicine, and in the planning and delivering of programs to optimize production in dairy cows. This rotation emphasizes procedures and techniques for the prevention and control of clinical and subclinical mastitis in dairy cattle, including: evaluation of milk quality records available for trouble-shooting herd problems; evaluation of milking systems, milking time, and parlour labour efficiency; development of a milk culture service; and development of mastitis pathogen treatment and prevention strategies.

COREQUISITE: VHM 431

One semester hour of credit

40 hours per week and clinical rotation

#### VHM 447 CLINICS IN FARM SERVICE—RUMINANT PRODUCTION RECORD ANALYSIS

This course is a clinical rotation in the Farm Service section of the Veterinary Teaching Hospital. Students participate, with faculty supervision, in the practice of clinical veterinary medicine, and in the planning and delivering of programs to optimize production in dairy cows. This rotation emphasizes procedures and techniques for ruminant record analysis, including data acquisition, manipulation within a spreadsheet (including basic statistics and graphics), and report writing in a concise, comprehensive and meaningful report to motivate change.

PREREQUISITE: VHM 431

One semester hour of credit

40 hours per week and clinical rotation

#### VHM 448 CLINICS IN FARM SERVICE—RUMINANT REPRODUCTION

This course is a clinical rotation in the Farm Service section of the Veterinary Teaching Hospital. Students participate, with faculty supervision, in the practice of clinical veterinary medicine, and in the planning and delivering of programs to optimize production in dairy cows. This rotation emphasizes procedures and techniques for ruminant reproduction, including: pregnancy diagnosis and fetal sexing using ultrasound technology, the analysis of herd level reproductive records, and other advanced techniques.

COREQUISITE: VHM 431

One semester hour of credit

40 hours per week and clinical rotation

#### VHM 449 CLINICS IN FARM SERVICE—COW/CALF MANAGEMENT

This course is a clinical rotation in the Farm Service section of the Veterinary Teaching Hospital. Students participate, with faculty supervision, in the practice of clinical veterinary medicine, and in the planning and delivering of programs to optimize production in beef and dairy cows. This rotation emphasizes procedures and techniques for the management of health and disease on cow-calf operations, including processing of cows and calves in the fall.

PREREQUISITE: VHM 431

One semester hour of credit

40 hours per week and clinical rotation

#### VHM 450 CLINICS IN LARGE ANIMAL SURGERY I

This course is a clinical rotation in the Large Animal Surgery Section of the Veterinary Teaching Hospital. Students provide patient care, participate in ward rounds, and learn the routine procedures of clinical case management and decision making. Supplemental seminars.

Enrolment is limited.

Three weeks in duration

#### VHM 452 CLINICS IN LARGE ANIMAL SURGERY II

This course provides students with additional clinical experience with surgical diseases of large animals. In addition to case management, students are also provided with seminars and review recent literature in the field.

PREREQUISITE: VHM 450 or VHM 460

Enrolment is limited

Three weeks in duration

#### VHM 460 CLINICS IN LARGE ANIMAL MEDICINE AND SURGERY I

This course is a clinical rotation in the Large Animal Surgery and Medicine sections of the Veterinary Teaching Hospital, in which students see a variety of large animal cases. Students provide patient care, participate in rounds, share emergency duty, and out-of-hours service, and learn some of the routine procedures of case management and decision making in large animal practice.

PREREQUISITE: Fourth year standing in the DVM program

Enrolment is limited

Thirty-five hours in clinics per week

#### VHM 461 CLINICS IN LARGE ANIMAL MEDICINE AND SURGERY II

This course provides students with advanced clinical experience with surgical and medical diseases of large animals. Students provide patient care, participate in rounds, share emergency duty, and out-of-hours service, and learn some of the routine procedures of case management and decision making in large animal practice.

PREREQUISITE: 4th year standing in the DVM program and VHM 460

Enrolment is limited

Thirty-five hours in clinics per week

Three weeks in duration

#### VHM 464 CLINICS IN LARGE ANIMAL MEDICINE II-1

In this one credit-hour course, which is an extension of Clinics in Large Animal Medicine I, students work with clinicians in the diagnosis and treatment of diseases of large animals presented to the Veterinary Teaching Hospital. The student is given more responsibility and expected to perform more actively in decisions involving case management. Duties include emergency and out-of-hours services.

PREREQUISITE: VHM 440, 460, 462, or 410

One semester hour of credit

Clinical rotation

#### VHM 465 CLINICS IN LARGE ANIMAL MEDICINE II-2

In this 2 credit-hour course, which is an extension of Clinics in Large Animal Medicine I, students work with clinicians in the diagnosis and treatment of diseases of large animals presented to the Veterinary Teaching Hospital. The student is given more responsibility and expected to perform more actively in decisions involving case management. Duties include emergency and out-of-hours services.

PREREQUISITE: VHM 440, 460, 462, or 410

Two semester hours of credit

Clinical rotation

#### VHM 466 CLINICS IN LARGE ANIMAL MEDICINE II-3

In this 3 credit-hour course, which is an extension of Clinics in Large Animal Medicine I, students work with clinicians in the diagnosis and treatment of diseases of large animals presented to the Veterinary Teaching Hospital. The student is given more responsibility and expected to perform more actively in decisions involving case management. Duties include emergency and out-of-hours services.

PREREQUISITE: VHM 410, 420, 440, 460, 462

Enrolment is limited

Three weeks in duration

#### VHM 467 SWINE HEALTH MONITORING

This course is a clinical rotation in the Farm Service section of the Department of Health Management. The rotation emphasizes the procedures and techniques for providing health monitoring services for minimal disease swine farms. The student will participate, with faculty supervision, in the practice of clinical veterinary medicine, the evaluation of the health status of the farms, and consultation regarding production and health management, and disease prevention.

PREREQUISITE: Fourth year standing in DVM program

One semester hour of credit

40 hours per week and clinical rotation

#### VHM 468 INTERNATIONAL SMALL HOLDER DAIRY HEALTH MANAGEMENT

This course provides 3 weeks of practical experience, in the context of an international development project, for veterinary students from AVC on management of small holder dairy farming in Africa, and on the diagnosis, treatment and prevention of common animal diseases and dairy management problems encountered in East Africa.

PREREQUISITE: 4th year standing in the DVM Program

Enrolment is limited with a selection process

Three weeks in duration

#### VHM 480 CLINICS IN REGULATORY MEDICINE

This course prepares students to assume the role of an Accredited Veterinarian. An Accredited Veterinarian is a veterinarian who is authorized under the Health of Animals Act to perform certain duties and functions in support of the National Animal Health Program (e.g. certifying livestock for export, Coggins testing horses). Topics covered include an orientation to the national food inspection system and the federal laboratory system. This course is a prerequisite for Accreditation with the Canadian Food Inspection Agency, and hence will be of interest to students considering work in the food animal, equine or regulatory sector.

PREREQUISITE: Fourth year standing in the DVM Program

Enrolment is limited

One week in duration



#### VHM 481 CLINICS IN RUMINANT MEDICINE AND SURGERY ROTATION AT THE UNIVERSITY OF MONTREAL - FACULTY OF VETERINARY MEDICINE (English Rotation)

Students work with clinicians in the diagnosis and treatment of conditions in ruminant animals, primarily dairy cattle, presented to the Veterinary Teaching Hospital at the University of Montréal in Saint-Hyacinthe, Québec. The rotation emphasizes individual animal medicine and surgery. Students are expected to provide patient care, actively participate in the diagnostic, treatment, and management decisions concerning their patients, and participate in rounds and discussion topics. Duties include after hour emergency and treatment crew. This course is offered as a 3-week rotation. Instruction will be given in English. Partial student support for expenses is sought through industry sponsors.

#### VHM 482 VETERINARY ACUPUNCTURE

In this course, students learn the fundamentals of veterinary acupuncture, and apply its principles to the management of patients with special problems. Lectures and laboratories in the science of acupuncture are supplemented with clinical cases admitted to the teaching hospital for treatment. Students are introduced to the basic skills, instrumentation, and examination methods required for successful treatment of animal patients by acupuncture.

**PREREQUISITE:** Fourth year standing in the DVM program and permission of the instructor  
Two weeks in duration

#### VHM 484 VETERINARY CHIROPRACTIC TECHNIQUES (COOPERATIVE SECTION)

In this course, students learn the fundamentals of veterinary chiropractic medicine and apply its principles to the management of patients with problems of gait, posture, and movement. Lectures and laboratories in the biomechanics and neurophysiology of manipulative therapeutics are supplemented with clinical cases admitted to the Veterinary Teaching Hospital. Students are introduced to the basic skills, instrumentation, and examination methods required for successful treatment of animal patients by using chiropractic medicine. This course includes students from other veterinary colleges and encourages cooperative learning of a specialty discipline.

**PREREQUISITE:** Fourth year standing in the DVM program and permission of the instructor  
Three weeks in duration

#### VHM 486 VETERINARY ACUPUNCTURE (cooperative section)

In this course, students learn the fundamentals of veterinary acupuncture and apply its principles to the management of patients with special problems. Lectures and laboratories in the science of acupuncture are supplemented with clinical cases admitted to the teaching hospital for treatment. This course includes students from other veterinary colleges and encourages cooperative learning of a specialty discipline not available at other veterinary institutions.

**PREREQUISITE:** Fourth year standing in the DVM program  
Enrolment is limited  
Three weeks in duration

#### VHM 490 EXTERNAL CLINICAL EXPERIENCE— INSTITUTIONAL OR SPECIALIST PRACTICE

This course provides a clinical experience that is not available to an individual student at UPEI. This 1-3 credit-hour experience is limited to CVMA or AVMA accredited faculties of veterinary medicine, other institutions and institutional practices, and approved private practices where evaluation of performance is routinely completed. In order to qualify for credit, the clinical experience taken outside an accredited faculty of veterinary medicine must meet certain criteria as outlined in the Senior Rotation Handbook. All expenses incurred are the responsibility of the student.

**PREREQUISITE:** Fourth year standing in the DVM program and approval of the departmental Chair and Associate Dean of Academic Affairs

#### VHM 492 ADVANCED EQUINE DENTISTRY AND HEALTH CARE

In this course students learn the theory and practice of disease prevention in horses, including vaccination and parasite control programs. Students practice, with faculty supervision, dental care on horses at Island facilities and in the AVC teaching barn. In-depth discussions and reviews of pertinent and timely information take place.

**PREREQUISITE:** Any ONE of the following courses: VHM 410, 420, 422, 435, 440, 450 or 460 and permission of the course coordinator

One-week elective rotation in winter semester

#### VHM494 EXTERNAL CLINICAL EXPERIENCE— GENERAL PRIVATE PRACTICE

This course provides an opportunity for clinical experience in general or community practice settings. This 1-3 credit-hour experience is limited to private practices that meet certain criteria as outlined in the senior rotation handbook. All expenses incurred are the responsibility of the student.

**PREREQUISITE:** Fourth year standing in the DVM program and approval of the departmental Chair and Associate Dean of Academic Affairs

#### VHM 495 SPECIAL TOPICS IN HEALTH MANAGEMENT

This course is initiated and offered at the discretion of the Department. Entry to the course, course content, and the conditions under which the course may be offered will be subject to the approval of the Chair of the Department, the AVC Curriculum Committee, and the Dean or designate.

**PREREQUISITE:** 4th year standing in the DVM program.

One to three hours per week

### **Pathology and Microbiology**

<http://upei.ca/pathmicro>

#### **Pathology and Microbiology Faculty**

Gerald Johnson, Professor Emeritus

Alfonso Lòpez, Professor Emeritus

Frederick S.B. Kibenge, Professor, Chair

Shelley A. Burton, Professor

Gary A. Conboy, Professor

Pierre-Yves Daoust, Professor

Barbara S. Horney, Professor

David J. Speare, Professor

Enrique M. Aburto, Associate Professor

Mark Fast, Associate Professor

Paul E.A. Hanna, Associate Professor

Juan Carlos Rodriguez-Lecompte, Associate Professor

P. Jeffrey Lewis, Associate Professor

Anne Muckle, Associate Professor

Cornelia V. Gilroy, Assistant Professor

Chelsea Martin, Assistant Professor

Shannon Martinson, Assistant Professor

Andrea Bourque, Adjunct Professor

Philip Byrne, Adjunct Professor

Richard Cawthorn, Adjunct Professor

Maria Forzán, Adjunct Professor

Salvatore Frasca, Adjunct Professor

David B. Groman, Adjunct Professor

Tiago Hori, Adjunct Professor

Gerald Johnson, Adjunct Professor

Molly Kibenge, Adjunct Professor

Thijs Kuiken, Adjunct Professor

Alfonso Lòpez, Adjunct Professor

Scott McBurney, Adjunct Professor

R.J. Frederick Markham, Adjunct Professor

Lisa Miller, Adjunct Professor

Davor Ojkic, Adjunct Professor

David Overy, Adjunct Professor

Ahmed Siah, Adjunct Professor

Todd Smith, Adjunct Professor  
Yingwei Wang, Adjunct Professor  
Shona Whyte, Adjunct Professor  
Samuel Workenhe, Adjunct Professor  
Huimin Xu, Adjunct Professor  
Carmencita V. Yason, Adjunct Professor

## **PATHOLOGY AND MICROBIOLOGY COURSES**

### **VPM 101 INTRODUCTORY MICROBIOLOGY FOR NURSING STUDENTS**

This course is an introduction to the basic concepts and principles of microbiology. The structure and function of the major groups—viruses, bacteria, fungi and protozoa—which affect human health, are studied. Topics include the process of disease transmission, immunology, physical and chemical methods of disease prevention and control, as well as major infectious diseases of the body systems.

**PREREQUISITE:** Registration in the Nursing program or permission of the Chair

Three hours of lecture and two hours of laboratory per week

### **VPM 111 IMMUNOLOGY**

Description of the events occurring during an immune response at the molecular, cellular and clinical level will be presented. The role of this response in prevention of, or recovery from, infectious disease will be outlined.

Principles of immunoprophylaxis will be discussed. Adverse effects of an immune response, including hypersensitivity and auto- immunity, will be discussed and illustrated by the use of clinical examples.

Two hours of lecture and a two-hour laboratory on alternate weeks

### **VPM 122 PARASITOLOGY**

The course presents principles of the developmental cycles, pathogenesis of infections, immunological responses and epidemiology of animal parasites, including arthropods, protozoa and helminths. Examples from domestic animals, companion animals, wildlife, fish and human hosts will be presented.

Two hours of lecture and two hours of laboratory per week

### **VPM 152 GENERAL PATHOLOGY**

This course is the study of disease processes in organs and tissues of animals at the subcellular, cellular, and tissue levels. The major disease processes include degeneration, necrosis, pigmentation, circulatory disturbances, inflammation, healing, growth abnormalities and neoplasia.

**PREREQUISITE:** Second semester enrolment in the AVC curriculum

Two hours of lecture and two hours of laboratory per week

### **VPM 201 BACTERIOLOGY AND MYCOLOGY**

Bacterial and fungal pathogens of animals will be considered with respect to habitat, virulence factors, pathogenesis and effect on different animal species. Emphasis is placed on specimen selection and isolation and control by chemo- therapeutic and biological means.

Three hours of lecture and four hours of laboratory per week

### **VPM 211 VIROLOGY**

This course provides both a theoretical and a practical basis for understanding important viral diseases of animals. The lectures cover general principles of virology and viral diseases, with special emphasis on diagnosis and pathogenesis. The tutorials are focused on discussions of clinical cases in which student apply knowledge from lectures, as well as directed self-study of clinical problems. Students are guided in group discussions to develop critical reasoning skills.

Two hours of lecture and two hours of tutorial per week

### **VPM 221 SYSTEMIC PATHOLOGY I**

This course is the study of the diseases of the alimentary, hepatic, pancreatic, respiratory, cardiovascular, and haemopoietic systems at the cellular, tissue, and organ levels.

**PREREQUISITE:** Third semester enrolment in the AVC curriculum

Two hours of lecture and two hours of laboratory per week

#### VPM 222 SYSTEMIC PATHOLOGY II

The course is the study of the diseases of the alimentary, hepatic, pancreatic, respiratory, nervous, ocular, auditory, endocrine, reproductive, integumentary, urinary and/or other systems at the cellular, tissue, and organ levels.

Three hours of lecture and four hours of laboratory per week

#### VPM 242 CLINICAL PATHOLOGY

This course provides students with principles of veterinary haematology, cytology and clinical chemistry. Students learn to recognize and interpret alterations in peripheral blood smears, cytologic samples of major body systems, and chemistry data from serum and other body fluids.

Two hours of lecture and two hours of laboratory per week

#### VPM 261 DIRECTED STUDIES

This elective course provides an opportunity for students to participate in intensive research and/or clinical experiential learning opportunities under the supervision of a faculty member. In addition to research and clinical skills, students will also develop leadership and communication skills. This course will be graded Pass/Fail.

PREREQUISITE: Successful completion of year one of the DVM program

Variable 1, 2 or 3 credit hours

**VPM 262 AQUACULTURE AND FISH HEALTH** This course provides students with practical experience in the application of Veterinary Medicine in the aquatic environment. Lectures deal with various aspects of aquaculture, including food fish, shellfish, pet fish, and public display aquaria. Interactions of water, holding facilities, and disease agents will be examined to provide a basis for disease prevention and rational use of chemotherapeutics.

Two hours of lecture and two hours of laboratory/project activity per week

#### VPM 361 DIRECTED STUDIES

This elective course provides an opportunity for students to participate in intensive research and/or clinical experiential learning opportunities under the supervision of a faculty member. In addition to research and clinical skills, students will also develop leadership and communication skills. This course will be graded Pass/Fail.

PREREQUISITE: Successful completion of year two of the DVM program.

Variable 1, 2 or 3 credit hours

#### VPM 410 INTERNATIONAL VETERINARY MEDICINE

This 2-3 credit hour course introduces students to the practice of veterinary medicine in other countries. Students study and experience foreign animal diseases and animal health and management practices in other countries, and learn to appreciate socioeconomic and cultural differences.

PREREQUISITE: Fourth year standing in the DVM program and approval of course Co-ordinator

Three weeks in duration

#### VPM 421 FOREIGN ANIMAL DISEASES

In this course students participate in seminars, tutorials and laboratory exercises on the etiology, epidemiology, pathogenesis, diagnosis, treatment and control of major infectious diseases of animals in the tropics and/or countries foreign to North America. Slides and videotapes are used and students are expected to acquire up-to-date information on recent or current epidemics and on emerging diseases. Regulatory measures to prevent introduction of such diseases and to control possible outbreaks in non-endemic areas are emphasized.

PREREQUISITE: Fourth year standing in the DVM program

Two weeks in duration

Two semester hours of credit

#### VPM 450 DIAGNOSTIC SERVICES

This course is a rotation in the laboratories of Diagnostic

Services. Students gain practical experience in clinical diagnostics with respect to the application of techniques and the interpretation of results in the areas of pathology, clinical pathology, virology, bacteriology and parasitology.

PREREQUISITE: Fourth year standing in the DVM program (Enrolment is limited)

Three weeks in duration

#### VPM 460 MORPHOLOGIC PATHOLOGY

In this course, small groups of students interact directly with pathologists on post-mortem duty. Students gain practical experience in performing necropsies, evaluating histologic slides and establishing a final diagnosis. Emphasis is placed on gross morphologic diagnosis.

PREREQUISITE: Fourth year standing in the DVM program (Enrolment is limited)

Three weeks in duration

#### VPM 490 EXTERNAL CLINICAL EXPERIENCE—INSTITUTIONAL OR SPECIALIST PRACTICE

This course provides a clinical experience that is not available to an individual student at UPEI. This 1-3 credit-hour experience is limited to academic institutions and non-academic institutions where evaluation of performance is routinely completed. In order to qualify as an approved non-academic institution, certain criteria as outlined in the Senior Rotation handbook must be met. All expenses incurred are the responsibility of the student.

PREREQUISITE: Fourth year standing in the DVM Program and approval of the departmental Chair and the Associate Dean of Academic Affairs

#### VPM 495 SPECIAL TOPICS IN PATHOLOGY AND MICROBIOLOGY

This course is initiated and offered at the discretion of the Department. Entry to the course, course content, and the conditions under which the course may be offered will be subject to the approval of the Chair of the Department, the AVC Curriculum Committee, and the Dean or designate.

PREREQUISITE: Fourth year standing in the DVM program

One to three hours per week

## 10. GRADUATE PROGRAMS

### Graduate Faculty

(The faculty listed below are members of the graduate faculty and may participate in graduate programs).

A. S. Abd-El-Aziz—President  
R. Gilmour—Vice-President Research and Graduate Studies  
C. Lacroix—Vice-President Academic

J. Krause—Dean, School of Business Administration  
J. MacDonald—Interim Dean, School of Nursing  
D. MacLellan—Dean, Science  
G. Keefe—Dean, Veterinary Medicine  
N. Kujundzic—Dean, Arts  
R. MacDonald—Dean, Education

L. Lamont—Associate Dean, Academic & Student Affairs

T. Saleh—Chair, Biomedical Sciences  
S. Berry—Chair, Companion Animals  
D. Hurnik—Chair, Health Management  
F. Kibenge—Chair, Pathology & Microbiology

### School of Business

A. Carrothers, R. Domike, G. Evans, S. Graham, B. Jelley, A. MacFarlane, T. Saksida, D. Wagner

### Faculty of Arts

M. Arfken, G. Baldacchino, B. Bartmann, A. Braithwaite, L. Chilton, A. Cohen, D. Coll, D. Desserud, G. Jia, U. Krautwurst, C. Lavoie, R. Lemm, E. MacDonald, J. McIntyre, P. McKenna, S. MacKinnon, B. MacLaine, C. MacQuarrie, J. Mitchell, P. Nagarajan, C. Peach Brown, J. Randall, W. Rankaduwa, C. Ryan, M. Silva-Opps, K. Samis, H. Srebrnik, S. Thomas, M. van den Heuvel, L. Weeks

### Faculty of Education

C. DiGiorgio, R. Doiron, B. Favaro, M. Gabriel, K. Goslin, L. Guo, A. McAuley, D. MacLellan, T. Miller, L. Moffat, J. Preston, R. Srigley, S. Thomas, K. Tiliczek, E. Townsend, F. Walton, S. Wiebe

### Faculty of Science

F. Berrue, R. Bissessur, J. Burr, D. Dahn, T. Doucette, A. Fenech, K. Gottschall-Pass, L. Hale, R. Hurta, R. Kerr, W. Montelpare, S. Opps, J. Pearson, G. Pohle, P. Quijon, M. Rossiter, K. Samis, T. Saunders, M. Silva-Opps, M. Sweeney-Nixon, J. Taylor, K. Teather, M. van den Heuvel, B. Wagner, L. Weeks, W. Whelan

### Veterinary Medicine

#### Department of Biomedical Sciences

L. Bate, J. Burka, S. Dawson, R. Gilmour, S. Hartwig, C. Kamunde, R. Kerr, T. Muirhead, S. McConkey, D. Sims, J. Spears, A. Tasker, M. van den Heuvel, G. Wright

#### Department of Companion Animals

P. Amsellem, T. Bailey, C. Creighton, E. Côté, M. Desmarchelier, P. Foley, H. Gelens, S. Ihle, L. Lamont, L. Pack, C. Runyon, C. Savidge, D. Shaw

#### Department of Health Management

J. Burns, M. Cockram, B. Crane, J. Davidson, A. Doyle, W. Duckett, I. Gardiner, L. Hammell, L. Heider, G. Keefe, S. Khedhiri, J. Lofstedt, J. McClure, L. McDuffee, S. McKenna, M. McNiven, A. Ortenburger, C. Revie, J. Sanchez, E. Spangler, S. St-Hilaire, H. Stryhn, J. VanLeeuwen, J. Wichtel, M. Wichtel

## Department of Pathology and Microbiology

E. Aburto, S. Burton, A. Cepica, G. Conboy, P. Daoust, M. Fast, C. Gilroy, S. Greenwood, P. Hanna, B. Horney, G. Johnson, J. Lewis, C. Martin, A. Muckle, J. Rudriquez-Leco, D. Speare, Y. Wang

## School of Nursing

B. Bell, J. Bryanton, B. Campbell, K. Critchley, V. Foley, R. Herbert, T. Kean, C. McClure, J. MacDonald, G. McInnis Perry, K. MacMillan, C. Sanford, K. Tiliczek, F. Wight Moffatt

## English Language Proficiency Requirements

Admission requirements for All Graduate Programs and for Graduate Student Status:

The language of instruction at the University of Prince Edward Island is English. All academically admissible applicants, regardless of their country of origin or citizenship status, are required to demonstrate proficiency in the English language prior to undertaking studies at the University of Prince Edward Island. Proficiency is demonstrated by:

1. possession of a degree or its academic equivalent from an institution recognized by the University of Prince Edward Island and where the language of instruction is English. Proof that the instruction for the degree was in English may be required and will be confirmed by the UPEI Registrar's Office;
2. or a satisfactory score on one of the following approved English language examinations.

TEST	REGULAR OFFER (ALL PROGRAMS EXCEPT NURSING, EDUCATION)	REGULAR OFFER (NURSING, EDUCATION ONLY)	CONDITIONAL* OFFER
IELTS (Academic)	7 in writing and no band lower than 6.5	7 in writing and speaking; 6.5 in reading and listening	5
TOEFL Paper-based test	600 TWE 6	600 with minimum TWE 6	500 TWE-4
TOEFL Internet-based test	100 with a minimum of 25 in speaking and writing; 22 in reading and listening	100 with no band lower than 25	61
MELAB	85 with 3+ in speaking	85 with 3+ in speaking	Speaking 60
CanTEST	5 in Writing with no other band lower than 4.5	5	4
CAEL	70	70	50
PTE	66	66	50
CAE	CAE A and B and CPE A and B  185-190 after Jan 1/15	CAE A; CPE A & B  185-190 after Jan 1/15	140
Eiken	1	1	Pre-1
CELBAN for Nursing only	Listening 7.5, Reading 6.5, Writing 7; Speaking 7		

Any exam should have been written within the last two years. If not written in the last two years, students should make arrangements to take the test at least three months before the semester opening date.

\*Conditional: Students meeting this requirement must participate in the Graduate English Academic Preparation program and satisfy the minimum Unconditional English Language Proficiency requirements before being permitted to enrol in Graduate level courses or participate in Graduate program activity.

## **Graduate English Academic Preparation (GEAP)**

The University of Prince Edward Island may extend a conditional offer of admission to a highly-qualified graduate applicant who does not quite meet the minimum English language proficiency requirement set by the graduate program to which the student has applied. A conditional admission allows a student to obtain a study permit (if necessary) and begin their studies in the UPEI Graduate English Academic Preparation (GEAP) program. Upon successful completion of the prescribed terms of study in the Graduate EAP program, the student will proceed directly into the graduate degree program.

To be eligible for participation in the Graduate EAP program, an applicant:

- Must be recommended by the appropriate Graduate Admissions Committee.
- Can reasonably be expected to reach the required English proficiency standard for unconditional graduate admission in no more than one year (12 months).
- May not participate in Graduate level courses or participate in Graduate program activity until the minimum (unconditional) English Proficiency requirement has been satisfied through an acceptable assessment test.

The Graduate English Language Preparation program is designed for students coming to graduate studies whose first language is other than English. To be eligible for admission to GEAP, students must have an English proficiency, demonstrated by means of an accepted test, as outlined in the English Proficiency requirements for Graduate studies. The program begins with an in-depth skills and needs analysis to define an individualized education plan focusing on:

- Advanced Composition: North American convention and academic argumentation to develop clarity, forcefulness, and genre appropriateness
- Scientific Writing: quantitative reasoning and analytical writing, if applicable
- Writing abstracts, conference proposals, and literature review
- Conference presentation requirements and skills
- Academic ethics and responsibilities: case study, debate, problem-based learning, data gathering and reporting, seminar presentation
- Library familiarization: databases, resources, cultural and program norms
- Working with an Academic Mentor and with the Writing Centre
- Online Course Work--if required
- Computer skills updating--if required

## **Progress**

Students in the GEAP program are expected to satisfy the minimum (unconditional) English Proficiency requirement, through an acceptable assessment test within one year (12 months) of the start of the program. Students who have not met the requirement within the stated time period, may make appeal to the Graduate Admissions Committee for an extension. Appeals will be considered on a case-by-case basis in consultation with appropriate support units.

## **Graduate Admission Requirements**

### **Master of Science (MSc), Master of Veterinary Science (MVSc), Doctor of Philosophy (PhD), and Postgraduate Diploma in Pathology or Microbiology (PGDip)**

In the following it must be understood that the standard of reference is the typical Canadian university curriculum and university system.

Admission to a graduate degree program as a regular student is granted, on recommendation of the Department concerned, to:

- i. the holder of a Doctor of Veterinary Medicine (DVM) degree, or a four-year honours or majors baccalaureate or its equivalent, as set out below; or



ii. a student who has satisfied the requirements for transfer from provisional student category as described below.

The minimum requirement for admission to graduate studies in the Faculties of Science and Veterinary Medicine is a Doctor of Veterinary Medicine (DVM) degree, or equivalent; or a Bachelor of Science (BSc) degree, or equivalent, normally of four years' duration, in an honours or majors program or equivalent from a recognized university or college, the applicant having achieved an average of at least second-class ("B," i.e., 70% to 79.9%) standing in the work of the last four semesters or the last two undergraduate years.

Admission to the doctoral program normally requires at least second-class standing as well as a recognized Master's degree. Admission to the PGD and MVSc programs is normally limited to holders of a Doctor of Veterinary Medicine degree, or equivalent.

Admission to a graduate course is normally based upon the same requirements as for admission to a graduate program, with exceptions needing the approval both of the Program Administrator and of the Chair of the Department within which the student is registered. Admission, whether as a regular, a provisional, or a special student, is in all cases based upon the recommendation of the Department concerned and is subject to the approval of the Program Administrator.

Admission to advanced courses of instruction or to the privileges of research does not imply admission to candidacy for a higher degree.

### **APPLICATION FOR ADMISSION**

All documents pertaining to application for admission are to be sent to the Office of the Registrar.

### **APPLICATION FEE**

Applications to graduate programs must include these fees for the first and any subsequent applications:

Canadian—\$75.00

International—\$100.00

### **APPLICATION FORM**

Forms upon which to apply for admission may be obtained at

[http://files.upei.ca/registrar/UPEI\\_Graduate\\_Application\\_Form.pdf](http://files.upei.ca/registrar/UPEI_Graduate_Application_Form.pdf) or from the Office of the Registrar, to which they are to be returned when completed.

### **TRANSCRIPTS**

Official transcripts or certified copies in duplicate of the applicant's complete undergraduate and graduate (if any) record to date are to be sent to the Office of the Registrar. Applicants from outside North America are strongly urged to attach official statements of the grades obtained and the subject matter included.

### **REFERENCE LETTERS**

Letters of reference from two professors, under at least one of whom the applicant has taken a significant proportion of work, are to be sent by the professor directly to the Office of the Registrar. An acceptable alternative to one such letter is a letter from the Department Chair on behalf of the Department in which the applicant has studied, or from the employer where the applicant has recently been employed.

### **ENGLISH PROFICIENCY**

Students are expected to be proficient in the use of English, both written and oral, when they begin their studies at the University of Prince Edward Island. The University requires that certification of such proficiency be presented by applicants whose mother tongue is not English or whose normal language of instruction throughout their education (as recognized by UPEI) was not English. Tests of proficiency acceptable to the University, and the minimum scores that must be obtained, are listed under the Admission requirements for All Graduate Programs and for Graduate Student Status section of the Calendar. Such students should make arrangements to take the test at least three months before the semester opening date.

## **GRADUATE RECORD EXAMINATIONS**

In some departments, the Graduate Record Examination (GRE) scores may be used as a basis of determining acceptability of an applicant. Applicants should be careful to note the times and places where the GRE and the tests named above may be taken. Ample time should be allowed for the results to reach the University of Prince Edward Island.

## **REFUSAL OF ADMISSION**

Limitations of funds, space, facilities, or personnel may make it necessary for the University, at its discretion, to refuse admission to an otherwise acceptable applicant.

## **ADMISSION OF FACULTY MEMBERS**

Faculty members of the rank of Associate Professor or Professor are not eligible for admission to graduate studies. Faculty members who are eligible to undertake graduate studies must obtain permission of the President.

## **TENTATIVE ADMISSION**

Tentative Admission may be granted to an applicant whose record to date is acceptable but whose application is incomplete. If the documents are satisfactory when received, the student's admission is confirmed. If unsatisfactory, admission is denied.

## **Master of Education (MEd)**

Candidates for admission to the MEd program must have demonstrated high academic standing and potential for self-directed, sustained research. Normally, the basic requirement is:

i. An undergraduate or graduate degree from an approved university with an average of 70% or higher in the last 20 courses (60 credit hours). An applicant lacking a degree, or an applicant possessing a degree with an academic average under 70%, may be considered for admission under exceptional circumstances. In such cases the Graduate Studies Committee must be satisfied that the student has the capacity to complete graduate work. This capacity could be demonstrated through extensive and relevant professional experiences, leadership, research and publications;

## **APPLICATION FOR ADMISSION**

All documents pertaining to application for admission are to be sent to the Office of the Registrar. Applications will be accepted up to two weeks prior to the beginning of the program or until the program has reached the full complement of students. Please make sure to check the start date of the particular Master of Education cohort in which you are interested.

- Application Checklist
- Graduate Application Form
- Personal Statement Form
- Reference Forms (Professional) & (Academic)

## **TRANSCRIPTS**

Official transcripts of the applicant's complete undergraduate and graduate (if any) record to date are to be sent to the Office of the Registrar. Applicants from outside North America are strongly urged to attach official statements of the grades obtained and the subject matter included. When such transcripts or statements are in a language other than English, a notarized translation of the document must be submitted, in addition to the original document.

## **REFERENCE LETTERS**

Letters of reference from two professors, under at least one of whom the applicant has taken a significant proportion of academic work, are to be sent by the professors directly to the Office of the Registrar. An acceptable alternative to one such letter is a letter from the Chair or Dean on behalf of the Department or Faculty in which the applicant has studied, or from the employer where the applicant has recently been employed.

## **ENGLISH PROFICIENCY**

Students are expected to be proficient in the use of English, both written and oral, when they begin their studies at the University of Prince Edward Island. The University requires that certification of such proficiency be presented by applicants whose mother tongue is not English or whose normal language of instruction throughout their education (as recognized by UPEI) was not English. Tests of proficiency acceptable to the University, and the minimum scores that must be obtained, are listed under the Admission requirements for All Graduate Programs and for Graduate Student Status section of the Calendar. Such students should make arrangements to take the test at least three months before the semester opening date.

## **REFUSAL OF ADMISSION**

Limitations of funds, space, facilities, or personnel may make it necessary for the University, at its discretion, to refuse admission to an otherwise acceptable applicant.

## **TENTATIVE ADMISSION**

Tentative Admission may be granted an applicant whose record to date is acceptable but whose application is incomplete. If the documents are satisfactory when received, the student's admission is confirmed. If unsatisfactory, admission is denied.

## **Master of Arts (MA)**

In the following it must be understood that the standard of reference is the typical Canadian university curriculum and university system.

Admission to a graduate degree program as a regular student is granted, on recommendation of the Department concerned, to:

- i. the holder of an Honours or majors baccalaureate or its equivalent.
- ii. a student who has satisfied the requirements for transfer from provisional student category as described below.

The minimum requirement for admission to graduate studies in the Faculty of Arts is a Bachelor's degree, or equivalent, in an honours or majors program or equivalent from a recognized university or college. The applicant will ordinarily be expected to have achieved an average of at least second-class ("B," i.e., 70% to 79.9%) standing in the work of the last four semesters or the last two undergraduate years.

Applicants must also provide, and will be assessed for admission, on:

- \* A statement of research interests
- \* A sample of written research work from prior university or professional experience
- \* Two (2) letters of recommendation from professors or those familiar with the applicant's professional work
- \* A resume or curriculum vitae
- \* An application form (available from the Registrar's Office or online)

Admission to a graduate course is normally based upon the same requirements as for admission to a graduate program, with exceptions needing the approval both of the Program Administrator and of the Chair of the Department within which the student is registered.

Admission, whether as a regular, a provisional, or a special student, is in all cases based upon the recommendation of the Department concerned and is subject to the approval of the Graduate Studies Committee.

Admission to advanced courses of instruction or to the privileges of research does not imply admission to candidacy for a higher degree.

## **APPLICATION FOR ADMISSION**

All documents pertaining to application for admission are to be sent to the Office of the Registrar.

## **APPLICATION FORM**

Forms upon which to apply for admission may be obtained at [http://files.upei.ca/registrar/UPEI\\_Graduate\\_Application\\_Form.pdf](http://files.upei.ca/registrar/UPEI_Graduate_Application_Form.pdf) or from the Office of the Registrar, to which they are to be returned when completed, with the appropriate fee and supporting documentation.

## **ENGLISH PROFICIENCY**

Students are expected to be proficient in the use of English, both written and oral, when they begin their studies at the University of Prince Edward Island. The University requires that certification of such proficiency be presented by applicants whose mother tongue is not English or whose normal language of instruction throughout their education (as recognized by UPEI) was not English. Tests of proficiency acceptable to the University, and the minimum scores that must be obtained, are listed under the Admission requirements for All Graduate Programs and for Graduate Student Status section of the Calendar. Such students should make arrangements to take the test at least three months before the semester opening date.

## **Master of Applied Health Sciences Research (MAHSR)**

Candidates for admission to the Masters of Applied Health Services Research program must have demonstrated high academic standing and potential for self-directed, sustained research. Normally, the basic requirements are:

- i. a Bachelor's degree of four years or a Bachelor's with honours, or equivalent professional degree, from an approved university, with a minimum GPA of 3.0 or an average of 75% or higher in the last 20 courses;
- ii. a brief statement of research and professional interests;
- iii. a brief statement describing the suitable match between the Masters of Applied Health Services Research and the applicant's experiences and goals; and
- iv. three references.

Admission to a graduate course is normally based upon the same requirements as for admission to a graduate program. Admission to advanced courses of instruction or to the privileges of research does not imply admission to candidacy for a higher degree.

## **APPLICATION FOR ADMISSION**

All documents pertaining to application for admission are to be sent to the Office of the Registrar. Application deadline is April 1.

## **APPLICATION FORM**

[Application forms](#) for admission may be obtained from the Office of the Registrar, to which they are to be returned when completed, with the appropriate fee and supporting documentation.

## **TRANSCRIPTS**

Official transcripts or certified copies in duplicate of the applicant's complete undergraduate and graduate (if any) record to date are to be sent to the Office of the Registrar. Applicants from outside North America are strongly urged to attach official statements of the grades obtained and the subject matter included.

## **REFERENCE LETTERS**

Letters of reference from two professors familiar with the applicant's work, are to be sent by the professors directly to the Office of the Registrar. An acceptable alternative to one such letter is a letter from a Chair or Dean on behalf of the Department or Faculty in which the applicant has studied, or from the employer where the applicant has recently been employed.

## **ENGLISH PROFICIENCY**

Students are expected to be proficient in the use of English, both written and oral, when they begin their studies at the University of Prince Edward Island. The University requires that certification of such proficiency be presented by applicants whose mother tongue is not English or whose normal language of instruction throughout their education (as recognized by UPEI) was not English. Tests of proficiency acceptable to the University, and the minimum scores that must be obtained, are listed under the Admission requirements for All Graduate Programs

and for Graduate Student Status section of the Calendar. Such students should make arrangements to take the test at least three months before the semester opening date.

### **REFUSAL OF ADMISSION**

Limitations of funds, space, facilities, or personnel may make it necessary for the University, at its discretion, to refuse admission to an otherwise acceptable applicant.

### **TENTATIVE ADMISSION**

Tentative Admission may be granted an applicant whose record to date is acceptable but whose application is incomplete. If the documents are satisfactory when received, the student's admission is confirmed. If unsatisfactory, admission is denied.

### **ADMISSION AND FINANCIAL ASSISTANCE**

Only those students who are matched with a research supervisor who can provide the student with funding over the course of the degree (two years) will be admitted to the program. In addition to covering any costs of the student's research, supervisors will normally cover the costs for students to attend the mandatory Atlantic Regional Training Centre workshops.

When students participate in their research residency, it is anticipated they will receive a monthly stipend, although this is a matter for individual organizations and as such cannot be guaranteed. Students may also apply for funding for their residency through other agencies.

### **Master of Business Administration (MBA)**

Applicants for admission to the MBA program must have demonstrated the potential to learn within a demanding integrated program, typically through high academic standing in previous university studies. The basic requirements and qualifications are:

i. for the Innovative Management Stream, an undergraduate degree in any discipline is required. For the Biotechnology Management and Entrepreneurship Stream, an undergraduate degree in the sciences or a degree in any discipline plus considerable work experience in a science field is required.

