

MOUNT

ROYAL

UNIVERSITY



Supplement to the Academic Calendar 2014-2015

This Supplement contains corrections to the 2014-2015 Academic Course Calendar (obvious typographical errors excluded), as well as amendments approved by the General Faculties Council since publishing. Specific revisions are either highlighted **red** (new) or ~~crossed-out~~ (deleted).

SERVICES FOR STUDENTS

For more information on all of the student services available at Mount Royal please visit mtroyal.ca

Academic Advising Services

advising@mtroyal.ca
403.440.6222

Academic Upgrading Information

open@mtroyal.ca
403.440.6282

Accessibility Services

accessibility@mtroyal.ca
403.440.6868

Admissions and Recruitment

403.440.5000
1.877.440.5001 (toll free)

Alumni

alumni@mtroyal.ca
403.440.7000

BookStore

bookstore@mtroyal.ca
403.440.6300

Campus Card Services

campuscard@mtroyal.ca
403.440.6868

Career Services

studentjobs@mtroyal.ca
403.440.6307

Catering and Food Services

403.440.5610

Child Care Centre

childcare@mtroyal.ca
403.440.6410

Continuing Education Registration

ceregservices@mtroyal.ca
403.440.3833

Counselling Services

counselling@mtroyal.ca
403.440.6362

Credit/Upgrading Registration

creditregistration@mtroyal.ca
403.440.3303

Cougar Athletics

403.440.6516

Diversity and Human Rights Services

tgarrick@mtroyal.ca
403.440.5956

Fees Office

Health Education

wellness@mtroyal.ca
403.440.6369

Health Services

403.440.6326

Iniskim Centre

iniskimcentre@mtroyal.ca
403.440.5596

International Education/Languages Institute

international@mtroyal.ca
403.440.5100

Institute for Non-Profit Studies

403.440.7739

Library

403.440.6140

Lockers

403.440.6914

Mount Royal Conservatory

conservatory@mtroyal.ca
403.440.6821

Multi-Faith Chaplaincy

mverhoef@mtroyal.ca
403.440.8904

Office of the Registrar

403.440.3303
1.877.676.0686

Open Studies and Academic Upgrading

open@mtroyal.ca
403.440.6282

Optimal Therapies

403.440.6917

Parking

parking@mtroyal.ca
403.440.6914

Peer Tutor Program

sls@mtroyal.ca
403.440.6452

Positive Space Initiative

mverhoef@mtroyal.ca
403.440.8904

Recreation

recreation@mtroyal.ca
403.440.6517

Residence Services

residence@mtroyal.ca
403.440.6275

Security

403.440.6897

Skills Investment Program

financialaid@mtroyal.ca
403.440.5168

START Program

ask_START@mtroyal.ca
403.440.7214

Students' Association

info@samru.ca
403.440.6401

Student Awards & Financial Aid

financialaid@mtroyal.ca
403.440.6223

Student Computer Lab and Facilities

itservicesdesk@mtroyal.ca
403.440.6000

Student Learning Services

sls@mtroyal.ca
403.440.6452

Switchboard (8:30 a.m. to 4:30 p.m.)

403.440.6111

Transcripts and Student Records

studentrecords@mtroyal.ca
403.440.3435

Transfer Credit and Prior Learning Assessment

403.440.5998

Transitional Vocational Program

tv@mtroyal.ca
403.440.6872

Welless Services

tgarrick@mtroyal.ca
403.440.5956

FEES AND DEPOSITS

It is mandatory that all students pay applicable tuition deposits and fees each semester. The Board of Governors reserves the right to change fees and deposits when necessary and without notice. Any unpaid fees owing on the fee deadline dates included below will result in the cancellation of registration in all classes for the semester and a reinstatement fee will apply. For additional information, visit mtroyal.ca or in-person at the Office of the Registrar (Room A101) unless specified below.

FEE PAYMENT DEADLINES

FIRST FEE
Aug 13 (Fall), Dec 1 (Winter), April 27 (Spring)
NOTE: Applies to students who have registered in courses on or prior to these dates. Non-payment or partial payment of fees results in deregistration from all classes.
ADD/DROP
Sept 12 (Fall), Jan 16 (Winter), May 7 (Spring)
NOTE: The registration record becomes official at midnight on these dates. Students are financially responsible for all classes on record at this time.
SECOND FEE
Sept 12 (Fall), Jan 16 (Winter), May 7 (Spring)
NOTE: Applies to all students. Non-payment or partial payment of fees results in deregistration from all classes.
REINSTATEMENT
Sept 30 (Fall), Jan 30 (Winter), May 19 (Spring)
Students must reinstate into all courses on the registration record as of the Add/Drop deadline and all fees must be paid IN FULL at the time of reinstatement. No exceptions will be permitted.