For both streams, the required degree must be from a recognized university and the applicant should have achieved a minimum average of B (70% or higher) in the last four semesters or last two years of undergraduate study.

ii. acceptable professional designations such as CFA, CA, CGA, CMA, or PEng plus work experience will also be considered. Under exceptional circumstances, a person who lacks a formal degree or professional designation but who has other outstanding management qualifications, such as a well-established and documented business career, may be admitted to the MBA program. In these circumstances, applicants will normally be expected to have a minimum of ten years full-time work experience, including significant experience in upper management or entrepreneurial positions. The MBA Committee must be satisfied that the applicant has demonstrated a level of academic competence at least equivalent to an undergraduate degree.

iii. a minimum of three years of full-time work experience is preferred, with a required minimum of one year full-time, relevant work experience. The relevant work experience may include managerial and supervisory responsibilities, new venture ownership, and professional or project development experiences. A variety of work experiences and backgrounds enhance the calibre of class interaction so students learn from both the professor and each other.

### **APPLICATION FOR ADMISSION**

All documents pertaining to application for admission must be submitted to the Office of the Registrar with the appropriate fee.

## **APPLICATION CHECKLIST**

- Graduate Studies Application Form
- All Official Transcripts
- Current, detailed resume
- Two Reference Letters (form downloadable; references must be dated within 6 months of program application)
- GMAT Score (if requested)
- Personal Statement
- TOEFL Scores (for applicants whose first language is not English)
- \$75 CAD Application Fee

Applications and all documentation must be received by April 15 for a September start date. Applicants from the People's Republic of China must submit their application by January 31 for a September start. All other international applicants must meet a submission deadline of March 1 for a September start in the same year.

Applications received after the specified deadlines will be reviewed only if seats are available.

Early applications are highly recommended as there are a limited number of seats in the program and these fill up as completed applications are adjudicated throughout the year. All applications are assessed on a case-by-case basis and adjudicated only once.

## **TRANSCRIPTS**

Official transcripts or certified copies of the applicant's complete undergraduate and graduate (if any) record to date are to be sent to the Office of the Registrar. Applicants from outside North America are strongly urged to attach official statements of the grades obtained and the subject matter included. If original documentation is not in English, you must also provide a notarized English translation. This does not apply to French language universities in Canada.

## **RESUMÉ, REFERENCE LETTERS, AND PERSONAL STATEMENT**

A current resume must be submitted to the Office of the Registrar along with two reference letters, and a personal statement. The resume must detail work experiences, responsibilities, and contributions. Two reference letters are to be submitted on the appropriate referee form. They must be placed in an envelope, sealed and signed by the referee. A personal statement, of no more than 400 words, must explain the reasons why you wish to enrol in UPEI's MBA program. It should include details of your relevant past experience, your long and short term goals, and explain how the MBA program will meet your needs and assist you in reaching your educational and career goals.

**NOTE:** Applicants without a formal degree or professional designation will be expected to provide convincing evidence of their capabilities in communications, analysis, and knowledge transfer, as well as their professional contributions and accomplishments within their personal statement. For these applicants only, the personal statement must be no more than 800 words.

## **GRADUATE MANAGEMENT ADMISSION TEST (GMAT)**

A Graduate Management Admission Test (GMAT) score may be requested. If GMAT results are requested, applicants must achieve a minimum score of 550, with preference given to scores of 600 and over. This will be considered as an indicator and a tool for evaluating applicants for quantitative and verbal skills. These scores should be less than five years old.

## **INTERVIEW**

Once all application materials are received, the MBA Committee may conduct an interview for admission. The committee will be seeking well-rounded and knowledgeable people with managerial and leadership potential. Innovative management and entrepreneurial thinking requires teamwork and relationship building so applicants will be chosen based on their ability to enhance this type of diverse and dynamic learning environment.

## **ENGLISH PROFICIENCY**

Students are expected to be proficient in the use of English, both written and oral, when they begin their studies at the University of Prince Edward Island. The University requires that certification of such proficiency be presented by applicants whose mother tongue is not English or whose normal language of instruction throughout their education (as recognized by UPEI) was not English. Tests of proficiency acceptable to the University, and the minimum scores that must be obtained, are listed under the Admission requirements for All Graduate Programs and for Graduate Student Status section of the Calendar. Such students should make arrangements to take the test at least three months before the semester opening date.

## **REFUSAL OF ADMISSION**

Admission to the MBA Program is a competitive process. Limitations of funds, space, facilities, or personnel may make it necessary for the University, at its discretion, to refuse admission to an otherwise acceptable applicant. Meeting minimum requirements does not guarantee admission to the program. To avoid disappointment, applicants are encouraged to submit their documents well before the deadline of April 15.

## **Doctor of Philosophy in Educational Studies (PhD)**

Candidates for admission to the PhD in Educational Studies must have demonstrated high academic standing and evidence of ability to conduct original, independent and sustained research. Normally, the basic requirements are:

- (i) First class standing (e.g., a minimum academic average of 80%, or A-, or a GPA of 3.7) or equivalent, in a Masters program conferred by an accredited university (students with Pass grades must request that former professors complete a narrative assessment form to confirm first class standing equivalence and potential for admission to a PhD program).
- (ii) A Masters thesis. An equivalent research report such as a Masters project, or a substantial research-focused technical report, authored solely by the applicant, may also be considered.
- (iii) Evidence of a minimum of 5 years professional experience in field deemed relevant to the field of educational studies.

## **APPLICATION FOR ADMISSION**

All documents pertaining to application for admission are to be sent to the Office of the Registrar. All application materials must be received no later than January 15 of the year for which admission is sought. Late applications are reviewed only if seats are still available after all those meeting the deadline have been considered.

Applicants to the UPEI PhD program in Educational Studies would submit the following documents for consideration by the Graduate Studies Committee:

- A current Curriculum Vitae and statement of intent (please see Faculty of Education website for details relating to the statement of intent).
- 3 references (at least two letters should come from professors familiar with the applicant's work at the Masters level; one would normally come from the applicant's thesis advisor.
- The third reference could be provided by another professor familiar with the applicant's work or by a relevant employer who is in a position to assess the candidate's suitability for a doctoral program). Referees are asked to complete the reference form provided on the Faculty of Education website.
- A portfolio including supporting materials the applicant considers relevant. These materials could include scholarly articles, professional publications, evidence of research-driven professional activities, professional/artistic presentations, performances or exhibits.

Applicants may also be invited to an interview (face-to-face or virtual) to discuss the application with the Graduate Studies Committee.

All applications to the PhD program are assessed on a competitive basis. Satisfaction of the minimum requirements does not guarantee admission to the program. Due to the nature of the program, deferral of admission will

normally not be possible. The Faculty of Education endeavours to provide some financial support for all candidates admitted to the program.

### **TRANSCRIPTS**

Official transcripts of the applicant's complete undergraduate and graduate record to date are to be sent to the Office of the Registrar. Applicants from outside North America are strongly urged to attach official statements of the grades obtained and the subject matter included. When such transcripts or statements are in a language other than English, a notarized translation of the document must be submitted, in addition to the original document.

### **ENGLISH PROFICIENCY**

Students are expected to be proficient in the use of English, both written and oral, when they begin their studies at the University of Prince Edward Island. The University requires that certification of such proficiency be presented by applicants whose mother tongue is not English or whose normal language of instruction throughout their education (as recognized by UPEI) was not English. Tests of proficiency acceptable to the University, and the minimum scores that must be obtained, are listed under the Admission requirements for All Graduate Programs and for Graduate Student Status section of the Calendar. Such students should make arrangements to take the test at least three months before the semester opening date. Students whose first language is French may complete the PhD dissertation in Educational Studies in French provided a qualified supervisory Committee can be established at UPEI.

### **REFUSAL OF ADMISSION**

Limitations of funds, space, facilities or suitable faculty supervisor may make it necessary for the University, at its discretion, to refuse admission to an otherwise acceptable applicant.

### **TENTATIVE ADMISSION**

Tentative Admission may be granted an applicant whose record to date is acceptable but whose application is incomplete. If the documents are satisfactory when received, the student's admission is confirmed. If unsatisfactory, admission is denied.

### **Master of Nursing (MN)**

Candidates for admission to the MN program must have demonstrated high academic standing and potential for self-directed, sustained research. Normally, the basic requirements are:

- i. A baccalaureate degree in nursing from an approved or accredited university is required. A minimum average of 75% or a grade point average (GPA) of 3.0 (B) in the last twenty courses of a baccalaureate nursing program is required.
- ii. Prior completion of a Research Methods course, an Introductory Statistics course, and a course in Nursing Theory, or equivalent.
- iii. Individuals applying for the Nurse Practitioner Stream must have a minimum of two years experience in clinical nursing practice.
- iv. Proof of active practicing nurse registration in Canada is necessary (e.g. proof of registration card). Applicants from other countries may apply, provided they have active practicing registered nurse status in their home country. Payment of international fees will be required of all students from outside Canada. Once enrolled in the program, all students must maintain active practicing nurse registration with the Association of Registered Nurses of Prince Edward Island.
- v. Upon acceptance into the Master of Nursing program, students must submit a completed up-to-date immunization record, a certified criminal record check, and confirmation of current CPR Certification at the Health Care Provider level.



## **APPLICATION FOR ADMISSION**

All documents pertaining to application for admission are to be sent to the Office of the Registrar. All application materials must be received no later than February 15. Please indicate if you are applying to the Thesis Stream or the Nurse Practitioner Stream.

PLEASE NOTE: Admission to the Nurse Practitioner stream occurs every second year.

- Graduate Programs Application Form
- Application Checklist
- Reference Letters (Academic) (Professional)

### **Application Fee**

Applications to graduate programs must include these fees for the first and any subsequent applications:

Canadian-\$75.00

International-\$100.00

### **Transcripts**

Official transcript(s) (statements of course work and grades obtained) of all academic courses taken at all degree-granting institutions must be submitted.

### **References**

Three (3) references (at least one from an academic, and at least one from a recent employer), indicating the applicant's academic and/or professional qualifications and potential for success in a graduate education program, are required. (See forms: <http://www.upei.ca/programsandcourses/graduate-admissions/master-nursing>)

Note: For the Nurse Practitioner stream, a reference from the recent employment supervisor must confirm a minimum of two years in clinical nursing practice.

### **English Proficiency**

Students are expected to be proficient in the use of English, both written and oral, when they begin their studies at the University of Prince Edward Island. The University requires that certification of such proficiency be presented by applicants whose mother tongue is not English or whose normal language of instruction throughout their education (as recognized by UPEI) was not English. Tests of proficiency acceptable to the University, and the minimum scores that must be obtained, are listed under the Admission requirements for All Graduate Programs and for Graduate Student Status section of the Calendar. Such students should make arrangements to take the test at least three months before the semester opening date. Students whose first language is French may complete the PhD dissertation in Educational Studies in French provided a qualified supervisory Committee can be established at UPEI.

### **Resume**

A resume/curriculum vitae that includes the following must be submitted:

- Past educational preparation
- Employment experience, including level of responsibility
- Awards and honours
- Previous involvement with research projects, other projects, publications and/or presentations
- Continuing education and professional development (e.g., courses, workshops, conferences)
- Committee work
- Any other supporting information

### **Personal Statement**

- All applicants are asked to identify and elaborate on their educational and career goals.
- All applicants are asked to explain reasons for applying to the program and the strengths that you will bring as a graduate student.
- Thesis students are required to submit a two-page summary describing the research project you are interested in completing as part of the thesis component of the MN. This will assist in confirming supervisory availability.

An interview may be required.

Completed applications for admission to the program must be received by February 15 for fall admission. Late applications may be considered if space is available.

Preference will be given to qualified residents of PEI applying to the program.

## **REFUSAL OF ADMISSION**

Admission to the MN program is a competitive process. Limitations of funds, space, facilities, or personnel may make it necessary for the University, at its discretion, to refuse admission to an otherwise acceptable applicant. Meeting minimum requirements does not guarantee admission to the program.

## **Academic Regulations – Graduate Programs**

### **1. APPLICATION FOR DEGREES, DIPLOMAS, AND CERTIFICATES**

Degree, Diploma, and Certificate candidates should make formal application for graduation not later than 31 October of the academic year in which they expect to complete the requirements for their programs. This option is accessible through your UPEI Student Number and PIN number from mid-July to 31 October.

### **2. TRANSCRIPT ABBREVIATIONS**

The following abbreviations are used on transcripts:

DISC: discontinued with permission

NC: non-credit INC: incomplete F: failed

P: passed

AUD: audit

DE: deferred examination

IP: in progress

### **3. MINIMUM GRADE REQUIREMENT**

A graduate student who receives a grade of less than 60% in any course (graduate, undergraduate, prescribed additional) is deemed to have failed the course (with the exception of programs in the Faculty of Education, in which a graduate student who receives a grade of less than 70% is deemed to have failed the course).

### **4. LETTERS OF PERMISSION**

a. Courses: Graduate students enrolled at UPEI and wishing to take courses at other institutions for credit towards their UPEI degree or diploma are advised that a letter of permission, approved by the student's Supervisor, Dean or Program Coordinator, and Registrar must be obtained in advance. Letters of Permission are issued to the host institution by the Office of the Registrar, along with a copy of the student's UPEI transcript, and are a student's guarantee that credits earned elsewhere will be transferable to his/her academic program at UPEI subject to program requirements.

b. Research: Students visiting another university to undertake research activities must have the written permission of both UPEI and the host university.

### **5. INCOMPLETE COURSES**

a. Students who fail to complete all the components of a course, such as assignments, examinations, and laboratories, due to circumstances beyond their control (such as illness), may, with the permission of the Professor, Chair, and Dean, be granted an amount of time deemed reasonable for the completion of said components. Students should contact the course instructor in order to obtain such permission. A doctor's certificate may be required for explanations of sickness.

b. If a student does not complete all the components of a course by the agreed-upon date, normally a grade of "F" shall replace "INC" on the transcript. The Registrar will advise the Department Chair that the grade of "F" requires a percentage grade for posting on the student transcript. Nevertheless, in cases where the component left incomplete was not a requirement for passing the course and where the student already had earned a passing

grade without completing the component, the passing grade shall be submitted and shall replace INC on the transcript.

## **6. ACADEMIC DISHONESTY**

As a community of scholars, the University of Prince Edward Island is committed to the principle of academic integrity among all its participants. Academic dishonesty as defined in this Regulation will not be tolerated and, within the constraints of this Regulation and Academic Regulation 9, the University supports instructors in their efforts to deal effectively with cases as they may arise from time to time.

a. Actions which constitute academic dishonesty are considered an offence within the University and include:

1. plagiarism, which occurs when a student submits or presents work of another person in such a manner as to lead the reader to believe that it is the student's original work; self-plagiarism is the submission of work previously submitted for academic credit without prior approval of the professor;
2. cheating on tests or examinations, including giving false reasons for absence;
3. falsifying records or submitting false documents, including falsifying academic records, transcripts, or other University documents, or misrepresenting one's credentials; and
4. other academic misconduct, such as the unauthorized use of recording devices or the unauthorized acquisition of computer software or other copyright material.

b. When there is reasonable evidence to support an allegation of academic dishonesty, the matter shall be discussed with the student at the earliest opportunity. A written record of the incident and the response of the University will be sent to the student and to the appropriate Chairperson and Dean, and will be placed by the Dean on the student's file in the Office of the Registrar.

c. One or more of the following sanctions may be imposed, depending on the seriousness of the offence:

1. the instructor, within his/her authority for assignment of course grades, may impose:
    - i. a reprimand;
    - ii. assignment of a mark of zero or a failure for the piece(s) of work under review;
    - iii. assignment of a grade of "F" in the course in which the offence was committed;
    - iv. suspension of privileges in cases where the offences have involved misuse and/or abuse of the library, computer, or other University resources;
  2. the Dean, in consultation with the Department where appropriate, may recommend to the President suspension or expulsion from the University;
  3. the President may impose suspension or expulsion from the University; or
  4. the Senate may withhold or revoke a degree, diploma, or certificate.
- d. The student has the right to appeal through the provisions of Academic Regulation 9.

## **7. RE-READING OF EXAMINATIONS**

- a. Application to have any paper re-read must be made to the Registrar within one month after recording of results.
- b. Such an application must be supported by a substantial reason in writing. Forms are provided.

c. Students who intend to appeal a course grade are cautioned that failing grades have been checked very carefully and, barring a clerical error, appeals seldom result in higher grades.

## **8. APPLICATION OF REGULATIONS**

In the application of these academic regulations, students shall have access to a fair and just hearing subject to appeal.

## **9. APPEALS**

a. Notice of appeal on any matter must be made in writing within one week of the date on which the decision is handed down, unless the decision-making body has internal regulations allowing later appeals. In every case, it is the appellant's responsibility to ascertain the time allowed for filing notice of appeal.

b. Any appeal on an academic matter shall normally be made to the Department Chair concerned who should consult within the Department before arriving at a decision.

c. The Department Chair's decision may be further appealed, in writing, within two weeks of the decision being rendered, to the Dean of the Faculty who shall name a committee to consider the appeal.

d. Decisions on final course grades may be further appealed, in writing, within one month of being rendered, through the Registrar to the Senate Committee on Student Academic Appeals. Appeals of decisions on academic matters other than grades are to be directed to this Committee through the Registrar. All decisions of this Committee shall be final unless appeal is made to the Board of Governors in keeping with the terms of the University Act.

## **10. AMENDMENTS TO REGULATIONS**

The University reserves the right to add to, alter, or amend these regulations at any time.

## **11. EVALUATION OF TRANSCRIPTS**

The evaluation of transcripts shall be the responsibility of the Registrar's Office in consultation with the appropriate Department and Dean.

## **12. DOUBLE-SCHEDULING**

Students are not permitted to schedule themselves into two courses that are offered during the same time period, or that overlap.

## **General Regulations – Graduate Programs**

### **Master of Science, Master of Veterinary Science, Master of Arts, Doctor of Philosophy, and Postgraduate Diploma in Pathology or Microbiology**

#### **1. GLOSSARY OF TERMS**

a. Faculties: Faculty of Veterinary Medicine, Faculty of Arts, and Faculty of Science.

b. Master of Arts (MA): degree granted for successful completion of the requirements for the Master of Arts degree as listed in the regulations.

c. Master of Science (MSc): degree granted for successful completion of the requirements for the Master of Science degree as listed in the regulations.

d. Postgraduate Diploma (PGD): diploma granted for successful completion of the requirements for the Postgraduate Diploma as listed in the regulations.

e. Master of Veterinary Science (MVSc): degree granted for successful completion of the requirements for the Master of Veterinary Science degree as listed in the regulations.

f. Doctor of Philosophy (PhD): degree granted for successful completion of the requirements for the Doctor of Philosophy degree as listed in the regulations.

g. Graduate Studies Committee: standing committees of the Faculties appointed by the respective Deans to oversee and review the graduate programs. In the Faculty of Veterinary Medicine, this role is filled by the Graduate Studies and Research Committee.

Mandate with respect to Graduate Studies includes:

i. to establish and periodically to review the goals and objectives of the graduate studies programs within each Faculty;

ii. to review all applications from prospective graduate students and recommend acceptance or rejection;

iii. to make recommendations concerning creation, deletion or modification of graduate programs and courses;

iv. to develop and review program and thesis guidelines for graduate programs;

v. to review academic records of graduate students and recommend to the Dean the awarding of degrees or courses of action for substandard performance;

vi. to recommend changes to the Graduate Studies Academic Calendar; and

vii. to review all recommendations from department chairs for the appointment of graduate faculty and recommend acceptance or rejection.

h. Graduate faculty: members of the Faculties who participate in the graduate programs are described herein as graduate faculty. Such members are assigned their duties by the Dean of the Faculty on the recommendation of a Department Chair and the Graduate Studies Committee. From time to time, faculty members are drawn from other Faculties, and Adjunct Professors may be recommended as graduate faculty and may serve on graduate student Supervisory Committees as a result of particular expertise related to a particular project.

Normally, graduate faculty in the Faculty of Veterinary Medicine will have a Bachelor's degree or a Doctor of Veterinary Medicine degree, as well as a Master's degree or a Doctor of Philosophy degree or Board Certification. Graduate faculty in Arts and Science will normally have a Doctor of Philosophy degree.

i. Program Administrator: the individual within each of the Faculties who has administrative responsibility for the co-ordination of graduate programs and who chairs the respective Graduate Studies Committee. In the Faculty of Veterinary Medicine, this person is the Associate Dean, Graduate Studies and Research. In the Faculties of Arts and Science respectively, it is the Co-ordinator of Graduate Studies.

j. For the purpose of these regulations, the term "semester" includes, in addition to first and second semester as defined in the Calendar, the period from May to August in each year as a third semester.

## 2. DESCRIPTION OF GRADUATE STUDENTS

Graduate students are systemically described by category and classification.

### Category

**Regular Student:** An applicant who has met the admission requirements set out above or who has been recommended for transfer from provisional student category described below is recorded as a regular student.

**MAIS Regular Student:** An applicant who has met the admission requirements set out for this program and for UPEI. Students are enrolled in the MAIS on a program basis and are considered to be full time graduate students.

**Provisional Student:** An applicant whose qualifications are not completely clear may be admitted as a full-time provisional student. If at the end of one semester the department is satisfied with the student's progress, it will recommend to the Program Administrator transfer to regular student status. Upon such transfer, the student will receive credit for courses completed, and residence credit for the semester. If transfer to regular student status is not achieved at the end of one semester, the student may be permitted to continue for a second semester as a provisional student, at the end of which time the record will be reviewed as before. If transfer to regular student status is not recommended, the student will be transferred to special student category, or will be required to withdraw.

**Special Student:** A student who is not enrolled in a degree or diploma program at this university is recorded as a Special Student. Normally such students register for not more than one or two graduate courses with the permission of the instructor; in unusual circumstances, a special student may participate in research, but only with the permission of the Program Administrator. Graduate courses taken by special students may subsequently be considered for credit towards a graduate degree only on recommendation of the academic unit in which the student is registered and with the approval of the Graduate Studies Committee. Approval must be obtained within 12 months of the completion of the special studies course. A student who wishes to register as a special student should contact the Office of the Program Administrator before applying for admission.

**Conditional Student:** Students who have met all other program admission requirements but have only met the Conditional Student English Language Proficiency requirements, and have been recommended for admission by the appropriate admission committee. Conditional Students must participate in the Graduate English Preparation program and satisfy the minimum Unconditional English Language Proficiency requirement before being permitted to enrol in Graduate level courses or participate in Graduate program activity.

### **Classification**

In the foregoing categories a student is classified as full-time or part-time.

**Full-time Student:** A full-time student is one who (i) is designated by the University as a full-time graduate student; (ii) is geographically available and is on the campus regularly\*; (iii) save in exceptional circumstances, is not regularly employed at the University, for more than an average of a set number of hours per week\*\*. Residency requirements for advanced degrees are cited as for full-time students.

### **NOTES:**

\*It is understood that a graduate student may be absent from the University while still under supervision (e.g. visiting libraries, attending a graduate course at another institution, doing field work). If such periods of absence exceed four weeks in any semester written evidence must be available in the Office of the Program Administrator to the effect that the absence has the approval of the Department Chair and of the Program Administrator. Irrespective of this provision, a student conducting experimental work in an external laboratory will not normally be considered as a full-time student, except as outlined under "Student Mobility" in Academic Regulations—Graduate Programs.

\*\*If the student is employed as a Graduate Service Assistant or a Graduate Teaching Assistant, the number of set hours per week should represent the total time spent on preparative work, reading set assignments, marking examinations, and the like.

The number of set hours per week: Faculty of Veterinary Medicine: 10 hours Faculty of Science: 12 hours  
Faculty of Arts: determined in consultation with the Graduate Coordinator

**Part-time Student:** All graduate students other than full-time graduate students are part-time graduate students. A part-time student may register for no more than two courses per semester. Normally, a part-time student will register in consecutive semesters and complete the MSc degree in approximately three years or the PhD degree in approximately six years. This would include summer periods as semester equivalents for research work, although normally no graduate courses would be offered. To transfer from "part-time" to "full-time" status, the student

must consult with the Supervisory Committee / Graduate Coordinator and have the approval of the Department and the Program Administrator. The Program Administrator shall notify the Registrar's Office.

### **3. ENROLMENT AND REGISTRATION**

#### **Regular and Provisional Students**

Each regular or provisional student will enrol in a program of study in the jurisdiction of a single academic department of the Faculties. The student will be identified with a single department, in which he or she is deemed to be registered. The Department so identified will normally be the Department of which the Supervisor is a member. In the case of the MA in Island Studies, the student will be deemed to be registered in an interdisciplinary Master of Arts program with the Dean of Arts taking the place of the Department Chair.

#### **Registration Procedure**

Before the beginning of the semester, the student shall file in the Office of the Registrar an Academic Registration setting out the program of studies for that semester. The form must be approved in the Department concerned before it is submitted. New students are expected to follow the same procedures, but where this is not possible their registration may be delayed until the Last Date for Registration as announced in the Calendar.

Student identification cards, which are used for identification and for library purposes, are obtained upon initial registration, and are validated at the Sports Centre at the beginning of each subsequent semester. Loss or theft of an identification card must be reported. The registration procedure must be completed within the dates set in the Calendar. Students taking undergraduate courses must have completed their registration by the date of registration for undergraduate students.

#### **Registration Changes**

Changes of registration (deletion or addition of courses) must be made only on the recommendation of the student's Supervisory Committee. A proposal to add a course must bear the signature of the instructor concerned. Except where credits are granted for courses taken at other universities, credits will be given only for courses listed in the registration form or authorized through an official change of registration.

Continuity of Registration Graduate students must be registered in each semester in which they are actively engaged in course work or in the research program; that is, whenever they are making use of University facilities or personnel, in connection with their work.

Graduate students, upon being admitted to the program, are required to register in every semester thereafter until their work is completed. Failure to register will be regarded as withdrawal from graduate studies at this university.

Students who wish to resume their studies must apply for readmission; if readmitted, they will be required to conform to current regulations. Notwithstanding the foregoing, a regular student may make prior arrangements, with the approval of the Department and of the Program Administrator, and after consultation with the Registrar's Office, to pursue full-time studies at another approved university for a period of time.

A student who has not completed all the requirements for the degree by the due date for thesis submission in a particular semester must reregister. Candidates must be registered in the semester in which they qualify for the degree.

In the case of conjoint or collaborative graduate programs within UPEI or with other universities, arrangements will be made to ensure that the students involved are not placed at a disadvantage in respect of continuity of registration.

#### **Cancellation of Registration**

A student who wishes to withdraw from the University is expected to consult with the Department Chair prior to submitting the "withdrawal form" to the Registrar's Office, the Accounting Office, and the Office of the Program Administrator.

In the event that a student fails to obtain satisfactory standings or to make satisfactory progress either in course work or in research, the Dean on the advice of the Graduate Studies Committee may require the student to withdraw. Registration will be cancelled as of a date set by the Committee, and an appropriate refund of fees made.

A student who withdraws from the University must return all outstanding loans from the Library prior to withdrawal, regardless of the due date. Any items not returned will be declared “lost,” and will be charged to the student’s account. This procedure is required practice even though in his or her new capacity as an outside borrower, the ex-student may wish to borrow the same or other books.

#### **4. SUPERVISION**

##### **Departmental Supervision**

The student’s program is established and progress kept under review by the appropriate department or in the case of the interdisciplinary MA in Island Studies, by the Dean of Arts and Program Administrator. The Department will establish a Supervisory Committee consisting of a minimum of three (Faculty of Science) or four (Faculty of Veterinary Medicine) graduate faculty to assist with the supervision of the program. At the discretion of that academic unit, the day-to-day responsibility for overseeing the student’s program will rest with the Supervisor; two Co-Supervisors or jointly with the Supervisory Committee. In the case of co- supervision, one of the co-supervisors must be a member of the Department in which the student is enrolled and is hereafter referred to as the “Supervisor.” The Supervisor will normally have, at minimum, a degree equivalent to that for which the student is registered, and be from the Department in which the student is enrolled.

In the Faculty of Veterinary Medicine, the Chair of the Supervisory Committee is the Department Chair (or designate), and in no case shall the Committee be chaired by the graduate student’s Supervisor. In addition, at least one member of the Supervisory Committee must be from a department other than that in which the student is registered.

In the Faculty of Science, the Supervisory Committee is composed of the Supervisor, and at least two other graduate faculty members, at least one of whom must be from the Department in which the student is registered. All members of the Supervisory Committee must be able to participate actively during the program.

In the Faculty of Arts, the Supervisory Committee is composed of the Supervisor, and at least two other graduate faculty members familiar with the academic discipline(s) of study. All members of the supervisory committee must be able to participate actively during the program.

##### **Supervisory Committee**

In all cases, except the PGD program, the program of a graduate student is established and supervised by the Supervisory Committee, all of whom must be graduate faculty. Once the Supervisory Committee has been approved, no changes may be made in its membership without the written approval of the Graduate Studies Committee.

##### **Establishment of Program**

After examining the student’s academic record, due account being taken of all relevant courses passed at any recognized university or college, and in the light of a Placement Examination if so desired, the Supervisory Committee will arrange a program appropriate for the degree. The program will include prescribed studies on the basis of which the candidate’s final standing will be determined; and it may include additional courses either chosen by the student or specified by the Supervisory Committee. The program established by the Supervisory Committee must be submitted to the Program Administrator within 60 days of the student’s first registration date for approval by the Graduate Studies Committee.

##### **Changes in Program**

Once the program of courses is established, changes may be made subject to the approval of the Supervisory Committee and the Graduate Studies Committee.



### **Transfer of Academic Credit**

On the recommendation of the Supervisor and with the approval of the Department Chair and the Program Administrator, a graduate student may take, and receive credit for, courses at another university. The arrangements for these courses must be made through the Registrar's Office. The maximum number of credits that may be taken at other universities will be 50% of the total program requirements.

### **Review of Progress**

The Department in which the student is enrolled is responsible for reviewing the academic record and progress of each student at least twice a year and reporting on that progress to the Program Administrator. If problems are identified which necessitate changes to the student's approved program, these may only be made with the approval of the Graduate Studies Committee.

### **Masters Examination**

The Departmental Chair selects the examination committee at the request of the Supervisor/ Graduate Coordinator and is responsible for notifying the Program administrator of its composition.

## **5. GRADES SCHEDULE**

In the courses which comprise a part of the student's program, standings will be reported according to the following schedule of grades:

- First-class standing: 80 per cent and higher
- Second-class standing: 70 to 79.9 per cent inclusive
- Pass standing: 60 to 69.9 per cent inclusive

F: a graduate student who receives a grade of less than 60 per cent in any course (graduate or undergraduate, prescribed or additional) is deemed to have failed the course. The candidate must maintain an average grade of at least a B standing in the substantive courses outlined below in order to maintain registration in the program.

INC: students who fail to complete all components of a course, such as assignments, examinations, and laboratories, due to circumstances beyond their control (such as illness) may, with the permission of the Professor, Chair, and Dean, be granted an amount of time deemed reasonable for the completion of said components.

If a student does not complete all the components of a course by the agreed-upon date, normally a grade of F shall replace INC on the transcript. The Registrar will advise the Department Chair that the grade of "F" requires a percentage grade for posting on the student transcript. Nevertheless in cases where the component left incomplete was not a requirement for passing the course and where the student already has earned a passing grade without completing the component, the passing grade shall be submitted and shall replace INC on the transcript.

AUD: an "audited" course (additional courses only)

DISC: discontinued with permission

Some seminar courses are graded as Pass/Fail.

In the thesis, percentage grades as above are not required; instead the work is reported as either satisfactory or unsatisfactory.

## **6. THE THESIS**

### **Submission of Thesis or Project Report**

When the thesis, or project report, in its final form, has been prepared after the final oral examination, the candidate will bring six unbound copies to the Office of the Program Administrator no later than three weeks prior to Convocation. Each copy must be submitted in a separate folder with the pages numbered and arranged in the appropriate order. The thesis must be free from typographical and other errors. All copies must include the

Certificate of Approval signed by the Examination Committee. Also included must be a brief Abstract and a copy of the circulation waiver and the copying licence.

When accepted by the Program Administrator, one copy will be retained for microfilming and for deposit in the University Library after being bound. A second copy will be released to the Department in which the student was registered. A third copy will be released to the student's supervisor and three copies will be released to the student.

### **Publication of Thesis**

The University requires publication of the thesis in the following manner:

One unbound copy of the thesis is forwarded to Library and Archives Canada, together with an agreement form signed by the candidate authorizing Library and Archives Canada to microfilm the thesis and to make microfilm copies available for sale on request. Library and Archives Canada will film the thesis exactly as it is and will list the thesis in Canadiana as a publication of Library and Archives Canada. A fee is charged by Library and Archives Canada to offset the cost of microfilming. Library and Archives Canada's Microfilm Agreement form will be sent to the candidate prior to the Thesis Examination, to be signed and submitted to the Program Administrator immediately after the successful completion of the Examination.

### **Circulation & Copying of Thesis or Project Report**

The candidate, in consultation with the Supervisor and the Department Chair, shall have the right to request that circulation and/or copying of the thesis or project report in any form be withheld for up to one year.

In normal circumstances, as a condition of engaging in graduate study in the University, the author of a thesis or project report grants certain licences and waivers in respect of the circulation and copying of the thesis or project report:

1. to the University Librarian—a waiver permitting the circulation of the thesis or project report as part of the Library collection;
2. to the University—a licence to make single copies of the thesis or project report under carefully specified conditions;
3. to Library and Archives Canada—a licence to microfilm the thesis or project report under carefully specified conditions.

### **Copyright**

Copies of the thesis or project report shall have on the title page the words "In partial fulfilment of requirements for the degree of Master of Science" or "In partial fulfilment of requirements for the degree of Master of Arts" or "In partial fulfilment of the requirements for the degree of Master of Veterinary Science" or "In partial fulfilment of the postgraduate diploma in Pathology or Microbiology" or "In partial fulfilment of the requirements for the degree of Doctor of Philosophy." The International copyright notice, which consists of three elements in the same line—(a) the letter "C" enclosed in a circle, (b) the name of the copyright owner (the student), and (c) the year—should appear as a bottom line on the title page of the thesis or project report.

### **Retention/Maintenance of Records**

In the interests of good scholarly practice and in order to substantiate claims to intellectual property, graduate students should keep complete, dated records of their research. These records may be in the form of bound notebooks, log books, laboratory records, or other documentation, as appropriate to the discipline. Students should also retain copies of significant drafts and notes, and of all material submitted for evaluation, presentation, publication or by way of informal contribution to collaborative research projects. They must also realize that raw data and other research results should remain accessible at all times to all other members of any collaborative research activity.

## **Unacceptable Thesis or Project Report**

If a candidate is unable to prepare an acceptable thesis or project report, the Supervisory Committee will so report to the graduate faculty of the Department (sending to the candidate a copy of the report). The Department Chair will notify the Program Administrator.

## **Transcripts of Records**

Certified official transcripts of the student's academic record are available through the Registrar's Office. Only individually signed copies are official. Transcripts will be sent to other universities, to prospective employers, or to others outside the University only upon formal request by the student.

## **Department Regulations**

Individual departments may have specified regulations additional to those set out herein. The student is responsible for consulting the department concerning any such regulations.

## **PhD in Educational Studies and Master of Education**

### **1. GLOSSARY OF TERMS**

a. Doctor of Philosophy in Educational Studies (PhD): degree granted for successful completion of the requirements for the Doctor of Philosophy degree in Educational Studies, as listed in the regulations.

b. Master of Education (MEd): degree granted for successful completion of the requirements for the Master of Education degree as listed in the regulations.

c. Graduate Studies Committee: a standing committee of the Faculty of Education appointed by the Dean and whose mandate is the following:

i. to establish and periodically to review the goals and objectives of the graduate studies and research programs of the Faculty of Education;

ii. to review all applications from prospective graduate students and recommend acceptance or rejection;

iii. to make recommendations to the Dean concerning creation, deletion, or modification of graduate programs and courses;

iv. to direct the coordination of graduate courses and research in the Faculty of Education;

v. to review academic records of graduate students and recommend to the Dean the awarding of a degree, or courses of action in the event of substandard performance;

vi. to prepare the Graduate Studies Academic Calendar for approval by Senate; and

vii. to evaluate, and recommend to the Dean, the faculty to serve as members of the graduate faculty.

d. Graduate faculty: members of the Faculty of Education who teach, supervise and serve on supervisory committees in the graduate program are described herein as graduate faculty. Such members are assigned their duties by the Dean of Education on the recommendation of the Coordinator of Graduate Studies and the Graduate Studies Committee, based on criteria established by the Graduate Studies Committee.

From time to time faculty members, with relevant expertise and appropriate qualifications, drawn from other Faculties may be recommended as graduate faculty. Similarly, Adjunct Professors, who are active researchers with relevant expertise and appropriate qualifications, may be appointed as graduate faculty to co-supervise a graduate student or serve on graduate student Supervisory Committees as a result of particular expertise related to a particular project. Normally, graduate faculty will hold a Doctorate in Education.

e. Co-ordinator of Graduate Studies: has administrative responsibility for the coordination of graduate programs in the Faculty of Education and is Chair of the Graduate Studies Committee.

f. Supervisory Committee: a committee of the Faculty of Education responsible for the supervision of a student's research. Normally, the committee for a PhD dissertation consists of three members with Graduate Faculty appointment in the Faculty of Education, one of whom serves as the student's supervisor. Supervisory Committees for a Masters thesis normally consists of two members with Graduate Faculty appointment in the Faculty of Education, one of whom serves as the student's supervisor. Two Graduate Faculty members may co-supervise student dissertations and theses. Adjunct Faculty who are also members of the Graduate Faculty may serve as co-supervisor for a Masters thesis or PhD dissertation. If a member of the Supervisory Committee is requested who has an appointment in another UPEI Faculty or at another university, this member must be recommended as Graduate Faculty by the Education Graduate Studies Committee and approved by the Dean of Education.

g. For the purpose of these regulations, the term "semester" includes, in addition to first and second semester as defined in the calendar, the period from May to August in each year as a third semester.

#### h. Description of Graduate Students

**Regular Student:** All Masters students will be enrolled as full-time students for two years (6 semesters). A program fee will be paid over this two-year period in six instalments. If Masters students have not completed all degree requirements within two years, they will continue as full-time students and pay maintenance fees as full-time students until all degree requirements are met. Masters students who began their program before September 2010, may choose to enrol as part-time or full-time students, to be decided in consultation with the Coordinator of Graduate Studies.

All PhD students will be enrolled as full-time students for three years (9 semesters). A program fee will be paid over this three-year period in nine instalments. If PhD students have not completed all degree requirements at the end of three years, they will continue as full-time students and pay maintenance fees as full-time students until all degree requirements are completed.

**Special Student:** A special student is not enrolled in a degree or diploma program at UPEI but may apply to the Coordinator of Graduate Studies for permission to register in no more than two Master level courses. In unusual circumstances, a special student may participate in research, but only with the permission of the Coordinator of Graduate Studies and of the Dean of Education. Graduate courses taken by special students may subsequently be considered for credit towards a graduate degree only with the approval of the Graduate Studies Committee. A student who wishes to register as a special student should contact the Coordinator of Graduate Studies at the Faculty of Education before applying for admission. Special student status is not available for the PhD program in Educational Studies.

## 2. ENROLMENT AND REGISTRATION

### Procedures

Applicants must receive formal notification from the Office of the Registrar that they have been accepted into the program before registering as graduate students. Once accepted to the program, students will submit a tuition deposit for the current academic year to gain access to the online registration system. Students may then register for courses via their Campus Login menu (UPEI ID number and PIN required both are included in official letter of acceptance to program).

Student identification cards (campus cards), which are used for library purposes, may be obtained at the Office of the Registrar, and are validated at the Robertson Library at the beginning of each subsequent semester. Loss or theft of an identification card must be reported.

### Registration Changes

Changes in registration (deletion or addition of courses) must be approved by the Coordinator of Graduate Studies. A proposal to add a course must bear the signature of the instructor concerned.

Except where credits are granted for courses taken at other universities, credits will be given only for courses listed in the registration form or authorized through an official change of registration.

### **Continuity of Registration**

Graduate students must be registered in each semester in which they are actively engaged in course work or in the research program; that is, whenever they are making use of University facilities or personnel, in connection with their work.

Once admitted to the program, normally each student is required to register for, and complete, at least one course in each semester as defined in Regulation 1g above. Registration could include ongoing work on a Master thesis or PhD dissertation. In exceptional circumstances this requirement may be waived by the Dean. A student who fails to register as required will be considered to have withdrawn from the MEd program and will be required to apply formally for readmission.

Notwithstanding the foregoing, a regular student may make prior arrangements, with the approval of the Faculty and of the Coordinator of Graduate Studies, and after consultation with the Registrar's Office, to pursue full-time studies at another approved university for a period of time. A student may also make application to the Coordinator of Graduate Studies and obtain approval from the Graduate Studies Committee and the Dean of the Faculty for a leave of absence from the program in which the student is enrolled. Normally, up to one year (three semesters) of leave may be granted.

Candidates must be registered in the semester in which they complete the requirements for the degree. Normally, students must complete the Master degree within four years of first registering in the program. Normally, students must complete the PhD degree within seven years of first registering in the program.

### **Cancellation of Registration**

A student who wishes to withdraw from the program is expected to consult with the Coordinator of Graduate Studies prior to completing the "withdrawal form" at the Office of the Registrar.

## **3. SUPERVISION**

### **Faculty Supervision**

The student's program is established and progress kept under review by the Graduate Studies Committee. The day-to-day responsibility for overseeing the student's program will rest with the Coordinator of Graduate Studies in consultation with the Graduate Studies Committee.

### **Establishment of Program**

After examining the student's academic record, due account being taken of all relevant courses passed at any recognized university or college, the Coordinator of Graduate Studies in consultation with the Graduate Studies Committee will establish a program appropriate for the degree. The program will include prescribed studies on the basis of which the candidate's final standing will be determined, and it may include additional courses either chosen by the student or specified by the Coordinator of Graduate Studies in consultation with the Graduate Studies Committee.

### **Program**

Once the program of courses is established, changes may be made subject to the approval of the Coordinator of Graduate Studies in consultation with the Graduate Studies Committee.

### **Academic Credit from Outside the Program**

Students, upon the recommendation of the Graduate Studies Committee and subsequent written approval of the Dean of Education, may take and receive credit towards a course-based Master of Education for up to 12 semester hours of course work outside of the program or 6 semester hours towards a thesis-based Master of Education. The arrangements for these courses must be made through the Coordinator of Graduate Studies and the Registrar's Office. Credit for up to six semester hours of course work completed at the PhD level (700 level) will be considered by the Coordinator of Graduate Studies in consultation with the Graduate Studies Committee. Credit granted for course work completed outside of UPEI will not result in a reduction in the required MEd or PhD program fee.

All Master course work must be at the 600 level, or equivalent. PhD course work will normally be at the 700 level, or equivalent. Students who are accepted into the Master of Education program may receive credit for up to two education courses at the 500 level.

### **Review of Progress**

At the end of each semester, the academic record and progress of each student will be reviewed by the Coordinator of Graduate Studies in consultation with the Graduate Studies Committee, and a report thereon will be submitted by the Coordinator of Graduate Studies to the Dean of Education. If a student fails a course or a required examination, the Graduate Studies Committee will recommend appropriate action to the Dean of Education. Only by authority of the Dean of Education may a further privilege of any kind be extended.

## **4. GRADES SCHEDULE**

a. Graduate courses in the Faculty of Education will be evaluated using percentages grades.

b. The minimum passing grade in the Master of Education and the PhD in Educational Studies is 70%. A candidate who receives a final grade below 70% in any program course may repeat that course one time to obtain a minimum passing grade of '70%'. Should a grade of less than 70% be obtained in the repeated course, or in any other program course, the candidate will normally be required to withdraw from the program.

c. A student who fails to complete all components of a course, such as assignments, examinations and fieldwork, due to circumstances beyond his/her control (such as illness) may, with the permission of the professor, the Coordinator of Graduate Studies and the Dean, be granted an amount of time deemed reasonable for the completion of said components. If a student does not complete all the components of a course by the agreed- upon date, normally a grade of F shall replace INC on the transcript. Nevertheless, in cases where the component left incomplete was not a requirement for passing the course and where the student already has earned a passing grade without completing the component, the passing grade shall be submitted and shall replace INC on the transcript.

d. AUD: an "audited" course (additional courses only)

e. DISC: discontinued with permission

## **5. MASTER OF EDUCATION THESIS**

Normally, students complete the course work and research to fulfill the thesis requirement within two years. In order to complete the degree within a reasonable time frame, the research topic should be identified early in the student's program and approved by the student's supervisory committee. Research involving human subjects must be approved by the University's Research Ethics Committee

### **Unacceptable Thesis**

If a candidate is unable to prepare an acceptable thesis, the Supervisory Committee will so report to the Coordinator of Graduate Studies and to the Dean (sending to the student a copy of the report).

## **6. THE PHD DISSERTATION**

The dissertation will provide evidence of the candidate's ability to carry out independent and original research, develop the necessary theoretical and methodological framework and analyzes, and present the findings in a scholarly manner. The dissertation will be examined by arms-length internal and external examiners after the Supervisory Committee has agreed that the completed dissertation is ready for defence.

The dissertation will be assessed using a pass-fail designation (Pass as is, Pass with minor revisions, Major Revisions, Fail). The final assessment will be based both on the written dissertation and the oral defence.

### **Retention/Maintenance of Records**

In the interests of good scholarly practice and in order to substantiate claims of intellectual property, graduate students should keep complete, dated records of their research. These records may be in the form of bound notebooks, log books, or other documentation, as appropriate to the discipline. Students should also retain copies

of significant drafts and notes, and of all material submitted for evaluation, presentation, publication, or by the way of informal contribution to collaborative research projects. They must also realize that raw data and other research results should remain accessible at all times to all other members of any collaborative research activity.

### **Transcripts of Records**

Official transcripts of the student's academic record are available through the Registrar's Office. Transcripts will be sent to other universities, to prospective employers, or to others outside the University only upon formal request by the student.

### **Master of Applied Health Services Research**

The Master of Applied Health Services Research program is designed to prepare graduates from diverse disciplines and backgrounds with the necessary skills to tackle the complex health policy issues facing us today and in the future. The overall aim of the program is to promote and support health services scholarship and research capacity.

Graduates from this interdisciplinary Master's program are expected to achieve the following learning objectives:

- independently undertake health services research;
- design, supervise, and evaluate projects;
- critically evaluate health services research literature;
- employ innovative approaches in health services research through understanding diversity in decision-making environments and processes;
- communicate health research issues and results clearly and responsibly to decision-makers, academics, professionals, and to the general public; and
- integrate and synthesize health services research results across all disciplines.

### **1. GLOSSARY OF TERMS**

a. Master of Applied Health Services Research: degree granted for successful completion of the requirements for the Master of Applied Health Services Research degree as listed in the regulations.

b. Graduate Studies Committee: a committee of two faculty members appointed to oversee the student's research by the Children's Health Applied Research Team (CHART).

c. Children's Health Applied Research Team (CHART): a multi-disciplinary group of researchers who are researching children's health issues whose mandate it is:

- i. To establish and periodically to review the goals and objectives of the graduate students' studies and research;
- ii. To review all applications from prospective graduate students and recommend acceptance or rejection;
- iii. To make recommendations to the Senate concerning creation, deletion, or modification of graduate program and courses;
- iv. To review academic records of graduate students and recommend to the Senate the award of a degree or courses of action in the event of substandard performance.

d. Graduate faculty Members of CHART who participate in the graduate program are described herein as graduate faculty.

Adjunct Professors may serve on graduate student Supervisory Committees as a result of particular expertise related to a particular project. Normally, graduate faculty will have a Doctorate degree.

i. Supervisory Committee: A committee of two faculty responsible for the supervision of a student's research. Normally, the committee for each student consists of two faculty members, one of whom serves as the student's supervisor.

e. For the purpose of these regulations, the term "semester" includes, in addition to first and second semester as defined in the calendar, the period from May to August in each year as a third semester.

f. Description of Graduate Students

**Regular Student** An applicant who has met the admission requirements set out above.

**Special Student** A student who is not enrolled in a degree or diploma program at this university is recorded as a Special Student. Normally such students register for not more than one or two graduate courses with the permission of the instructor; in unusual circumstances, a special student may participate in research, but only with the permission of the co-ordinator of the Children's Health Applied Research Team.

## 2. ENROLMENT AND REGISTRATION

Procedures Applicants must receive formal notification from the Office of the Registrar that they have been accepted into the program before registering as graduate students. Before the beginning of the semester, each student shall file in the Office of the Registrar an Academic Registration setting out the program of studies for that semester. The form must be approved by the Children's Health Applied Research Team before it is submitted.

Student identification cards, which are used for library purposes, are obtained upon initial registration, and are validated at the Robertson Library at the beginning of each subsequent semester. Loss or theft of an identification card must be reported. The registration procedure must be completed within the dates set in the Calendar.

Students taking undergraduate courses must have completed their registration by the date of registration for undergraduate students.

### Registration Changes

Changes in registration (deletion or addition of courses) must be approved by the Children's Health Applied Research Team. A proposal to add a course must bear the signature of the instructor concerned.

### Continuity of Registration

Graduate students must be registered in each semester in which they are actively engaged in course work or in the research program; that is, whenever they are making use of University facilities or personnel, in connection with their work.

Once admitted to the program, normally each student is required to register for, and complete, at least one course in each of the two semesters of the academic year. In exceptional circumstances this requirement may be waived by the Children's Health Applied Research Team. A student who fails to register as required will be considered to have withdrawn from the Master of Applied Health Services Research program and will be required to apply formally for readmission.

Notwithstanding the foregoing, a regular student may make prior arrangements, with the approval of the Children's Health Applied Research Team, and after consultation with the Registrar's Office, to pursue full-time studies at another approved university for a period of time.

A student who has not completed all the requirements for the degree by the due date for the thesis submission in a particular semester must reregister. Candidates must be registered in the semester in which they qualify for the degree. Normally, students must complete the degree within six years of first registering in the program.

In the case of conjoint or cooperative graduate programs within UPEI or with other universities, arrangements will be made to ensure that the students involved are not placed at a disadvantage in respect of continuity of registration.



### **Cancellation of Registration**

A student who wishes to withdraw from the program is expected to consult with the Children's Health Applied Research Team prior to completing the "withdrawal form" at the Office of the Registrar. In the event that a student fails to obtain satisfactory standings or to make satisfactory progress either in course work or in research, the Children's Health Applied Research Team may require the student to withdraw. Registration will be cancelled as of a date set by the Children's Health Applied Research Team, and an appropriate refund of fees made.

A student who withdraws from the University must return all outstanding loans from the Robertson Library prior to withdrawal, regardless of the due date. Any items not returned will be declared "lost," and will be charged to the student's account. This procedure is required practice even though in his or her new capacity as an outside borrower the ex-student may wish to borrow the same or other books.

## **3. SUPERVISION**

### **Faculty Supervision**

The student's program is established and progress kept under review by the Children's Health Applied Research Team. The day-to-day responsibility for overseeing the student's program will rest with the student's supervisor.

### **Establishment of Program**

After examining the student's academic record, due account being taken of all relevant courses passed at any recognized university or college, the Children's Health Applied Research Team will establish a program appropriate for the degree. The program will include prescribed studies on the basis of which the candidate's final standing will be determined, and it may include additional courses either chosen by the student or specified by the Children's Health Applied Research Team.

### **Program**

Once the program of courses is established, changes may be made subject to the approval of the Children's Health Applied Research Team.

In the first semester, students gain a broad range of applied health services research through course work in the Canadian Health System; Ethical Foundations of Applied Health Research; and an introductory course in Research and Evaluation Design and Methods. The second semester focuses on health care research through course work in Qualitative and Quantitative research methods, Health Policy, and the Determinants of Health.

Between the second and third semesters, students undertake a four-month research residency with a decision-making organization. The residency is designed to provide hands-on research and decision-making experience; to develop an understanding of how knowledge is transferred between the academic community and decision-makers; and to discover whether projects undertaken are of sufficient interest to the student and the host organization to merit further investigation as a thesis research topic.

In the fourth semester, students learn about knowledge transfer and research uptake and continue to develop research skills by specializing in either qualitative or quantitative research approaches. Preparation of a research proposal leading to the commencement of the thesis is a main course requirement of these advanced methods courses.

In the fifth and sixth semesters, students continue to work on their thesis, culminating in an academic defence. Students are also required to make a public presentation of their thesis research targeted to decision-makers.

### **Workshops**

Twice a year, normally at the end of the Fall and Winter terms, students and Faculty will join with health services decision-makers for week-long thematic Workshops. These thematic workshops are designed to facilitate learning in a collegial environment that explores the transfer of knowledge between researchers and institutional health policy and decision-making.

## **Review of Progress**

At the end of each semester, the academic record and progress of each student will be reviewed by the Children's Health Applied Research Team.

## **4. GRADES SCHEDULE**

INC: A student who fails to complete all components of a course, such as assignments, examinations and fieldwork, due to circumstances beyond his/her control (such as illness), may, with the permission of the professor and the Dean, be granted an amount of time deemed reasonable for the completion of said components.

If a student does not complete all the components of a course by the agreed-upon date, normally a grade of "F" shall replace "INC" on the transcript. The Registrar will advise the Department Chair that the grade of "F" requires a percentage grade for posting on the student transcript. In cases where the component left incomplete was not a requirement for passing the course and where the student already has earned a passing grade without completing the component, the passing grade shall be submitted and shall replace INC on the transcript.

AUD: an "audited" course (additional courses only)

DISC: discontinued with permission

Seminar courses are graded as letter grades. In the thesis the work is reported as either satisfactory or unsatisfactory.

## **5. THE THESIS**

### **Research**

Normally, the equivalent of 12 months of continuous study must be devoted to research in fulfilment of the thesis requirement. In order to complete the degree within a reasonable time frame, the research topic should be identified early in the student's program and approved by the Graduate Studies Committee. Research involving human subjects must be approved by the University's Research Ethics Committee.

### **Retention/Maintenance of Records**

In the interest of good scholarly practice and in order to substantiate claims of intellectual property, graduate students should keep complete, dated records of their research. These records may be in the form of bound notebooks, log books, or other documentation, as appropriate to the discipline. Students should also retain copies of significant drafts and notes, and of all material submitted for evaluation, presentation, publication, or by the way of informal contribution to collaborative research projects. They must also realize that raw data and other research results should remain accessible at all times to all other members of any collaborative research activity.

### **Unacceptable Thesis**

If a candidate is unable to prepare an acceptable thesis, the Supervisory Committee will so report to the Graduate Studies Committee and to the Children's Health Applied Research Team (sending to the student a copy of the report).

### **Transcripts of Records**

Official transcripts of the student's academic record are available through the Registrar's Office. Transcripts will be sent to other universities, to prospective employers, or to others outside the University only upon formal request by the student.

## **Master of Business Administration**

### **1. GLOSSARY OF TERMS**

a. Master of Business Administration (MBA): degree granted for successful completion of the requirements for the Master of Business Administration degree as listed in the regulations.

b. MBA Committee: a standing committee formed to oversee the graduate business program. This committee will work with the UPEI Graduate Studies Committee to ensure all policies and guidelines are being fulfilled.

Other activities will include reviewing and making recommendations to the Dean on programming, courses, graduates' research, and students' issues. In particular, the committee will

- i. establish and periodically review the goals and objectives of the MBA program of the School of Business;
  - ii. review all applications from prospective students and recommend acceptance or rejection;
  - iii. make recommendations to the Dean concerning creation, deletion, or modification of graduate programs and courses;
  - iv. direct the coordination of graduate courses and research in the School of Business;
  - v. review academic records of graduate students and recommend to the Dean the awarding of a degree or courses of action in the event of substandard performance;
  - vi. recommend changes to the Graduate Studies Academic Calendar; and
  - vii. evaluate and recommend to the Dean those faculty to serve as members of the graduate Business faculty.
- c. **Director of MBA Program:** is a faculty member who has administrative responsibility for the coordination of MBA program in the School of Business and is Chair of the MBA Committee.
- d. **Graduate Business Faculty:** members of the School of Business who participate in the graduate program are described herein as graduate faculty. These members are assigned their duties by the Dean of the School of Business with the assistance of the Director of the MBA program. From time to time, faculty members drawn from other faculties may be recommended as graduate faculty. Similarly, Adjunct Professors may serve on graduate student Supervisory Committees as a result of expertise related to a particular project. Normally, graduate faculty will have a doctorate in business or a related field.
- e. **Business Supervisory Committee:** a committee of the School of Business responsible for the supervision of a student's signature research project. Normally, the committee for each student consists of two members of the School of Business, one of whom serves as the student's supervisor. If a member of the Supervisory Committee has an appointment in another UPEI faculty or at another university, approval must be provided by the MBA Committee.
- f. **MBA Advisory Council**—members from the larger business community who will have defined terms of reference. Its primary objectives are to provide advice and assist with governance, strategic development of the program, and connections to the larger community.

g. For the purpose of these regulations, the term "semester" includes first and second semesters (fall and winter) as defined in the calendar and the period from May to August (spring/summer) as a third semester.

#### h. Description of Graduate Students

##### Regular Student:

An applicant who has met the requirements set out for this program and for UPEI and has been accepted into the program. Students are enrolled in the MBA on a program basis and considered to be full time graduate students.

## **2. ENROLMENT AND REGISTRATION**

### **Procedures**

This is a course-based graduate program with a Signature Project. After examining the student's academic record, the Director of the MBA Committee will confirm the program for the student. The program will include prescribed studies on the basis of which the candidate's final standing will be determined and, in exceptional cases, it may include additional courses either chosen by the student or specified by the MBA Committee.

Applicants must receive formal notification from the Office of the Registrar that they have been accepted into the program before registering as graduate students in the MBA program. See the Admissions section in the calendar that applies to the MBA. Students will register each semester in the courses outlined in their MBA program.

Student identification cards, which are used for library purposes, are obtained upon initial registration, and are validated at the Robertson Library at the beginning of each subsequent semester. Loss or theft of an identification card must be reported.

### **Registration Changes**

Changes in student registration (deletion or addition of courses) must be approved by the Director of the MBA program (with input as required by the MBA Committee) and formal approvals of the University when required. Please check the UPEI and the School of Business web sites for the most recent program updates.

Except where credits are granted by special permission for courses outside of the School of Business, credits will only be given for courses listed on the student's registration form or authorized through an official change of registration.

In exceptional cases, the MBA Committee and the Dean of the School of Business may consider flexibility in courses for applicants. This means that students deemed to have significant learning in a particular area may normally be allowed one course exemption which is to be substituted with another approved course. Appropriate documentation will be required in order to consider course exemption.

Students should discuss course selection with the MBA Coordinator or Director. Specific courses may need approval to take as long as prerequisites are not impacted. Financial and Managerial Accounting must be successfully completed before taking Corporate Finance and courses 601, 602, 603, 605 are required for Strategic Management.

### **Academic Credit from Outside the Program**

The MBA Program is highly integrated and does not easily lend itself to course-by-course credit for advanced standing. The courses designed for the Program are of high value for interpersonal skills building, team building and leadership development. Transfer of relevant, graduate course credits from recognized universities is therefore limited.

Students who wish to request a course credit transfer must have prior approval of the Director of the MBA Program. They must complete a Permission to Transfer form and submit it to the Office of the Registrar. Students may take and receive credit for up to 9 semester hours of course work from academic units outside the School of Business. All course work must be at the graduate level.

Active Status Students are expected to register for each of their courses. To maintain active status, a student must register for at least one course in the program within any given 12- month period and pay the program fee. If a student withdraws from the program or seeks a deferral, the regulations must be followed. Normally, students must complete the degree within six years of first registering in the program.

If a student has prior permission from the Director of the Program and the Dean of the School of Business to miss a semester or defer studies due to changed circumstances, the student must apply for readmission and the application fee will be waived; however, if program fees increase, the difference must be paid. With the assistance of the Director of the MBA program, students are required to develop a course schedule to satisfy all outstanding core courses. A deferral must be requested 21 days before the course start date.

### **Withdrawal from the Program**

Students wishing to withdraw from the program should consult with the Director of the MBA program. Students may withdraw from a program by notifying the office of the Registrar using the appropriate form. The date of withdrawal is the date the written notification is received.

Students may request in writing, and after discussion with the Director of the MBA program, a one-time, one year deferral of admission. Upon deferral of admission, the tuition deposit is normally non-refundable.

Unless otherwise stated in materials given to students, refunds will generally be granted as follows:

Students accepted into year one of the program may withdraw by completing the Program Withdrawal form at least 45 calendar days before commencement of the program. In such cases, 50% of the program admission fee will be refunded.

For program withdrawals at any other time, no refund of the program admission fee will be provided.

For withdrawals from the program after courses have begun, the refund of program tuition fees will be on a pro-rata basis depending on the number of courses that the applicant has registered in. This will be determined in accordance with University guidelines.

### **Withdrawal from a Course**

Withdrawal from a course will not occur by default. Students must discuss course withdrawals with the Director of the MBA program. Withdrawal forms must be submitted to the Office of the Registrar within the regulated time frames. If the course withdrawal occurs no later than 7 calendar days after the start of the course (or, in the case of courses that are less than 4 weeks in duration, before 25% of the course's classes are complete) then the withdrawal results in no academic penalty.

Course withdrawals after the deadline in the paragraph above, must be approved by the Director of the MBA Program. If such a course withdrawal occurs before two-thirds of the classes are complete, the student will receive a DISC (discontinued) as the grade on the transcript and must pay the course retake fee.

Withdrawals after two-thirds of the classes are complete will normally result in a failing grade on the transcript, and a course retake fee. In exceptional cases where a withdrawal was unavoidable, the course retake fee may be waived and a DISC may appear on the transcript instead of a failing grade.

### **Incomplete Courses**

A student, who fails to complete all components of a course due to circumstances, such as illness, may be granted permission for incomplete (INC) status in the course. Students must submit such a request to the Director of the MBA program before the end date for the course. The Director will seek advice from the professor concerned as to granting the incomplete status.

If approved, students will have up to a maximum of 30 calendar days to complete the outstanding individual assignments, as specified by the professor and approved by the Director of the MBA program. If a student does not complete all the components of a course by the agreed-upon date, normally a failing grade shall replace INC on the transcript.

### **Re-registrations and Course Re-takes**

Students who fail a course in the MBA program may re-take the course up to an additional two times and pay the course re-take fee each time. If the course is failed after the third attempt, the student will be expelled from the MBA program, with no opportunity for re-enrolment. If applicable, refunds of relevant fees will be issued.

A student who has not completed all the requirements for the Signature Project by the due date must re-take the course and pay the course re-take fee.

### **Re-enrolment in the Program**

Re-enrolment in the program can occur, but is subject to re-application and a statement explaining why re-admission should be permitted. The MBA Committee will review these materials for approval. Students will be required to pay all applicable fees and any fee increases that have occurred between the time of their last enrolment and re-enrolment. Credit for courses previously completed will be re-evaluated and applied to the program requirements where appropriate.

## Grading

A minimum grade of 60% is required in courses and an overall average of 70% is required to pass the program and obtain the degree.

## Transcripts of Records

Official transcripts of the student's academic record are available through the Registrar's Office. Transcripts will be sent to other universities, to prospective employers, or to others outside the University only upon formal request by the student.

## Graduation Requirements

To be awarded the Master of Business Administration degree, a graduate student must:

- i. successfully complete the program of studies as set out at the time of admission into the program or as agreed to by the MBA Committee,
- ii. complete and submit an Application for Graduation form, and
- iii. meet all other University regulations.

In addition, students must have paid all fees owed to the University and returned all library resources.

## Master of Nursing

The Master of Nursing program seeks to prepare professional nurses for advanced nursing practice in a variety of roles. To this end, the program emphasizes development and acquisition of knowledge and skills in leadership and consultation and in research design, dissemination, and utilization. In addition, students will advance the scientific base for their nursing practice. The program will offer students the opportunity to further develop practice knowledge and skills and to contribute to nursing knowledge through the conduct of research.

### 1. GLOSSARY OF TERMS

a. **Master of Nursing (MN):** degree granted for successful completion of the requirements for the Master of Nursing degree as listed in the regulations.

b. **Graduate Studies Committee:** a standing committee of the School of Nursing appointed by the Dean and whose mandate is the following:

- i. To establish and periodically review the goals and objectives of the graduate studies and research programs of the School of Nursing.
- ii. To review all applications from prospective graduate students and recommend acceptance or rejection.
- iii. To make recommendations to the Dean concerning creation, deletion, or modification of graduate programs and courses.
- iv. To direct the coordination of graduate courses and research in the School of Nursing.
- v. To review academic records of graduate students and recommend to the Dean the award of a degree or courses of action in the event of substandard performance.
- vi. To evaluate, and recommend to the Dean, the faculty to serve as members of the graduate faculty.

c. **Graduate faculty:** members of the School of Nursing who teach, supervise, and serve on supervisory committees in the graduate program are described herein as graduate faculty. Assignment of Graduate Faculty status and supervisory role is done in accordance with the policy entitled Graduate Faculty Approval and Supervisory Role (UPEI Policy Number *asdmogsacd001*) and based on criteria established by the Faculty of Nursing Graduate Studies Committee in consultation with the Office of Graduate Studies.

From time to time, faculty members with relevant expertise and appropriate qualifications, drawn from other Faculties, may be recommended as graduate faculty. Similarly, Adjunct Professors who are active researchers, with relevant expertise and appropriate qualifications, may be appointed as graduate faculty to co-supervise a graduate student or serve on a graduate student Supervisory Committees as a result of particular expertise related to a particular project. Normally, graduate faculty will hold a Doctorate degree.

**d. Coordinator of Graduate Studies:** has administrative responsibility for the coordination of graduate programs in the School of Nursing and is Chair of the Graduate Studies Committee.

**e. Supervisory Committee:** a committee of the School of Nursing responsible for the supervision of a student's research. Supervisory Committees for a Master's thesis normally consists of two members with Graduate Faculty appointment in the Faculty of Nursing, one of whom serves as the student's supervisor. Two Graduate Faculty members may co-supervise student dissertations and theses. Adjunct Faculty who are also members of the Graduate Faculty may serve as co-supervisor for a Master's thesis or PhD dissertation. If a member of the Supervisory Committee is requested who has an appointment in another UPEI Faculty or at another university, this member must be recommended as Graduate Faculty by the Nursing Graduate Studies Committee and approved by the Dean of Nursing.

**f. Description of Graduate Students**

**Regular Student:**

A student who has applied to the MN Program and has been accepted to the Thesis or Nurse Practitioner stream. All MN students will pay program fees in six (6) instalments over a two-year period. After paying six instalments, students will continue to pay a maintenance fee and full student fees each term until all degree requirements are met.

**Special Student:**

A special student is not enrolled in a degree or diploma program at UPEI but may apply to the Coordinator of Graduate Studies for permission to register in no more than two Master level courses. In unusual circumstances, a special student may participate in research, but only with the permission of the Coordinator of Graduate Studies and the Dean of Nursing. Graduate courses taken by special students may subsequently be considered for credit towards a graduate degree only with the approval of the Graduate Studies Committee. A student who wishes to register as a special student should contact the Coordinator of Graduate Studies at the School of Nursing before applying for admission.

**g. The number of set hours per week:** If the student is employed as a Graduate Student Assistant or a Graduate Teaching Assistant, the number of set hours per week should represent the total time spent on preparative work, reading set assignments, marking examinations, and the like.

School of Nursing: 12 hours

## **2. ENROLMENT AND REGISTRATION**

### **Procedures**

Applicants must receive formal notification from the Office of the Registrar that they have been accepted into the program before registering as graduate students.

Before the beginning of the semester, each student shall file in the Office of the Registrar an academic registration setting out the program of studies for that semester. The form must be approved by the Coordinator of Graduate Studies before it is submitted.

Student identification cards, which are used for library purposes, are obtained upon initial registration and are validated at the Robertson Library at the beginning of each subsequent semester. Loss or theft of an identification card must be reported.

### **Registration Changes**

Changes in registration (deletion or addition of courses) must be approved by the Coordinator of Graduate Studies. A proposal to add a course must bear the signature of the instructor concerned.

Except where credits are granted for courses taken at other universities, credits will be given only for courses listed on the registration form or authorized through an official change of registration.

### **Continuity of Registration**

Graduate students must be registered in each semester in which they are actively engaged in course work or in the research program; that is, whenever they are making use of University facilities or personnel, in connection with their work.

Once admitted to the program, normally each student is required to register for, and complete, at least one course in each semester. For the purpose of these regulations, the term semester includes, in addition to first and second semester as defined in the calendar, the period from May to August in each year as a third semester. In exceptional circumstances, this requirement may be waived by the Dean. A student who fails to register as required will be considered to have withdrawn from the MN program and will be required to apply formally for readmission.

Notwithstanding the foregoing, a regular student may make prior arrangements, with the approval of the Faculty and of the Coordinator of Graduate Studies and after consultation with the Registrar's Office, to pursue full-time studies at another approved university for a period of time. A student may also make application to the Coordinator of Graduate Studies and obtain approval from the Graduate Studies Committee and the Dean of the Faculty for a leave of absence from the program in which the student is enrolled. Normally, up to one year (three semesters) of leave may be granted.

Candidates must be registered in the semester in which they complete the requirements for the degree. Normally, students must complete the Master degree within four years of first registering in the program.

Cancellation of Registration: A student who wishes to withdraw from the program is expected to consult with the Coordinator of Graduate Studies prior to completing the "withdrawal form" at the Office of the Registrar.

In the event that a Master student fails to obtain satisfactory standings or to make satisfactory progress either in course work or in research, the Dean on the advice of the Graduate Studies Committee may require the student to withdraw.

## **3. SUPERVISION**

### **Faculty Supervision**

The student's program is established and progress kept under review by the Graduate Studies Committee. The day-to-day responsibility for overseeing the student's program will rest with the Coordinator of Graduate Studies in consultation with the Graduate Studies Committee.

### **Academic Credit from Outside the Program**

Credit for graduate level courses taken prior to admission to the MN program will be considered on an individual basis upon admission to the program.

Students, upon the recommendation of the Graduate Studies Committee and subsequent written approval of the Dean of Nursing, may take and receive credit towards the thesis Master of Nursing and Nurse Practitioner degree up to six semester hours of course work outside of the program. The arrangements for these courses must be made through the Coordinator of Graduate Studies and the Registrar's Office. Credit granted for course work completed outside of UPEI will not result in a reduction in the required MN or MN Nurse Practitioner program fee.

### **Review of Progress**

At the end of each semester, the academic record and progress of each student will be reviewed by the Coordinator of Graduate Studies in consultation with the Graduate Studies Committee, and a report thereon will be submitted by the Coordinator of Graduate Studies to the Dean of Nursing, with a copy to the Office of Graduate Studies. If a



student fails a course or a required examination, the Graduate Studies Committee will recommend appropriate action to the Dean of Nursing. Only by authority of the Dean of Nursing may a further privilege of any kind be extended.

#### **4. GRADES SCHEDULE**

**INC:** A student who fails to complete all components of a course, such as assignments, examinations and fieldwork, due to circumstances beyond his/her control (such as illness) may, with the permission of the professor and the Dean, be granted an amount of time deemed reasonable for the completion of said components. If a student does not complete all the components of a course by the agreed-upon date, normally a failing grade shall replace “INC” on the transcript. Nevertheless, in cases where the component left incomplete was not a requirement for passing the course and where the student already has earned a passing grade without completing the component, the passing grade shall be submitted and shall replace “INC” on the transcript.

**AUD:** an “audited” course (additional courses only)

**DISC:** discontinued with permission

Seminar courses are graded as numerical grades. In the thesis, the work is reported as either satisfactory or unsatisfactory.

#### **5. THE MASTER OF NURSING THESIS**

##### **Research**

Normally, students complete the course work and research to fulfill the thesis requirement within two years. In order to complete the degree within a reasonable time frame, the research topic should be identified early in the student’s program and approved by the student’s supervisory committee. Research involving human subjects must be approved by the University’s Research Ethics Committee.

##### **Retention/Maintenance of Records**

In the interests of good scholarly practice and in order to substantiate claims of intellectual property, graduate students should keep complete, dated records of their research. These records may be in the form of bound notebooks, log books, or other documentation, as appropriate to the discipline. Students should also retain copies of significant drafts and notes, and of all material submitted for evaluation, presentation, publication, or by the way of informal contribution to collaborative research projects. They must also realize that raw data and other research results should remain accessible at all times to all other members of any collaborative research activity.

##### **Unacceptable Thesis**

If a candidate is unable to prepare an acceptable thesis, the Supervisory Committee will so report to the Graduate Studies Committee and to the Dean.

#### **Master of Science Programs**

Faculty of Veterinary Medicine MSc Program

<http://upei.ca/avc/graduatestudies>

Faculty of Science MSc Program

<http://upei.ca/science/graduatestudies>

#### **A) GENERAL STRUCTURE OF THE PROGRAM**

The MSc degree of the University of Prince Edward Island requires the demonstration of a reasonable mastery of a concentrated field of study. The latter is attested by the achieving of satisfactory standings in the minimum number of graduate courses required by the respective Faculty, the completion of a research project, and the writing of a thesis based upon the research.

There will be considerable interaction and co-operation among the departments/faculties to provide courses and research facilities to meet the needs of individual students and their research projects.

In addition to the “General Regulations for Graduate Programs,” described above, the following regulations apply specifically to the Master’s degree:

### **Residency Requirements**

Normally, at least two semesters of full-time study in residence at the University must be devoted to the Master’s program if the student is admitted as a regular student. For a regular student admitted to a part-time study program, the residency period is based on the equivalence of three part-time semesters to one full-time semester. A student, admitted as a provisional student requiring two semesters in that category, must spend at least one additional semester as a regular full-time student to meet the residency requirement. Upon completion of the residency requirement the student is then eligible to become a candidate for the MSc degree.

Normally, the thesis must be formally submitted or the program be otherwise complete within 48 months of the completion of the residency requirement. Departure from these normal requirements requires approval from the Graduate Studies Committee.

## **B) COURSES**

### **Prescribed Studies**

The proportion of weight attached to the research and thesis may vary, even within a department/faculty. Accordingly, the number of courses and/or general examinations may correspondingly vary. In no case, however, will the minimum requirements be less than those outlined in the following two paragraphs. For graduate credit, the courses selected must be acceptable to the department/faculty and the Graduate Studies Committee. The candidate must maintain an average grade of at least a B standing (see Grades in General Regulations section) in the substantive courses outlined below in order to maintain registration in the program.

A department/faculty may require examinations (oral and/or written), from time to time, to evaluate the student’s progress in his/her overall program.

### **Additional Courses**

In addition to these prescribed studies, the candidate may undertake to achieve satisfactory standings in courses supportive of the special discipline. These courses may be at either the undergraduate or the graduate level. The standings obtained in them will not affect the average grade of the prescribed studies.

## **C) THE THESIS**

### **Research**

Normally, the equivalent of at least two full-time semesters must be devoted to research in fulfilment of the thesis requirement. Summers during which research work is actively conducted may be counted as research semester equivalents, even though courses would not normally be offered at that time. In order to avoid undue prolongation of the time required to complete the degree, the research topic should be identified early and approved by the Supervisory Committee. Research involving the use of animals must follow the Guidelines of the Canadian Council on Animal Care.

### **Thesis**

Each candidate for the degree of Master of Science is required to submit a thesis based upon the research conducted under supervision as described above. The thesis must demonstrate the candidate’s capacity for original and independent work, and should include a critical evaluation of work which has previously been done in the field of his or her research. The thesis should emphasize any new conclusions which may be drawn from the candidate’s own research.

General specifications as to paper, format, order, and binding are available from the Office of the Program Administrator.

## **Procedures**

The thesis may be handed in at any time of the year, but candidates must bear in mind the desirability of having the final examination as much in advance of the deadline date for thesis submission as possible. Candidates are advised to inform themselves of the deadlines schedule, a copy of which may be obtained in the Office of the Program Administrator. It is desirable that each candidate initiate discussion about examination dates with the Supervisor early in the final semester.

The candidate should keep in close touch with the Supervisor and the Supervisory Committee, throughout the preparation of the thesis. The final draft of the thesis, after it has been reviewed by all members of the Supervisory Committee, is sent when ready for examination, to the members of the Master's Examination Committee (see below).

Following the Master's Examination, the candidate, if successful, arranges for the preparation of the thesis in final form, and for its submission to the Program Administrator (see below). The thesis in final form must include any minor corrections or revisions indicated during the Examination. Approval of the thesis takes the form of a Certificate of Approval, signed by the Examination Committee.

## **The Master's Examination**

The final oral examination, devoted chiefly to the defence of the thesis, is an examination identified as the Master's Examination and carried out by the Master's Examination Committee.

The Department Chair selects the Examination Committee at the request of the Supervisor and is responsible for notifying the Program Administrator of its composition. The Examination is normally open to the public; however, members of the audience may question the candidate only upon invitation of the Chair of the Committee.

The Examination is passed and the thesis approved if there is no more than one negative vote, an abstention being regarded as a negative vote. The report, from the Department Chair to the Program Administrator, records the result as "unsatisfactory" or "satisfactory." If the result is "unsatisfactory," the candidate may be given the opportunity by the Master's Examination Committee of a second attempt. A second "unsatisfactory" result will terminate candidacy at this university.

## **Faculty of Veterinary Medicine MSc Program**

The graduate students will register in one of the four academic departments listed below and in one of the designated areas of specialization:

### **Department of Biomedical Sciences**

Animal Behaviour  
Physiology, Pharmacology and Toxicology  
Cell and Molecular Biology  
Neuroscience  
Endocrinology

### **Department of Companion Animals**

Anesthesiology  
Cardiology  
Diagnostic Imaging  
Small Animal Medicine  
Small Animal Surgery

### **Department of Health Management**

Epidemiology/Health Management  
Animal Science and Animal Nutrition  
Clinical Sciences  
Aquatic Animal Health

Animal Welfare  
Biostatistics  
Public Health

### **Department of Pathology and Microbiology**

Morphologic Pathology  
Wildlife Pathology  
Clinical Pathology  
Parasitology  
Virology  
Bacteriology  
Public Health  
Immunology  
Aquatic Animal Health  
Biosecurity

Substantive courses are graduate level courses assigned a minimum of two credit hours. Students are required to complete courses totalling a minimum of twelve credit hours. Within this course complement there must be at least four substantive courses and the appropriate departmental Seminar course (one credit). Only one of the substantive courses may be a Directed Studies Course. All students are expected to complete VHM 801 (Veterinary Biostatistics) and VBS 803 (Principles of Biomedical Research) unless comparable training has been completed prior to entry into the program.

When a student is required to register in a seminar or colloquium course in more than one semester, the record will show a grade or a designation of "In Progress" for semesters prior to completion of the course and "Pass" or "Fail" for the final semester. With the consent of the Supervisory Committee, and of the instructor and the Department Chair concerned, a student may register for, and audit, all or part of a course. It is understood that the student will attend lectures as prescribed, but will not write any examination or receive any grade. Such a course may be recorded as an additional course, identified by AUD.

The Master's Examination Committee normally consists of five members as follows:

- i. two graduate faculty of the Department, who are not members of the Supervisory Committee, one of whom is appointed by the Department Chair to act as chair of the Master's Examination and to make the arrangements therefore;
- ii. the Supervisor of the candidate's research;
- iii. one additional member of the Supervisory Committee;
- iv. one member of the graduate faculty from a department other than that in which the student is registered.

### **Faculty of Science MSc Program**

The graduate students will register in one of the designated areas of specialization listed below:

Molecular and Macromolecular Sciences (MMS)  
Environmental Sciences (ESC)  
Human Biology (HB)

Students are required to take a minimum of three graduate level courses, all of which are to be regarded as substantive. A Seminar course (MMS 890 or ESC 890 or HB 890) is required. Students may take only one Directed Studies course (MMS 881 or ESC 881 or HB 881, or alternatively, VBS 881 or 882, VPM 881 or 882, VCA 881 or 882, VHM 881 or 882) for credit. Students lacking an Honours degree or background in one or more area may, at the discretion of the Supervisory Committee, be required to take the appropriate undergraduate level course(s), in

addition to the required courses. All graduate students must receive non-credit WHMIS (Workplace Hazardous Materials Information System) training in their first year.

When a student is required to register in a seminar or colloquium course in more than one semester, the record will show a grade or a designation of "In Progress" for semesters prior to completion of the course and "Pass" or "Fail" (or a numerical grade in the case of MMS 890) for the final semester. Enrolment in the Seminar course implies the student will participate as a presenter in at least one Graduate Studies Day. With the consent of the Supervisory Committee, and of the instructor and the Department Chair concerned, a student may register for, and audit, all or part of a course. It is understood that the student will attend lectures as prescribed, but will not write any examination or receive any grade. Such a course may be recorded as an additional course, identified by AUD.

The Master's Examination Committee normally consists of five members as follows:

- i. three members of the Supervisory Committee, including the Supervisor of the candidate's research;
- ii. one member of the area of specialization but from a department other than that of the student's supervisor. This external examiner may be from the University of Prince Edward Island, or from another University or Research Institute, as is deemed appropriate;
- iii. the Coordinator of Graduate Studies (or designate), who will Chair the Master's Examination Committee.

## **Master of Veterinary Science Program (MVSc)**

### **A) STRUCTURE OF THE PROGRAM**

The MVSc degree of the University of Prince Edward Island is a two-year, non-thesis (professional) Master's-track program to enhance scholarship and competitiveness of veterinarians in one of the broad disciplines of pathology, microbiology, or clinical sciences. The program is designed to provide advanced training in the disciplines, and to develop teaching and communication skills. In addition, a student successfully completing the program may spend an extra year of residency in his/her selected discipline so as to be eligible for certification by specialty groups that require three years of residency training. Success in the program is attested by the achieving of satisfactory standings in the minimum number of graduate courses required, the completion of a research project, and the writing of a project report suitable for publication in a refereed journal.

The graduate students will register in one of the academic departments listed below and in one of the designated areas of specialization:

#### **Department of Companion Animals**

Small Animal Medicine  
Small Animal Surgery  
Cardiology  
Diagnostic Imaging

#### **Department of Health Management**

Large Animal Medicine  
Large Animal Surgery  
Theriogenology  
Population Medicine  
Aquatic Food Animal Medicine  
Equine Clinical Sciences  
Food Animal Clinical Sciences

#### **Department of Pathology and Microbiology**

Bacteriology  
Clinical Pathology  
Immunology

Morphologic Pathology  
Parasitology  
Virology  
Wildlife Pathology  
Public Health  
Aquatic Animal Health  
Biosecurity

In addition to the “General Regulations for Graduate Programs,” described above, the following regulations apply specifically to the MVSc degree:

### **Residency Requirements**

Normally, at least four semesters of full-time study in residence at the University must be devoted to the non-thesis Master’s program if the student is admitted as a regular student. For a regular student admitted to a part-time study program, the residency period is based on the equivalence of three part-time semesters to one full-time semester. A student admitted as a provisional student requiring two semesters in that category must spend at least two additional semesters as a regular full-time student to meet the residency requirement. Upon completion of the residency requirement, the student is then eligible to become a candidate for the MVSc degree.