Fall 2014

Students cancelling their registration in full after **August 13, 2014 and before September 12, 2014** will receive a full tuition credit less \$200 non-refundable registration deposit on their student account. No tuition credit of fees will be given after **September 12, 2014**.

Winter 2015

Students cancelling their registration in full after **December 1, 2014 and before January 16, 2015** will receive a full tuition credit less the \$200 non-refundable registration deposit on their student account. No tuition credit of fees will be given after **January 16, 2015**.

Spring 2015

Students cancelling their registration in full after **April 27, 2015 and before May 7, 2015** will receive a full tuition credit less the \$200 non-refundable registration deposit on their student account. No tuition credit of fees will be given after **May 7, 2015**.

HOW TO PAY TUITION AND MANDATORY FEES

Internet Banking

Pay your tuition 24 hours a day through most major banks or credit unions. Add Mount Royal University as a payee through your online banking. (Your student ID number is the account number required to make payment.)

Online Credit Card Payments

- Payable through **Plastiq.com**

In person

- Cash
- Debit card
- Money order
- International wire transfer

By Mail

- Money orders

Not accepted

- Personal cheques
- Postdated cheques of any kind
- International money orders
- Credit cards cannot be used in person

For more information please visit mtroyal.ca/moneymatters.

Fee Payment Procedures all Semesters

Any unpaid fees owing on any Fee Deadline results in cancellation of registration in all classes for the Semester. After the initial Fee Deadline is missed, students may re-register, and are automatically assessed a **\$150** re-registration fee. After the second and final Fee Deadline is missed, students may only re-register at the Office of the Registrar, and are automatically assessed a **\$150** re-registration fee. All students that apply and register on or after the first day of classes will pay a late registration fee of \$75 in addition to the \$100 application fee. This fee will not be refunded nor is it applied to regular tuition fees.

All newly admitted students pay a \$200 non-refundable registration deposit. The Registration Deposit for new students confirms their acceptance of an offer of admission into a program. Although the deposit is non-refundable, it will be credited toward regular tuition fees.

MANDATORY FEES (M = mandatory for all students MFT = mandatory for all full-time students)

FEE TYPE AND AMOUNT	TYPE	DESCRIPTION
Application \$100, non-refundable	M	Must accompany every admission or re-admission application in order to be processed. This amount is not credited toward tuition fees.
General See online fee table	M	Covers instructional equipment and lab fees, recreation and athletics fees and accident insurance fee.
Registration – deposit \$200, non-refundable	M	Applicable to all newly admitted students. This deposit confirms acceptance of an offer of admission into a program. Upon registration this amount is credited toward tuition fees.
Student services fee See online fee table	M	The fee directly supports the following services: Career Services, Student Learning Services, Accessibility Services, Health Services & Education, Student Counselling Services and Academic Advising.
Students' Association See online fee table	M	Capital campaign: funds necessary to develop Wyckham House Student Centre to better accommodate student needs (including renovations and new program offerings).
	M	General: funds necessary to provide services and representation to students and to operate Wyckham House Student Centre. For a complete list of programs and services, visit samru.ca .
	MFT	Health and dental: applicable to students taking nine credits or more in each semester of registration. Charged in both the Fall and Winter semesters. Insurance coverage extends from Sept. 1 to Aug. 31 of each year. For more information on how to opt out of your health and dental benefits, visit Z001 in Wyckham House.
	M	Scholarship: provides scholarships and bursaries to Mount Royal students. All Students' Association fees are collected by Mount Royal University on behalf of the Students' Association (SAMRU). Any inquiries should be directed to SAMRU in Wyckham House Student Centre.
	M	Reflector Fee: The Reflector fee is collected by the Students' Association through an agreement with the Reflector – the autonomous student newspaper on campus.
U-Pass See online fee table	MFT	Provides unlimited use of Calgary Transit buses and LRT. For more info visit the Parking office (Room EA1016). mtroyal.ca/AboutMountRoyal/TransportationParking/U-PassFAQs