Normally, the project report must be formally submitted, or the program must be otherwise complete, within 48 months of the completion of the residency requirement. Departure from these normal requirements requires approval from the Graduate Studies Committee.

## **B) COURSES**

### **Prescribed Studies**

The minimum number of courses and/or general examinations is outlined below. For graduate credit, the courses selected must be acceptable to the Department and the Graduate Studies Committee. The candidate must maintain an average grade of at least a “B” standing (see Grades in General Regulations section) in the substantive courses outlined below in order to maintain registration in the program. Substantive courses are graduate level courses assigned a minimum of two credit hours.

Students are required to complete courses totalling a minimum of 32 credit hours. Within this course complement there must be at least eight substantive courses and the appropriate departmental Seminar course (one credit). Normally, in addition to the project, at least three substantive courses should be in the area of the student’s specialization. The Department may require examinations (oral and/or written) from time to time, to evaluate the student’s progress in his/her overall program.

### **Additional Courses**

In addition to these prescribed studies, the candidate may undertake to achieve satisfactory standings in courses supportive of the special discipline. These courses may be at either the undergraduate or the graduate level. The standings obtained in them will not affect the average grade of the prescribed studies.

When a student is required to register in a seminar or colloquium course in more than one semester, the record will show a grade or a designation of “In Progress” for semesters prior to completion of the course, and “Pass” or “Fail” for the final semester. With the consent of the Supervisory Committee, and of the instructor and the Department Chair concerned, a student may register for, and audit, all or part of a course. It is understood that the student will attend lectures as prescribed, but will not write any examination or receive any grade. Such a course may be recorded as an additional course, identified by “AUD”.

## **C) THE PROJECT REPORT**

### **Research**

Normally, the equivalent of at least six credit hours must be devoted to a small research project in fulfilment of the degree requirement. The project may be based on either a laboratory or clinical investigation, or a special topic

such as a prospective or retrospective case study. Summers during which research work is actively conducted may be counted as research semester equivalents, even though other courses may not be offered at that time. In order to avoid undue prolongation of the time required to complete the degree, the research topic should be identified early and approved by the Supervisory Committee. Research involving the use of animals must follow the Guidelines of the Canadian Council on Animal Care.

### **Project Report**

Each candidate for the degree of Master of Veterinary Science is required to submit a project report (in place of a thesis) based upon the research conducted under supervision as described above. The report should make some contribution to the body of knowledge in the candidate's field. The report should be prepared as a manuscript, in a form that meets the guidelines for submission of a peer-reviewed scientific journal.

### **Procedures**

The project report may be handed in at any time of the year, but candidates must bear in mind the desirability of having the final examination as much in advance of the deadline date for report submission as possible. Candidates are advised to inform themselves of the deadlines schedule, a copy of which may be obtained in the Office of the Program Administrator. It is desirable that each candidate initiate discussion about examination dates with the Supervisor early in the final semester.

The candidate should keep in close touch with the Supervisor and the Supervisory Committee, throughout the preparation of the project report. The final draft of the report, after it has been reviewed by all members of the Supervisory Committee, and when ready for examination is sent to the members of the MVSc Examination Committee (see below).

Following the Examination, the candidate, if successful, arranges for the preparation of the project report in final form, and for its submission to the Program Administrator (see below). The project report in final form, prepared as a manuscript meeting the guidelines for submission of a peer-reviewed scientific journal, must include any minor corrections or revisions indicated during the Examination. Approval of the report and the manuscript takes the form of a Certificate of Approval, signed by the Examination Committee.

### **The Master of Veterinary Science Examination**

The final oral examination is based on an overall assessment of the candidate's knowledge and competence in his/her field of study, including the project report. It is a departmental examination identified as the MVSc Examination and carried out by the MVSc Examination Committee normally consisting of four members as follows:

- i. one graduate faculty of the Department, who is not a member of the Supervisory Committee, and who is appointed by the Department Chair to act as chair of the MVSc Examination and to make the arrangements therefore;
- ii. the Supervisor of the candidate's program;
- iii. one additional member of the Supervisory Committee; and
- iv. one member of the graduate faculty from a department other than that in which the student is registered.

The Department Chair selects the Examination Committee at the request of the Supervisor and is responsible for notifying the Program Administrator of its composition. The Examination is normally open to the public; however, members of the audience may question the candidate only upon invitation of the Chair of the Committee.

The Examination is passed and the project report approved if there is no more than one negative vote, an abstention being regarded as a negative vote. The report, from the Department Chair to the Program Administrator, records the result as "unsatisfactory," or "satisfactory,". If the result is "unsatisfactory," the candidate may be given the opportunity by the MVSc Examination Committee of a second attempt. A second "unsatisfactory" result will terminate candidacy at this university.

## **Doctor of Philosophy Program (PhD), Veterinary Medicine**

### **A) STRUCTURE OF THE PROGRAM**

The purpose of the PhD degree program is to educate individuals to become independent, reliable, and competent research scientists. The PhD degree of the University of Prince Edward Island requires the demonstration of a reasonable mastery of a concentrated field of study. The latter is attested to by the achieving of satisfactory standings in each of a minimum of five graduate courses, the completion of a research project, and the writing of a thesis based upon the research.

The graduate students will register in one of the academic departments of the Faculty of Veterinary Medicine and in one of the areas of specialization listed:

#### **Department of Biomedical Sciences**

Animal Behaviour  
Physiology, Pharmacology and Toxicology  
Cell Biology  
Neuroscience  
Endocrinology

#### **Department of Health Management**

Animal Science and Animal Nutrition  
Epidemiology/Health Management  
Clinical Sciences  
Aquatic Animal Health  
Biostatistics  
Public Health  
Animal Welfare

#### **Department of Pathology and Microbiology**

Bacteriology  
Clinical Pathology  
Immunology  
Morphologic Pathology  
Parasitology  
Virology  
Wildlife Pathology  
Public Health  
Aquatic Animal Health  
Biosecurity

Depending on the individual thesis topic, projects could involve one or more of several species of animals. There will be considerable interaction and co-operation among the departments, with other universities in the region, and with government research laboratories to provide courses and research facilities to meet the needs of individual students and their research projects.

In addition to the “General Regulations for Graduate Programs” described earlier, the following regulations apply specifically to the Doctor of Philosophy degree:

#### **Admission Requirements**

The normal basis for admission to PhD studies as a regular or a provisional student is a recognized thesis-based MSc degree obtained with an average of at least second class (B level 70% to 79.9%) academic standing.



### **Transfer from MSc to PhD**

An applicant enrolled in an MSc program who achieves a superior record (normally at least first class [80% or higher] academic standing in graduate course work) and shows a particular aptitude for research may, with recommendation of the Supervisory Committee and Department, apply to the Graduate Studies and Research Committee for transfer from the MSc to a PhD program without the requirement for completion of the MSc degree. Transfers are normally made within the same department. However, inter-departmental transfers will be considered by the Graduate Studies and Research Committee on a case-by-case basis, on the recommendation of both Departments. The application for transfer must be made no sooner than the end of the second semester and normally no later than the end of the sixth semester, and is effective in the semester following approval. All regulations relating to the PhD program apply from the effective date. However, admission to the doctoral program will be considered provisional until such time as the candidate passes the PhD Comprehensive Examination, as governed by departmental regulations. If the Comprehensive Examination is passed, the student will be transferred from provisional to regular PhD student status. Two failed attempts of the Comprehensive Examination will result in the provisional PhD student status being revoked and immediate reversion to MSc student status. All regulations relating the MSc degree apply from the date of reversion. There will be no refund of program fees.

### **Residency Requirements**

Normally, at least six semesters of full-time study in-residency at the University must be devoted to the doctoral program following completion of a recognized Master's degree. In cases in which a student transfers from a Master's to a PhD program, eight semesters of full-time study would be the minimum residency requirement after completion of the Bachelor's degree. Normally, the thesis must be formally submitted within 48 months of the completion of the residency requirement. Departure from these normal requirements requires approval from the Graduate Studies and Research Committee.

## **B) SUPERVISION**

The student's program is established and progress kept under review by the appropriate department. At the discretion of the academic unit, the day-to-day responsibility for overseeing the student's program will rest with the Supervisor or jointly with the Supervisory Committee of five graduate faculty, one of whom must be from a department other than that in which the student is registered.

The Chair of the Supervisory Committee is normally the Department Chair. The graduate student's Supervisor shall not be the Chair of the Supervisory Committee. The Supervisor will normally have the degree for which the student is registered and be from the Department in which the student is enrolled.

## **C) COURSES**

The PhD degree is primarily a research degree; for that reason course work commonly comprises a smaller proportion of the total than is the case at the level of the Master's degree.

### **Prescribed Studies**

In the Faculty of Veterinary Medicine, substantive courses are graduate level courses assigned a minimum of two credit hours. In the PhD program students are required to complete courses totalling a minimum of 12 credit hours. Within this course complement there must be at least four substantive courses and the appropriate departmental Seminar course (one credit). Only one of the substantive courses may be a Directed Studies course.

All students are expected to complete VHM 801 (Veterinary Biostatistics) and VBS 803 (Principles of Biomedical Research) unless comparable training has been completed prior to entry into the program. In some cases, on the recommendation of the Supervisory Committee and with the approval of the Graduate Studies and Research Committee, exemptions may be granted for some of the course requirement in recognition of previous academic work. For graduate credit, the courses selected must be acceptable to the department and the Graduate Studies and Research Committee. These "substantive" courses and/or general examinations comprise the candidate's prescribed studies, in which the student must obtain an overall average grade of at least second-class standing (see Grades in General Regulations section).

A department may require examinations (oral and/or written), from time to time, to evaluate the student's progress in his/her overall program.

### **Additional Courses**

In addition to these prescribed studies, the candidate may undertake to achieve satisfactory standings in courses supportive of the special discipline. These courses may be at either the undergraduate or the graduate level. The standings obtained in them will not affect the average grade of the prescribed studies. When a student is required to register in a seminar or colloquium course in more than one semester, the record will show a grade or a designation of "In Progress" for semesters prior to completion of the course and "Pass" or "Fail" for the final semester. With the consent of the Supervisory Committee, and of the instructor and the Department Chair concerned, a student may register for, and audit, all or part of a course. It is understood that the student will attend lectures as prescribed, but will not write any examination or receive any grade. Such a course may be recorded as an additional course, identified by AUD.

## **D) THE THESIS**

### **Research**

In the total program of a doctoral student it is expected that the major part of the time be devoted to research in fulfilment of the thesis requirement. The research proposal should be formulated at as early a date as possible and be presented to the Supervisory Committee for approval. Research involving the use of animals must follow the Guidelines of the Canadian Council on Animal Care. When it is necessary for the research, or some of it, to be conducted off-campus, the arrangements are subject to the prior approval of the Chair of the Department in which the student is registered.

### **Comprehensive Examination**

At as early a date as may be feasible in each case, and in all cases no later than the final semester of the residency requirement (i.e., the 6th semester after the Master's degree or the 8th semester after the honours baccalaureate), the student is required to take an examination to assess his or her knowledge in that branch of learning embracing the subject. The examination will ordinarily be in two parts, one written and one oral.

The Comprehensive Examination is an examination by the academic unit in which the student is enrolled (as distinct from an examination by the Supervisory Committee).

Upon completing the Comprehensive Examination satisfactorily, the student is deemed to have met the Department standards, and then becomes a candidate for the PhD degree. The Examining Committee, appointed by the Chair of the academic unit concerned, consists of some or all of the members of the Supervisory Committee, together with two additional members of the Graduate Faculty, at least one of whom must be a member of the unit. The Chair of the academic unit concerned serves as Chair of the Examining Committee, and is responsible for making all arrangements. As a Comprehensive Examination, consideration is to be given to:

- 1) the student's knowledge of the subject matter and ability to integrate the material derived from his or her studies; and,
- 2) to the student's ability and promise in research. The Examining Committee, therefore, will receive from the Supervisory Committee a written evaluation of the quality of the student's performance to date in research and of the student's potential as a researcher. The Examining Committee will determine the relative importance to be given to these two major components of the Comprehensive Examination.

The results of the Comprehensive Examination will be reported to the Associate Dean of Graduate Studies and Research through the Chair of the academic unit. The examination may be repeated once within a program, and if the student fails a second time, further registration in the PhD program will be denied.

### **Thesis**

Each candidate for the degree of Doctor of Philosophy shall submit a thesis, written by the candidate, on the research carried out by the candidate on the approved topic. The thesis is expected to be a significant contribution to knowledge in its field, and the candidate must indicate in what ways it is a contribution. The thesis must

demonstrate mature scholarship and critical judgement on the part of the candidate, and it must indicate an ability to express oneself in a satisfactory literary style. Approval of the thesis is taken to imply that it is judged to be sufficiently meritorious to warrant publication in reputable scholarly media in the field.

### **Examination and Publication**

For each doctoral thesis, an External Examiner from outside the University is appointed by the Associate Dean of Graduate Studies and Research in consultation with the Supervisor and the Department Chair. The External Examiner will submit a written appraisal of the thesis to the Associate Dean of Graduate Studies and Research and to the Supervisor. Where no External Examiner can be identified who is able to attend the Final Oral Examination within a reasonable time frame, the Associate Dean of Graduate Studies and Research, in consultation with the Chair of the Examination Committee and the Chair of the Department, may permit examination via videoconference. The External Examiner is expected to attend the Final Oral Examination. Honoraria and expenses are paid by the University in relation to the duties involved.

### **Procedures**

The thesis may be submitted at any time of the year, but candidates are advised to allow ample time for revision and examination. It is understood that, as the thesis is being written, the candidate is in regular communication with the Supervisory Committee. In due time, a draft emerges which is deemed to be ready for examination. The candidate then formally requests examination, endorsed by the Departmental Chair, and a copy of this final draft is sent to the External Examiner as “fair copy” of the thesis. If the thesis is approved, arrangements for the Final Oral Examination are made. It is understood that as a result of the Final Oral Examination, corrections may be necessary to produce a revised final draft of the thesis.

### **The Final Oral Examination**

The Final Oral Examination is devoted chiefly to the defence of the doctoral thesis. It is a Faculty (as distinct from a departmental) examination, for which the arrangements are the responsibility of the Office of the Associate Dean of Graduate Studies and Research. The Final Oral Examination is conducted by a Committee consisting of five members, as follows:

- i. a member of the graduate faculty who is not a member of the Supervisory Committee appointed to act as Chair by the Associate Dean of Graduate Studies and Research in consultation with the Department Chair;
- ii. the External Examiner;
- iii. a member of the graduate faculty who is not a member of the Supervisory Committee, selected by the Departmental graduate faculty; and
- iv. two members of the student’s Supervisory Committee, selected by the Supervisory Committee. One member shall be from a Department other than that in which the student is registered.

The Associate Dean of Graduate Studies and Research or his/ her designate will attend the Examination. The Examination is normally open to the public; however, members of the audience may question the candidate only upon invitation of the Chair of the Committee. Normally the Examination is preceded by a public presentation of the research results.

The members of the Examination Committee, including the External Examiner, report individually on both the defence and the thesis, the candidate being deemed to have passed if not more than one of the five Examiners votes negatively. An abstention is regarded as a negative vote. Concurrently, the members sign the Certificate of Approval, to be submitted with the approved thesis in its final form to the Associate Dean of Graduate Studies and Research. The report to the Associate Dean will record the decision as “unsatisfactory,” or “satisfactory,”. If “unsatisfactory,” the candidate may be given the opportunity of a second attempt. A second “unsatisfactory” will terminate candidacy at this University.

An abstract of not more than 350 words, prepared by the author and approved by his/her Supervisor, is forwarded by the Office of the Associate Dean to the publishers of American Doctoral Dissertations. The abstract is printed in this work and the availability of the thesis in microfilm at Library and Archives Canada announced.

The publishers charge a fee for this service and at the time of printing will provide the author with offprints for a small additional charge for the first hundred.

Publication in the above manner does not preclude publication of all or part of the thesis in journals or in book form.

## **Postgraduate Diploma in Pathology or Microbiology Program (PGDPath or PGDMicro)**

### **A) STRUCTURE OF THE PROGRAM**

The Postgraduate Diploma of the University of Prince Edward Island is a one-year, non-thesis (professional) program for veterinarians working in industry, government, or private diagnostic laboratories and who have been away from university for some time. Also included are veterinarians who wish to broaden their knowledge at the graduate level on subjects specific to their professional interests. The objective is to provide advanced practical training in a field of veterinary pathology or microbiology. The program emphasizes “hands-on” and course-based applied training in diagnostic veterinary bacteriology, immunology, parasitology, pathology, or virology. A successful student may transfer to the MVSc or MSc programs at the University of Prince Edward Island, depending on grades and funding. Success in the program is attested by the achieving of satisfactory standings in the minimum number of graduate courses required, the completion of a small research project, and the writing of a project report.

The graduate students will register in the Department of Pathology and Microbiology and in one of the designated areas of specialization:

Anatomic Pathology  
Parasitology  
Virology  
Bacteriology  
Public Health  
Immunology  
Fish Health

In addition to the “General Regulations for Graduate Programs,” described above, the following regulations apply specifically to the PGD program:

### **Residency Requirements**

Normally, at least two semesters of full-time study in residence at the University must be devoted to the diploma program if the student is admitted as a regular student. For a regular student admitted to a part-time study program, the residency period is based on the equivalence of three part-time semesters to one full-time semester. A student, admitted as a provisional student requiring two semesters in that category, must spend at least one additional semester as a regular full-time student to meet the residency requirement. Upon completion of the residency requirement, the student is then eligible to become a candidate for the PGD qualification. Normally, the project report must be formally submitted or the program must be otherwise complete within 24 months of the completion of the residency requirement. All requirements must be completed within a five-year time period for part-time students. Departure from these normal requirements requires approval from the Graduate Studies Committee.

### **B) COURSES**

#### **Prescribed Studies**

The minimum number of courses and/or general examinations is outlined below. For graduate credit, the courses selected must be acceptable to the Department and the Graduate Studies Committee. The candidate must maintain

an average grade of at least a “B” standing (see Grades in General Regulations section) in the substantive courses outlined below in order to maintain registration in the program. Substantive courses are graduate level courses assigned a minimum of two credit hours.

Students are required to complete courses totalling a minimum of 16 credit hours. Within this course complement there must be at least four substantive courses and the appropriate departmental Seminar course (one credit).

The Department may require examinations (oral and/or written) from time to time, to evaluate the student’s progress in his/her overall program.

### **Additional Courses**

In addition to these prescribed studies, the candidate may undertake to achieve satisfactory standings in courses supportive of the special discipline. These courses may be at either the undergraduate or the graduate level. The standings obtained in them will not affect the average grade of the prescribed studies. When a student is required to register in a seminar or colloquium course in more than one semester, the record will show a grade or a designation of “In Progress” for semesters prior to completion of the course and “Pass” or “Fail” for the final semester. With the consent of the Supervisor, the instructor, and the Department Chair concerned, a student may register for, and audit, all or part of a course. It is understood that the student will attend lectures as prescribed, but will not write any examination or receive any grade. Such a course may be recorded as an additional course, identified by AUD.

## **C) THE RESEARCH PROJECT**

### **Research**

Normally, the equivalent of at least three credit hours must be devoted to a small research project in fulfilment of the degree requirement. The project may be based on either a laboratory investigation or a special topic such as a prospective or retrospective case study. Summers during which research work is actively conducted may be counted as research semester equivalents, even though other courses may not be offered at that time. In order to avoid undue prolongation of the time required to complete the degree, the research topic should be identified early and approved by the Supervisory Committee. Research involving the use of animals must follow the Guidelines of the Canadian Council on Animal Care.

### **Project Report**

Each candidate for the graduate diploma qualification is required to submit a project report (in place of a thesis) based upon the research conducted under supervision as described above. The report should make some contribution to the body of knowledge in the candidate’s field, but it may or may not be submitted for publication in a refereed journal. General specifications as to paper, format, order, and binding are available from the Office of the Program Administrator.

### **Procedures**

The project report may be handed in at any time of the year, but candidates must bear in mind the desirability of having the final examination as much in advance of the deadline date for report submission as possible. Candidates are advised to inform themselves of the deadlines schedule, a copy of which may be obtained in the Office of the Program Administrator. It is desirable that each candidate initiate discussion about examination dates with the Supervisor early in the final semester.

The candidate should keep in close touch with the Supervisor throughout the preparation of the project report. The final draft of the report, after it has been reviewed by the Supervisor, is sent when ready for examination, to the members of the PGD Examination Committee (see below).

Following the Examination, the candidate, if successful, arranges for the preparation of the project in final form, and for its submission to the Program Administrator (see below). The report in final form must include any minor corrections or revisions indicated during the Examination. A manuscript suitable for publication in a refereed journal may also be prepared in the final form. Approval of the report takes the form of a Certificate of Approval, signed by the Examination Committee.

## **The Postgraduate Diploma Examination**

The final oral examination is based on overall assessment of the candidate's knowledge and competence in his/her field of study, including the project report. It is a departmental examination identified as the PGD Examination and carried out by the PGD Examination Committee normally consisting of three members as follows:

- i. two graduate faculty of the Department, who are not members of the Supervisory Committee (if applicable), and one of whom is appointed by the Department Chair to act as chair of the PGD Examination and to make the arrangements therefore; and
- ii. the Supervisor of the candidate's program. The Department Chair selects the Examination Committee at the request of the Supervisor and is responsible for notifying the Program Administrator of its composition.

The Examination is normally open to the public; however, members of the audience may question the candidate only upon invitation of the Chair of the Committee.

The Examination is passed and the project report approved if there is no more than one negative vote, an abstention being regarded as a negative vote. The report, from the Department Chair to the Program Administrator, records the result as "unsatisfactory," or "satisfactory,". If the result is "unsatisfactory," the candidate may be given the opportunity by the PGD Examination Committee of a second attempt. A second "unsatisfactory" result will terminate candidacy at this university.

## **Graduate Courses**

### **Faculty of Science**

Master of Science—Environmental Sciences (ESC)

Master of Science—Human Biology (HB)

Master of Science—Molecular and Macromolecular Sciences (MMS)

### **MASTER OF SCIENCE—ENVIRONMENTAL SCIENCES (ESC) COURSES**

#### **ESC 800 THESIS**

#### **ESC 812 ADVANCED TOPICS IN ECOLOGY AND ENVIRONMENTAL SCIENCES**

This course covers advances in practical and theoretical aspects of aquatic and terrestrial ecology, and represents one of the three general axes of research expertise within the Department. A combination of formal lectures, directed readings, and group discussion of journal articles is used. Students are expected to prepare written reports or present seminars.

**PREREQUISITE:** Admission to a graduate program in Science or permission of the instructor.

**HOURS OF CREDIT:** 3

**NOTE:** Responsibility for this course rests with the department of Biology.

#### **ESC 813 ADVANCED TOPICS IN PLANT SCIENCE**

This course covers current advances in botany, including plant development and morphology, anatomy and physiology, pollination biology, and biotechnology. A combination of formal lectures, directed readings, and group discussion of journal articles is used. Students are expected to prepare written reports or present seminars.

**PREREQUISITE:** Admission to a graduate program in Science and permission of the instructor.

**NOTE:** Responsibility for this course rests with the department of Biology.

#### **ESC 862 ADVANCED FRESHWATER ECOLOGY**

This course provides advanced study in the ecology of freshwater habitats, particularly those found on Prince Edward Island. The first part of the course concentrates on the physical, chemical, and biological characteristics of fresh waters, classification of freshwater habitats, and applied limnology. A laboratory/field component includes an introduction to water analysis techniques and field equipment, field water analysis, the collection and analysis

of biological samples, and the physical properties of water. The second part is a field/lab project on a limnological topic tailored to the student's individual program, and consists of an experimental or observational study coupled with a comprehensive literature review, project write-up, and oral presentation.

NOTE: Credit is not given for both Biology 462 (Limnology) and Biology 862 and ESC 862.

NOTE: Responsibility for this course rests with the department of Biology.

#### ESC 865 ADVANCES IN MARINE ECOLOGY

This course provides an update on relevant areas of ongoing marine research. The first part of the course concentrates on marine ecology topics including benthic-pelagic coupling, dispersal and adult-larval interactions, animal-sediment relationships, biodiversity ecosystem services, encrusting communities and their interactions, and aquatic invasive species. The second part includes participation in regular discussion sessions based on analysis of advanced literature relevant to the discipline and to the student's particular research. Assignments include an essay relevant (but not restricted) to a student's field of research, and a seminar on a topic relating general ecological hypotheses to the topic addressed in the essay.

NOTE: Credit will not be given for both Biology 465 (Marine Community Ecology) and ESC 865.

PREREQUISITE: Entry into a graduate program at UPEI and permission of the instructor.

HOURS OF CREDIT: 3 (3 hours lecture and 3 hours lab/field trip per week, plus discussion group.)

NOTE: Responsibility for this course rests with the department of Biology.

#### ESC 881 DIRECTED STUDIES IN ENVIRONMENTAL SCIENCES

Under the supervision of a faculty member, a graduate student independently pursues an area of interest in depth. The course includes an extensive literature review of the specific discipline, directed research on the topic, or collection and analysis of data. The student may be required to present a written report and/or present a seminar in the area. Topics must not be a part of the student's thesis research although they may be in a complementary area. Course outlines must be approved by the supervisory committee, the department Chair, and the Dean of Science.

PREREQUISITE: Admission in the graduate program in Biology and permission of instructor.

HOURS OF CREDIT: 3

#### ESC 890 SEMINAR

In this course students attend seminars on current topics in their thesis areas and deliver seminars. Techniques in preparing scientific communications (oral presentations and poster displays) are also covered.

PREREQUISITE: Admission to a graduate program in Science.

HOURS OF CREDIT: 3

NOTE: Responsibility for this course rests with the department of Biology.

### **MASTER OF SCIENCE—HUMAN BIOLOGY (HB) COURSES**

#### HB 800 THESIS

#### HB 811 ADVANCED TOPICS IN CELL AND MOLECULAR BIOLOGY

This course enhances student knowledge of cell and molecular biology from a research perspective. Current advances in cell and molecular biology, including biotechnology and cytogenetics, are emphasized. Topics vary yearly according to the needs of the participating students. A combination of formal lectures, directed readings, and group discussion of journal articles is used. Students are expected to prepare written reports or present seminars.

PREREQUISITE: Admission to a graduate program in Science and permission of the instructor.

HOURS OF CREDIT: 3

NOTE: Responsibility for this course rests with the department of Biology.

#### HB 825 ADVANCED TECHNIQUES IN SCANNING ELECTRON MICROSCOPY

This course covers the principles of scanning electron microscopy, including techniques used for the preparation of biological or other materials for microscopy and the use of specialized software to analyze surface features of samples. Students learn to operate the instrument over the full spectrum of use, generating their own images and

interpreting patterns. A microscopical investigation of material relevant to the student's discipline forms the basis of a course project.

PREREQUISITE: Admission to the graduate program or Permission of the instructor

HOURS OF CREDIT: 3

NOTE: Responsibility for this course rests with the department of Biology.

#### HB 835 PRINCIPLES OF POSITIVE YOUTH DEVELOPMENT THROUGH SPORT (See Kinesiology 435)

#### HB 881 DIRECTED STUDIES IN HUMAN DEVELOPMENT AND HEALTH

Under the supervision of a faculty member, a graduate student independently pursues an area of interest in depth. The course includes an extensive literature review of the specific discipline, directed research on the topic, or collection and analysis of data. The student may be required to present a written report and/or present a seminar in the area. Topics must not be a part of the student's thesis research although they may be in a complementary area. Course outlines must be approved by the supervisory committee, the department Chair, and the Dean of Science.

PREREQUISITE: Admission in the graduate program in Biology and permission of instructor.

HOURS OF CREDIT: 3

#### HB 883 EPIDEMIOLOGICAL APPLICATIONS IN PRIMARY HEALTHCARE RESEARCH

This course introduces essential principles of epidemiological applications that are relevant to primary healthcare research. Students will be introduced to the principles of patient oriented research, primary healthcare, and the background of epidemiological applications, as well as the specific applications and computations of sensitivity and specificity, risk estimation, rates and proportions, hypothesis generating and hypothesis evaluation, as well as arithmetic and mathematical modeling. A combination of formal lectures, directed readings, group discussions and interpretation of outcomes from specific analyses using customized "webulators" will be used. Students are expected to prepare written reports and/or present seminars.

PREREQUISITE: Admission to a graduate program in Science and permission of the instructor.

HOURS OF CREDIT: 3

#### HB 885 BIOINFORMATICS FOR GRADUATE STUDENTS

This course is an introduction to bioinformatics and a practical guide to the analysis of genes and proteins. It will familiarize students with the tools and principles of contemporary bioinformatics. By the end of the course, students will have a working knowledge at the graduate level of a variety of publicly available databases and computational tools important in bioinformatics, and a grasp of the underlying principles that are adequate for them to evaluate and utilize novel techniques as they arise in the future. In addition to participating in all the lectures and activities of the undergraduate course CS 322/ BIO 322, graduate students are expected to accomplish a graduate project and attend extra guest lectures specially prepared for graduate students (when the graduate enrolment is 3 or more). The graduate project would be related to the student's research, so the thesis supervisor will be invited to join in the process of choosing and evaluating the graduate project. The graduate project will be worth 30% of the final grade.

Cross-listed with CS 322, BIO 322, VPM 885

PREREQUISITE: Admission to the graduate program and permission of the instructor

HOURS OF CREDIT: 3

**NOTE:** No student can be awarded more than one course credit among HB 885, VPM 885, CS 322, and BIO 322

#### HB 890 SEMINAR (See ESC 890)

### **MASTER OF SCIENCE—MOLECULAR AND MACROMOLECULAR SCIENCES (MMS) COURSES**

#### MMS 800 THESIS

#### MMS 881 DIRECTED STUDIES IN MOLECULAR AND MACROMOLECULAR SCIENCES



This course is a thorough study of a selected topic in Molecular and Macromolecular Sciences. Entry to the course, and the course outline, are subject to the approval of the Supervisory Committee, and the Dean of Science. The course may include directed reading, directed research, and discussion with the instructor. The student may be required to prepare a written report and/or present a seminar in the area. Topics must not be directly related to the student's research project, although they may be in the same discipline.

PREREQUISITE: Admission to the graduate program and permission of the instructor.

HOURS OF CREDIT: 3

#### MMS 882 ADVANCED TOPICS IN MOLECULAR AND MACROMOLECULAR SCIENCES

This course covers current advances and advanced topics in a discipline of Molecular and Macromolecular Sciences and is a thorough study of specific topics. It is offered to graduate students at the discretion of the Department, and covers areas of specialization not covered in other graduate courses. The course discusses recent advances in an area of interest to the students but which are not part of the students' thesis research directly.

PREREQUISITE: Admission to the graduate program and permission of the instructor.

HOURS OF CREDIT: 3

NOTE: Responsibility for this course rests with the department of Chemistry.

#### MMS 883 ADVANCED TOPICS IN COMPUTATIONAL CHEMISTRY

This course exercises the application of computational chemistry to structural and reactivity questions in organic and inorganic chemistry. Computational methods discussed include molecular mechanics, ab initio and semi-empirical calculations, and density functional theory. The objective is to gain an understanding of the application of these methods to chemical problems. The current literature is explored to illustrate the use of computational chemistry in research.

PREREQUISITE: Admission to MSc Program

HOURS OF CREDIT: 3

NOTE: Responsibility for this course rests with the department of Chemistry.

#### MMS 884 ADVANCED SPECTROSCOPIC STRUCTURE ELUCIDATION

This course covers various forms of spectrometry used in the determination of structures in Organic and Inorganic Chemistry. Major topics include the theory and use of nuclear magnetic resonance (NMR) spectroscopy, in particular the use of 2D experiments; mass spectrometry and infrared spectroscopy. Particular emphasis is placed on developing the students' ability to interpret spectra and elucidate the structure of a molecule based on this evidence. Spectroscopic techniques for the study of transient species are also discussed, including: laser flash photolysis (LFP); laser-induced fluorescence (LIF); and stopped-flow and relaxation methods for fast reaction studies.

PREREQUISITE: Admission to the graduate program.

HOURS OF CREDIT: 3

NOTE: Responsibility for this course rests with the department of Chemistry.

#### MMS 890 SEMINAR IN MOLECULAR AND MACROMOLECULAR SCIENCES

In this course students attend regular departmental seminars. Students are also required to present a seminar on a topic within their discipline, but unrelated to their research project. Students must register for this course each semester, and receive a grade of "In Progress" until completion of their MSc programs.

PREREQUISITE: Admission to MSc Program in Science

HOURS OF CREDIT: 3

NOTE: Responsibility for this course rests with the department of Chemistry.

### **Faculty of Veterinary Medicine**

Biomedical Sciences

Companion Animals

Health Management

Pathology & Microbiology

## **BIOMEDICAL SCIENCES COURSES**

### **VBS 801 ELECTRON MICROSCOPY: PRINCIPLES, TECHNIQUES AND ULTRASTRUCTURAL ANALYSIS**

This laboratory-oriented course introduces students to the principles and procedures required for the examination of structures with the transmission electron microscope (TEM) and scanning electron microscope (SEM) and the interpretation/analysis of ultrastructural features of cells and tissues.

PREREQUISITE: Permission of instructor.

HOURS OF CREDIT: 4

LECTURES: 3 hours

LABORATORIES: 4 hours

### **VBS 803 PRINCIPLES OF BIOMEDICAL RESEARCH**

This course provides graduate students in a biomedical field with general knowledge and principles of biomedical research. The lectures and tutorials cover topics like the scientific approach, experimental design, scientific writing, intellectual property, research ethics, preparing seminars, and grant writing. The laboratories focus on laboratory techniques that are useful in biomedical research.

LECTURES/TUTORIALS: 1-3 hours

LABORATORIES: 3 hours

HOURS OF CREDIT: 2 or 3

### **VBS 817 CURRENT TOPICS IN MARINE BIOTECHNOLOGY**

This course deals with advanced topics in Marine Biotechnology. Topics include: marine microbiology, natural products biosynthesis, isolation and characterization of bioactive natural products, heterologous expression of biosynthetic genes, drug development, chemical ecology. The course will meet for three contact hours per week and will involve in-depth discussions of the relevant current literature.

PREREQUISITE: Chemistry 241/242 OR 243 and permission of instructor; a course in biochemistry would be an asset but is not required.

LECTURE: 3 hours

LAB/TUTORIAL: 0

HOURS OF CREDIT: 3

### **VBS 823 FUNDAMENTALS OF DEVELOPMENTAL BIOLOGY**

This course is designed to enhance student knowledge of the basic concepts in developmental biology. Early development of vertebrates is discussed with emphasis on experimental and molecular analysis of developmental mechanisms.

HOURS OF CREDIT: 3

TUTORIAL: 3 hours

### **VBS 824 ADVANCED TOPICS IN DEVELOPMENTAL BIOLOGY**

This course focuses on recent advances in developmental biology. Topics are selected from the recent literature according to student interests and may include embryonic induction, regulation of morphogenesis and differentiation, mechanisms of regional specification and pattern formation.

PREREQUISITES: VBS 823 or permission of the instructor.

HOURS OF CREDIT: 2

TUTORIAL: 2 hours

### **VBS 845 ADVANCED ENVIRONMENTAL TOXICOLOGY**

This course provides in-depth analysis of environmental impacts of the major classes of contaminants including methodologies for environmental impacts assessment and monitoring. Effects of environmental contaminants are examined at the ecosystem, organismal, cellular, biochemical, and molecular levels. Additional emphasis is placed on understanding the fate of contaminants of concern in aquatic and terrestrial environments, environmental chemistry, biogeochemical cycles, and exposure and uptake pathways by organisms. The course consists of lectures, discussions of peer-reviewed literature, case studies, presentations by students, and laboratories.

PREREQUISITE: Permission of the instructor.

LECTURE/LAB: 3

HOURS OF CREDIT: 3

#### VBS 852 INTRODUCTION TO NEUROSCIENCE

This is a lecture/discussion course with supplemental laboratories and readings. Topics include introductions to neuroanatomy, neurophysiology and neuropharmacology of mammalian systems including current concepts in neuronal processing and integration.

PREREQUISITE: Undergraduate anatomy, physiology and pharmacology or equivalent and permission of instructor.

HOURS OF CREDIT: 3

LECTURES: 1 hour

TUTORIALS: 2 hours

#### VBS 863 PRINCIPLES OF CELL PHYSIOLOGY AND PHARMACOLOGY

This advanced course on pharmacological principles is based on an understanding of cell physiology. The course covers membrane properties and principles of receptor function relevant to cell physiology and pharmacology and includes cellular, biochemical, and molecular aspects of drug actions. Students present and discuss weekly readings.

PREREQUISITES: Undergraduate biochemistry and physiology and permission of instructor.

HOURS OF CREDIT: 3

LECTURE: 1 hour

TUTORIAL: 2 hours

#### VBS 876 BIOCHEMICAL TOXICOLOGY

This course provides students with an understanding of the chemical and biochemical basis of toxicology. The principles of toxicology are the general focus of the course, but system specific aspects are covered with an emphasis on mechanisms of toxicity. The course includes lectures, seminars and student presentations.

PREREQUISITES: A course on Cellular Basis of Physiology and Pharmacology or an undergraduate course in pharmacology or toxicology that is approved by the instructor.

HOURS OF CREDIT: 3

LECTURE: 1.5 hours

TUTORIAL: 1.5 hours

#### VBS 881-882 DIRECTED STUDIES

This course is a thorough study of a selected problem or topic in the discipline. The course may include directed reading, directed research, or collection and analysis of data. The student will prepare a written report and present a seminar on the topic.

PREREQUISITE: Permission of instructor.

HOURS OF CREDIT: 1-3

#### VBS 890 SEMINAR

In this course students attend and present annual seminars on topics in their discipline, are evaluated on their seminars, and provide constructive criticism to others giving seminars in the course.

PREREQUISITE: Admission to MSc program.

HOURS OF CREDIT: 1

#### VBS 892 ADVANCES IN FISH PHYSIOLOGY

This is an advanced course covering a range of selected topics on fish form and function. Interaction of fish with their ecosystems is emphasized. Students are actively involved by presenting and discussing readings provided weekly. Each student presents a formal seminar on a selected topic at the conclusion of the course.

PREREQUISITE: Undergraduate courses in animal physiology (i.e. Bio 402 or VBS 121 and 122, or equivalent) and permission of the instructor.

HOURS OF CREDIT: 3

LECTURES: 1 hour

#### VBS 990 SEMINAR

This is a seminar course in which students attend and present annual seminars on topics in their discipline, are evaluated on their seminars, and provide constructive criticism to others giving seminars in the course.

PREREQUISITE: Admission to PhD program.

HOURS OF CREDIT: 1

## **COMPANION ANIMALS COURSES**

### **VCA 811 ADVANCED MEDICINE OF THE RENAL, GENITOURINARY AND ENDOCRINE SYSTEMS**

This course is a detailed study of the physiology, pathophysiology, diagnosis, and management of disorders of the renal and urinary systems of companion animals. Areas of current interest or controversy, as well as recent advances in knowledge and management in the field, are emphasized. Requirements for the course include critical evaluation of current literature and presentation of an informal seminar on a specific topic.

PREREQUISITE: Undergraduate courses in physiology, pathophysiology and medicine and permission of the instructor.

HOURS OF CREDIT: 2

LECTURES: 2 hours

### **VCA 812 CLINICS IN SMALL ANIMAL INTERNAL MEDICINE I**

This course is given in the fall or winter and provides initial training in small animal internal medicine. Students interview owners, carry out physical examinations, perform diagnostic procedures, interpret diagnostic tests and diagnose and treat canine and feline patients under the close supervision of small animal medicine faculty. Although students will have primary case responsibility, it is expected that they will consult frequently with small animal medicine faculty and have close supervision when performing clinical or diagnostic procedures. Topics discussed in rounds include those related to preventive medicine, nutrition, gastroenterology, nephrology, urology, oncology, cardiology, neurology, pulmonology, infectious disease, emergency medicine and critical care, endocrinology, hematology and immunology. Students enrolled in this course are expected to participate in emergency duty.

PREREQUISITE: DVM or equivalent degree and successful admission into a small animal medicine residency training program in the Department of Companion Animals, AVC.

HOURS OF CREDIT: 3 (Credits based on at least 6 to 7 hours/week of teaching rounds/seminars)

### **VCA 813 CLINICS IN SMALL ANIMAL INTERNAL MEDICINE II**

This course is given in the fall or winter and provides further training in small animal internal medicine. Students interview owners, carry out physical examinations, perform diagnostic procedures, interpret diagnostic tests and diagnose and treat canine and feline patients under the close supervision of small animal medicine faculty. Students will have primary case responsibility and will consult often with small animal medicine faculty. Students will be supervised as required when performing clinical or diagnostic procedures. Topics discussed in rounds include those related to preventive medicine, nutrition, gastroenterology, nephrology, urology, oncology, cardiology, neurology, pulmonology, infectious disease, emergency medicine and critical care, endocrinology, hematology and immunology. Students enrolled in this course are expected to participate in emergency duty.