ACADEMIC FEES

FEE TYPE AND AMOUNT	DESCRIPTION
Audit student 50% of normal course fee	See Registration Information.
Credit extension To be assessed per class basis	To offset additional costs involved with extension and open studies courses, a supplementary fee may be assessed for courses held off-campus.
Degree program non-credit work experience and co-operative education Subject to change	Non-credit work experience and non-credit co-operative education courses will be assessed a fee of \$494.20 per course. Non-credit work experience professional development courses and non-credit co-operative education preparation courses will be assessed a fee of \$247.10 per course.
International/Non-resident student See fee schedule	International Students defined as students who do not have Canadian Citizenship Status or Permanent Resident Status in Canada are required to pay fees based on the International Student Fee Schedule.
Prior Learning Assessment and Recognition (PLAR) 50% of course fee being assessed	Applicable to students requesting assessment and recognition of prior learning. See Transfer Credit and Evaluation of Prior Learning.
Registration – cancellation \$200, withheld from full refund	Applicable to students who cancel their registration in full the time period between the first fee deadline and the add/drop deadline each semester. The \$200 registration deposit will be withheld from the refund of any fees that have been paid. No tuition credit of fees will be given after each add/drop deadline.
Re-registration \$150, non-refundable	Applicable to students whose registration is cancelled due to non-payment of tuition and/or other fees. Reinstatement is subject to course availability.
Special programs	Aviation: flight training fees are assigned to the flight training courses over the two-year program. Tuition fees are subject to change depending on operating costs for aircraft and related services. Contact the program directly for more information. Fees are due immediately upon registration.
Spring semester courses \$15, per full course	A surcharge per course is included in tuition for students enrolled in the Spring 2014/15 semester.

Level 3: Final Grade Appeal – Dean

- a) A student may file a Final Grade Appeal form to the Office of the Registrar in a timely manner but no later than 10 business days after a decision at Level 2.
- b) If the Dean of the Faculty was involved with a Level 1 or 2 decision, the Registrar will select another Dean to assume the responsibility for the Chair, Final Grade Appeal Committee.
- c) The final grade appeal will be considered if, and only if, the Chair, Final Grade Appeal Committee is satisfied that there are grounds for a Level 3 appeal.
- d) If the Chair, Final Grade Appeal Committee is not satisfied that the appeal has merit, s/he may deny it.
- e) If a formal hearing is deemed necessary by the Chair, Final Grade Appeal Committee, it will be convened in a timely manner but no later than 20 working days after receipt of the original notice of appeal of the Chair's decision.
- f) The Final Grade Appeal Committee has the authority to take any action it feels is appropriate in adjudicating the grade appeal.
- g) The Chair, Final Grade Appeal Committee is responsible for notifying the student, Chair and instructor, in writing, of the decision.

E. COMPOSITION OF THE FINAL GRADE APPEAL COMMITTEE

Each Final Grade Appeal Committee will be composed of five (5) voting members as follows:

- a) The Dean (or alternate) of the Faculty responsible for the instructor/Chair who assigned the final grade will serve as Chair, Final Appeal Committee.
- b) The Students' Association of Mount Royal University will name one student who is unfamiliar with the dispute and does not know the appellant.
- c) Two faculty members will be selected by the Chair, Final Grade Appeal Committee, in consultation with the Registrar. One faculty member will be selected from within the Faculty responsible for the course and one from outside that Faculty. Both faculty members should be unfamiliar with the details of the dispute.
- d) The Registrar.

F. OTHER INFORMATION

1. Status of Student During An Appeal Process

During the course of the grade appeal process, a student retains the right to participate in all classes until a final decision is given.

2. Access to Graded Course Work

- a) Students have the right to supervised access to completed final examination papers which have been graded provided that the request is made within 15 business days after the end of the semester in which the grade was awarded.
- b) Reviewing the final examination with the student is at the sole discretion of the instructor.
- c) Graded course work retained by an instructor may be destroyed one year after the end of the semester in which the work was graded.

3. Course Outlines

- a) All students must be given access to a course outline no later than the second scheduled class or the Add /Drop deadline, whichever is earliest.
- b) The course outline must include the percentage weight assigned to each component used to determine the final grade.
- c) A final grade appeal cannot be based on a challenge to the weightings assigned to the different components of the course which comprise the final grade.

G. COMPLAINTS AND APPEALS WITH RESPECT TO MATTERS NOT INVOLVING ACADEMIC DECISIONS

Any student or employee of Mount Royal who feels they have a complaint about the operations of Mount Royal will be given an opportunity to be heard. Under normal circumstances, the first step is to discuss your complaint(s) or grievance(s) with the person(s) against whom your complaint is directed. If this is not possible or does not produce satisfactory results, you are encouraged to discuss the matter with the direct supervisor(s). If that step does not produce the desired result, **the Diversity and Human Rights office and its resources are available. Call 403.440.5956 to schedule an appointment.**

CODE OF STUDENT CONDUCT

Mount Royal has a responsibility to define standards of student behavior and to provide reasonable expectations for student discipline with regard to conduct that jeopardizes the functioning of academic and non-academic activities. It is also the obligation of Mount Royal to protect the safety, rights and/ or property of its members or visitors. To this end, Mount Royal implemented the *Code of Student Conduct* policy.

Academic Misconduct

Academic misconduct is defined as the giving, taking or presenting of information or material that unethically or dishonestly aids oneself or another on any work which is to be considered in the determination of a grade, the compilation of academic requirements or the enhancement of a student's record or academic career.

Non-Academic Misconduct

Behaviour that is subject to disciplinary action under the Code includes violations of established civil and criminal statutes; conduct that threatens the safety or wellbeing of members of Mount Royal community; and any behavior that seriously and adversely affects Mount Royal or its educational mission.

The Code of Student Conduct is available through the Office of Student Conduct (C109), the Students' Association of Mount Royal University in Wyckham House or at: **mtroyal.ca/codeofstudentconduct**

HARASSMENT OR DISCRIMINATION

Sexual harassment and other forms of discrimination are unacceptable at Mount Royal University. In cases of harassment or discrimination or for information about Mount Royal's Individual Rights Policy, you are advised to contact **Human Resources (employees), Student Advocacy Coordinator (students) or the Diversity and Human Rights Advisor in Room U216C.**

ACADEMIC STANDING

Introduction

Mount Royal is committed to maintaining high academic standards, promoting student success, and endeavouring to support students who have difficulty meeting academic requirements. In the event a student is unable to meet academic requirements, Mount Royal will make all reasonable attempts to ensure that s/he is aware of potential consequences and that information about available support services is available.

INSTRUCTIONAL DEPARTMENTS

INISKIM CENTRE (ABORIGINAL STUDENT ACADEMIC SUPPORT CENTRE)

Department: 403.440.5596

Director (acting), C. Lindland: 403.440.5668

Aboriginal Education Program, Administrator,
T. McMillan: 403.440.6020

BISSETT SCHOOL OF BUSINESS

School: 403.440.6833

Deans Office

Dean (acting) V. Kinnear: 403.440.6315

Associate Dean (acting), P. Varella: 403.440.5099

Department of Accounting

Chair, R. Smistad: 403.440.5689

Department of Finance, Quantitative Methods, Risk Management & Insurance

Chair, J. Fischer: 403.440.6835

Department of International Business, Supply Chain Management and Aviation

Chair, H. Valladares Montemayor: 403.440.8637

Assistant Chair, Aviation, L. Cygman: 403.440.8719

Chief Flight Instructor, Aviation, J. White: 403.288.9551

Department of Management and Human Resources

Chair (acting), P. Derbyshire: 403.440.6397

Department of Marketing, Entrepreneurship and Nonprofit Studies

TBA

FACULTY OF ARTS

Dean, J. Keshen: 403.440.6960

Assistant Dean, S. Gannon: 403.440.6455

Department of English

Department: 403.440.6451

Chair, D. Hyttenrauch: 403.440.6453

Department of Humanities

Department: 403.440.6054

Chair, J. Pettit: 403.440.5985

Department of Interior Design

Department: 403.440.5143

Chair, H. Evans Warren: 403.440.6953

Department of Justice Studies

Department: 403.440.6379

Chair (Acting), B. Foster: 403.440.5948

Department of Languages & Cultures

Department: 403.440.6528

Chair, G. Mossiere: 403.440.5962

Department of Policy Studies

Department: 403.440.6527

Chair, D. Bratt: 403.440.6540

Department of Psychology

Department: 403.440.6467

Chair, E. Field: 403.440.6426

Department of Sociology & Anthropology

Department: 403.440.6425

Chair, T. Buchanan: 403.440.8774

FACULTY OF COMMUNICATION STUDIES

Office: 403.440.6901

Dean, M. Chikinda: 403.440.6117

Chair, Broadcasting

I. Ratushniak: 403.440.6114

Chair, Information Design

B. Kunz: 403.440.7091

Chair, Journalism

S. Snow-Capparelli: 403.440.6561

Chair, Public Relations

J. McNichol: 403.440.5697

Chair, Theatre, Speech and Music Performance

J. Brennan: 403.440.6811

FACULTY OF ARTS

PROGRAMS OFFERED

Bachelor of Arts BA

Majors:

Anthropology	Psychology
English	Sociology
History	Spanish
Policy Studies	

Minors:

Anthropology	Indigenous Studies
Art History	International Business and Economics
Canadian Studies	Philosophy
Economics	Policy Studies
English	Political Science
Film Studies	Psychology
Finance & Economics	Religious Studies
French	Sociology
Linguistics	Spanish
History	Teaching English as a Second Language
Humanities	Women's Studies

Honours:

Anthropology
English
History
Policy Studies
Psychology
Sociology

Bachelor of Arts – Criminal Justice BA-CJ

Bachelor of Applied Interior Design BID (Applied)

FACULTY INFORMATION

Dean, J. Keshen: 403.440.6960

Assistant Dean, S. Gannon: 403.440.6455

Department of English

Department: 403.440.6451

Chair, D. Hyttenrauch: 403.440.6453

Department of Humanities

Department: 403.440.6054

Chair, J. Pettit: 403.440.5985

Department of Interior Design

Department: 403.440.5143

Chair, H. Evans Warren: 403.440.6953

Department of Justice Studies

Chair (Acting), B. Foster: 403.440.5948

Practicum Coordinator, L. Acheson: 403.440.5682

Department of Languages & Cultures

Department: 403.440.6528

Chair, G. Mossiere: 403.440.5962

Department of Policy Studies

Department: 403.440.6527

Chair, D. Bratt: 403.440.6540

Department of Psychology

Department: 403.440.6467

Chair, E. Field: 403.440.6426

Department of Sociology & Anthropology

Department: 403.440.6425

Chair, T. Buchanan: 403.440.8774

Arts Advisors

B. Lehenbauer: 403.440.8585

R. Doe: 403.440.8585

Aboriginal Student Admission

Each year 3% of the admission seats in the Bachelor of Business Administration program will be reserved for Aboriginal students through an Aboriginal admission target.

To be considered for admission under the Aboriginal admission target, the applicant must:

- self-identify as an Aboriginal applicant on the Application for Admission.
- meet the definition of an Aboriginal Applicant.
- meet the minimum admission requirements as indicated in the General Admission requirements for Mount Royal University as well as the specific admission requirements for the Bachelor of Business Administration.

Designated seats for this special consideration target will be filled by Aboriginal applicants on a competitive basis. Applicants are encouraged to apply during the Early Admissions period. Any unfilled designated seats will be released on June 1 to students applying under the General Admission requirements.

See general admission requirements in the Admissions section of this calendar for further information.

CURRICULUM

Bachelor of Business Administration

The foundation of the BBA includes seventeen (17) required core business courses, nine (9) major courses, twelve (12) General Education* courses, and two (2) Electives, for a total of 40 courses over four (4) years.

* Please consult the University Calendar for information concerning the University's General Education requirement.

The seventeen (17) required core business courses in the BBA consist of the following:

- ACCT 2121 – Financial Accounting Concepts
- ACCT 3224 – Management Accounting I
- ECON 1101 – Principles of Microeconomics
- ECON 1103 – Principles of Macroeconomics
- ENTR 4433 – Business Plan Development
- FNCE 3227 – Introduction to Finance
- HRES 2170 – Introduction to Human Resources
- INBU 3301 – Global Business Environment
- LSCM 3403** – Operations Management
- MGMT 2130 – Management Principles & Practices
- MGMT 2262 – Business Statistics I
- MGMT 2263 – Business Statistics II
- MGMT 3210 – Business Communication Theory & Practice
- MGMT 3230 – Business Law
- MGMT 3276 – Organizational Behaviour
- MGMT 5333 – Strategic Management
- MKTG 2150 – Introduction to Marketing

Declaration of Major

There are four majors in the Bachelor of Business Administration: Accounting, Human Resources, Marketing, and General Management.

Each major in the BBA includes nine (9) courses chosen by the student from a list of approved courses specific to their major. Certain majors are designed to meet external accreditation requirements. Students are strongly advised to consult their Advisor before choosing their major and elective courses.