PREREQUISITE: DVM or equivalent degree and successful completion of Clinics in Small Animal Internal Medicine I

HOURS OF CREDIT: 3 (Credits based on at least 6 to 7 hours/week of teaching rounds/seminars)

### **VCA 814 CLINICS IN ADVANCED SMALL ANIMAL INTERNAL MEDICINE I**

This course is given in the fall or winter and provides advanced training in small animal internal medicine. Students interview owners, carry out physical examinations, perform diagnostic procedures, interpret diagnostic tests and diagnose and treat canine and feline patients under the supervision of small animal medicine faculty. Students will have primary case responsibility and consult with small animal medicine faculty on an as needed basis. Students will be supervised as required when performing clinical or diagnostic procedures.

Students will also be required to supervise teaching rounds on an occasional basis. Topics discussed in rounds include those related to preventive medicine, nutrition, gastroenterology, nephrology, urology, oncology, cardiology, neurology, pulmonology, infectious disease, emergency medicine and critical care, endocrinology, hematology and immunology. Students enrolled in this course are expected to participate in emergency duty.

PREREQUISITE: DVM or equivalent degree and successful completion of Clinics in Small Animal Internal Medicine I & II

HOURS OF CREDIT: 3 (Credits based on at least 6 to 7 hours/week of teaching rounds/seminars)

#### VCA 815 CLINICS IN ADVANCED SMALL ANIMAL INTERNAL MEDICINE II

This course is given in the fall or winter and provides advanced training in small animal internal medicine. Students interview owners, carry out physical examinations, perform diagnostic procedures, interpret diagnostic tests and diagnose and treat canine and feline patients under the supervision of small animal medicine faculty. Students will have primary case responsibility and consult with small animal medicine faculty on an as needed basis. Students will be supervised as required when performing clinical or diagnostic procedures. Students will also be required to supervise teaching rounds on an occasional basis. Topics discussed in rounds include those related to preventive medicine, nutrition, gastroenterology, nephrology, urology, oncology, cardiology, neurology, pulmonology, infectious disease, emergency medicine and critical care, endocrinology, hematology and immunology. Students enrolled in this course are expected to participate in emergency duty.

PREREQUISITE: DVM or equivalent degree and successful completion of Clinics in Small Animal Internal Medicine I & II

HOURS OF CREDIT: 3 (Credits based on at least 6 to 7 hours/week of teaching rounds/seminars)

LECTURES: 2 hours

#### VCA 816 ADVANCED SURGERY OF THE MUSCULOSKELETAL SYSTEM

This course provides advanced training in small animal surgery, including the pathophysiology of advanced musculoskeletal diseases of companion animals and advanced surgical treatments. Topics include fracture management, juvenile orthopaedic disease, osteoarthritis and management, joint replacement, ligament and tendon injuries, immune mediated muscular and joint diseases, orthopaedic surgical instrumentation, and biomaterials used in orthopaedic implants. Students use refereed journal articles and approved textbooks, and practise advanced surgical procedures using cadavers and models in the laboratory component.

PREREQUISITE: DVM or equivalent degree and permission of the instructor.

HOURS OF CREDIT: 3 (credits based on 3 hours of classroom instruction per week and 9 hours of laboratory time)

#### VCA 817 ADVANCED SURGERY OF THE NERVOUS SYSTEM AND REHABILITATION

This course provides advanced training in small animal surgery. Students are instructed in pathophysiology of advanced neurologic diseases of companion animals and advanced surgical and conservative treatment of these conditions. Topics include spinal fracture management, intervertebral disc disease, intracranial disease, immune mediated and infectious neurological diseases, neurological surgical instrumentation, and biomaterials used in neurosurgery. Students also discuss techniques and current theory regarding rehabilitation of neurologic animals and animals with musculoskeletal disease. Students use refereed journal articles and approved textbooks, and practise advanced surgical procedures using cadavers and models in the laboratory component.

PREREQUISITE: DVM or equivalent degree and permission of the instructor.

HOURS OF CREDIT: 3 (credits based on 3 hours of classroom instruction per week and 9 hours of laboratory time)

#### VCA 818 ADVANCED SURGERY OF THE CARDIOTHORACIC SYSTEM

This course provides advanced training in small animal surgery. Students are instructed in advanced surgical management of diseases involving the cardiovascular system, respiratory system, and thoracic cavity. Topics include pathophysiology of surgical diseases involving the cardiovascular system, respiratory system, and thoracic cavity; advanced surgical techniques to treat these diseases; and post-operative care and prognosis. Diseases covered include patent ductus arteriosus, pulmonary neoplasia, thoracic wall neoplasia and trauma, brachycephalic airway syndrome, laryngeal paralysis, and tracheal collapse. Students use refereed journal articles and approved textbooks, and practise advanced surgical procedures using cadavers and models in the laboratory component.

PREREQUISITE: DVM or equivalent degree and permission of the instructor.

HOURS OF CREDIT: 3 (credits based on 3 hours of classroom instruction per week and 9 hours of laboratory time)

#### VCA 819 ADVANCED SURGERY OF THE UROGENITAL SYSTEM

This course provides advanced training in small animal surgery. Students are instructed in the pathophysiology of diseases of the urogenital system and surgical treatment of these diseases. Topics include pre-operative management of patients with renal insufficiency, and indications and surgical methods for diseases involving the kidneys, ureter, urinary bladder, urethra, and the male and female reproductive systems. Specific techniques for

diagnostics are discussed, as well as specific instrumentation and biomaterials for treating diseases involving the urogenital system. Students use refereed journal articles and approved textbooks, and practise advanced surgical procedures using cadavers and models in the laboratory component.

PREREQUISITE: DVM or equivalent degree and permission of the instructor.

HOURS OF CREDIT: 3 (credits based on 3 hours of classroom instruction per week and 9 hours of laboratory time)

#### VCA 821 ADVANCED MEDICINE OF THE IMMUNOLOGIC, PULMONARY, AND NEUROMUSCULAR SYSTEMS

This is a detailed study of the physiology, pathophysiology, diagnosis, and management of disorders of the immunologic, pulmonary, and neuromuscular systems of companion animals. Areas of current interest or controversy, as well as recent advances in knowledge and management in the field, will be emphasized.

Requirements for the course may include critical evaluation of current literature and presentation of an informal seminar on a specific topic.

PREREQUISITE: Undergraduate courses in physiology, pathophysiology and medicine and permission of the instructor.

LECTURES: 2 hours

HOURS OF CREDIT: 2

#### VCA 822 ADVANCED SURGERY OF THE GASTROINTESTINAL AND ENDOCRINE SYSTEMS

This course provides advanced training in small animal surgery. Students are instructed in the pathophysiology of diseases of the gastrointestinal and endocrine systems and surgical treatment of these diseases. Topics include gastric dilation volvulus; intestinal and gastric foreign bodies; intestinal and gastric neoplasia; persistent right aortic arch; abdominal wall and diaphragmatic hernias; diseases of the liver and gallbladder; diseases of the colon, thyroid, and parathyroid; and adrenal disease. Specific techniques for diagnostics are discussed, as well as specific instrumentation and biomaterials for treating diseases involving the gastrointestinal system. Students use refereed journal articles and approved textbooks, and practise advanced surgical procedures using cadavers and models in the laboratory component.

PREREQUISITE: DVM or equivalent degree and permission of the instructor.

HOURS OF CREDIT: 3 (credits based on 3 hours of classroom instruction per week and 9 hours of laboratory time)

#### VCA 823 ADVANCED SURGICAL BIOLOGY, WOUND MANAGEMENT, AND EAR DISEASE

This course provides advanced training in small animal surgery. Students are instructed in advanced surgical pathophysiology of wounds and ear diseases, as well as advanced concepts regarding biomaterials, asepsis, and critical care for trauma and post-operative patients. Topics include wound healing and grafting, methods of sterilization and pathophysiology of shock, use of blood transfusion medicine antibiotics in surgical patients, and general surgical techniques. Students use refereed journal articles and approved textbooks, and practise advanced surgical procedures using cadavers and models in the laboratory component.

PREREQUISITE: DVM or equivalent degree and permission of the instructor.

HOURS OF CREDIT: 3 (credits based on 3 hours of classroom instruction per week and 9 hours of laboratory time)

#### VCA 824 ADVANCED MEDICINE OF NEUROMUSCULAR, JOINT, HEMATOPOIETIC, AND IMMUNE MEDIATED DISORDERS AND ONCOLOGY

This course is a detailed study of the physiology, pathophysiology, diagnosis, and management of neuromuscular, joint, hematopoietic, and immune mediated disorders of companion animals. Issues in medical oncology are included. Areas of current interest or controversy, as well as recent advances in knowledge and management, are emphasized. Requirements for the course include critical evaluation of current literature and presentation of seminars on selected topics.

PREREQUISITE: Undergraduate courses in physiology, pathophysiology, and medicine and permission of the instructor

HOURS OF CREDIT: 2

LECTURES: 2 hours

#### VCA 831 ADVANCED MEDICINE OF GASTROINTESTINAL, HEMOLYMPHATIC, AND CARDIOVASCULAR SYSTEMS

This is a detailed study of the physiology, pathophysiology, diagnosis, and management of disorders of the gastrointestinal, hemolymphatic, and cardiovascular systems of companion animals. Areas of current interest or controversy, as well as recent advances in knowledge and management in the field, are emphasized. Requirements

for the course will include critical evaluation of current literature and presentation of an informal seminar on a specific topic.

PREREQUISITE: Undergraduate courses in physiology, pathophysiology and medicine and permission of the instructor.

HOURS OF CREDIT: 2

LECTURES: 2 hours

#### VCA 841 GRADUATE ANAESTHESIOLOGY I: APPLIED PHYSIOLOGY

This course is a detailed study of the physiology and pathophysiology of different body systems as they relate to the clinical practice of veterinary anaesthesiology. Reviewed are neural, cardiovascular, respiratory, gastrointestinal, hepatic, renal, and neuromuscular physiology, as well as body fluid composition and haemostasis. This course emphasizes clinically relevant aspects of the physiology and pathophysiology of different body systems and relates these aspects to the anaesthetic management of both small and large animals. The course is taught in a two-hour weekly seminar format using videoconference links between anaesthesiology faculty and graduate students at the Atlantic Veterinary College and other Canadian veterinary colleges.

PREREQUISITE: DVM or equivalent degree and permission of the instructor

LECTURES: 2 hours

HOURS OF CREDIT: 2

#### VCA 842 GRADUATE ANAESTHESIOLOGY II: APPLIED PHARMACOLOGY

This course is a detailed study of the pharmacology of different classes of anaesthetic and analgesic drugs as they relate to the clinical practice of veterinary anaesthesiology. Reviewed are the pharmacokinetics and pharmacodynamics of sedatives, analgesics, injectable and inhalant anaesthetics, local anaesthetics, and muscle relaxants, as well as autonomic and anti-inflammatory drugs. This course emphasizes clinically relevant aspects of the pharmacology of different classes of anaesthetic and analgesic drugs and relate these aspects to the anaesthetic management of both small and large animals. The course is taught in a two-hour weekly seminar format using videoconference links between anaesthesiology faculty and graduate students at the Atlantic Veterinary College and other Canadian veterinary colleges.

PREREQUISITE: DVM or equivalent degree

LECTURES: 2 hours

HOURS OF CREDIT: 2

#### VCA 843 GRADUATE ANAESTHESIOLOGY III: CLINICAL ANESTHESIOLOGY

This course is a detailed study of the anaesthetic management of patients with disease of different body systems, as well as selected patients and procedures. This course emphasizes clinically relevant aspects of the pathophysiology of different disease processes in both small and large animals. The course is taught in a two-hour weekly seminar format using videoconference links between anaesthesiology faculty and graduate students at the Atlantic Veterinary College and other Canadian veterinary colleges.

PREREQUISITE: DVM or equivalent degree and permission of the instructor

LECTURES: 2 hours

HOURS OF CREDIT: 2

#### VCA 844 CLINICS IN DIAGNOSTIC IMAGING I

This course provides initial training in veterinary diagnostic imaging. Students will observe, perform, and dictate routine diagnostic imaging studies with particular emphasis given to routine radiography and ultrasonography. Dictation will be supervised by faculty. Students will evaluate appropriateness of diagnostic imaging clinical studies on an individual case basis. They will provide quality assurance of examinations with guidance by the diagnostic imaging faculty. Topics discussed: Positioning and quality control of routine radiographic small, large, and exotic imaging studies; proper dictation techniques, ultrasonographic applications, techniques, and interpretation principles; radiation safety. Students will be expected to provide some emergency duty for the diagnostic imaging service.

PREREQUISITE: DVM or equivalent degree and permission of the instructor

HOURS OF CREDIT: 3

#### VCA 845 CLINICS IN DIAGNOSTIC IMAGING II

This course provides continued training in veterinary diagnostic imaging. Students will perform and dictate routine diagnostic imaging studies with particular emphasis given to routine radiography and ultrasonography. This course also serves as an introduction to Computed Tomography, Magnetic Resonance Imaging, and Nuclear Scintigraphy. Students will observe, perform, and dictate studies in these modalities. Dictation will be supervised by faculty. Students will evaluate appropriateness of diagnostic imaging clinical studies on an individual case basis. They will provide quality assurance of all modalities with guidance by the diagnostic imaging faculty. Topics discussed: Positioning and quality control of Computed Tomography, Magnetic Resonance Imaging, and Nuclear Scintigraphy; proper dictation techniques, Computed Tomography, Magnetic Resonance Imaging, and Nuclear Scintigraphy applications, techniques and interpretation principles; imaging artifacts, special procedures. Students will be expected to provide some emergency duty for the diagnostic imaging service.

PREREQUISITE: DVM or equivalent degree and VCA 844.

HOURS OF CREDIT: 3

#### VCA 846 ALTERNATIVE IMAGING - TECHNIQUES AND APPLICATIONS

This course is a detailed study of alternative imaging techniques used in veterinary medicine. Topics included: Ultrasonography, Computed Tomography, Magnetic Resonance Imaging, Nuclear Scintigraphy to include methods of image formation and display, imaging principles, with particular emphasis given to clinical applications (indications, equipment/instrumentation, common artifacts, scanning protocols, principles of interpretation, and appearance of various diseases with the various modalities).

PREREQUISITE: DVM or equivalent degree and permission of the instructor.

HOURS OF CREDIT: 3

LECTURES: 2 hours

#### VCA 851 ANATOMY AND PHYSICS OF DIAGNOSTIC IMAGING

This course will provide the student with an in-depth review of radiographic, ultrasonographic and cross-sectional anatomy, as well as basic physics uses in diagnostic imaging. Topics presented include: current anatomic nomenclature, radiographic anatomy of the axial and appendicular musculoskeletal system, cardiovascular system, nervous system, digestive system and urogenital system, as well as athrology, comparative anatomy, and embryology. All of the aforementioned topics will be in regards to radiographic, sonographic, and cross-sectional anatomy. Production and physical properties of X-rays, equipment and accessories, darkroom, computed and digital radiography, radiographic quality, artifacts, and technique chart formation.

PREREQUISITE: Undergraduate courses in anatomy and permission of the instructor.

HOURS OF CREDIT: 2

LECTURES: 3 hours

#### VCA 852 CLINICS IN ADVANCED DIAGNOSTIC IMAGING I

This course provides advanced training in all currently used diagnostic imaging modalities. The student will be expected to provide quality assurance of all imaging examinations with guidance from faculty as needed. The student will dictate most imaging studies in consultation with the imaging faculty. Topics discussed: interpretation of various disease processes diagnosed by any imaging modality. Students will be expected to provide some emergency duty for the diagnostic imaging service.

PREREQUISITE: DVM or equivalent degree and VCA 844 and 845

HOURS OF CREDIT: 3

#### VCA 853 CLINICS IN ADVANCED DIAGNOSTIC IMAGING II

This course provides continued advanced training in all currently used diagnostic imaging modalities. The student will be expected to provide quality assurance of all imaging examinations. The student will dictate most imaging studies in consultation with the imaging faculty. Topics discussed: in-depth discussions of various disease processes diagnosed by any imaging modality. Students will be expected to provide some emergency duty for the diagnostic imaging service.

PREREQUISITE: DVM or equivalent degree and VCA 852.

HOURS OF CREDIT: 3

#### VCA 854 DIAGNOSTIC IMAGING - SPECIAL PROCEDURES



This course will provide the student with alternative imaging methods and diagnostic tests that may complement or supercede plain film radiography. Indications, contra- indications, technical aspects, standard imaging protocols (including positioning), and principles of interpretation of various imaging studies will be presented. Specific topics presented include: contrast media, esophagography, upper GI series, gastrography, colonography, excretory urography, cystography, urethrography, vaginourethrography, myelography, angiocardiology, venography, lymphangiography, valvuloplasty, valvular embolization techniques, arthrography, fistulography, stress radiography, peritoneography, and stress radiographic techniques.

PREREQUISITE: DVM or equivalent degree and permission of the instructor.

HOURS OF CREDIT: 3

LECTURES: 2 hours

#### VCA 855 PATHOPHYSIOLOGY, RADIATION BIOLOGY, SAFETY AND ARTIFACTS

This course provides a detailed study of physiology/pathophysiology as it relates to various veterinary diseases, as well as an introduction to radiation biology, safety, and artifacts. Specific topics include: Physiology and pathophysiology of specific organ systems: Alimentary, cardiovascular, central nervous system, musculoskeletal system, respiratory system, urogenital system, endocrine system. Radiation biology, oncology/tumor biology, radiation monitoring, and radiation protection.

PREREQUISITE: DVM or equivalent degree and permission of the instructor.

HOURS OF CREDIT: 2

LECTURES: 3 hours

#### VCA 860 RESEARCH PROJECT (MVSc Program)

Each student in the MVSc program is required, under the supervision of a graduate faculty committee, to satisfactorily complete a research project. The project may be based on either a clinical investigation or a special topic such as a prospective or retrospective case study. The project report should make some contribution to the body of knowledge in that field and it should lead to a paper suitable for publication in a refereed journal.

PREREQUISITE: DVM or equivalent degree and successful admission into a small animal medicine residency training program in the Department of Companion Animals, AVC.

HOURS OF CREDIT: 6

#### VCA 881-882 DIRECTED STUDIES

This course is a thorough study of a selected problem or topic in the discipline. The course may include directed reading, directed research, or collection and analysis of data. The student will prepare a written report and present a seminar on the topic.

PREREQUISITE: Permission of instructor.

HOURS OF CREDIT: 1-3

#### VCA 890 SEMINAR

In this course students attend and present annual seminars on topics in their discipline, are evaluated on their seminars, and provide constructive criticism to others giving seminars in the course.

PREREQUISITE: Admission to MSc program.

HOURS OF CREDIT: 1

#### VCA 990 SEMINAR

This is a seminar course in which students attend and present annual seminars on topics in their discipline, are evaluated on their seminars, and provide constructive criticism to others giving seminars in the course.

PREREQUISITE: Admission to PhD program.

HOURS OF CREDIT: 1

### HEALTH MANAGEMENT COURSES

#### VHM 801 VETERINARY BIOSTATISTICS

This course provides the student with a working knowledge of the basic statistical techniques used in veterinary science. Topics include descriptive statistics, inferential statistics, non-parametric statistics, analysis of variance, regression and correlation and experimental design.

PREREQUISITE: Permission of instructor.

HOURS OF CREDIT: 3

LECTURES: 2 hours

LABORATORIES: 2 hours

#### VHM 802 ADVANCED VETERINARY BIOSTATISTICS

This course covers linear and logistic models, i.e. multiple linear and logistic regression and analysis of variance procedures for analysis of continuous and dichotomous outcomes with respect to multiple factors or explanatory variables. In addition, the course gives an introduction to experimental design and to analysis of data from complex experimental designs with multiple levels of variation or repeated measurements. The course is partially taught in conjunction with VHM 812.

PREREQUISITE: VHM 801 or permission of instructor.

HOURS OF CREDIT: 2 or 3

LECTURES/SEMINARS: 2 hours

LABORATORIES: 3 hours

#### VHM 811 EPIDEMIOLOGY I

This course provides students with an understanding of epidemiologic principles and methods with an emphasis on the concepts used in population health research. Specific topics covered include observational study design, sampling, measures of disease frequency, measures of association, validity (bias), confounding and stratified analyzes, screening tests and the design of clinical trials.

PREREQUISITE: Permission of the Instructor.

HOURS OF CREDIT: 4

LECTURES / SEMINARS: 5 hours

LABORATORIES: 1 hour

#### VHM 812 EPIDEMIOLOGY II

This course provides students with a more detailed understanding of epidemiologic study design principles and a working knowledge of many multivariable statistical methods used in epidemiologic research. Specific topics covered include: linear regression, logistic regression, Poisson models, analysis of survival data, design of observational studies and validity (bias). The course is partially taught in conjunction with VHM 802.

PREREQUISITE: VHM 801, VHM 811 or permission of the Instructor.

HOURS OF CREDIT: Four

LECTURES/SEMINARS: 5 hours

LABORATORIES: 1 hour

#### VHM 822 POPULATION MEDICINE IN AQUACULTURE

This course covers current developments in finfish, crustacean and bivalve clinical health management with a particular focus on the epidemiology of infectious and non-infectious production problems. The lecture and seminar course topics include disease surveillance, diagnostic test evaluation, investigation of causal factors and evaluating health management practices. Field trips to aquaculture sites in the Atlantic Canada region are necessary.

PREREQUISITE: DVM, VPM 811 (or equivalent) and VHM 811 and permission of instructor.

HOURS OF CREDIT: 3

LECTURES: 2 hours

LAB/SEMINARS: 2 hours

#### VHM 823 HEALTH AND PRODUCTION MANAGEMENT IN SHELLFISH AND CRUSTACEAN AQUACULTURE

This course covers the principles and application of health and production management and practices of significant shellfish aquaculture species in Atlantic Canada, and crustacean aquaculture globally. Topics include the biology, production methods, diagnosis, treatment and management of production and disease problems, and aquatic ecosystem health. Field trips to aquaculture sites occur.

PREREQUISITE: Permission of the instructor.

HOURS OF CREDIT: 3

LECTURES: 2 Hours

LAB/SEMINARS: 1 Hour

#### VHM 831 TOPICS IN BIOSTATISTICS AND EPIDEMIOLOGY

This course reviews current developments in frequently used statistical techniques and introduces the student to some advanced biostatistical techniques including survival analysis, factor analysis, and general linear models.

PREREQUISITE: VHM 801 or VHM 802 (preferred) and permission of instructor.

HOURS OF CREDIT: 2

LECTURES: 2 hours

#### VHM 832 SELECTED TOPICS IN BIOSTATISTICS AND EPIDEMIOLOGY

This course reviews current developments in frequently used statistical techniques and introduces the student to advanced biostatistical techniques such as multilevel modelling, survival analysis, or Bayesian methodology

PREREQUISITE: VHM 801 or VHM 802 (preferred) and permission of the instructor

HOURS OF CREDIT: 1

LECTURES: 1 hour

#### VHM 833 INTRODUCTION TO QUANTITATIVE RISK ANALYSIS APPLIED TO ANIMAL AND VETERINARY PUBLIC HEALTH

This course will cover the concepts of quantitative risk analysis based on stochastic simulation, and its application in a regulatory context for estimation of risk associated with live animal and animal food products. An introduction to qualitative risk analysis is included, contrasting the main advantages and disadvantages of quantitative and qualitative risk assessment. The course will introduce the concepts of scenario pathway modelling, probability distributions, statistical distributions applied in risk assessment, parameter estimation, uncertainty and variability analysis, sensitivity analysis, and use of risk assessment as decision support tool.

PREREQUISITE: VHM 801, VHM 811 or permission of the instructor

LECTURES: 3 hours

#### VHM 834 INTRODUCTION TO QUANTITATIVE RISK ASSESSMENT IN ANIMAL HEALTH AND FOOD SAFETY

This introductory online course will cover the basic concepts of quantitative risk assessment applied to animal health and food safety. The course will introduce the following concepts: scenario-pathway modeling, food-processing models, probability distributions applied in risk assessment, uncertainty and variability analysis, sensitivity analysis, and use of risk assessment as a decision support tool.

PREREQUISITE: VHM 801, VHM 811 or permission of the instructor

LECTURES (tutorials, videos and forum discussions): 2 hours/day

LABORATORIES (minor assignments and discussion forums): 1 hour/day

HOURS OF CREDIT: 2

#### VHM 841 BOVINE THERIOGENOLOGY

This course involves advanced training in bovine theriogenology with emphasis placed on areas that are of most benefit to individual students. Topics include: applied reproductive physiology of cattle, control of the estrous cycle and ovulation, diseases and conditions affecting the reproductive system of cattle, and reproductive efficiency in cattle management. Any necessary training in diagnostic techniques, including breeding soundness evaluation, is provided. Embryo transfer and advanced reproductive technologies are discussed. Students participate in herd visits to dairy and beef farms and are involved in bovine reproduction cases that are presented to the veterinary teaching hospital.

PREREQUISITE: DVM or equivalent degree, permission of instructor.

HOURS OF CREDIT: 3

LAB/SEMINARS: 6 hours

#### VHM 842 EQUINE THERIOGENOLOGY

This course involves advanced training in equine theriogenology with emphasis placed on areas that are of most benefit to individual students. Topics include: applied reproductive physiology of horses, control of the estrous cycle and ovulation, diseases and conditions affecting the reproductive system of horses, and breeding management. Any necessary training in diagnostic techniques, including breeding soundness evaluation, is

provided. Embryo transfer and advanced reproductive technologies are discussed. Students are also involved in equine reproduction cases that are presented to the veterinary teaching hospital.

PREREQUISITE: DVM or equivalent degree, permission of instructor

HOURS OF CREDIT: 3

LAB/SEMINAR: 6 hours

#### VHM 843 EQUINE BREEDING FARM THERIOGENOLOGY

This course involves advanced training in equine theriogenology with emphasis placed on theriogenology as practised on breeding farms. Any necessary training in diagnostic techniques is provided. Students participate in visits to equine stud farms at the height of the breeding season and are involved in equine reproduction cases that are presented to the veterinary teaching hospital.

PREREQUISITE: DVM or equivalent degree, permission of instructor

HOURS OF CREDIT: 3

LAB/SEMINAR: 6 hours

#### VHM 845 LARGE ANIMAL SURGERY

The course involves advanced training in veterinary surgery with emphasis on food animal and equine general surgery. Emphasis is placed on areas that are of most benefit to individual students. Topics include: surgery of the skin and adnexa, orthopaedic-related surgery, abdominal surgery, respiratory tract surgery, and urogenital surgery. Any necessary additional training in diagnostic evaluation of surgical cases is provided. Students are involved in cases admitted to the Veterinary Teaching Hospital, and those examined at farms and training facilities.

PREREQUISITE: DVM or equivalent degree; permission of the instructor.

HOURS OF CREDIT: 3 hours

#### VHM 846 EQUINE SURGERY AND LAMENESS

The course involves advanced training in equine surgery with emphasis on orthopedic and soft tissue surgery. Emphasis is placed on areas that are of most benefit to individual students. Topics include: surgery of the skin and adnexa, orthopedic related surgery, lameness evaluation, abdominal surgery, respiratory tract surgery, and urogenital surgery. Any necessary additional training in diagnostic evaluation of surgical or lameness cases is provided. Students are involved in cases admitted to the veterinary teaching hospital, and cases examined at farms and training facilities.

PREREQUISITE: DVM or equivalent degree, permission of instructor

HOURS OF CREDIT: 3 hours

LAB/SEMINAR: 6 hours

#### VHM 848 ADVANCED CLINICS IN LARGE ANIMAL INTERNAL MEDICINE I

This course provides training in large animal internal medicine and is offered in any academic semester based on student enrolment. Under close supervision of an ACVIM diplomate, students spend 12 weeks on the large animal medicine clinical service in the VTH. Using the problem-oriented approach, students examine patients, perform diagnostic procedures, interpret diagnostic tests, and diagnose and treat food animal and equine patients. Topics discussed in rounds include preventive medicine, infectious disease, diseases affecting performance or production, pharmacology, etc. Students are required to present an in-depth analysis of a clinical case once monthly in house officer rounds. Students enrolled in this course are expected to participate in emergency duty.

PREREQUISITES: DVM or equivalent degree, permission of instructor.

HOURS OF CREDIT: 3

LAB/SEMINAR: 6 hours

#### VHM 849 ADVANCED CLINICS IN LARGE ANIMAL INTERNAL MEDICINE II

This course provides advanced training in large animal internal medicine and is offered in any academic semester based on student enrolment. Under the supervision of an ACVIM diplomate, students spend 12 weeks on the large animal medicine clinical service in the VTH. Using the problem-oriented approach, students examine patients, perform diagnostic procedures, interpret diagnostic tests, and diagnose and treat food animal and equine patients. Topics discussed in rounds include preventive medicine, infectious disease, diseases affecting performance or production, pharmacology, etc. Students are required to present an in-depth analysis of a clinical case once monthly in house officer rounds. Students enrolled in this course are expected to participate in emergency duty.

PREREQUISITES: VHM 848, DVM or equivalent degree, permission of instructor.

HOURS OF CREDIT: 3

LAB/SEMINAR: 6 hours

#### VHM 851 TOPICS IN ANIMAL NUTRITION

This course reviews a selection of new developments in ruminant and non-ruminant nutrition. Research papers in the discipline are critically evaluated.

PREREQUISITE: Permission of instructor.

SEMINARS: 2 hours

HOURS OF CREDIT: 2

#### VHM 860 RESEARCH PROJECT (MVSc program)

Each student in the MVSc program is required, under the supervision of a graduate faculty committee, to satisfactorily complete a small research project. The project may be based on either a clinical investigation or a special topic such as a prospective or retrospective case study. The project report should make some contribution to the body of knowledge in that field and it should lead to a paper suitable for publication in a refereed journal.

PREREQUISITE: DVM or equivalent degree, permission of instructor.

HOURS OF CREDIT: 6

#### VHM 862 ADVANCED CLINICS IN FOOD ANIMAL INTERNAL MEDICINE

This course provides in-depth training in food animal internal medicine and is offered in any academic semester based on student enrolment. Under supervision of an ACVIM diplomate, students spend 9 weeks in the large animal medicine clinical service at the AVC and 3 weeks in the food animal medicine and surgery service at the University of Montreal, Faculty of Veterinary Medicine. Students will also be given the opportunity to spend time with the farm services section of the AVC. Using the problem-oriented approach, students examine patients, perform diagnostic procedures, interpret diagnostic tests, and diagnose and treat food animal patients. Topics discussed in daily rounds include preventative medicine, infectious disease, diseases affecting performance or production, pharmacology, etc. Students are required to present an in-depth analysis of a food animal clinical case once monthly in house officer rounds. Students enrolled in this course are expected to participate in emergency duty.

PREREQUISITES: DVM or equivalent degree, permission of instructor

HOURS OF CREDIT: 3 hours

LAB/SEMINAR: 6 hours

#### VHM 863 ADVANCED CLINICS IN EQUINE INTERNAL AND PREVENTATIVE MEDICINE

This course provides in-depth training in equine internal and preventative medicine and is offered in any academic semester based on student enrolment. Under supervision of an ACVIM diplomate, students spend 11 weeks in the large animal medicine clinical service at the AVC and one week in equine dentistry. Students will also be given the opportunity to spend time with the equine ambulatory services section of the AVC. Using the problem-oriented approach, students examine patients, perform diagnostic procedures, interpret diagnostic tests, and diagnose and treat equine patients. Topics discussed in daily rounds include preventative medicine, infectious disease, diseases affecting performance or production, pharmacology, etc. Students are required to present an in-depth analysis of an equine clinical case once monthly in house officer rounds, with at least one case emphasizing preventative medicine. Students enrolled in this course are expected to participate in emergency duty.

PREREQUISITES: DVM or equivalent degree, permission of instructor

HOURS OF CREDIT: 3 hours

LAB/SEMINAR: 6 hours

#### VHM 864 RECENT ADVANCES IN LARGE ANIMAL MEDICINE I

This is a lecture/seminar course designed to review recent advances in internal medicine and the physiologic mechanisms underlying health and disease of large animals, at a level appropriate for the first year of an internal medicine MSc/MVSc-Residency program. The course will meet for one contact hour per week for the fall and winter semesters, and the first summer session, and will involve a mix of instructor-and student-directed in-depth discussions of the relevant current literature or recently published texts. Considerable out-of-class preparation is required.

PREREQUISITE: DVM or equivalent, and permission of the instructor.

LECTURES or SEMINAR: 1 hour

HOURS OF CREDIT: 3

#### VHM 865 RECENT ADVANCES IN LARGE ANIMAL MEDICINE II

This is a lecture/seminar course designed to review recent advances in internal medicine and the physiologic mechanisms underlying health and disease of large animals, at a level appropriate for the second year of an internal medicine MSc/MVSc-Residency program. The course will meet for one contact hour per week for the fall and winter semesters, and the first summer session, and will involve a mix of instructor-and student-directed in-depth discussions of the relevant current literature or recently published texts. Considerable out-of-class preparation is required.

PREREQUISITE: DVM or equivalent, VHM 864 and permission of the instructor

LECTURES or SEMINAR: 1 hour

HOURS OF CREDIT: 3

#### VHM 866 RECENT ADVANCES IN LARGE ANIMAL MEDICINE III

This is a lecture/seminar course designed to review recent advances in internal medicine and the physiologic mechanisms underlying health and disease of large animals, at a level appropriate for the third year of an internal medicine MVSc-Residency program. The course will meet for one contact hour per week for the fall and winter semesters, and the first summer session, and will involve a mix of instructor-and student-directed in-depth discussions of the relevant current literature or recently published texts. Considerable out-of-class preparation is required.

PREREQUISITE: DVM or equivalent, VHM 865 and permission of the instructor.

HOURS OF CREDIT: 3

LECTURES or SEMINAR: 1 hour

#### VHM 871 HERD HEALTH AND PRODUCTION MANAGEMENT OF DAIRY CATTLE

This course provides graduate students with an understanding of the principles of Herd Health and Production Management programs, udder and foot health, control of infectious diseases, fertility, young stock rearing, and farm economics. Lab exercises include analysis of data of farms that are enrolled in the Herd Health and Production Management program of the Farm Service group of the AVC.

PREREQUISITE: DVM or equivalent and permission of the coordinator

HOURS OF CREDIT: 3 hours

LECTURE/LAB: 5 hours

#### VHM 881-882 DIRECTED STUDIES

This course is a thorough study of a selected problem or topic in the discipline. The course may include directed reading, directed research, or collection and analysis of data. The student will prepare a written report and present a seminar on the topic.

PREREQUISITE: Permission of instructor

HOURS OF CREDIT: 1-3

#### VHM 890 SEMINAR

In this course, students attend and present annual seminars on topics in their discipline, are evaluated on their seminars, and provide constructive criticism to others giving seminars in the course.

PREREQUISITE: Admission to MSc or MVSc program

HOURS OF CREDIT: 1

#### VHM 990 SEMINAR

This is a seminar course in which students attend and present annual seminars on topics in their discipline, are evaluated on their seminars, and provide constructive criticism to others giving seminars in the course.

PREREQUISITE: Admission to PhD program

HOURS OF CREDIT: 1

## **PATHOLOGY & MICROBIOLOGY COURSES**

### **VPM 802 ADVANCES IN PROTOZOOLOGY**

This course is an in-depth study of recent advances in knowledge of the major protozoan parasites of animals. Lectures and seminars cover a variety of topics including developmental cycles, pathogenicity, immunogenicity, diagnostic procedures, and epidemiology of several protozoan diseases.

PREREQUISITE: Permission of instructor.

HOURS OF CREDIT: 3

LECTURES: 2 hours

SEMINARS: 1 hour

### **VPM 811 DISEASES OF CULTURED FISH**

This course reviews fish culture systems and the diseases encountered in cultured fish. The lecture and laboratory course covers culture techniques for fin fish and shell fish and the etiology, pathogenesis, diagnosis, and treatment of fish diseases.

PREREQUISITE: DVM or BSc (Biology) and permission of instructor.

HOURS OF CREDIT: 3

LECTURES: 2 hours

LABORATORIES: 2 hours

### **VPM 812 RECENT ADVANCES IN IMMUNOLOGY**

This is a lecture/seminar course designed to study in detail areas of immunology which reflect current interest or controversy. Major concepts in immunology are covered.

PREREQUISITE: Permission of instructor.

HOURS OF CREDIT: 3

LECTURES: 1 hour

SEMINARS: 2 hours

### **VPM 821 CONCEPTS IN VIRAL PATHOGENESIS**

This is an advanced course reviewing the mechanisms by which viruses cause disease. The emphasis is on general concepts and mechanisms. Selected viral infections are used to illustrate the general concepts of virus-host interaction.

PREREQUISITE: Permission of instructor.

HOURS OF CREDIT: 3

LECTURES: 2 hours

SEMINARS: 1 hour

### **VPM 822 ADVANCES IN BACTERIOLOGY**

This course focuses on recent advances in the mechanisms of bacterial pathogenesis and molecular microbiology. Lectures and seminars will cover well-understood topics in these areas and will include the application of biotechnology for the development of vaccines and diagnostic reagents.

PREREQUISITE: Undergraduate microbiology and permission of the instructor.

HOURS OF CREDIT: 3

LECTURES: 2 hours

SEMINARS: 1 hour

### **VPM 823 DIAGNOSTIC ANATOMIC PATHOLOGY I**

In this course, the student is taught necropsy techniques including how to examine animals submitted for post mortem diagnosis. Pathogenesis and morphologic diagnosis of diseases prevalent in the fall season are emphasized. The student is required to complete at least 30-50 cases. The report on every case is to include a summary of all ancillary tests done in other units of the diagnostic laboratory. Selected cases are discussed at weekly pathology rounds. In addition, the student is exposed to techniques in histology, histochemistry, immunohistochemistry, and macro- and micro-photography.

PREREQUISITE: DVM or equivalent degree, permission of the instructor.

HOURS OF CREDIT: 3

LAB/SEMINARS: 6 hours

#### VPM 824 DIAGNOSTIC ANATOMIC PATHOLOGY II

In this course, the student gains further experience in necropsy techniques and interpretation of lesions. Pathogenesis and morphologic diagnosis of diseases prevalent in the winter are emphasized. The student is required to complete at least 30-50 cases. The report on every case is to include a summary of all ancillary tests done in other units of the diagnostic laboratory. Selected cases are discussed at weekly necropsy rounds.

PREREQUISITE: DVM or equivalent degree, permission of the instructor.

HOURS OF CREDIT: 3

LAB/SEMINARS: 6 hours

#### VPM 825 DIAGNOSTIC ANATOMIC PATHOLOGY III

In this course, the student is expected to gain further experience in necropsy techniques and interpretation of lesions. Pathogenesis and morphologic diagnosis of diseases prevalent in spring and summer are emphasized. The student is required to complete at least 30-50 cases. The report on every case is to include a summary of all ancillary tests done in other units of the diagnostic laboratory. Selected cases are discussed at weekly necropsy rounds.

PREREQUISITE: DVM or equivalent degree, permission of the instructor.

HOURS OF CREDIT: 3

LAB/SEMINARS: 6 hours

#### VPM 826 ADVANCED DIAGNOSTIC ANATOMIC PATHOLOGY

In this course, the student is expected to gain further experience in necropsy techniques and interpretation of lesions. Morphologic diagnosis of diseases prevalent in a given season is emphasized and a more in-depth discussion of their pathogenesis is expected. The student is required to complete at least 50-60 cases. The report on every case is to include a summary of all ancillary tests done in other units of the diagnostic laboratory. Selected cases are discussed at weekly necropsy rounds.

PREREQUISITE: VPM 823, VPM 824, or VPM 825 or equivalent, permission of the instructor.

HOURS OF CREDIT: 3

LAB/SEMINARS: 6 hours

#### VPM 827 DIAGNOSTIC CLINICAL PATHOLOGY I

In this course, initial training in diagnostic clinical pathology during the fall is provided. Interpretations and presentations of clinical biochemistry, hematology, urology and cytology samples from a variety of species are undertaken by the student. Formal case discussions and directed reading supplement the clinical material, with emphasis on diseases prevalent in the summer and fall.

PREREQUISITE: DVM or equivalent degree, permission of the instructor.

HOURS OF CREDIT: 3

LAB/SEMINARS: 6 hours

#### VPM 828 DIAGNOSTIC CLINICAL PATHOLOGY II

In this course, training in diagnostic clinical pathology during the winter is provided. Interpretations and presentations of clinical biochemistry, hematology, urology and cytology samples from a variety of species are undertaken by the student. Formal case discussions and directed reading supplement the clinical material, with emphasis on diseases prevalent in the winter and spring.

PREREQUISITE: DVM or equivalent degree, permission of the instructor.

HOURS OF CREDIT: 3

LAB/SEMINARS: 6 hours

#### VPM 833 ADVANCED DIAGNOSTIC CLINICAL PATHOLOGY I

In this course, further experience in diagnostic clinical pathology during the fall is provided. Interpretations and presentations of clinical biochemistry, hematology, urology and cytology samples from a variety of species are undertaken by the student. Formal case discussions and directed reading supplement the clinical material, with emphasis on diseases prevalent in the summer and fall.

PREREQUISITE: VPM 827 & VPM 828, permission of the instructor.



HOURS OF CREDIT: 3  
LAB/SEMINARS: 6 hours

#### VPM 834 ADVANCED DIAGNOSTIC CLINICAL PATHOLOGY II

In this course, further experience in diagnostic clinical pathology during the winter is provided. Interpretations and presentations of clinical biochemistry, hematology, urology and cytology samples from a variety of species are undertaken by the student. Formal case discussions and directed reading supplement the clinical material, with emphasis on diseases prevalent during the winter and spring.

PREREQUISITE: VPM 827 & VPM 828, permission of the instructor.

HOURS OF CREDIT: 3  
LAB/SEMINARS: 6 hours

#### VPM 835 SURGICAL PATHOLOGY I

In this course, the student is provided initial training in gross and microscopic examination of biopsy materials and fixed specimens submitted to the diagnostic laboratory during the fall. Morphologic diagnosis and prognosis are emphasized, especially with regard to neoplastic diseases. The student is required to complete at least 30-50 cases. Selected cases are discussed at weekly necropsy rounds. In addition, the student is exposed to techniques in histochemistry and immunohistochemistry.

PREREQUISITE: DVM or equivalent degree, permission of the instructor.

HOURS OF CREDIT: 3  
LAB/SEMINARS: 6 hours

#### VPM 836 SURGICAL PATHOLOGY II

In this course, the student is provided further training in gross and microscopic examination of biopsy materials and fixed specimens submitted to the diagnostic laboratory during the winter. Morphologic diagnosis and prognosis are emphasized, especially with regard to neoplastic diseases. The student is required to complete at least 30-50 cases. Selected cases are discussed at weekly necropsy rounds. In addition, the student is exposed to techniques in histochemistry and immunohistochemistry.

PREREQUISITE: DVM degree or equivalent, permission of the instructor.

HOURS OF CREDIT: 3  
LAB/SEMINARS: 6 hours

#### VPM 837 SURGICAL PATHOLOGY III

In this course, the student is provided further training in gross and microscopic examination of biopsy materials and fixed specimens submitted to the diagnostic laboratory during the spring and summer. Morphologic diagnosis and prognosis are emphasized, especially with regard to neoplastic diseases. The student is required to complete at least 30-50 cases. Selected cases are discussed at weekly necropsy rounds. In addition, the student is exposed to techniques in histochemistry and immunohistochemistry.

PREREQUISITE: DVM degree or equivalent, permission of the instructor.

HOURS OF CREDIT: 3  
LAB/SEMINARS: 6 hours

#### VPM 838 ADVANCED SURGICAL PATHOLOGY

In this course, the student is provided a more advanced training in gross and microscopic examination of biopsy materials and fixed specimens submitted to the diagnostic laboratory during the second year of study. Morphologic diagnosis, pathogenesis and prognosis are emphasized, especially with regard to neoplastic diseases. The student is required to complete at least 50-60 cases. Selected cases are discussed at weekly necropsy rounds. In addition, the student is exposed to techniques in histochemistry and immunohistochemistry.

PREREQUISITE: VPM 835, VPM 836, or VPM 837 or equivalent, permission of the instructor.

HOURS OF CREDIT: 3  
LAB/SEMINARS: 6 hours

#### VPM 845 DIAGNOSTIC BACTERIOLOGY

In this course students gain “hands-on” experience in clinical veterinary bacteriology. Various bacteria associated with disease conditions in animals are identified using microscopic (including fluorescent microscopy), cultural and biochemical methods. Emphasis is placed on study of case histories, and interpretation of results including antimicrobial susceptibility data. Other responsibilities include familiarization with new diagnostic techniques, and completion of 30 cases by each student.

PREREQUISITE: DVM or equivalent degree, permission of the instructor.

HOURS OF CREDIT: 3

LAB/SEMINARS: 6 hours

#### VPM 846 DIAGNOSTIC BACTERIOLOGY II

In this course students gain additional “hands-on” experience in clinical veterinary bacteriology. Various bacteria associated with disease conditions in animals are identified using microscopic (including fluorescent microscopy), cultural and biochemical methods. Emphasis is placed on study of case histories, and interpretation of results including antimicrobial susceptibility data. Other responsibilities include familiarization with new diagnostic techniques, and completion of 30 cases by each student.

PREREQUISITE: DVM or equivalent degree, permission of the instructor.

HOURS OF CREDIT: 3

LAB/SEMINARS: 6 hours

#### VPM 847 DIAGNOSTIC VETERINARY VIROLOGY I

This practical course deals with the isolation and identification of viruses in cell culture, chick embryos or animals and their detection using immunoassays. The student is required satisfactorily to complete about 60 cases. In weekly discussions, special emphasis is also placed on understanding approaches to the diagnosis of viral diseases, sterilization, disinfection and biosafety, sterile technique in collection of specimens, and processing, packaging and shipment of specimens for virus diagnosis.

PREREQUISITE: DVM or equivalent degree, permission of the instructor.

HOURS OF CREDIT: 3

LABORATORY: 5 hours

SEMINAR: 0.5

TUTORIAL: 0.5

#### VPM 848 DIAGNOSTIC VETERINARY VIROLOGY II

This practical course deals with the isolation and identification of viruses in cell culture, chick embryos or animals and their detection using immunoassays. Tutorials utilize selected clinical cases to familiarize the student with the interpretation of laboratory test results. Current trends in diagnostic virology, serology and vaccinology are covered in group discussions on assigned readings in scientific literature.

PREREQUISITE: VPM 847 and permission of the instructor.

HOURS OF CREDIT: 3

LAB/SEMINARS: 2 hours

TUTORIAL: 4 hours

#### VPM 849 DIAGNOSTIC IMMUNOLOGY

This course covers a variety of immunodiagnostic techniques. Principles of serologic techniques and their application to disease diagnosis are discussed. The development of these techniques and their validation is covered in lecture and during laboratory sessions. Principles of immunohistological testing for both infectious diseases and for immunological diseases are discussed with relevant clinical examples, as are other immunochemical tests for immune-mediated disease.

PREREQUISITE: DVM or equivalent degree, permission of the instructor.

HOURS OF CREDIT: 3

LECTURES: 2 hours

LAB/SEMINARS: 2 hours

#### VPM 852 DIAGNOSIS OF WILDLIFE DISEASES

In this two-semester course, the student is taught necropsy and investigative techniques for the diagnosis of disease in free-living and zoo mammals (land and marine) and birds. Participation in additional laboratory

procedures is encouraged. The student is required to satisfactorily complete between 40 and 50 cases. The report on every case is to include a summary of all ancillary tests done in other units of the diagnostic laboratory, and brief comments on the significance of the disease diagnosed. Selected cases are discussed at weekly necropsy rounds.

PREREQUISITE: DVM or equivalent degree, permission of the instructor

HOURS OF CREDIT: 3

LAB/SEMINARS: 3 hours

#### VPM 853 RESEARCH PROJECT (Grad. Dip Program)

Each student in the Diploma program is required, under the supervision of a graduate faculty committee, to complete satisfactorily a small research project. The project may be based on either a laboratory investigation or a special topic such as a prospective or retrospective case study in the student's principal area of interest.

PREREQUISITE: DVM or equivalent degree, permission of the instructor.

HOURS OF CREDIT: 3

LAB/SEMINARS: 6 hours

#### VPM 854 DIAGNOSIS OF WILDLIFE DISEASES I

In this introductory course, students are taught necropsy and investigative techniques for the diagnosis of diseases in free-living wild animals (mammals, birds, and occasional reptiles and amphibians) submitted for post-mortem examination. Pathogenesis and morphologic diagnosis of diseases and their management implications are emphasized. Students are also encouraged to review collections of gross and histopathological slides of common wildlife diseases in the region and elsewhere.

#### VPM 855 DIAGNOSIS OF WILDLIFE DISEASES II

In this course, the student gains further experience in necropsy techniques, interpretation of lesions, and evaluation of the significance of the diseases identified in individual wild animals for the rest of the population. The student is also encouraged to either write and submit one article for the newsletter of the Canadian Cooperative Wildlife Health Centre or give an oral presentation on a pertinent wildlife health topic at the Departmental level or at meetings of provincial Departments of Natural Resources, subject to approval by the instructor.

PREREQUISITE: VPM 854

#### VPM 856 DIAGNOSIS OF WILDLIFE DISEASES III

In this course, students are expected to gain further experience in necropsy techniques, interpretation of lesions, and evaluation of the significance of the diseases identified in individual wild animals for the rest of the population, with increasingly independent work performance (necropsy, analysis, and interpretation of diagnostic cases). Students are encouraged to either write and submit one article for the newsletter of the Canadian Cooperative Wildlife Health Centre or give an oral presentation on a pertinent wildlife health topic at the Departmental level or at meetings of provincial Departments of Natural Resources (subject to approval of the instructor).

PREREQUISITES: VPM 854 and VPM 855

#### VPM 857 DIAGNOSIS OF WILDLIFE DISEASES IV

In this course, students are expected to gain further experience in necropsy techniques, interpretation of lesions, and evaluation of the significance of the diseases identified in individual wild animals for the rest of the population, with a high degree of independent work performance (necropsy, analysis and interpretation of diagnostic cases). Students are required to either write and submit one article for the newsletter of the Canadian Cooperative Wildlife Health Centre or give an oral presentation on a pertinent wildlife health topic at the Departmental level or at meetings of provincial Departments of Natural Resources (subject to approval of the instructor).

PREREQUISITES: VPM 853, 854 and 856

#### VPM 860 RESEARCH PROJECT (MVSc PROGRAM)

Each student in the MVSc program is required, under the supervision of a graduate faculty committee, to complete satisfactorily a small research project in the second year of study. The project may be based on either a laboratory investigation or a special topic such as a prospective or retrospective case study. The project report should make some contribution to the body of knowledge in that field and it should lead to a paper suitable for publication in a refereed journal.

PREREQUISITE: DVM or equivalent degree, permission of the instructor.

HOURS OF CREDIT: 6

LAB/SEMINARS: 12 hours

#### VPM 862 CELLULAR PATHOLOGY

This course is an in-depth study of cellular pathology. Lectures and seminars centre around a variety of topics including immunopathology, inflammation, healing disorders of cell growth, cell degeneration and cell necrosis. Both mammalian and ectothermic aquatic animal systems are discussed.

PREREQUISITE: Permission of Course Coordinator.

HOURS OF CREDIT: 3

LECTURES: 2 hours

SEMINARS: 1 hour

#### VPM 863 ADVANCED RESPIRATORY PATHOLOGY

This course involves advanced training in veterinary and comparative respiratory pathology, with emphasis on mechanisms of disease. This advanced course provides residents and graduate students with an in-depth understanding of the respiratory defence mechanism, host response to injury, inflammation, pathogenesis of diseases and animal models of human disease. The course consists of formal lectures and independent work by the graduate students describing microscopic lesions (histopathology). Two seminars will be presented by the graduate student.

PREREQUISITE: Permission by the instructor

LECTURES: 2 hours

LAB/SEMINARS: 2 hours

TUTORIALS: 2

HOURS OF CREDIT: 3

#### VPM 871 MOLECULAR BIOLOGY TECHNIQUES

This course introduces students to basic techniques involved in recombinant DNA research and their application to the genetic analysis of animal viruses and other pathogens of veterinary importance. Students learn the principles and practical aspects of molecular biology techniques through lectures (2 hrs./wk.), and hands-on-experience (6 hrs./wk.). Emphasis is placed on the following topics: techniques for the manipulation of nucleic acids, hybridization methods, gene cloning, DNA sequencing, gene expression, and PCR technology.

HOURS OF CREDIT: 4

LECTURES: 2 hours

LABORATORIES: 6 hours

#### VPM 872 ADVANCED HELMINTHOLOGY

This course is an in-depth study of helminth taxonomy/morphology and recent advances in knowledge of the major helminth parasites of wild and domestic animals. Identification of helminth parasites recovered at necropsy and on histologic sections is taught through lecture and laboratories. Additional lecture/laboratory topics include field and laboratory techniques used in the study of helminth infections and recent advances in disease pathogenesis, life cycle transmission, diagnostic procedures and immunology of helminth parasites.

PREREQUISITE: Permission of instructor.

HOURS OF CREDIT: 3

LECTURES: 2 hours

LABORATORIES: 2 hours

#### VPM 881-882 DIRECTED STUDIES

This course is a thorough study of a selected problem or topic in the discipline. The course may include directed reading, directed research, or collection and analysis of data. The student will prepare a written report and present a seminar on the topic.

PREREQUISITE: Permission of instructor.

HOURS OF CREDIT: 1-3

#### VPM 885 BIOINFORMATICS FOR GRADUATE STUDENTS

In addition to participating in all the lectures and activities of the undergraduate course CS 322/ BIO 322, graduate students are expected to accomplish a graduate project and attend extra guest lectures specially prepared for graduate students (when the graduate enrolment is 3 or more). The graduate project would be related to the student's research, so the thesis supervisor will be invited to join in the process of choosing and evaluating the graduate project. The graduate project will be worth 30% of the final grade.

Cross-listed with CS 322, BIO 322, HB 885

PREREQUISITE: Admission to the graduate program and permission of the instructor

Note: No student can be awarded more than one course credit among HB 885, VPM 885, CS 322, and BIO 322

#### **VPM 890 SEMINAR**

In this course, students attend and present annual seminars on topics in their discipline, are evaluated on their seminars, and provide constructive criticism to others giving seminars in the course.

PREREQUISITE: Admission to MSc program.

HOURS OF CREDIT: 1

#### **VPM 990 SEMINAR**

This is a seminar course in which students attend and present annual seminars on topics in their discipline, are evaluated on their seminars, and provide constructive criticism to others giving seminars in the course.

PREREQUISITE: Admission to PhD program

HOURS OF CREDIT: 1

### **Master of Education (MEd)**

The MEd program is designed to provide experienced educators with the knowledge and skills required to become more effective educational leaders. The overall aim of the program is to promote and support educational scholarship, research, and improved practice.

#### **A) PROGRAM REQUIREMENTS**

Students enrolled in the graduate program are required to choose a thesis-based or course-based option. In the thesis-based option students will complete five compulsory courses, one elective course, and a thesis (4 course equivalents). In the course-based option, students will complete seven compulsory courses and three elective courses.

#### **THESIS-BASED OPTION**

##### **Compulsory Courses (5 required courses)**

Education 611 Introduction to Research Methods in Education

Education 612 Quantitative Research Design

or

Education 613 Qualitative Research Design

Education 614 Theories of Research and Learning

Education 615 Educational Leadership

Education 619 Critical Pedagogy Elective Courses (1 required)

Education 601 Selected Topics in Education

Education 616 Action Research in Education

Education 617 Issues in Educational Leadership

Education 618 Learning, Leadership and Reflective Practice

Education 622 Research on Learning Difficulties

Education 624 Change: Leadership in Learning

Education 625 Curriculum: Leadership in Learning

Education 626 Technology: Leadership in Learning

Education 627 Global Education

Education 628 International Education and Development

Education 629 Program Evaluation

Education 630 Perspectives in Ecology and Sustainable Leadership

Education 631 Leadership in Postcolonial Education  
Education 632 Leadership in Languages and Literacies  
Education 691 Directed Study  
Education 695 Graduate Seminar

Thesis

Education 699 (4 course equivalents)

### **COURSE-BASED OPTION**

Compulsory Courses (7 required courses)

Education 611 Introduction to Research Methods in Education

Education 612 Quantitative Research Design

or

Education 613 Qualitative Research Design

or

Education 616 Action Research in Education

Education 614 Theories of Research and Learning

Education 615 Educational Leadership

Education 617 Issues in Educational Leadership

Education 619 Critical Pedagogy

Education 625 Curriculum: Leadership in Learning

Elective Courses (3 courses required)

Education 601 Selected Topics in Education

Education 618 Learning, Leadership and Reflective Practice

Education 621 Current Research in Learning

Education 622 Research on Learning Difficulties

Education 623 Statistics for Research in Education

Education 624 Change: Leadership in Learning

Education 626 Technology: Leadership in Learning

Education 627 Global Education

Education 628 International Education and Development

Education 629 Program Evaluation

Education 630 Perspectives in Ecology and Sustainable Leadership

Education 631 Leadership in Postcolonial Education

Education 632 Leadership in Languages and Literacies

Education 691 Directed Study

Education 695 Graduate Seminar

### **B) THE THESIS**

Each candidate in the thesis-based option is required to submit a thesis based upon research conducted under supervision as described in this section of the calendar. The thesis must demonstrate the student's capacity for original and independent research and should extend the knowledge base in the field under study.

General specifications as to paper, format, order, and binding are available from the Office of the Co-ordinator of Graduate Studies.

The student should consult frequently with the Supervisor and the Supervisory Committee when preparing the thesis. After the final draft has been read and approved by the members of the Supervisory Committee, four copies must be submitted to the Co-ordinator of Graduate Studies for dissemination to members of the Examining Committee. These copies must be submitted no later than four weeks prior to the student's oral defence.

### **The Master's Examination**

The final oral examination, which is devoted chiefly to the defence of the thesis, is a Faculty examination, identified as the Master's Examination. Normally, the Examining Committee consists of the two members of the Supervisory Committee, one other member of the Faculty of Education, and one reader, external to the University, who submits a written report attesting to the quality of the work. The Co-ordinator of Graduate Studies selects the Examining Committee at the request of the Supervisor, appoints the Chair, and is responsible for notifying the Dean of Education of its composition.

Normally, the final oral examination is open to the public; however, members of the public may question the student only upon the invitation of the Chair of the Examining Committee.

The examination is passed and the thesis approved if there is no more than one negative vote; an abstention is considered to be a negative vote. The Co-ordinator of Graduate Studies is responsible for reporting the result of the examination to the Dean of Education. The result is recorded as "Accepted as is," "Accepted after minor revision," "Accepted after substantial revision," or "Unacceptable." The result "Accepted after minor revision" normally entails editorial changes. If the result is "Accepted after substantial revision," the student may be given the opportunity by the Examining Committee to revise the thesis with or without defending again. If the thesis revision is successful, the thesis supervisor is to sign before the thesis is presented to the Graduate Studies Committee. Six copies, including one unbound copy, should be presented to the Graduate Studies Co-ordinator. If the result is "Unacceptable," the student may be given one opportunity by the Examining Committee to revise the thesis and to defend it again.

### **Submission of Thesis**

When the thesis, in its final form, has been prepared after the final oral examination, the student will bring six unbound copies to the Co-ordinator of Graduate Studies at least three weeks prior to Convocation. Each copy must be submitted in a separate folder with the pages numbered and arranged in the appropriate order. The thesis must be free from typographical and other errors. All copies must include the Certificate of Approval signed by the Examination Committee and the members of the Supervisory Committee. Also included must be a brief Abstract and a copy of the circulation waiver and the copying licence.

When accepted by the Co-ordinator of Graduate Studies, one copy will be retained for microfilming and for deposit in the University Library after being bound. A second copy will be released to the Faculty of Education. A third copy will be released to the student's supervisor and three copies will be released to the student.

### **Publication**

The University requires publication of the thesis in the following manner:

One unbound copy of the thesis is forwarded to Library and Archives Canada, together with an agreement form signed by the candidate authorizing Library and Archives Canada to microfilm the thesis and to make microfilm copies available for sale on request. Library and Archives Canada will film the thesis exactly as it is and will list the thesis in Canadiana as a publication of Library and Archives Canada. A fee is charged by Library and Archives Canada to offset the cost of microfilming.

Library and Archives Canada's Microfilm Agreement form will be sent to the candidate prior to the Master's Examination, to be signed and submitted to the Co-ordinator of Graduate Studies immediately after the successful completion of the examination.

The student, in consultation with the Supervisor and the Co-ordinator of Graduate Studies, shall have the right to request that circulation and/or copying of the thesis in any form be withheld for up to one year.

Circulation and Copying of Thesis In normal circumstances, as a condition of engaging in graduate study at the University, the author of a thesis grants certain licences and waivers in respect of the circulation and of copying of the thesis:

- i. to the University Librarian, a waiver permitting the circulation of the thesis as part of the Library collection;

- ii. to the University, a licence to make single copies of the thesis under carefully specified conditions; and
- iii. to Library and Archives Canada, a licence to microfilm the thesis under carefully specified conditions.

### **Copyright Provision**

Copies of the thesis shall have on the title page the words, "In partial fulfilment of requirements for the degree of Master of Education." The international copyright notice, which consists of three elements in the same line—the letter "C" enclosed in a circle; the name of the copyright owner (the student); and the year should appear as a bottom line on the title page of the thesis.

### **c) GRADUATE COURSES**

#### **ED 601 SPECIAL TOPICS IN EDUCATION**

In this course, students investigate special topics in the field of education. Permission of the Coordinator of Graduate Studies and the Dean is required.

HOURS OF CREDIT: 1, 2 or 3 credit hours

#### **ED 611 INTRODUCTION TO RESEARCH METHODS IN EDUCATION**

In this course, students are introduced to a variety of methods that are appropriate for conducting research in educational settings. Students develop an understanding of qualitative and quantitative research methodologies. Students are introduced to the process of planning, conducting, and reporting research on learning and instruction, and to the critical analysis of current studies reported in educational literature.

HOURS OF CREDIT: 3

#### **ED 612 QUANTITATIVE RESEARCH DESIGN**

In this course, students explore the characteristics of quantitative methodology and examine their usefulness in conducting educational research. The methods discussed include causal-comparative, correlational, and experimental. Students learn how to state hypotheses, define and measure variables, select samples, collect and analyze data, and prepare research reports. Students design a research study on a topic related to learning and instruction.

PREREQUISITE: Education 611 or permission of the instructor

HOURS OF CREDIT: 3

#### **ED 613 QUALITATIVE RESEARCH DESIGN**

In this course, students study the development of qualitative research methodology and explore approaches drawn from this model that are used frequently by educational researchers. Students examine the use of observational techniques, interviews, questionnaires, and personal and official documents. Students design studies using qualitative methods.

PREREQUISITE: Education 611 or permission of the instructor

HOURS OF CREDIT: 3

#### **ED 614 THEORIES OF RESEARCH AND LEARNING**

In this course, students address the role of theory in educational research. The aim is to familiarize graduate students with various theoretical frameworks including theories and principles of learning.

HOURS OF CREDIT: 3

#### **ED 615 EDUCATIONAL LEADERSHIP**

In this course, students examine the field of educational leadership. Educational leadership extends beyond the role of the school administrator and focuses upon the development of teachers as leaders who impact on creating effective educational environments. Students research aspects of leadership that impact on schools, and explore models of effective leadership through case studies and simulation.

HOURS OF CREDIT: 3

#### **ED 616 ACTION RESEARCH IN EDUCATION**



In this course, students explore ways in which teachers can systematically examine their own classroom practices using action research strategies. Emphasis is placed on issues such as topic selection, methodology, data collection and analysis, and interpretation of results. This process of inquiry is directed towards reflective practice.

PREREQUISITE: Education 611 or permission of the instructor

HOURS OF CREDIT: 3

#### ED 617 ISSUES IN EDUCATIONAL LEADERSHIP

In this course, students examine current issues in educational leadership. Students research the factors that influence educational leadership, such as socio-economic trends, school restructuring, curriculum development, and educational technology.

PREREQUISITE: Education 615 or equivalent, or permission of the instructor

HOURS OF CREDIT: 3

#### ED 618 LEARNING, LEADERSHIP AND REFLECTIVE PRACTICE

In this course, students examine processes of reflective practice such as analytic problem-solving and self-assessment. Students research reflective practices that have made positive contributions to learning and leadership.

PREREQUISITE: Education 615 or permission of the instructor

HOURS OF CREDIT: 3

#### ED 619 CRITICAL PEDAGOGY

In this course, students examine the social conditions and practices that shape education. Students explore schools in their historical, economic, political, cultural, and social contexts.

PREREQUISITE: Permission of the instructor

HOURS OF CREDIT: 3

#### ED 622 RESEARCH ON LEARNING DIFFICULTIES

In this course, students examine the research on learning difficulties, and conduct research to identify effective strategies that can be applied in their teaching.

PREREQUISITE: Education 611 or permission of the instructor

HOURS OF CREDIT: 3

#### ED 624 CHANGE: LEADERSHIP IN LEARNING

In this course, students examine the research on models of innovation and change that have had an impact on education over the last 30 years. Students explore the role of leadership in facilitating change in education.

PREREQUISITE: Education 615 or permission of the instructor

HOURS OF CREDIT: 3

#### ED 625 CURRICULUM: LEADERSHIP IN LEARNING

In this course, students examine research into recent curriculum developments that are based on principles of integration, resource-based learning, and holistic learning, and which require the use of alternative assessment approaches. In addition, the impact of these developments on teachers' instructional strategies and students' learning are investigated. The focus is on the integration of knowledge about curriculum design and teaching in order to develop leadership skills for curriculum change.

HOURS OF CREDIT: 3

#### ED 626 TECHNOLOGY: LEADERSHIP IN LEARNING

This course provides an opportunity for students to examine and critique current research trends in information and communication technology in education. Leadership models for the implementation of technology plans are studied and evaluated. A major portion of work for this course takes place in an online learning environment.

HOURS OF CREDIT: 3

#### ED 627 GLOBAL EDUCATION

In this course, students examine the theory and practice of global education as it has developed in Canada and elsewhere. Other curriculum innovations that have contributed to global education (e.g., development education,

environmental education, human rights education, peace education) are also examined. Interactive and participatory learning methodologies are used to encourage reflection on the teaching of contemporary social and global issues in a variety of educational contexts.

HOURS OF CREDIT: 3

#### ED 628 INTERNATIONAL EDUCATION AND DEVELOPMENT

In this course, students examine how education is organized and practised in other countries, and its relationship to cultural, economic, and social development. Insights into education systems in Canada are afforded through comparing these with others around the world. In addition to common themes of study, students explore topics of their choice through the methodology of a comparative case study. Electronic communication with teachers in other countries provides first-hand information.

HOURS OF CREDIT: 3

#### ED 629 PROGRAM EVALUATION

In this course, students study the various concepts and issues in program evaluation. Students research the literature on program evaluation to understand the tools and knowledge necessary for conducting an evaluation assessment.

PREREQUISITE: Education 611 or permission of the instructor

HOURS OF CREDIT: 3

#### ED 630 PERSPECTIVES IN ECOLOGY AND SUSTAINABLE LEADERSHIP

This interdisciplinary course explores contemporary topics related to the environment, such as ecological consciousness, place attachment, principles of ecological design, sustainability and responsible stewardship, ecological citizenship, and environmental practice. Students apply a critical inquiry framework and consider philosophical ideologies related to anthropocentric and ecocentric perspectives, environmental ethics, and ecological worldviews. Participatory methodologies are encouraged to promote leadership in ecological knowledge and environmental preservation in a variety of contexts.

HOURS OF CREDIT: 3

#### ED 631 LEADERSHIP IN POSTCOLONIAL EDUCATION

In this course, students consider postcolonial history and key texts as they critically examine a variety of theoretical frameworks within postcolonial education. The postcolonial context of education within particular Indigenous and colonized societies provides a major focus for the course. The role of educational leaders in negotiating complex change in specific contexts is considered.

HOURS OF CREDIT: 3

#### ED 632 LEADERSHIP IN LANGUAGES AND LITERACIES

In this course, students address the role of educational leaders in the implementation of policies and practices sustaining languages and literacies in particular contexts. A variety of theoretical frameworks and principles of language learning and plurilingualism are considered. Successes and challenges related to leadership in language retention and the development of multi-literacies in education are carefully examined.

HOURS OF CREDIT: 3

#### ED 671 FOUNDATIONS OF SCHOOL AND COMMUNITY LIBRARIANSHIP

This course provides participants working in a wide range of library contexts with the historical foundations and theoretical framework for the role, philosophy, and administration of school and community libraries and to the role of teacher-librarians in the context of 21st century schools and learning.

#### ED 672 SCHOOL AND COMMUNITY LIBRARIES FOR 21st CENTURY LEARNING

This course explores the theoretical underpinnings of information and digital literacies and how they are developed within school and local library programs. Participants examine research supporting the guided inquiry process, problem-based learning, the effective use of digital and traditional learning resources, as well as how teacher-librarians, classroom teachers and community members collaborate to design and implement effective multi-literacies instruction.

### ED 673 BUILDING A CULTURE FOR READING IN A DIGITAL AGE

This course examines the emerging principles and practices influencing the development of reading habits in children and youth and the role of libraries in creating a culture for reading in the community. Participants explore gender issues related to reading, diversifying reading choices, building worldmindedness into children's reading. Using social media to promote and encourage reading as well as critically examining online reading issues are also addressed.

### ED 674 COLLECTIONS MANAGEMENT

This course examines the principles and methods of establishing, managing and sustaining school and community library collections including the formulation of selection/ circulation policies and criteria for evaluating/critiquing print, non-print and digital materials. Issues of censorship, influences of digital media and copyright are included as well as a critical examination of the relationship of the publishing industry to collection development and knowledge sharing.

### ED 675 INQUIRY PROJECTS IN SCHOOL AND COMMUNITY LIBRARIES

This is an action research, project-based course. Participants will identify an issue that pertains to learning in contemporary school and community libraries and will design a research project employing the principles of action research. Working from a solid theoretical framework, participants apply the inquiry process to explore critical questions in their practice.

### ED 691 DIRECTED STUDIES

In this course, individual students pursue a special topic or issue in education. Before approval is granted, each student must prepare a detailed outline of the contents of the course, and obtain the consent of a faculty member to supervise the work.

PREREQUISITE: Permission of the Dean and Co-ordinator of Graduate Studies, or permission of the instructor

HOURS OF CREDIT: 3

### ED 692 HIGHER EDUCATION TEACHING

This course introduces the pedagogies, practices, and instructional alternatives that foster acquisition of the knowledge, skills, and attitudes critical to successful teaching at the post-secondary level. It examines topics such as the teaching learning process, instructional and curriculum design, addressing student needs, and learning characteristics. Note: This course is graded pass-fail.

Cross-listing: None required, but the course could be cross-listed with various graduate programs across the UPEI campus.

PREREQUISITES and/or CO-REQUISITES: The minimum standard for admission would be the successful completion of an undergraduate degree, as per the admission requirements for graduate programs at UPEI.

HOURS OF CREDIT: 3

### ED 695 GRADUATE SEMINAR

In this course, students attend and present seminars on topics in their discipline, are evaluated on their seminars, and provide constructive criticism to others giving seminars in the course.

PREREQUISITE: Education 611, 612/613, 614, 615, 616, or permission of the instructor

HOURS OF CREDIT: 3

### ED 699 THESIS

Each student in the Master of Education program is required, under the supervision of a Faculty Advisor and Thesis Committee, to write a thesis based on research into an approved topic. It must demonstrate the candidate's ability to conduct original independent work, and include a critical evaluation of the principal works published on the subject of the thesis. It should make an original contribution to the body of knowledge in that field of study.

PREREQUISITE: Admission to the MEd program

HOURS OF CREDIT: 12 upon completion of thesis

## **Master of Arts Program (MA)**

### **A) PROGRAM REQUIREMENTS**

The MA degree of the University of Prince Edward Island requires the demonstration of a reasonable mastery of a concentrated field of study. The latter is attested by the achieving of satisfactory standings in the minimum number of graduate courses required by the respective Faculty, the completion of a research project, and the writing of a thesis based upon the research.

Graduate students will register in the interdisciplinary MA program in Island Studies, under the Dean of Arts. Each student's program of study will be designed in consultation with the Program Administrator and student's Supervisor.

There will be considerable interaction and co-operation among the departments to provide courses and research facilities to meet the needs of individual students and their research projects.

In addition to the "General Regulations for Graduate Programs," described above, the following regulations apply specifically to the Master's degree:

### **Residency Requirements**

Normally, at least two semesters of full-time study in residence at the University must be devoted to the Master's program if the student is admitted as a regular student. Upon completion of the residency requirement, the student is then eligible to become a candidate for the MA degree. Normally, the thesis must be formally submitted or the program be otherwise complete within 48 months of the completion of the residency requirement. Departure from these normal requirements requires approval from the Graduate Studies Committee.

## **B) COURSES**

### **Prescribed Studies**

The proportion of weight attached to the research and thesis may vary, even within a department. Accordingly, the number of courses and/or general examinations may correspondingly vary. In no case, however, will the minimum requirements be less than those outlined in the following two paragraphs. For graduate credit, the courses selected must be acceptable to the Department and the Graduate Studies Committee. The candidate must maintain an average grade of at least a "B" standing (see Grades in General Regulations section) in the substantive courses outlined below in order to maintain registration in the program.

In the Faculty of Arts, students are required to take a minimum of three courses at the graduate level totalling a minimum of 9 credit hours. Students may take only two Directed Studies courses for credit. Students lacking an Honours degree or background in one or more areas may, at the discretion of the Supervisory Committee, be required to take the appropriate undergraduate level course(s).

For the MA in Island Studies, six courses in addition to the thesis are required owing to the interdisciplinary nature of the program. Themes and Perspectives in Island Studies (IST 601) and Research Methods and Design for Island Studies (IST 604) are required courses and must be taken in the student's first year.

### **Additional Courses**

In addition to these prescribed studies, the candidate may undertake to achieve satisfactory standings in courses supportive of the special discipline. These courses may be at either the undergraduate or the graduate level. The standings obtained in them will not affect the average grade of the prescribed studies.

When a student is required to register in a seminar or colloquium course in more than one semester, the record will show a grade or a designation of "In Progress" for semesters prior to completion of the course and "Pass" or "Fail" for the final semester. With the consent of the Supervisory Committee, and of the instructor and the Department Chair concerned (or the Dean of Arts in the case of the MA in Island Studies), a student may register for, and audit, all or part of a course. It is understood that the student will attend lectures as prescribed, but will not write any examination or receive any grade. Such a course may be recorded as an additional course, identified by AUD.

## **C) THE THESIS**

### **Research**

Normally, the equivalent of at least two full-time semesters must be devoted to research in fulfilment of the thesis requirement. Summers during which research work is actively conducted may be counted as research semester equivalents, even though courses would not normally be offered at that time. In order to avoid undue prolongation of the time required to complete the degree, the research topic should be identified early and approved by the Supervisory Committee. Research involving the use of animals must follow the Guidelines of the Canadian Council on Animal Care. Research involving human participants must adhere to the Tri-Council policy on research ethics and be approved by the University's Research Ethics Board.

### **Thesis**

Each candidate for the degree of Master of Arts is required to submit a thesis based upon the research conducted under supervision as described above. The thesis must demonstrate the candidate's capacity for original and independent work, and should include a critical evaluation of work which has previously been done in the field of his or her research. The thesis should emphasize any new conclusions which may be drawn from the candidate's own research.

General specifications as to paper, format, order, and binding are available from the Office of the Program Administrator.

### **Procedures**

The thesis may be handed in at any time of the year, but candidates must bear in mind the desirability of having the final examination as much in advance of the deadline date for thesis submission as possible. Candidates are advised to inform themselves of the deadlines schedule, a copy of which may be obtained in the Office of the Program Administrator. It is desirable that each candidate initiate discussion about examination dates with the Supervisor early in the final semester.

The candidate should keep in close touch with the Supervisor and the Supervisory Committee throughout the preparation of the thesis. The final draft of the thesis, after it has been reviewed by all members of the Supervisory Committee, is sent when ready for examination to the members of the Master's Examination Committee (see below).

Following the Master's Examination, the candidate, if successful, arranges for the preparation of the thesis in final form, and for its submission to the Program Administrator (see below). The thesis in final form must include any minor corrections or revisions indicated during the Examination. Approval of the thesis takes the form of a Certificate of Approval, signed by the Examination Committee.

### **The Master's Examination**

The final oral examination, devoted chiefly to the defence of the thesis, is a departmental examination identified as the Master's Examination and carried out by the Master's Examination Committee.

In the Faculty of Arts, the Master's Examination Committee normally consists of three members of the Supervisory Committee, including the Supervisor of the candidate's research, who will chair the Master's Examination Committee on behalf of the Dean of Arts. The Examination Committee also includes an External Examiner from another university or research organization who has expertise in the student's field of research and is recommended for approval by the Supervisor or Supervisory Committee to the Coordinator and Dean.

The Department Chair (or the Dean of Arts, in the case of the MA in Island Studies) selects the Examination Committee at the request of the Supervisor and is responsible for notifying the Program Administrator of its composition. The Examination is normally open to the public; however, members of the audience may question the candidate only upon invitation of the Chair of the Committee. The Examination is passed and the thesis approved in principle if there is no more than one negative vote, an abstention being regarded as a negative vote. The report, from the Department Chair (or the Dean of Arts, in the case of the MA in Island Studies) to the Program

Administrator, records the result as “unsatisfactory,” or “satisfactory”. If the result is “unsatisfactory,” the candidate may be given the opportunity by the Master’s Examination Committee of a second attempt. A second “unsatisfactory” result will terminate candidacy at this university.

## **D) GRADUATE COURSES**

### **IST 601 THEMES AND PERSPECTIVES IN ISLAND STUDIES**

This course explores contemporary and historical research questions and issues central to the interdisciplinary and comparative study of small islands and archipelagos. Topics include islands’ identity, characteristics, challenges, opportunities, cultures, geography, economics, history, environmental concerns, and governance systems.

SEMESTER-HOURS OF CREDIT: 3

HOURS PER WEEK: 3

LECTURE: 2

SEMINAR: 1

### **IST 604 RESEARCH METHODS AND DESIGN FOR ISLAND STUDIES**

Introduction to research methods and research design as they pertain to study of small islands. The non-availability of island-specific data in non-island jurisdictions and researchers’ perspectives and points of view will be considered.

PREREQUISITES: Admission into a UPEI graduate program or eligibility for graduate studies

SEMESTER-HOURS OF CREDIT: 3

HOURS PER WEEK: 3

LECTURE: 2

SEMINAR: 1

### **IST 609 MIGRATION AND MOVEMENT AMONG SMALL ISLANDS**

This course examines the diverse issues arising from migration and movement among and within small islands. Topics will include the creation of small-island societies through successive and often competing waves of colonization by migrants, adventurers, and/or conquerors, as well as the complex two-way traffic that generally characterizes the subsequent development of island societies. Case studies of specific small islands, as well as comparative assessment of different small-island cases, provide opportunities to investigate the themes discussed in a concrete and practical manner.

PREREQUISITE: Admission into a UPEI graduate program or eligibility for graduate studies

SEMESTER-HOURS OF CREDIT: 3

HOURS PER WEEK: 3

LECTURE: 2

SEMINAR: 1

### **IST 611 STRATEGIES FOR ECONOMIC DEVELOPMENT FOR SMALL ISLANDS**

Using case studies, this course introduces the comparative study of economic development strategies applicable to small- island economics.

PREREQUISITES: Admission into a UPEI graduate program or eligibility for graduate studies

SEMESTER-HOURS OF CREDIT: 3

HOURS PER WEEK: 3

LECTURE: 2

SEMINAR: 1

### **IST 612 THE INTERNATIONAL RELATIONS OF SMALL ISLAND STATES**

Small-island states share a wide range of issues that are either exclusive to small islands or of particular salience for these island states. This course explores in-depth the international agenda for small-island states, the channels and resources involved in their international relations, and the attention and commitment of metropolitan states and international organizations.

PREREQUISITE: Admission into a UPEI graduate program or eligibility for graduate studies

SEMESTER-HOURS OF CREDIT: 3

HOURS PER WEEK: 3

LECTURE: 2

SEMINAR: 1

#### IST 613 THE POLITICAL ECOLOGY OF SMALL ISLANDS

This course examines the intersections among politics, policy, and island environments. The tension between external economic pressures and trans-jurisdictional environmental protection mechanisms, with particular emphasis on topics such as global warming, fishing stocks, and biodiversity, is examined. Other factors including cultural and political forces that encourage development despite environmental risks also are explored.

PREREQUISITE: Admission into a UPEI graduate program or eligibility for graduate studies

SEMESTER-HOURS OF CREDIT: 3

HOURS PER WEEK: 3

LECTURE: 2

SEMINAR: 1

#### IST 614 ISLANDNESS: CULTURE, CHANGE, AND IDENTITY ON SMALL ISLANDS

In this course students investigate the effects of insularity on small-island populations. The relationship between the population's identity (culture, ethnicity, self-confidence) and its economic and political choices is examined. Students examine history, folklore, art, literature, anthropology, economics, and political theories in the context of "islandness."

PREREQUISITE: Admission into a UPEI graduate program, or eligibility for graduate studies.

SEMESTER-HOURS OF CREDIT: 3

LECTURE: 2

SEMINAR: 1

#### IST 615 PUBLIC POLICY IN SMALL ISLANDS

This course examines the determinants or causes of public policy in small-island jurisdictions. Students familiarize themselves with various models for understanding the causes of public policy and with selected frameworks for comparing policy across jurisdictions.

PREREQUISITE: Admission into a UPEI graduate program, or eligibility for graduate studies.