Minors in the Bachelor of Business Administration

All students enrolled in the Bachelor of Business Administration may pursue a minor offered by any Faculty/School/Centre at Mount Royal University. To receive a minor, a student must meet the specific minor requirements of that Faculty/School/Centre. *Refer to the Minors section of this Calendar.*

BACHELOR OF BUSINESS ADMINISTRATION – ACCOUNTING MAJOR

The Bachelor of Business Administration – Accounting major is designed to ensure that graduates emerge with a solid grounding in the principles and practices of accounting. Graduates in this major will have fulfilled the degree requirements for entry into any of the professional accounting designation programs (CA, CMA, CGA, or CPA).

All BBA – Accounting students must complete the following nine (9) major courses as part of their requirements:

- ACCT 3220 – Financial Accounting Practices
- ACCT 3221 – Intermediate Accounting I
- ACCT 3228 – Management Accounting II
- ACCT 4222 – Intermediate Accounting II
- ACCT 4225 – Principles of Auditing
- ACCT 4280 – Introduction to Personal & Corporate Income Tax
- ACCT 4381 – Advanced Financial Accounting
- ACCT 4382 – Advanced Managerial Accounting
- MGMT 3265 – Management Information Systems

Students who wish to pursue a professional accounting designation post-graduation may have additional program requirements, which may be met through the Electives. Students wishing to pursue a designation must consult their Advisor.

BACHELOR OF BUSINESS ADMINISTRATION – HUMAN RESOURCES MAJOR

The Bachelor of Business Administration – Human Resources major is designed to provide graduates with a solid grounding in the principles and practices of Human Resource Management. Students in this major may elect to pursue a Certified Human Resources Professional designation (CHRP) upon graduation. This designation is a national standard that is increasingly valued by organizations that employ human resource professionals in various roles.

The Human Resource major consists of nine (9) courses, seven (7) of which are required courses and two (2) are chosen from a list of options.

Students are strongly advised to consult an Advisor before choosing their Human Resource major courses and electives.

All BBA – Human Resource major students must complete the following seven (7) major courses as part of their major requirements:

- HRES 3274 – Recruitment & Selection
- HRES 3275 – Compensation & Benefits
- HRES 3277 – Organizational Learning and Development
- HRES 3278 – Employee Relations
- HRES 4273 – Labour Relations
- HRES 4407 – Transition Management
- HRES 5101 – Strategic Human Resources Management

CERTIFICATE — BUSINESS ADMINISTRATION

GENERAL INFORMATION – CERTIFICATE PROGRAMS

Three patterns have been designed to provide students with a sound foundation in business. The timetable is arranged so that part-time and evening students, as well as full-time students, can be accommodated.

ADMISSION REQUIREMENTS

Post-secondary diploma or degree. Applicants with a combination of partial post-secondary education and relevant work experience may be considered pending receipt of a current resume.

CURRICULUM

These programs are specialized in nature and cover three areas of career interest. Students will take a small number of required courses and specialize in one of the following areas: Advanced Accounting, Marketing or Human Resources.

Certificate – Advanced Accounting

Program Prerequisites

The prerequisite requirements for entry into the Advanced Accounting Certificate program are ACCT 2121 and 3220 or equivalent; or the consent of the Department.

Core Requirements

- ACCT 3221 – Intermediate Accounting I
- ACCT 3224 – Management Accounting I
- ACCT 4222 – Intermediate Accounting II
- ACCT 4225 – Principles of Auditing
- ACCT 4280 – Introduction to Personal and Corporate Income Tax
- FNCE 3227 – Introduction to Finance
- Approved Option 1
- Approved Option 2

Approved Options

Students must take any two (2) of the following courses:

- ACCT 3228 – Management Accounting II
- ACCT 4381 – Advanced Financial Accounting
- ACCT 4382 – Advanced Managerial Accounting
- ACCT 4403 – Accounting Theory
- ECON 2241 – Money and Banking
- FNCE 4407 – Investment Principles
- INBU 3301 – Global Business Environment
- **LSCM 3403** – Operations Management
- MGMT 2262 – Business Statistics I
- MGMT 2263 – Business Statistics II
- MGMT 3230 – Business Law
- MGMT 3265 – Management Information Systems
- MGMT 3276 – Organizational Behaviour
- MGMT 5333 – Strategic Management
- PHIL 2229 – Business Ethics

Certificate – Human Resources

Core Requirements

- HRES 2170 – Introduction to Human Resources
- HRES 3278 – Employee Relations
- MGMT 2130 – Management Principles & Practices
- MGMT 3230 – Business Law
- MGMT 3276 – Organizational Behaviour
- Approved Option 1
- Approved Option 2
- Approved Option 3

Approved Options

Students must take any three (3) of the following courses.