SEMESTER-HOURS OF CREDIT: 3

HOURS PER WEEK: 3

LECTURE: 2

SEMINAR: 1

#### IST 616 DIRECTED STUDIES

Under the supervision of a faculty member, a graduate student independently pursues an area of interest in-depth. The course includes a thorough literature review of the topic and directed research.

NOTE: Students are permitted to take no more than two Directed Studies courses towards the Master of Arts in Island Studies.

PREREQUISITE: Admission into a UPEI graduate program, or eligibility for graduate studies.

SEMESTER-HOURS OF CREDIT: 3

#### IST 617 SPECIAL TOPICS

Creation of a course code for special topics offered by Master of Arts.

#### IST 618 COLONIAL AND POSTCOLONIAL DISCOURSE THEORIES: AN INTRODUCTION

Students will be introduced to the basic elements of colonial and postcolonial discourse analysis, an interdisciplinary field of study. Some of the prominent practitioners and debates in the field will be considered, as well as some of the cultural, historical, and political reasons for its emergence. A particular emphasis will be placed on colonialism and postcolonialism in island contexts.

PREREQUISITE: Admission into a UPEI graduate program, or eligibility for graduate studies.

SEMESTER HOURS OF CREDIT: 3

LECTURE: 2

SEMINAR: 1

IST 619 ENVIRONMENTAL GOVERNANCE  
(See Environmental Studies 411)

IST 699 THESIS

These topics will ordinarily require framing in a regional and comparative island studies context, with students then focusing on an issue or issues as it impacts on: one particular island; two or more islands; or the relationship between island and mainland. Students will be required to present a thesis proposal and their thesis results in a seminar format prior to their oral examination.

PREREQUISITE: Successful completion of Island Studies 601, 604, and one other graduate level 3 credit-hour course that is part of their program of studies.

**Master of Applied Health Services Research (MAHSR)**

This program is intended for students who are interested in pursuing a career in health research. By the end of the program, the student will have a demonstrated grounding in scholarly research techniques, experience in the healthcare field through their residency placement, and eight courses in healthcare research.

The Master's Degree in Health Services Research is a collaborative venture of Memorial University of Newfoundland, the University of New Brunswick, and the University of Prince Edward Island. The degree program provides knowledge and skills necessary to tackle complex health policy issues and contribute to the future of health services in Atlantic Canada. The Master's is co-ordinated through the Atlantic Research Training Centre (ARTC).

**A) PROGRAM REQUIREMENTS**

The following courses were designed and created specifically for the Master of Applied Health Services Research.

**Compulsory Courses**

- AHS 601 - Canadian Health System
- AHS 602 - Ethical Foundations of Applied Health Research
- AHS 603 - Research & Evaluation Design and Methods
- AHS 604 - Policy and Decision Making
- AHS 605 - Determinants of Health: Healthy Public Policy
- AHS 606 - Qualitative and Quantitative Methods
- AHS 607 - Knowledge Transfer and Research Uptake
- AHS 608 - Advanced Qualitative Methods
- AHS 609 - Advanced Quantitative Methods
- AHS 610 - Thesis
- AHS 611 - Directed Studies

**Review of Progress**

At the end of each semester, the academic record and progress of each student will be reviewed by the MAHSR Coordinator. The candidate must maintain an average grade of at least a B standing (see Grades in General Regulations section) in the compulsory courses in order to maintain registration in the program.

**B) GRADES SCHEDULE**

**INC:** A student who fails to complete all components of a course, such as assignments, examinations, and fieldwork, due to circumstances beyond his/her control (such as illness), may, with the permission of the professor and the Dean, be granted an amount of time deemed reasonable for the completion of said components.

If a student does not complete all the components of a course by the agreed-upon date, normally a grade of F shall replace INC on the transcript. The Registrar will advise the Department Chair that the grade of "F" requires a percentage grade for posting on the student transcript. In cases where the component left incomplete was not a



requirement for passing the course, and where the student already has earned a passing grade without completing the component, the passing grade shall be submitted and shall replace INC on the transcript.

**AUD:** an “audited” course (additional courses only)

**DISC:** discontinued with permission

Seminar courses are graded as letter grades. In the thesis, the work is reported as either satisfactory or unsatisfactory.

## **C) THE THESIS**

### **Research**

Normally, the equivalent of 12 months of continuous study must be devoted to research in fulfilment of the thesis requirement. In order to complete the degree within a reasonable time frame, the research topic should be identified early in the student’s program and approved by the Graduate Studies Committee by the second semester of the students’ program. Research involving human subjects must be approved by the University’s Research Ethics Board.

### **Thesis Committee**

Students will prepare a thesis proposal that outlines the particular area to be investigated. Normally this will happen during the first year of the program. An academic defence is required and, in addition, students will make a public presentation of their thesis research to decision-makers.

The thesis committee will include a decision-maker where appropriate, and could include faculty from more than one participating institution. The thesis topic chosen must take into account the research interests of faculty across the three sites, as well as the capacity of the program to provide appropriate research supervision.

### **Thesis**

Each candidate for the degree of Master of Applied Health Services Research is required to submit a thesis based upon research conducted under supervision as described in this section of the calendar. The thesis must demonstrate the student’s capacity for original and independent research, and should extend the knowledge base in the field under study.

General specifications as to paper, format, order, and binding are available from the Department of Applied Human Sciences. The student should consult frequently with the Supervisor and the Supervisory Committee when preparing the thesis. After the final draft has been read and approved by the members of the Supervisory Committee, four copies must be submitted to the Coordinator of Master of Health Services Research Program in the Department of Applied Human Sciences for dissemination to members of the Examining Committee. These copies must be submitted no later than four weeks prior to the student’s oral defence.

### **The Master’s Examination**

The final oral examination, which is devoted chiefly to the defence of the thesis, is a Faculty examination identified as the Master’s Examination. Normally, the Examining Committee consists of the two members of the Supervisory Committee, one reader internal to the university, and one reader external to the university, who submits a written report attesting to the quality of the work. The coordinator of the MAHSR program selects the Examining Committee at the request of the Supervisor and appoints the Chair, and is responsible for notifying the Department of Applied Human Sciences of its composition.

Normally, the final oral examination is open to the public; however, members of the public may question the student only upon the invitation of the Chair of the Examining Committee. The examination is passed and the thesis approved if there is no more than one negative vote; an abstention is considered to be a negative vote. The Coordinator of the MAHSR program is responsible for reporting the result of the examination to the Department of Applied Human Sciences. The result is recorded as “Accepted as is,” “Accepted after minor revision,” “Accepted after substantial revision,” or “Unacceptable.” The result “Accepted after minor revision” normally entails editorial changes. If the result is “Accepted after substantial revision,” the student may be given the opportunity by the Examining Committee to revise the thesis with or without defending again. If the thesis revision is successful, the

thesis supervisor is to sign before the thesis is presented to the Masters of Applied Health Services Research (MAHSR) Coordinator. Four copies, including one unbound copy, should be presented to the MAHSR Coordinator. If the result is “Unacceptable,” the student may be given the opportunity by the Examining Committee to revise the thesis and to defend it again.

### **Submission of Thesis**

When the thesis, in its final form, has been prepared after the final oral examination, the student will bring six unbound copies to the MAHSR Coordinator at least three weeks prior to Convocation.

Each copy must be submitted in a separate folder with the pages numbered and arranged in the appropriate order. The thesis must be free from typographical and other errors. All copies must include the Certificate of Approval signed by the Examination Committee and the members of the Supervisory Committee. Also included must be a brief Abstract and a copy of the circulation waiver and the copying licence.

When accepted by the MAHSR Coordinator, one copy will be retained for microfilming and for deposit in the University Library after being bound. A second copy will be released to the Department of Applied Human Sciences. A third copy will be released to the student’s supervisor and three copies will be released to the student.

### **Publication**

The University requires publication of the thesis in the following manner:

One unbound copy of the thesis is forwarded to Library and Archives Canada, together with an agreement form signed by the candidate authorizing Library and Archives Canada to microfilm the thesis and to make microfilm copies available for sale on request. Library and Archives Canada will film the thesis exactly as it is and will list the thesis in Canadiana as a publication of Library and Archives Canada. A fee is charged by Library and Archives Canada to offset the cost of microfilming.

Library and Archives Canada’s Microfilm Agreement form will be sent to the candidate prior to the Master’s Examination, to be signed and submitted to the Co-ordinator of Graduate Studies immediately after the successful completion of the examination.

The student, in consultation with the Supervisor and the Co-ordinator of Graduate Studies, shall have the right to request that circulation and/or copying of the thesis in any form be withheld for up to one year.

### **Circulation and Copying of Thesis**

In normal circumstances, as a condition of engaging in graduate study in the University, the author of a thesis grants certain licences and waivers in respect of the circulation and of copying of the thesis:

- i. to the University Librarian: a waiver permitting the circulation of the thesis as part of the Library collection;
- ii. to the University: a licence to make single copies of the thesis under carefully specified conditions; and
- iii. to Library and Archives Canada: a licence to microfilm the thesis under carefully specified conditions.

### **Copyright Provision**

Copies of the thesis shall have on the title page the words, “In partial fulfilment of requirements for the degree of Master of Applied Health Services Research.” The international copyright notice, which consists of three elements in the same line—the letter “C” enclosed in a circle; the name of the copyright owner (the student); and the year—should appear as a bottom line on the title page of the thesis.

### **Retention/Maintenance of Records**

In the interests of good scholarly practice and in order to substantiate claims of intellectual property, graduate students should keep complete, dated records of their research. These records may be in the form of bound notebooks, log books, or other documentation, as appropriate to the discipline. Students should also retain copies of significant drafts and notes, and of all material submitted for evaluation, presentation, publication, or by the way of informal contribution to collaborative research projects. They must also realize that raw data and other research results should remain accessible at all times to all other members of

any collaborative research activity.

### **Unacceptable Thesis**

If a candidate is unable to prepare an acceptable thesis, the Supervisory Committee will so report to the MAHSR Coordinator and the Department of Applied Human Sciences (sending to the student a copy of the report).

### **Transcripts of Records**

Official transcripts of the student's academic record are available through the Registrar's Office. Transcripts will be sent to other universities, to prospective employers, or to others outside the University only upon formal request by the student.

## **D) GRADUATE COURSES**

### **AHS 601 CANADIAN HEALTH SYSTEM**

This course proposes to give an overview of the history of the Canadian Health System and its current organization, as well as an overview of other international health system models. The key concepts that will be explored in the Canadian Health System include legislation, institutions, funding structures, human resources, and guiding values. Other issues examined will be the factors affecting health services utilization, the measurement of health outcomes and their use for accountability, and a review of health information systems in Canada and the structures and instruments within them. Finally, current issues and trends relating to the Canadian Health Care system will be reviewed.

HOURS OF CREDIT: 3

### **AHS 602 ETHICAL FOUNDATIONS OF APPLIED HEALTH RESEARCH**

This course will acquaint students with the ethical basis of health research, as well as the substantive issues that arise at the macro, meso, and micro levels in the design and conduct of research. A variety of approaches to ethical decision-making will be surveyed, with particular attention given to how various approaches might apply in the context of Atlantic Canada. Standard topics will be explored in this course, such as informed consent, privacy and confidentiality of health information, and conflicts of interest. Special attention will be given to issues of rural/urban split, respect for the integrity of communities, and the potential abuse of expert or professional authority.

HOURS OF CREDIT: 3

### **AHS 603 RESEARCH & EVALUATION DESIGN AND METHODS**

In this course, students will become familiar with the research process, with the basic aim of developing skills to critically evaluate the work of others and to understand possible approaches in the design of their own research projects. The initial emphasis in the course will be on formulating research questions and determining strategies that may be used to address a particular research theme. As the course unfolds, the approach will switch to understanding how various qualitative and quantitative research techniques may be used to address research questions that the students have posed. The students will be assessed on "project" work, and will be required to submit a number of pieces of written work throughout the duration of the course. One of the key features of the course is that each time it is offered, a broad research topic will be chosen and students will target their work towards developing research questions and designing research plans to address specific aspects of this theme. In the initial offering of the course, this topic will be childhood obesity.

HOURS OF CREDIT: 3

### **AHS 604 POLICY AND DECISION-MAKING**

In this course, students will explore the process of how Canadian Health Policy is developed, implemented, and evaluated. This course will also assist in building skills in the areas of research approach, critical appraisal, policy synthesis, and briefing notes. The course will follow a case-based approach to understand the implications of political, social, ethical, and economic policy.

HOURS OF CREDIT: 3

### **AHS 605 DETERMINANTS OF HEALTH: HEALTHY PUBLIC POLICY**

This course will explore the development of the philosophy of the determinants of health, and identify the determinants of health and their relationship with health status. As the course unfolds, students will gain an understanding of the philosophical underpinnings, as well as understanding their inter-relationships. An understanding of the complexity of developing healthy public policy that addresses multiple determinants of health will be developed by students, as well as the consideration of the implications of policy from the perspective of the determinants of health.

HOURS OF CREDIT: 3

#### AHS 606 QUALITATIVE AND QUANTITATIVE METHODS

This course is divided into two broad sections. In the first section, the course will explore an introduction to qualitative and quantitative approaches. This part will highlight some of the critical issues involved in conducting applied health-related research. The second section will be an overview of statistical techniques that are appropriate to health-related research. It will provide students with some basic building blocks that they can use to carry out their own research and critically evaluate the work of others. Students will be introduced to SPSS in the Quantitative Methods section (this will be used extensively in the Statistics section).

HOURS OF CREDIT: 3

#### AHS 607 KNOWLEDGE TRANSFER AND RESEARCH UPTAKE

This course will explore the facilitators and barriers of using evidence in decision-making, as well as developing the students' understanding of the conceptual, philosophical, and theoretical underpinnings of knowledge transfer and research uptake. Students will also learn how to create ongoing/ sustainable linkages with decision-makers and how to share research findings with academic and non-academic audiences. The course strengthens the program by providing students with skills to interact with stakeholders and facilitate the use of evidence in decision-making. Topics explored include Evidence-Based Decision-Making—barriers and facilitators, and why evidence is not used in decision-making. The course will look at how to encourage decision-makers to use research evidence through behavioural change, social marketing, and sustainable linkages.

HOURS OF CREDIT: 3

#### AHS 608 ADVANCED QUALITATIVE METHODS

In this course, students will gain an understanding of the use of qualitative research methods in applied health research. Students' skills will be developed in the analysis of qualitative data, grant-proposal writing using qualitative data, and the critique of qualitative research. Topics explored include issues in qualitative approaches such as subjects/participants, ethical issues, representativeness, data trustworthiness, bias/perspective, researcher as an instrument, the designing of an analysis template, concurrent/non-current, and ethnography. Other topics explored include theoretical approaches to analysis, such as conflict analysis, feminist, deconstructionalist, thematic analysis, participatory action research, grounded theory, and case studies.

HOURS OF CREDIT: 3

#### AHS 609 ADVANCED QUANTITATIVE METHODS

This course will expose students to a variety of more advanced quantitative and statistical approaches to research methodology. The two main purposes of the course are to provide students with the tools to conduct advanced quantitative empirical research, and to further develop their ability to critically evaluate the work of others. Students will learn to examine issues and develop research strategies to begin to identify and answer important topics that need to be researched, and students will design a realistic appraisal of what can and cannot be achieved, given resource constraints.

HOURS OF CREDIT: 3

#### AHS 610 THESIS

Each student in the Master of Applied Health Services Research program is required, under the supervision of a Faculty Advisor and Thesis Committee, to write a thesis based on research into an approved topic. It must demonstrate the candidate's ability to conduct original independent work, and include a critical evaluation of the principal works published on the subject of the thesis. It should make an original contribution to the body of knowledge in that field of study.

PREREQUISITE: Admission to the Master of Applied Health Services Research program

HOURS OF CREDIT: 6

## AHS 611 DIRECTED STUDIES

This course will be developed with the student and professor focused on specific learning outcomes that enhance the student's program.

### **Master of Business Administration Program (MBA)**

Based on executive education models, this MBA program offers students a unique and valuable opportunity to advance their education while continuing to work. Specialized streams of study are available in "Biotechnology Management and Entrepreneurship" and "Innovative Management". These will provide students with the theory, skills, experiential learning and research opportunities to advance their knowledge and enhance their success in these flourishing fields. Dedicated faculty, peer-to-peer learning, an integrated program approach, and an emphasis on developing global perspectives ensure that graduates are well prepared for the unique challenges of leading and innovating in an ever-changing, international business environment.

#### **Specialization in Biotechnology Management and Entrepreneurship**

In this specialization stream, students gain a valuable combination of knowledge and skills in the business of science. The program will focus on the issues of commercialization, as well as the ethical and regulatory issues that face the biotechnology industry. Graduates of this specialization stream will be well equipped to develop and manage new ventures and small businesses or to work in the public and private sectors in the business of biotechnology/science fields.

#### **Specialization in Innovative Management**

The Innovative Management stream is designed to develop the skills and knowledge necessary to effectively manage within and for an innovative environment. Courses integrate the concepts of creativity and entrepreneurial thinking as well as real world learning and management skills such as leadership and teamwork. Global content ensures graduates have a well- developed perspective on worldly issues and decision-making. This program fits those who are interested in business from new perspectives.

### **A) STRUCTURE OF THE PROGRAM**

The Executive MBA program is designed for working people. The program structure will be flexible to fit students' needs as much as possible. For example, classes held every other week on Fridays and Saturdays will accommodate working students. Students will normally enrol in four courses per semester and form small, self-managed teams to work on projects, thus enabling them to learn from each others' backgrounds and experiences.

The first year of studies will focus on enhancing managerial skills and understanding functional business topics. Students will be able to take four courses in each of the fall and winter semesters.

The second year of studies will focus on the development and application of more strategic perspectives and application within a dynamic global business environment. In year two, students will be able to take four courses in the fall semester. The signature (project) is normally started in year one of the Program and is completed in the winter semester of the second year.

### **B) PROGRAM REQUIREMENTS**

Students enrolled in the MBA program are required to complete a total of 42 credit hours (14 courses) comprised of required courses, specialization courses, and a signature project. Students have the opportunity to complete the MBA program in twenty months. They must complete all required courses within six years of being admitted to the program.

### **C) GRADUATE COURSES**

Students in both specialization streams must complete 24 credit hours of required core courses and a signature project equivalent to 6 credit hours. The required core courses for both streams are as follows:

Business 601 - Management of People and Organizations  
Business 602 - Financial and Managerial Accounting  
Business 603 - Marketing Management  
Business 604 - Operations Management  
Business 605 - Corporate Finance  
Business 606 - International Business for Entrepreneurship and Enterprise  
Business 607 - Strategic Management  
Business 608 - Business Research Methods  
Business 801 – Business Research in Practice

### **Specialization Courses**

Students are required to take 12 credit hours (4 courses) in one of the specializations. These four courses will normally include two required courses plus two elective courses in the chosen area of specialization. Students, however, will have the option to take one of the elective courses in the other specialization. Not all elective courses will be offered each semester. Electives may include Special Topics or Directed Studies courses.

### **Biotechnology Management and Entrepreneurship Courses**

Business 701 - Biotechnology Management and Development (required)  
Business 702 - Commercialization of Biotechnology and Innovations (required)  
Business 703 - Ethics and Governance in Biotechnology Management  
Business 704 - International Relations, Laws, and Policies of Biotechnology  
Business 705 - Growth Strategies  
Business 706 - Venture Financing Strategies  
Business 707 - Managing Biotechnology Innovation

### **Innovative Management Courses**

Business 720 - Managing In and Creating an Innovative Culture (required)  
Business 721 - Innovative Management (required)  
Business 722 - Managing Customer Value  
Business 723 - Creativity and Innovation for Change Management  
Business 724 - Governance, Leadership, and Professional Development  
Business 725 - Management and Government Perspectives  
Business 726 - Strategy and Management Consulting

### **Special Topics Course**

Business 785 - Special Topics in Business

### **Directed Studies Course**

Business 786 - Directed Studies

### **BUS 601 MANAGEMENT OF PEOPLE & ORGANIZATIONS**

This course considers concepts, knowledge, and skills related to the behaviour and management of people in organizations. Human resource management entails thinking systematically and strategically, essential for achieving meaningful outcomes through others. Included are topics such as leadership, motivation, organizational structure, recruitment, selection, reward systems, performance management, training and development, employee commitment and retention, workforce diversity, and managing people across borders and cultures.

### **BUS 602 FINANCIAL AND MANAGERIAL ACCOUNTING**

In this course students learn to become proficient at understanding and interpreting financial statements, assessing them for decision-making purposes and supporting value-creating organizational strategies, operational tactics, and performance measurement schemes. The course employs international standards and addresses how accounting is used in decision-making. Tools for learning include guest speakers, case studies, and projects.

### **BUS 603 MARKETING MANAGEMENT**

This course looks at marketing in technology-intensive and technology-driven markets characterized by shorter life cycles, rapid information, and uncertainty, while studying the various concepts of marketing in order to create a competitive edge in a challenging environment. Emphasis is on using marketing analysis tools to evaluate potential market size, strategic risk, and financial return, which involves an understanding of marketing globally and competitively, as well as its drivers, societal awareness, and its integration within business.

#### **BUS 604 OPERATIONS MANAGEMENT**

This course focuses on concepts and techniques for the design, planning, control, and improvement of manufacturing and service processes. These concepts and techniques pertain to a range of applications in the private and public sectors. Topics include quantitative decision making; process mapping flows of labour, material, capital, and value; supply chain coordination; inventory management; risk mitigation; quality management; process design; and revenue management. Students will complete problem solving and case applications.

#### **BUS 605 CORPORATE FINANCE**

This course is designed to provide students with a broad overview of corporate finance and financial markets. The focus is on the conceptual and analytical techniques necessary for making financial decisions. The information collection, problem solving, and decision-making skills inherent in the finance function are stressed. Key concepts covered include the relevance of financial markets to the firm, understanding the relationship between risk and return and its importance in all financial decisions, and learning how financial and real assets are valued and the impact on a company.

**PREREQUISITE:** Business 602

#### **BUS 606 INTERNATIONAL BUSINESS FOR ENTREPRENEURSHIP AND ENTERPRISE**

This course focuses on the challenges and opportunities of venturing into international markets. The course addresses the complexities that arise when doing business in different business environments and cultural contexts. Specific topics may include international strategy, managing currency risks, opportunity assessment, business valuation and deal structuring, managing across borders, intercultural management and ethical decision-making.

#### **BUS 607 STRATEGIC MANAGEMENT**

This course looks at the development and implementation of management strategies to create a sustainable advantage in new ventures and entrepreneurial activities in the fast- changing knowledge economy. Utilizing a variety of pedagogy, the course may include such topics as venture concepts, product and market development, marketing knowledge intensive products and services, growing markets, and investor relations.

**PREREQUISITE:** Business 601, 602, 603, and 605

#### **BUS 608 BUSINESS RESEARCH METHODS**

This course looks at research as a systematic, objective, and creative process. It examines how research is a significant tool of the modern manager, and provides models and frameworks for completing research, decision-making, and integrated research writing. The course utilizes concrete research projects and dissemination of results.

#### **BUS 701 BIOTECHNOLOGY MANAGEMENT AND DEVELOPMENT (required)**

This course provides an overview of management in the biotech/sciences fields. It develops a framework for understanding and analyzing issues in the strategic management of technology and innovation in the context of taking a scientifically feasible idea and examining whether or not it is commercially viable. It evaluates opportunities and challenges in the management of growth in entrepreneurial settings and looks at funding sources from venture capital, business angels, investment banking, and commercial banking sources, and considers the potential global impact of biotechnology research, regulatory requirements, and knowledge management.

#### **BUS 702 COMMERCIALIZATION OF BIOTECHNOLOGY AND INNOVATIONS (required)**

This course examines the theory and practice of commercializing innovation through the launching of new business ventures in the biotechnology industry. It looks at the determination of the value of an innovation; if, when, and how to commercialize an innovation; the research, development, preparation, and presentation of a

business plan; how to manage cross-disciplinary teams of scientists, engineers, lawyers, and MBAs; and the strategic alliances and partnerships that are critical to a successful biotech business.

#### **BUS 703 ETHICS AND GOVERNANCE IN BIOTECHNOLOGY MANAGEMENT**

This course provides a foundation for the ethical and social problems involved in running today's biotechnology companies which may not have the advantages of deep cumulative knowledge and experienced long-term leadership. The course addresses major transitions in technology, markets, and government policy in industries such as pharmaceuticals, biotechnology, information technology, energy, and communications. It examines research collaborations between university and industry, ethical drug advertising, rules of competition, and incorporating ethics into the fabric of business decision-making. Classes feature guest speakers, venture capitalists, business executives, regulators, and others who can bring their insights and expertise to the issues.

#### **BUS 704 INTERNATIONAL REGULATIONS, LAW, AND POLICIES OF BIOTECHNOLOGY**

This course reviews current legal issues affecting the biotechnology industry and the general public. Special attention is devoted to approval processes and regulations, technology transfer, facility design, and cleaning validation, with emphasis placed on intellectual property issues involving patents, assignment and licensing of technology, and trademarks. Included are international regulations and political policies and their impact on strategic and policy development. Major theoretical and practical approaches are utilized to examine such issues as the debt crisis, trade disputes, NAFTA, and the expansion of the European Union.

#### **BUS 705 GROWTH STRATEGIES**

This course focuses on the evaluation of opportunities and the challenges involved in the management of growth. Because growth is the ultimate resource "constrainer," often stretching systems in a company to the limit and beyond, the course emphasizes management "at the limit" of what students may have already learned in other functional courses. It provides students with a series of frameworks, analytical skills and techniques, and decision-making tools used in growing businesses.

#### **BUS 706 VENTURE FINANCING STRATEGIES**

This course focuses on raising seed and growth capital from various sources such as venture capital, business angels, investment banking, and commercial banking sources. It considers financial problems unique to small and medium-sized firms undergoing rapid growth. It also examines financial management for entrepreneurs over the life of a business project, including financing start-ups, financial planning for smaller enterprises, going public, selling out, bankruptcy, and other related topics.

#### **BUS 707 MANAGING BIOTECHNOLOGY INNOVATION**

This course takes a critical look at biotech industries and the life sciences revolution, examining what major transitions in technology, markets, and government policy mean to both established and emerging players, and to the demands on management. Since biotech industries have not normally enjoyed experienced long-term leadership, it is often difficult for them to acquire a cutting edge, particularly when the playing field is being drastically altered and the rules of competition rewritten. Students leave the course with a better understanding of the global challenges facing these industries, and with a broader perspective of leadership and strategy.

#### **BUS 720 MANAGING IN AND CREATING AN INNOVATIVE CULTURE (required)**

This course looks at how to manage a business in an innovative and entrepreneurial culture. Topics include an overview of innovation and its value for a firm, entrepreneurial thinking as an approach to general management, how the innovation process works, creating entrepreneurial companies, organizing and managing innovation within existing firms, the role of technology, and coping with the strategic challenges facing all innovators. The course utilizes real-world learning techniques such as case studies, guest speakers, and projects.

#### **BUS 721 INNOVATIVE MANAGEMENT (required)**

This course provides a practical and theoretical understanding of innovation and entrepreneurial management through leadership, professionalism, and governance. As responsibility to and for stakeholders increases in today's business world, companies are finding that social responsibility can have a material impact on their success as they consider the socio-economic impacts of their activities and decisions on their employees, their communities, and internationally. This course takes a comprehensive and timely look at corporate citizenship for large and small



enterprises, the shareholders, and society at large. Consideration of leadership styles and methods are explored through various experiential processes.

#### **BUS 722 MANAGING CUSTOMER VALUE**

This course develops business decision-making skills that touch on customer value as a prerequisite to business success. Topics include defining the term “customer value”; how to align the company’s product or service with customer needs and to distinguish it from competitive offerings; how to provide customers with a superior total package of benefits comprising the product itself, associated services, brand image, appropriate pricing, and availability; and an intimate understanding of customers’ needs and behaviour. Particular attention is paid to the unique contexts of marketing knowledge-intensive products and services, new and rapidly growing markets, business markets, and investors. Topics such as fusion branding and value-based marketing are also explored. This course readily lends itself to real-world learning and management skills.

#### **BUS 723 CREATIVITY AND INNOVATION FOR CHANGE MANAGEMENT**

This course considers the dynamics of change in organizations and how to achieve key goals by combining analysis, creativity, and wisdom. Topics include the forces affecting the nature and rate of innovation, the advantages and disadvantages of existing organizations in pursuing innovation objectives, and the choices made at different levels in the organization which promote or hinder creativity/innovation. Teaching and learning tools include research, practice, student experience, case discussions, group work, peer consulting, teamwork, and projects.

#### **BUS 724 GOVERNANCE, LEADERSHIP, AND PROFESSIONAL DEVELOPMENT**

This course provides a theoretical and practical understanding of leadership, professionalism, and governance. It takes a comprehensive and timely look at social responsibility and corporate citizenship for large and small enterprises, shareholders, and society at large as corporate leaders and managers consider the impacts of their activities and decisions on their employees, communities, and international markets. Consideration of leadership styles and methods are explored through various experiential processes such as self-assessment exercises, case studies, and presentations.

#### **BUS 725 MANAGEMENT AND GOVERNMENT PERSPECTIVES**

In this course students examine the workings of various levels of government in order to understand more clearly how they, as managers and future leaders, can build knowledge of the interface between business and government into daily business operations and strategy. By developing a thorough command of how government works, students learn how executives and managers can deal more effectively with various levels of government and make better use of public affairs resources to address more astutely the public policy aspects of strategic planning.

#### **BUS 726 STRATEGY AND MANAGEMENT CONSULTING**

This course looks at the subject of management consulting, which can provide some of the most challenging and rewarding aspects in today’s business world. Topics include global strategy, game theory, management of innovation and creativity, strategy implementation, structure of global industries, strategic alliances, and building global organizations. Emphasis is placed on challenges in the consulting industry, working with clients, and preparing effective reports. This includes how to analyze cross- functional business problems and provide recommendations by applying appropriate frameworks and quantitative tools.

#### **BUS 785 SPECIAL TOPICS**

This course focuses on a number of topics judged by faculty to be current and relevant within the context of managing in a business environment.

#### **BUS 786 DIRECTED STUDIES**

In this course students pursue a specific topic or issue in business. Before approval is granted, each student must prepare a detailed outline of the topic to be studied, and obtain the consent of a faculty member to supervise the work.

#### **BUS 801 BUSINESS RESEARCH IN PRACTICE**

This course requires students complete an in-depth research study concerning a current and critical issue(s) in an organization. To ensure integration of knowledge and skills, students will be expected to apply the concepts

learned in the core courses of the EMBA program. The research outcome is expected to be an evidence-based recommendation addressing the organization's identified issue(s).

**PREREQUISITES:** Business 608 plus at least 5 of the other 7 core courses

### **PhD in Educational Studies Program**

The degree of Doctor of Philosophy (PhD) in Educational Studies is a research degree requiring a dissertation on original and significant research within traditional educational and community-based educational contexts extending from early childhood through mature adulthood.

The general goal of the Doctor of Philosophy program in Educational Studies at the University of Prince Edward Island is to examine education at an advanced level from a variety of perspectives, including, but not limited to, the investigation of theoretical and practical aspects of policy, curricula, teaching and teacher education, administration, and professionalism.

Graduates of the PhD in Educational Studies develop the competence and expertise needed to assume positions of leadership, such as educational researchers in institutional and non-institutional contexts; teacher educators; curriculum and instructional leaders in school boards and private industry; and school, school board, and governmental educational administrators. This program also promotes collaborative work with colleagues in educational endeavours and lifelong professional development. The program provides learning opportunities in which the candidate, in supervisory and collegial relationships with one or more faculty members:

1. develops a critical and comprehensive understanding of significant trends and major concerns in the field of education, and formulates and expresses, both orally and in writing, personal and professional positions in relation to how these trends and concerns are manifested in their area of interest;
2. develops in-depth knowledge and understanding of different philosophical stances in education and educational research and their sociopolitical and practical implications;
3. develops an understanding of, and ability to use and evaluate, a wide range of research methodologies used in educational research;
4. designs and presents a proposal for an original research project of significance in the field of education;
5. completes the proposed research under faculty supervision, then writes and orally defends a dissertation;
6. develops competencies in clear and logical writing skills that allow for disseminating knowledge to a variety of audiences;
7. develops competencies in leadership roles within formal and/or informal educational institutions, agencies, or communities.

### **Supervisory Committee**

The candidate works with a supervisor, and possibly a co-supervisor, appointed at the time of admission to the program and based on a fit between the candidate's area of interest and the area of expertise, publication, and funding of the supervisor(s). Supervisor(s) are member(s) of the UPEI graduate faculty with supervisory or co-supervisory privileges. The Supervisory Committee is chaired or co-chaired by the supervisor(s) and includes two other members of the UPEI graduate faculty.

### **Program Requirements**

Students are enrolled in the UPEI PhD program in Educational Studies as a full-time student for three years. This program also requires a residency of three semesters, normally completed consecutively. If, after three years, students have not completed all degree requirements, they continue to pay a maintenance fee to UPEI until all requirements are completed. Students have a maximum of seven years to complete all degree requirements.

The UPEI PhD in Educational Studies includes four courses, a comprehensive portfolio, and a dissertation.

**Required courses:**

ED 700 - Advanced Quantitative Methodology and Methods in Education Research

ED 701 - Advanced Qualitative Methodology and Methods in Education Research

ED 702 - Directed Studies in Educational Research Methodology and Methods

ED 703 - Directed Studies in Education Research and Theory

ED 704 - Graduate Seminar in Educational Studies

ED 705 - Comprehensive Portfolio

ED 706 - PhD Dissertation

**Submission of Dissertation**

When the dissertation, in its final form, has been prepared after the final oral examination, the student brings six unbound copies to the Co-ordinator of Graduate Studies at least four weeks prior to Convocation.

Each copy must be submitted in a separate folder with the pages numbered and arranged in the appropriate order. The dissertation must be free from typographical and other errors. All copies must include the Certificate of Approval signed by the Examination Committee and the members of the Supervisory Committee. Also included must be a brief Abstract and a copy of the circulation waiver and the copying licence.

When accepted by the Coordinator of Graduate Studies, one copy is retained for microfilming and deposited to the University Library after being bound. A second copy is released to the Faculty of Education. A third copy is released to the student's supervisor and three copies are released to the student.

**Publication**

The University requires publication of the dissertation in the following manner:

- One unbound copy of the dissertation is forwarded to Library and Archives Canada, together with an agreement form signed by the candidate authorizing Library and Archives Canada to microfilm the dissertation and make microfilm copies available for sale on request. Library and Archives Canada film the dissertation exactly as it is and list the dissertation in Canadiana as a publication of Library and Archives Canada.
- A fee is charged by Library and Archives Canada to offset the cost of microfilming.
- A Library and Archives Canada Microfilm Agreement form is sent to the candidate prior to the PhD Dissertation, to be signed and submitted to the Coordinator of Graduate Studies immediately after the successful completion of the examination.
- The student, in consultation with the Supervisor and the Coordinator of Graduate Studies, shall have the right to request that circulation and/or copying of the dissertation in any form be withheld.

**Circulation and Copying of Dissertation**

In normal circumstances, as a condition of engaging in graduate study at the University, the author of a dissertation grants certain licences and waivers in respect to the circulation and copying of the dissertation:

- to the University Librarian, a waiver permitting the circulation of the dissertation as part of the Library collection;
- to the University, a licence to make single copies of the dissertation under carefully specified conditions;
- to Library and Archives Canada, a licence to microfilm the dissertation under carefully specified conditions.

**Copyright Provision**

Copies of the dissertation shall have on the title page the words "In partial fulfilment of requirements for the degree of PhD in Educational Studies." The international copyright notice, which consists of three elements in the same line — the © symbol (the letter "C" enclosed in a circle), the name of the copyright owner (the student), and the year — should appear as a bottom line on the title page of the dissertation.

**GRADUATE COURSES**

#### ED 700 ADVANCED QUANTITATIVE METHODOLOGY AND METHODS IN EDUCATION RESEARCH

This course explores an extensive range of quantitative approaches to research in education including, but not limited to, experimental and quasi-experimental research and surveys. The course also focuses on statistical analyzes appropriate for quantitative research.

CREDIT HOURS: 3

#### ED 701 ADVANCED QUALITATIVE METHODOLOGY AND METHODS IN EDUCATION RESEARCH

This course explores a range of qualitative methodologies and methods in qualitative inquiry in educational studies and locates these approaches in broader theoretical and epistemological trends in social science and humanities. In addition, students will explore varying ways to collect, analyze and interpret qualitative data. Taught by active researchers with expertise in qualitative research methodologies, the course prepares students for critiquing and using qualitative research.

CREDIT HOURS: 3

#### ED 702 DIRECTED STUDIES IN EDUCATIONAL RESEARCH METHODOLOGY AND METHODS

Working with their dissertation supervisor(s), students develop in-depth knowledge and practical expertise related to specific research methods appropriate to their chosen dissertations.

#### ED 703 DIRECTED STUDIES IN EDUCATIONAL RESEARCH AND THEORY

Facilitated by the student's supervisor(s), this course focuses on reading and development of a comprehensive literature review in the area of interest of the student's doctoral dissertation.

#### ED 704 GRADUATE SEMINAR IN EDUCATIONAL STUDIES

In this seminar, students are exposed to and engaged in selecting and critiquing a wide variety of public scholarly presentations by visiting scholars and UPEI faculty researchers, and facilitating scholarly dialogue among those who attend. The course also requires students to prepare a book review for publication in a scholarly journal, and present for critique by peers and colleagues the literature review prepared for ED 703.

#### ED 705 COMPREHENSIVE PORTFOLIO

The Comprehensive Portfolio is an independent work, separate from the dissertation proposal, where the student provides evidence of his or her knowledge, skills, and readiness to embark on a dissertation journey. Students collect pieces of their own work completed throughout the program, in a variety of formats, which demonstrate 1) that they have read broadly in the field of educational studies; 2) that they have in-depth knowledge of the literature in one area of research interest, which could be related or unrelated to the intended dissertation topic; and 3) that they have a critical understanding of methodologies and attendant methods used in educational studies, including quantitative and qualitative paradigms. In an introduction to the portfolio, students make a case for the documents they include in the portfolio by justifying how the documents demonstrate that the goals of the comprehensive requirement have been reached.

#### ED 706 PHD DISSERTATION

The PhD dissertation provides evidence of the candidate's ability to carry out independent and original research, develop the necessary theoretical and methodological framework and analyzes, and present the findings in a scholarly manner.

### **Master of Nursing Program (MN)**

#### **A) PROGRAM REQUIREMENTS**

The Master of Nursing program has two streams: the Thesis Stream and the Nurse Practitioner Stream. The Master's program is built on the existing strengths of the faculty and the focus of Primary Health Care, which is the foundation for the curriculum in the current undergraduate program. Graduates from both streams will be prepared to function in an advanced practice role in Primary Health Care settings. The MN Thesis graduate will be prepared to engage in a variety of advanced practice roles including, but not limited to, direct care of individuals; families, communities or populations; education; administration and research. The MN Nurse Practitioner graduate will be prepared to manage the health needs of individuals; families; groups and communities across the lifespan.

Graduates of the Nurse Practitioner Stream will be eligible to write the Canadian Nurses Association (CNA) Canadian Nurse Practitioner Exam. The degree designated upon successful completion of either stream is a Master of Nursing (MN).

**Thesis Stream: 8 courses plus thesis**

Nurs 610 - Foundations of Graduate Study  
Nurs 611 - Theoretical Foundations of Nursing  
Nurs 612 - Advanced Primary Health Care  
Nurs 613 - Quantitative Nursing Research  
Nurs 614 - Qualitative Nursing Research  
Nurs 621 - Ethics in Nursing  
Nurs 622 - Advanced Nursing Practice  
Nurs 636 - Biostatistics  
Nurs 600 - Thesis

27 credit hours plus 9 for thesis

TOTAL of 36 credit hours

**NP Stream: 12 courses (includes synthesis paper)**

Nurs 611 - Theoretical Foundations of Nursing  
Nurs 612 - Advanced Primary Health Care  
Nurs 613 - Quantitative Nursing Research  
Nurs 614 - Qualitative Nursing Research  
Nurs 616 - Pharmacotherapeutics for Advanced Practice  
Nurs 631 - Health Promotion and Disease Prevention Across the Life Span  
Nurs 632 - Episodic Health Care Across the Life Span  
Nurs 633 - Professional Role of the Nurse Practitioner  
Nurs 634 - Chronic Disease Management  
Nurs 635 - Nurse Practitioner Practicum/Synthesis Paper  
N 6211 - Advanced Health Assessment (UNB)\*  
Biology 401 - Human Physiology and Pathophysiology

TOTAL of 55 credit hours and 700 clinical hours

\*This course is taken through the University of New Brunswick (UNB) and may require some travel.

**B) THE THESIS**

Each candidate in the thesis-based option is required to submit a thesis based upon research conducted under supervision as described in this section of the calendar. The thesis must demonstrate the student's capacity for original and independent research and should extend the knowledge base in the field under study.

General specifications as to paper, format, order, and binding are available from the Office of the Coordinator of Graduate Studies.

The student should consult frequently with the Supervisor and the Supervisory Committee when preparing the thesis. After the final draft has been read and approved by the members of the Supervisory Committee, four copies must be submitted to the Coordinator of Graduate Studies for dissemination to members of the Examining Committee. These copies must be submitted no later than four weeks prior to the student's oral defence.

**The Master's Examination**

The final oral examination, which is devoted chiefly to the defence of the thesis, is a Faculty examination, identified as the Master's Examination. Normally, the Examining Committee consists of the two members of the Supervisory Committee, one other member of the School of Nursing, and one reader, external to the university, who submits a

written report attesting to the quality of the work. The Coordinator of Graduate Studies selects the Examining Committee at the request of the Supervisor, appoints the Chair, and is responsible for notifying the Dean of Nursing of its composition.

Normally, the final oral examination is open to the public; however, members of the public may question the student only upon the invitation of the Chair of the Examining Committee.

The examination is passed and the thesis approved if there is no more than one negative vote; an abstention is considered to be a negative vote. The Coordinator of Graduate Studies is responsible for reporting the result of the examination to the Dean of Nursing. The result is recorded as "Accepted as is," "Accepted after minor revision," "Accepted after substantial revision," or "Unacceptable." The result "Accepted after minor revision" normally entails editorial changes. If the result is "Accepted after substantial revision", the student may be given the opportunity by the Examining Committee to revise the thesis with or without defending again. If the thesis revision is successful, the thesis supervisor is to sign before the thesis is presented to the Graduate Studies Committee. Six copies, including one unbound copy, should be presented to the Graduate Studies Coordinator. If the result is "Unacceptable", the student may be given one opportunity by the Examining Committee to revise the thesis and to defend it again.

### **Submission of Thesis**

When the thesis, in its final form, has been prepared after the final oral examination, the student will bring six unbound copies to the Coordinator of Graduate Studies at least three weeks prior to Convocation.

Each copy must be submitted in a separate folder with the pages numbered and arranged in the appropriate order. The thesis must be free from typographical and other errors. All copies must include the Certificate of Approval signed by the Examination Committee and the members of the Supervisory Committee. Also included must be a brief Abstract and a copy of the circulation waiver and the copying licence.

When accepted by the Coordinator of Graduate Studies, one copy will be retained for microfilming and for deposit in the University Library after being bound. A second copy will be released to the Faculty of Nursing. A third copy will be released to the student's supervisor and three copies will be released to the student.

### **Publication**

The University requires publication of the thesis in the following manner:

- One unbound copy of the thesis is forwarded to Library and Archives Canada, together with an agreement form signed by the candidate authorizing Library and Archives Canada to microfilm the thesis and to make microfilm copies available for sale on request. Library and Archives Canada will film the thesis exactly as it is and will list the thesis in Canadiana as a publication of Library and Archives Canada. A fee is charged by Library and Archives Canada to offset the cost of microfilming.
- The Library and Archives Canada Microfilm Agreement form will be sent to the candidate prior to the Master's Examination, to be signed and submitted to the Coordinator of Graduate Studies immediately after the successful completion of the examination.
- The student, in consultation with the Supervisor and the Coordinator of Graduate Studies, shall have the right to request that circulation and/or copying of the thesis in any form be withheld for up to one year.

### **Circulation and Copying of Thesis**

In normal circumstances, as a condition of engaging in graduate study in the University, the author of a thesis grants certain licences and waivers in respect of the circulation and of Thesis copying of the thesis:

- i. to the University Librarian, a waiver permitting the circulation of the thesis as part of the Library collection;
- ii. to the University, a licence to make single copies of the thesis under carefully specified conditions;
- iii. to Library and Archives Canada, a licence to microfilm the thesis under carefully specified conditions.

### **Copyright Provision**

Copies of the thesis shall have on the title page the words "In partial fulfilment of requirements for the degree of Master of Nursing." The international copyright notice, which consists of three elements in the same line—the letter "C" enclosed in a circle; the name of the copyright owner (the student); and the year—should appear as a bottom line on the title page of the thesis.

### **C) GRADUATE COURSES**

#### **NURS 600 THESIS**

Under the supervision of a faculty advisor and a thesis committee, the student will write a thesis based on research related to an approved topic. The thesis must demonstrate the candidate's capacity for independent work, and should include a critical evaluation of the principal works published on the subject of the thesis. It should make an original contribution to the body of knowledge in that field of study.

HOURS OF CREDIT: 9 (Pass/Fail)

#### **NURS 601 HUMAN PHYSIOLOGY & PATHOPHYSIOLOGY**

(See Biology 401)

#### **NURS 610 FOUNDATIONS OF GRADUATE STUDY**

This course is designed to develop and consolidate advanced information and writing skills required for scholarly work. Students will learn to pose research questions, use evidence to support claims and communicate evidence-based practice. The course will foster a culture of graduate study.

LECTURE/SEMINAR: 3 hours

HOURS OF CREDIT: 3 (Pass/Fail)

#### **NURS 611 THEORETICAL FOUNDATIONS OF NURSING**

This course focuses on the nature and use of inquiry in the development and refinement of nursing knowledge. It provides students with the opportunity to discuss and analyze conceptual, philosophical, and theoretical bases for advanced nursing practice from a primary health care perspective. Students will critically examine theories from nursing, as well as borrowed theories from other disciplines that inform and guide nursing practice, research, and education. Students will analyze concepts relevant to advanced nursing practice and critique and discuss the value of theory to the future of nursing. During this course, students will develop increasing competence in professional oral and written communication.

LECTURE/SEMINAR: 3 hours

HOURS OF CREDIT: 3

#### **NURS 612 ADVANCED PRIMARY HEALTH CARE**

This course will draw upon theory on the social determinants of health, primary health care, wellness promotion, program planning and evaluation, population health, and healthy public policy. Links to social, cultural, environmental, political, and economic contexts that impact on health, equity, and health disparities will be critically analyzed. Research-based evidence central to primary health care and advanced nursing practice will be examined. Emphasis throughout will be placed on upstream, participatory, and collaborative approaches to the development of population health initiatives and healthy public policy.

LECTURE/SEMINAR: 3 hours

HOURS OF CREDIT: 3

#### **NURS 613 QUANTITATIVE NURSING RESEARCH**

The purpose of this course is to develop the student's ability to critique and use existing quantitative research and to conduct original quantitative research. The research process will be examined with respect to the philosophical underpinnings of quantitative research; research ethics; developing research problems, questions, and hypotheses; writing literature reviews; using conceptual/theoretical frameworks; using experimental, quasi-experimental, and non-experimental designs; sampling; measurement; collecting and analyzing data; interpreting results; and assessing rigor.

LECTURE/SEMINAR: 3 hours

HOURS OF CREDIT: 3

#### NURS 614 QUALITATIVE NURSING RESEARCH

The purpose of this course is to develop the student's ability to critique and use existing qualitative research and to conduct original qualitative research. The epistemological and ontological underpinnings of qualitative research will be explored. The qualitative research process will be examined with respect to research ethics; developing research questions and objectives; using qualitative methodologies of ethnography, phenomenology, grounded theory, critical and feminist theory, participatory action research, and narrative inquiry; sampling; collecting and analyzing data; interpreting results; and assessing trustworthiness.

LECTURE/SEMINAR: 3 hours

HOURS OF CREDIT: 3

#### NURS 615 ADVANCED HEALTH ASSESSMENT

With a focus on detailed history taking, interpretation, synthesis, diagnostic differentiation and formulation, and documentation of clinical findings, this course enhances and refines the student's clinical, theoretical, and scientific knowledge base related to health assessment. Aspects of diagnostic reasoning will be investigated, critically reviewed, and applied to clinical case studies across the lifespan. Elements of advanced client assessment including physical and mental status; psychosocial, family, community, cultural, and diversity factors; the implications of social determinants of health; and risk appraisal will be addressed in terms of their impact upon a client's health status. Approaches to effective written and verbal communication of findings and diagnostic reasoning will feature prominently in this course.

LECTURE: 3 hours

LAB: 2 hours

HOURS OF CREDIT: 3

#### NURS 616 PHARMACOTHERAPEUTICS FOR ADVANCED PRACTICE

This course provides students with an opportunity to acquire the advanced knowledge required to critically appraise/interpret concepts integral to pharmacotherapy and advanced counselling in the treatment of common conditions seen across the lifespan in primary health care settings. Building upon basic pharmacologic principles and the pharmacologic actions of the major drug classes, learning will focus on the preparation of students to develop, initiate, manage, and evaluate patient-centred therapeutic plans of care. In addition, students will analyze different pharmacotherapeutic principles and approaches in relation to physiologic systems, with an emphasis on the competent application of these pharmaceutical agents. Legal aspects related to prescriptive authority will be fully addressed.

PREREQUISITE: Enrolment in first year of the MN program, Nurse Practitioner stream

LECTURE/SEMINAR: 3 hours

HOURS OF CREDIT: 3

#### NURS 621 ETHICS IN NURSING

In all aspects of their professional lives, nurses encounter ethical issues. Grounded in primary health care, this course will identify issues which occur when caring for clients across the life span using a framework of ethical principles and theories. Nurses explore current critical issues encountered in nursing and health care as the relationship with the health care system and society is considered.

LECTURE/SEMINAR: 3 hours

HOURS OF CREDIT: 3

#### NURS 622 ADVANCED NURSING PRACTICE

In this course, students synthesize and integrate knowledge of research, theory, philosophy, ethics, clinical care, education, organizational change, and leadership to provide primary health care to diverse populations across the lifespan. They will demonstrate autonomy in decision-making and the critical analysis of organizational and system issues that influence scope of practice and professional accountability. In the clinical experience, students will demonstrate their competence in integrating the theory of advanced nursing practice in a chosen domain, based on availability of clinical agency experts and faculty expertise.

LECTURE/SEMINAR: 3 hours

CLINICAL EXPERIENCE: 6 hours

HOURS OF CREDIT: 6



### NURS 631 HEALTH PROMOTION AND DISEASE PREVENTION ACROSS THE LIFE SPAN

This course will focus on the teaching-coaching function of the nurse practitioner in health promotion, screening and disease prevention activities across the life span for individuals, families and communities. Epidemiological principles and health promotion goals will be examined, with emphasis on cultural and environmental influences, individual assessment, and evidence informed practice. Methods of inter-sectoral collaboration and intervention strategies to optimize health-seeking behaviours within the context of the family, group, and/or community will be explored.

LECTURE/SEMINAR: 3 hours

CLINICAL EXPERIENCE: 130 hours across the semester

HOURS OF CREDIT: 6

### NURS 632 EPISODIC HEALTH CARE ACROSS THE LIFE SPAN

This course deals with the diagnosis and management of episodic and common acute health conditions experienced by clients across the life span. Pathophysiology, assessment, and diagnostic strategies specific to the acute and common problems of clients of all ages will be stressed. Nursing strategies used to restore, maintain and enhance health are emphasized, as are the biological, psychological, social and cultural aspects of care.

LECTURE/SEMINAR: 3 hours

CLINICAL EXPERIENCE: 135 hours across the semester

HOURS OF CREDIT: 6

### NURS 633 PROFESSIONAL ROLE OF THE NURSE PRACTITIONER

This course assists the student to explain and promote the role of the nurse practitioner. It addresses political, social, and economic forces related to the scope of practice, as well as system and organizational issues that may affect the delivery of care. Emphasis is placed on the legal and ethical considerations for the nurse practitioner in an extended practice environment. The skills in leadership and collaborative interdisciplinary practice necessary to perform the NP role will also be emphasized.

LECTURE/SEMINAR: 3 hours

HOURS OF CREDIT: 3

### NURS 634 CHRONIC DISEASE MANAGEMENT

This course applies concepts of pharmacology, advanced counselling, and complementary therapies to clients and specific populations with chronic health conditions across the life span. The focus will be on nursing interventions that assist clients with multiple care needs to manage their chronic disease conditions, while optimizing health and preventing/ minimizing disability. The selection of clinical interventions, clinical decision-making, and evaluation of strategies used to enhance the health outcomes for the chronically ill will be stressed. Emphasis is placed on evidence informed practice and accepted clinical guidelines.

LECTURE/SEMINAR: 3 hours

CLINICAL EXPERIENCE: 135 hours across the semester

HOURS OF CREDIT: 6

### NURS 635 NURSE PRACTITIONER PRACTICUM

This course provides the student with an opportunity to integrate and consolidate theory, research, and advanced knowledge and skills required of the nurse practitioner in providing primary health care to clients, families, groups and communities experiencing common episodic and chronic health related problems/illnesses. The focus will be on the refinement of critical thinking skills, clinical reasoning, and advanced practice clinical judgment in assessment, diagnosis, and management of clients' health. Collaboration with clients, families, and other health care professionals will be emphasized. Students will develop role competencies under the supervision of a faculty member and a clinical preceptor negotiated by the student and professor.

CLINICAL EXPERIENCE: 250 hours across the semester

HOURS OF CREDIT: 6 (Pass/Fail)

### NURS 636 BIOSTATISTICS

This course is designed to present the fundamental concepts of statistical applications to quantitative methods for graduate students in applied health sciences. The presentation of the course and accompanying materials are organized into five distinct sections: 1) data management and reporting, 2) processing continuous data to produce

descriptive statistics, 3) processing discrete data to produce descriptive statistics, 4) concepts related to probability, and 5) testing hypotheses and measuring effect size.

LECTURE: 3 hours

LABORATORY: A series of assignments has been created that students can access via the web. This will constitute the laboratory component of the course.

HOURS OF CREDIT: 3

#### **NURS 637 NURSE PRACTITIONER SYNTHESIS PROJECT**

Under the supervision of a supervisor and co-supervisor(s), the student will develop a Synthesis Project, an evidence-based initiative in response to an identified gap in the health care system. The Synthesis Project must demonstrate the student's capacity for independent work.

HOURS OF CREDIT: 3

Graded on Pass/Fail

### **Faculty of Science (PhD) Program**

- Environmental Sciences
- Molecular and Macromolecular Sciences

#### **A) STRUCTURE OF THE PROGRAM**

The purpose of this PhD degree program is to provide a doctoral level research experience for candidates, ensuring that they develop critical thinking, creativity and subject mastery through their program. A secondary objective is to provide a value added degree containing a significant, Business (PhD MMS) or (environmental communications) (PhD ESC) component to the studies. This degree will offer graduate education at the PhD level that meets the needs of the global scientific business, industry, research and academic environments in Molecular and Macromolecular Sciences, or Environmental Sciences both identified as constellations of research strength at UPEI.

These degree programs are research-intensive and will require the student to develop a thesis based around an individual, independent thesis topic. This foundation will be complemented by graduate-level constellation-based courses, a comprehensive examination and a final oral defence of the thesis. Unless otherwise specified below, the "General Regulations for Graduate Programs" will apply to the Doctorate of Philosophy in Molecular and Macromolecular Sciences and Environmental Sciences degrees.

#### **Admission Requirements**

Acceptance into the program will be granted on the basis of qualifications and suitability to fit into the main research endeavours of MMS or ESC members who are also members of the Graduate Faculty with a PhD/Masters supervisory role.

Students must hold a Master of Science degree or its equivalent from a recognized university and have achieved at least a second class standing (70-80%) for this degree. Students may also be admitted to the PhD program by registering in the existing MSc program in Science and transferring to the PhD program after twelve (12) to eighteen (18) months upon the recommendation of their supervisory committee. In special circumstances, highly exceptional students with first- class BSc Honours degrees may be admitted directly to the PhD program (contact the office of the Dean of Science for specific criteria for admission). Evidence will be required that the applicant is capable of undertaking substantial original research. Admission to the MMS or ESC PhD programs is granted on the basis of a recommendation of the Faculty of Science Graduate Studies Committee and explicit supervisory support from a faculty member within the corresponding constellation. Faculty members must demonstrate research funding to cover four years of guaranteed stipend support or exhibit sufficient research progress that funding renewal is expected.

Applicants are encouraged to visit the Faculty of Science Graduate Studies website

(<http://www.upei.ca/science/graduatestudies>) and contact faculty members within the MMS or ESC constellations to discuss research interests and to confirm the availability of a position within their group. Secondly, applicants will submit an application package including an application form, official university transcripts for the applicant's complete undergraduate and graduate (if any) record to date, three letters of reference, at least two of which

should be from faculty members with a strong familiarity with the applicant's academic and research background, proof of English language proficiency such as TOEFL scores (for applicants whose first language is not English) which meet the minimum scores as listed under the general Admission Requirements in the university Calendar and evidence of the ability to conduct substantial original research including, but not limited to, theses, publications and research presentations.

### **Residency Requirements**

Given the nature of these programs, a minimum of six full terms (two fall, two winter, and two summer terms) is required to complete course work. A maximum period of seven (7) years from the date of registration will be allocated for the completion of the PhD program. Exceptional circumstances will be considered provided that they are supported by the student's supervisor and properly communicated, discussed and supported by the supervisory committee. In all cases, extensions beyond this maximum period must be approved by the Faculty of Science Graduate Studies Committee and the Office of Graduate Studies.

### **Supervision**

In the first semester of the PhD program, each student will be assigned a supervisory committee which will consist of the student's supervisor and three (3) members chosen from UPEI faculty or adjunct faculty within the corresponding constellation (or from the School of Business in the case of MMS) or a cognate discipline. For MMS students, it is expected that at least two members of the committee will be from the MMS constellation and that at least one member of the committee will have significant business experience, either as a member of the School of Business or as an adjunct or regular faculty member with industrial expertise. The majority of students' time will be engaged in developing their research project, but this experience will be supplemented by coursework in Science and Business; specific courses will be chosen in consultation with the supervisory committee.

### **Research**

Independent research will be the major focus of the PhD degree. Normally, the equivalent of at least nine full-time semesters must be devoted to research in fulfillment of the thesis requirement. Summers during which research work is actively conducted may be counted as research semester equivalents. In order to avoid undue prolongation of the time required to complete the degree, the research topic should be identified early and approved by the Supervisory Committee. The research should comprise an extensive body of original research in the candidate's field, making a true contribution exemplifying the student's depth of knowledge, creativity, innovation and proven ability to make significant scientific research contributions. Research progress will be monitored by biannual meetings of the Supervisory Committee as proscribed by the Faculty of Science Graduate Studies Committee. Research involving the use of hazardous materials must follow the Guidelines of the Workplace Hazardous Materials Information System. Research involving animals or humans, must follow established protocols on Animal care and ethics, respectively.

### **Candidacy Examination**

Doctoral students must complete a candidacy examination within two (2) years of entering the PhD program. Students who register as Masters students at UPEI and then transfer into the PhD program must complete their candidacy exam within three (3) years of registering as a graduate student at UPEI. Before the exam, the student must present a basic thesis proposal to the Supervisory Committee and obtain a recommendation that the student proceed with the oral candidacy exam. The supervisory committee will inform the Faculty of Science Graduate Studies Committee of this decision, and will suggest the make-up of the Candidacy Examination Committee.

The Candidacy Examination Committee will consist of two (2) members of the Supervisory Committee and one (1) external faculty member from the University of Prince Edward Island who does not necessarily need to fall within the corresponding research constellation; this third member could be from another scientific research constellation. A designate from the Faculty of Science Graduate Studies Committee will act as Chair of the examination.

The student will then distribute copies of a detailed thesis proposal (MMS) or an original essay (ESC) to the Candidacy Examination Committee and the Faculty of Science Graduate Studies Committee. The latter will schedule a mutually agreeable time and place for the exam. This proposal (MMS) or essay (ESC) must be received at least three weeks prior to the scheduled exam. The expanded thesis proposal (MMS) should address not only the

research plan, but also how the student's courses in both MMS and Business relate to the proposed work. The essay (ESC) should address a topic considered relevant to ESC as identified in advance by the Candidacy Examination Committee. The examination begins with a formal presentation by the student not to exceed 30 minutes followed by the candidate being asked to respond to questions from the Examination Committee on topics related to the proposed area of research or essay and general topics in the student's field. The questions, while broad in scope, will invariably focus on the student's research proposal and will evaluate the student's expertise in their field. The Examination Committee will then deliberate in a closed session to make a judgment of satisfactory or unsatisfactory. A judgment of satisfactory will result in the student being declared a PhD Candidate. If the judgment is unsatisfactory, the student will be required to re-take the exam within 4 months. A second unsatisfactory judgment will result in the student being required to withdraw from the PhD program. If the student has not previously completed an MSc degree, he or she is then free to enter the MSc program and transfer research and academic coursework.

## **Thesis**

Each candidate for the degree of Doctor of Philosophy in Molecular and Macromolecular Sciences or Environmental Sciences is required to submit a thesis based upon the research conducted under supervision described above. The thesis must demonstrate the candidate's capacity for original and independent work, and should include a critical evaluation of work which has previously been done in the field of his or her research. The thesis should emphasize any new conclusions which may be drawn from the candidate's own research.

For MMS students, while there is no requirement that the work conducted be directed towards industry, business or commercial applications, students are expected to address the significance and importance of their work to technology, industry and innovation in Canada and the world. General specifications as to type of paper, format, order and binding will be available as necessary.

## **Examination**

The final oral examination of the PhD thesis will consist of a research seminar, followed by questions from the Doctoral Examination committee. The examination will be public, but members of the audience may only question the candidate upon invitation of the Chair of the Committee. The committee will be chaired by a representative from the Faculty of Science Graduate Studies Committee and will consist of five members as follows: Two (2) representatives from the student's supervisory committee, One (1) internal examiner from the University of Prince Edward Island, preferably a faculty member with relevant research experience, One (1) external examiner from outside the University of Prince Edward Island, preferably from another University or Research Institute, as deemed appropriate.

The external examiner will be chosen by the Faculty of Science Graduate Studies Committee from a list of three arms-length nominees who should be experts in the candidate's research field. The nominees will be suggested by the Supervisory Committee in consultation with the student. It is preferred if the external examiner can attend the examination in person, however the external examiner can participate via video or audio conference call if this is impractical. Following the examination, the candidate will leave the room and the committee will deliberate upon the decision.

The members of the Examination committee, including the External Examiner, report individually on both the defence and the thesis, the candidate being deemed to have passed if not more than one of the five Examiners votes negatively. An abstention is regarded as a negative vote. If successful, the candidate will be awarded his or her PhD degree. If unsuccessful, the candidate will be permitted to retake the examination within 6 months. If unsuccessful in the second attempt, the student will be required to withdraw from the PhD program. If the student has not previously completed an MSc degree, he or she is then free to enter the MSc program and transfer research and academic coursework.

## **COURSES**

### **1) PhD IN MOLECULAR AND MACROMOLECULAR SCIENCES COURSES**

Students will be required to take three (3) graduate-level courses in Molecular and Macromolecular Sciences, three (3) graduate-level courses in business, and one (1) capstone course that integrates science and business components. Each student must complete a minimum of three (3) courses within the first 18 months of the degree,

which may be a combination of the science and business requirements but must include at least one MMS and one business course. In addition, students should have started their capstone project, although completion of this project is not a requirement for this period.

Following this initial stage of research and coursework, each student will take a candidacy exam adjudicated by a Candidacy Examination Committee, and upon its successful completion will become a PhD candidate. Completion of the remaining required courses, further development of the research project, and preparation of a thesis within a maximum of seven (7) years will culminate in the defence of this body of work in a public forum, adjudicated by the student's supervisory committee and an external examiner who will be an expert in the student's field of research. If a student, for any reason, withdraws from the PhD program they may elect to enter the MSc program at UPEI if no such degree has been previously obtained.

Graduate students are required to register for MMS 801—PhD thesis throughout their degree program. Additional required constellation-based courses include MMS 802—Molecules, Macromolecules and the Business of Science and MMS 803—Directed Studies in Molecular and Macromolecular Sciences. Students are also required to take 2 additional MMS electives at the graduate level. Business requirements include BUS 603—Marketing Management, BUS 701—Biotechnology Management and Development and BUS 702— Commercialization of Biotechnology and Innovations.

#### **MMS 801 PHD THESIS**

This is a research-oriented course in which students will conduct an original research project, report orally on their work throughout the duration of the degree program, culminating in the submission and defence of a thesis. Students must register in this course each semester to maintain enrolment in the program. It embodies the research component of this program, and serves a primarily bookkeeping purpose.

#### **MMS 802 MOLECULES, MACROMOLECULES AND THE BUSINESS OF SCIENCE**

This capstone course highlights the integration between Molecular and Macromolecular Sciences and Business. In conjunction with the Program Coordinators and the PEI BioAlliance, the student will be paired with a receptive industry or government partner to develop a new research idea, direction, or application of potential interest to industry. The student will consult on scientific business ideas within the context of recent literature, scientific expertise, and the current industrial environment, with a focus on entrepreneurship and the development of new scientific products, processes, or markets. The partner in this course will be chosen so that the project will build toward the student's doctoral thesis with integration across all three components (doctoral-level study, MMS, and the business of science) of the program. This cross- sector collaboration will culminate in the student presenting and defending his/her work on the developed concept to industry and academic experts. This six-credit course will take place over a period of two–three semesters.

**PREREQUISITE:** Admission to PhD program

**HOURS OF CREDIT:** 6

#### **MMS 803 DIRECTED STUDIES IN MOLECULAR AND MACROMOLECULAR SCIENCES**

This course is a thorough study of a selected topic in the Molecular and Macromolecular Sciences constellation. Entry to the course, and the course outline, are subject to the approval of the Supervisory Committee and the Dean of Science. The course may include directed reading, directed research, and discussion with the instructor. The student may be required to prepare a written report and/or present a seminar in the area. Topics must not be directly related to the student's research project, although they may be in the same discipline. Coverage of the topic by the student must include the relevant commercial and business aspects of the field.

**PREREQUISITE:** Admission to a graduate program in Science

**HOURS OF CREDIT:** 3

### **ELECTIVE COURSES**

#### **MMS 804 FIELD COURSE IN MARINE DRUG DISCOVERY**

This course offering will familiarize students in the areas of marine natural products, marine taxonomy, field based biological assays of relevance to drug discovery, marine microbiology, and biotechnology. Lectures will introduce students to the concepts of field research and their applications to drug discovery. Students will participate in field

collections of marine invertebrates. The collected organisms will then be subjected to several biological and chemical assays. Students will present field reports identifying the collected species and any chemical or biological activities observed. The second half of the course will focus on supervised research projects. The project topics will be chosen by the students and instructors. In lieu of a textbook, students will be provided with a collection of several publications from the marine natural products literature. These articles will include reviews of marine natural products, reports of recent advances, and founding texts of the field. Course experience in invertebrate zoology at the undergraduate level is strongly recommended.

PREREQUISITE: Admission to a graduate program in Science

HOURS OF CREDIT: 3

#### MMS 805 ADVANCED STUDIES IN NMR SPECTROSCOPY

This course covers the use of Nuclear Magnetic Resonance (NMR) spectrometry used in the determination of structures in Organic and Inorganic Chemistry. Major topics include the theory and use of NMR spectroscopy, in particular the use of 2D experiments and multi-nuclear NMR spectroscopy. Particular emphasis is placed on developing the students' ability to interpret spectra and elucidate the structure of a molecule based on this evidence beyond the undergraduate level, as well as the role NMR has played as a structural tool in the pharmaceutical industry and academia.

PREREQUISITE: Admission to a graduate program in Science

HOURS OF CREDIT: 3

#### MMS 806 ADVANCED TOPICS IN COMPUTATIONAL CHEMISTRY

(See MMS 883)

#### MMS 807 ADVANCED STUDIES IN INORGANIC REACTION MECHANISMS

This course develops inorganic reaction mechanisms, with an emphasis on catalytic cycles, catalyst development, and the context of these reactions within the polymer, pharmaceutical and consumer product industries. Students will learn how to support reaction mechanisms through appropriate experimentation and spectroscopic characterization of catalysts, reactions and products. Students will examine how new catalysts are developed, patented and brought into commercial use. Major projects include a patent application on an imaginary catalytic system, and a report assessing the commercial relevance of a recent literature discovery.

PREREQUISITE: Admission to a graduate program in Science

HOURS OF CREDIT: 3

#### MMS 808 GREEN CHEMISTRY

This course will develop the fundamentals of greener chemical processes and syntheses. The course will present the principles of green chemistry in the context of case studies within Canadian academia and industry. Coursework and projects will aim to develop synthetic skills, providing students with the tools to propose green synthetic plans for small molecules and polymers while introducing students to wider political and environmental issues which impact on chemical industry.

PREREQUISITE: Admission to a graduate program in Science

HOURS OF CREDIT: 3

#### MMS 809 BIOMATERIALS

This course covers the fundamentals of the synthesis, properties, and biocompatibility of metallic, ceramic, polymeric, and biological materials that come in contact with tissue and biological fluids. Emphasis is placed on using biomaterials for both hard and soft tissue replacement, organ replacement, coatings and adhesives, dental implants, and drug delivery systems. New trends in biomaterials, such as electrically conductive polymers, piezoelectric biomaterials, and solgel processing are discussed, and the recent merging of cell biology and biochemistry with materials is examined.

PREREQUISITE: Admission to a graduate program in Science

HOURS OF CREDIT: 3

#### MMS 810 SOFT CONDENSED MATTER PHYSICS

This course utilizes a variety of tools developed within the general framework of statistical and solid-state physics to study the structural and dynamic properties of a number of important soft-condensed matter systems,

including: polymers, liquid crystals, and membranes. Some key topics include: (1) Liquid crystals: elasticity, deformations, surface effects, fluctuations and scattering; (2) Polymers: chain conformations, mixtures and phase behaviour, motion in melts and glasses (viscoelasticity, relaxation, reptation); (3) Membranes: two and three-dimensional networks, self-assembly of amphiphiles, thermal fluctuations in membrane shape, bilayer bending and surface curvature. One of the goals of the course is to introduce students to a variety of important analytical methods, including: mean-field theory, density functional theory, Landau-Ginzberg theory, and renormalization-group theory. In addition, a number of key computational methods are employed to explore the properties of some simple polymeric systems, including: Monte Carlo, Molecular Dynamics and Discontinuous Molecular Dynamics.

PREREQUISITE: Admission to a graduate program in Science

HOURS OF CREDIT: 3

#### MMS 811 ADVANCE TOPICS IN MATERIALS CHARACTERIZATION

This course introduces students to instrumentation that is routinely used in materials chemistry. The techniques to be covered include powder X-ray diffraction, thermogravimetric analysis, differential scanning calorimetry, electron microscopy, AC impedance and Raman spectroscopy. The theory behind these techniques will be thoroughly discussed in class, with an emphasis of data interpretation. Students will also gain hands-on experience with these instrumental techniques through laboratory work.

PREREQUISITE: Admission to a graduate program in Science

HOURS OF CREDIT: 3

#### MMS 813 ADVANCED TECHNIQUES IN SCANNING ELECTRONIC MICROSCOPY

(See HB 825)

#### MMS 824 ADVANCES STUDIES IN ENVIRONMENTAL TOXICOLOGY

This course provides an in-depth analysis of environmental impacts of the major classes of contaminants including methodologies for environmental impact assessment and monitoring. Effects of environmental contaminants are examined at the ecosystem, organismal, cellular, biochemical and molecular levels. Additional emphasis is placed on understanding the fate of contaminants of concern in aquatic and terrestrial environments including their environmental chemistry, biogeochemical cycles, and exposure and uptake pathways by organisms. The course consists of lectures, discussions of peer-reviewed literature, case studies, presentations by students and laboratories.

PREREQUISITE: Admission to a graduate program in Science

HOURS OF CREDIT: 3

#### 2) PhD IN ENVIRONMENTAL SCIENCES COURSES

Students will be required to take three (3) mandatory graduate-level courses in Environmental Sciences in addition to one (1) elective course in their disciplinary area. Each student is expected to complete these courses within the first 18 months of the degree. Graduate students are required to register for ESC 801 – PhD thesis throughout their degree program. Additional required constellation-based courses include ESC 802 - Communication strategies, ESC 803 - Current issues in Environmental Impact Assessment, and ESC 804 - Practical issues surrounding environmental management. Students are also required to take 1 additional ESC elective at the graduate level (see list below).

#### ESC 801 PhD THESIS

This is the main science-oriented component of the PhD, and as such, it is a course in which students will conduct an original research project, report orally on this work throughout the course of the degree, culminating in the submission and defence of a dissertation. A formal approval to initiate the research project will be granted after the supervisory committee has been established and a research proposal, including a thorough review of pertinent literature available, is provided by the candidate. Students must register in this course each semester to maintain enrolment in the program. It embodies the research component of this program.

PREREQUISITE: Admission to a graduate program in Science

HOURS OF CREDIT: 3

#### ESC 802 COMMUNICATION STRATEGIES

This workshop-style course is central to the certification in Environmental Communication Strategies and is built on the training offered through UPEI's Centre for Conflict Resolution. This course promotes the development of communication skills in the context of environmental issues and exposes students to direct interaction with representatives from industry, government, community, and the social sciences. The course will also provide broad theoretical and practical knowledge needed to resolve disputes as well as skills training in techniques of mediation, facilitation, and negotiation. Due to the uniqueness of this course, it is considered a critical component towards the development of experience and involvement on the decision making process. The topics addressed during presentations and discussions will be the starting point for the development of written reports that at a later stage will benefit from the feedback from the coordinating faculty, and the representatives of industry, government and community.

**PREREQUISITE:** Admission to a graduate program in Science

**HOURS OF CREDIT:** 3

#### **ESC 803 CURRENT ISSUES IN ENVIRONMENTAL IMPACT ASSESSMENT**

This course is intended to review the theory behind Environmental Impact Assessment (EIA) through the use of case studies that best exemplify project development that prevent or minimize environmental degradation. This course will examine the needs, methods, regulatory frameworks and social implications of EIA with emphasis on recent Canadian case studies. On completion of this course, students will be familiarized with the concept of EIA (its history, principles, key constructs and main steps), the legislative and institutional context of EIA, and will be able to critically examine EIA cases and identify their implications.

Cross-listed with Environmental Studies (c.f. ENV 431)

**PREREQUISITE:** Admission to a graduate program in Science

**HOURS OF CREDIT:** 3

#### **ESC 804 PRACTICAL ISSUES SURROUNDING ENVIRONMENTAL MANAGEMENT**

This course intends to provide hands-on experience to our students by deploying them in NGOs, government agencies, or environmental consulting companies for approximately 75 flexible hours (the equivalent to the number of contact hours typically considered for a course's lectures and laboratory). The primary goal of this course is to expose students of a given environmental discipline into the multiple aspects involved in the actual issues and decision-making process that take place in agencies outside the academic setting. This unique training period (spread from two weeks to an entire semester) will provide human resources to often resource-limited groups/entities that will be chosen by each supervisory committee according to their relevance for the student research focus. Students are expected to gain unprecedented experience and, to some extent, provide actual input into environmental management. The student will prepare a written report and share their experience by giving a public seminar. The supervisory committee in collaboration with the Faculty of Science Graduate Studies Committee will be responsible for identifying an appropriate placement based on the student's discipline and interests.

**PREREQUISITE:** Admission to a graduate program in Science

**HOURS OF CREDIT:** 3

### **ELECTIVE COURSES**

#### **ESC 862 ADVANCED FRESHWATER ECOLOGY**

This course provides advanced study in the ecology of freshwater habitats, particularly those found on Prince Edward Island. The first part of the course concentrates on the physical, chemical, and biological characteristics of fresh waters, classification of freshwater habitats, and applied limnology. A laboratory/field component includes an introduction to water analysis techniques and field equipment, field water analysis, the collection and analysis of biological samples, and the physical properties of water. The second part is a field/lab project on a limnological topic tailored to the student's individual program, and consists of an experimental or observational study coupled with a comprehensive literature review, project write-up, and oral presentation.

**NOTE:** Credit is not given for both Biology 462 (Limnology) and Biology 862 and ESC 862

#### **ESC 865 ADVANCES IN MARINE ECOLOGY**

This course provides an update on relevant areas of ongoing marine research. The first part of the course concentrates on marine ecology topics including benthic-pelagic coupling, dispersal and adult-larval interactions,



animal-sediment relationships, biodiversity ecosystem services, encrusting communities and their interactions, and aquatic invasive species. The second part includes participation in regular discussion sessions based on analysis of advanced literature relevant to the discipline and to the student's particular research. Assignments include an essay relevant (but not restricted) to a student's field of research, and a seminar on a topic relating general ecological hypotheses to the topic addressed in the essay.

NOTE: Credit will not be given for both Biology 465 (Marine Community Ecology) and ESC 865.

HOURS OF CREDIT: 3 (3 hours lecture and 3 hours lab/field trip per week, plus discussion group.)

#### ESC 871 ADVANCED STUDIES IN ENVIRONMENTAL TOXICOLOGY

This course provides an in depth analysis of environmental impacts of the major classes of contaminants including methodologies for environmental impact assessment and monitoring. Effects of environmental contaminants are examined at the ecosystem, organismal, cellular, biochemical and molecular levels. Additional emphasis is placed on understanding the fate of contaminants of concern in aquatic and terrestrial environments including their environmental chemistry, biogeochemical cycles, and exposure and uptake pathways by organisms. The course consists of lectures, discussions of peer-reviewed literature, case studies, presentations by students and laboratories.

Cross-listed with MMS 824

PREREQUISITE: Admission to a graduate program in Science

HOURS OF CREDIT: 3

#### ESC 872 ADVANCED STUDIES OF MACROECOLOGY AND BIOGEOGRAPHY

This course examines our current understanding of the patterns of distribution and abundance of organisms from the integrative perspective of macroecology and biogeography. The first discipline is concerned with understanding patterns at large spatial and temporal scales via the use of large quantitative databases and statistical techniques. The second one is concerned with the study of the patterns of distribution of animal species by integrating information on historical events (e.g., plate tectonics), evolutionary processes, as well as ecological and physiological trends.

PREREQUISITE: Admission to a graduate program in Science

HOURS OF CREDIT: 3

#### ESC 873 CONSERVATION GENETICS

Conservation genetics is an emerging and topical field of biology that combines molecular genetic approaches with environmental, evolutionary and ecological research under the umbrella of conservation biology. This course will cover a range of research topics pertaining to the conservation of biodiversity including ecological and landscape genetics, contemporary evolution and human-mediated change, invasion biology, genomics for endangered species, and genetics of captive or isolated populations. The course will introduce students to theoretical and experimental approaches to measuring and managing genetic diversity, as well as cultural and ethical issues in conservation biology through lectures, tutorial and case study discussion. Students will have hands-on experience with DNA and molecular marker analysis techniques, lead in-class discussions, write critical reviews of current research, and develop research proposals for selected questions in conservation genetics.

PREREQUISITE: Admission to a graduate program in Science

HOURS OF CREDIT: 3

#### ESC 875 QUANTITATIVE METHODS FOR THE ANALYSIS OF ANIMAL MOVEMENT

A better comprehension of animal movement is vital to interpreting key ecological and evolutionary processes, such as the spatial-temporal patterns of resource selection, foraging behaviour, and predator-prey interactions. As human activities continually alter landscapes and influence the behaviour and movement patterns of organisms, a variety of pressing ecological and health issues are emerging, such as the spread of invasive species and infectious diseases. Hence, advances in our understanding of animal movement will have direct implications in several disciplines including landscape ecology, conservation biology, and wildlife management, as well as those dealing with public health. In this course, the student will investigate the various methods currently employed to study animal movement in complex landscapes.

PREREQUISITE: Admission to a graduate program in Science

HOURS OF CREDIT: 3

#### ESC 877 VETERINARY BIOSTATISTICS

This course provides the student with a working knowledge of the basic statistical techniques used in veterinary science. Topics include descriptive statistics, inferential statistics non-parametric statistics, analysis of variance, regression and correlation and experimental design.

Cross-listed with graduate level course VHM 801.

PREREQUISITE: Admission to a graduate program in Science

HOURS OF CREDIT: 3

#### ESC 878 ISLAND BIOGEOGRAPHY AND CONSERVATION OF INSULAR SYSTEMS

This course examines the several fundamental patterns and processes that characterize biotas and environments on islands and other broadly defined insular systems. Topics covered include earth history and historical biogeography, speciation, dispersal, extinction, island biogeography, assembly and evolution of insular communities, island effect, adaptive radiation, environmental determinism, conservation biology, marine and terrestrial protected areas, and vulnerability of island biotas to terrestrial and aquatic invasive species.

PREREQUISITE: Admission to a graduate program in Science

HOURS OF CREDIT: 3

#### ESC 879 ADVANCED TECHNIQUES IN SCANNING ELECTRONIC MICROSCOPY

This course covers the principles of scanning electron microscopy including techniques used for the preparation of biological or other materials for microscopy and the use of specialized software to analyze surface features of samples. Students will learn to operate the instrument over the full spectrum of use and will generate their own images and learn to interpret patterns. A microscopical investigation of material relevant to the student's discipline will form the basis of a course project.

Cross-listed with Molecular and Macromolecular Sciences and Human Biology (cf. MMS 813 and HB 825)

PREREQUISITE: Admission to a graduate program in Science

HOURS OF CREDIT: 3

#### ESC 880 MOLECULAR BIOTECHNOLOGY

This course examines principles of gene manipulation, and the application of molecular biology in all the fields of biotechnology. Recent developments in medicine, agriculture, industry and basic research are considered. Emphasis is placed on reviewing current literature in the field, particularly on areas more closely related to the natural sciences/ environment.

PREREQUISITE: Admission to a graduate program in Science

HOURS OF CREDIT: 3