- HRES 3274 – Recruitment & Selection
- HRES 3275 – Compensation and Benefits
- HRES 3277 – Organizational Learning and Development
- HRES 4407 – Transition Management

Certificate – Marketing

Core Requirements

- MGMT 2262 – Business Statistics I
- MKTG 2150 – Introduction to Marketing
- MKTG 3150 – The Science of Persuasion
- MKTG 3258 – Evidence-Based Marketing
- MKTG 3450 – Marketing Design Literacy
- MKTG 3458 – Managing Marketing Relationships
- Approved Option 1
- Approved Option 2

Approved Options

Students must take any two (2) of the following courses.

- COMM 1841 – Introduction to Public Relations
- ENTR 2301 – The Entrepreneurial Experience
- ENTR 3302 – Innovation & Creativity for Entrepreneurial Practice
- INBU 3302 – International Marketing
- MGMT 2275 – Creativity in the Workplace
- MKTG 3253 – Retail Management
- MKTG 3254 – Sales Management
- MKTG 3255 – Services Marketing
- MKTG 3256 – Advertising and Sales Promotion
- MKTG 3257 – Business to Business Marketing
- MKTG 3550 – Creating Brand Intelligence
- MKTG 3558 – Navigating Marketing Trends

Note: Prerequisites for these courses must be followed.

Graduation Requirements

To graduate, all Business Administration Certificate students must meet the following criteria:

- Successfully complete all the courses in the curriculum with a minimum overall Grade Point Average of 2.00.

Minimum Overall Average Required for Admission

To be eligible for admission on the basis of High School or Mature, applicants must present a minimum admission average of 70% on their five required and appropriate grade 12 subjects for high school standing and four required subjects for mature standing. To be eligible for admission on the basis of Post-secondary standing, applicants must present a minimum Grade Point Average (GPA) of 2.50 on the 8 most recently completed post-secondary courses (minimum 24 credits).

Application Deadline: February 1

The application for admission and all supporting documents (required for admission assessment) must be received by this date.

Aboriginal Student Admission

Each year 10% of the seats in the Bachelor of Midwifery program will be reserved for Aboriginal applicants through an Aboriginal admission target.

To be considered for admission under the Aboriginal admission target, the applicant must:

- self-identify as an Aboriginal applicant on the Application for Admission
- meet the definition of an Aboriginal Applicant
- meet the minimum admission requirements as indicated in the general admission requirements for Mount Royal University as well as any program level admission requirements

Designated seats for this special consideration target will be filled by Aboriginal applicants on a competitive basis. Applicants are encouraged to apply during Early Admission. Any unfilled designated seats will be released on June 1 to students applying under the general admission requirements.

See general admission requirements in the Admissions section of this calendar for further information.

Transfer Credit Assessment

Transfer credits towards Mount Royal Midwifery (MDWF) courses will be limited to courses that have been successfully completed within seven (7) years from the date of initial registration in the student's original midwifery program. All Midwifery Core courses will not be eligible for transfer credit if taken more than 7 years ago. BIOL 1220 and BIOL 1221 will not be eligible for transfer credit if taken more than 7 years ago.

CURRICULUM

Bachelor of Midwifery

All BMid students must complete the following courses:

BIOL 1220 – Anatomy and Physiology I

BIOL 1221 – Anatomy and Physiology II

HLTH 2250 – Research for Practice in Health and Community Studies

INTS 1240 – Fundamentals of Interpersonal Communication

MDWF 1001 – Survey of Midwifery - Past and Present

MDWF 1003 – Lab Sciences for Midwifery

MDWF 1005 – Health Assessment for Midwives

MDWF 2001 – Developing Midwifery Skills

MDWF 2003 – Reproductive Physiology

MDWF 2005 – Pharmacotherapeutics

MDWF 2100 – Midwifery Care: Normal Childbearing and Healthy Newborns - Clinical Practice

MDWF 2101 – Midwifery Care: Normal Childbearing and Healthy Newborns - Tutorial

MDWF 2150 – Trans-cultural Clinical Placement

MDWF 3001 – Pathophysiology

MDWF 3100 – Interprofessional Hospital and Community Health Placements - Clinical

MDWF 3101 – Interprofessional Hospital and Community Health Placements - Tutorial

MDWF 3150 – Midwifery Care: Complications and Consultations - Clinical

MDWF 3151 – Midwifery Care: Complications and Consultations - Tutorial

MDWF 3175 – Midwifery Care: Maternal and Newborn Pathology - Clinical

MDWF 3176 – Midwifery Care: Maternal and Newborn Pathology – Tutorial

MDWF 4100 – Midwifery Clerkship I – Clinical Practice

MDWF 4101 – Midwifery Clerkship I - Tutorial

MDWF 4150 – Midwifery Clerkship II - Clinical Practice

MDWF 4151 – Midwifery Clerkship II - Tutorial

MDWF 4175 – Professional Practice Management

HPED 2507 – Nutrition and Health

WMST 2221 – Women and Health

All BMid students will also be required to complete one course for each of the four foundation level General Education clusters.

Note: Courses in Italics are under development. Courses are not necessarily offered in the sequence shown.

Students are responsible to ensure that all pre-requisite and co-requisite requirements are met prior to registering in a course.

General Education

Mount Royal's Bachelor of Midwifery program requires specific general education courses to meet graduation requirements. These are specified in the program curriculum. For incoming students in the Bachelor of Midwifery program, it is important to seek clarification of these requirements and up-to-date registration information through an Academic Advisor in the Department of Advanced Specialty Health Studies.

Students are permitted one re-registration in each of BIOL 1220 and 1221. That is, students are not allowed more than two (2) grades below the minimum pass in the same biology course.

Students who are unsuccessful after two registrations in the same biology course will be required to withdraw from the program and will not be eligible for re-admission.

GRADUATION REQUIREMENTS

To be eligible for graduation, students must satisfactorily complete all degree program requirements. Students must maintain an overall minimum GPA of 2.30 to be eligible for graduation. Students completing degree requirements will be awarded a Bachelor of Midwifery degree from Mount Royal. Students applying to graduate must do so by the date published in the Mount Royal University Calendar.

Aboriginal Student Admission

Each year up to 4% of the seats in the Bachelor of Nursing program will be reserved for Aboriginal applicants through an Aboriginal admission target.

- self-identify as an Aboriginal applicant on the Application for Admission
- meet the definition of an Aboriginal Applicant
- meet the minimum admission requirements as indicated in the general admission requirements for Mount Royal University as well as any program level admission requirements

Designated seats for this special consideration target will be filled by Aboriginal applicants on a competitive basis. Applicants are encouraged to apply during Early Admission period. Any unfilled designated seats will be released on June 1 to students applying under the general admission requirements.

See general admission requirements in the Admissions section of this calendar for further information.

CURRICULUM

Bachelor of Nursing

All MRBN students must complete the following thirty-one (31) required courses as part of their program requirements:

- BIOL 1220 – Anatomy and Physiology I
- BIOL 1221 – Anatomy and Physiology II
- HLTH 2250 – Research for Practice in Health and Community Studies
- HPED 2007 – Nutrition and Health**
- INTS 1240 – Fundamentals of Interpersonal Communication
- MATH 2333 – Statistics for Life Sciences
- NURS 1111 – Theoretical Foundations of Nursing I
- NURS 1112 – Health Promotion with Individuals I
- NURS 1213 – Health Promotion with Individuals II
- NURS 1214 – Professional Practice I
- NURS 2111 – Theoretical Foundations of Nursing I
- NURS 2112 – Alterations in Health: Nursing Knowledge and Therapeutics I
- NURS 2113 – Alterations in Health: Nursing Knowledge and Therapeutics II
- NURS 2114 – Professional Practice II
- NURS 2215 – Health Promotion with Populations, Communities, Families
- NURS 2216 – Professional Practice III
- NURS 3102 – Adult Health
- NURS 3104 – Professional Practice in Adult Health
- NURS 3112 – Family Newborn Health
- NURS 3114 – Professional Practice in Family Newborn Health
- NURS 3122 – Child Health
- NURS 3124 – Professional Practice in Child Health
- NURS 3132 – Mental Health
- NURS 3134 – Professional Practice in Mental Health
- NURS 3142 – Seniors' Health
- NURS 3144 – Professional Practice in Seniors' Health
- NURS 4111 – Leadership/Trends and Issues
- NURS 4112 – Integrated Professional Practice
- NURS 4XXX – Senior Nursing Option
- NURS 5114 – Transition to Independent Practice
- PSYC 2235 – Life Span Development

All BN students will also be required to complete one course for each of the four foundation level General Education clusters.

NOTE: Courses are not necessarily offered in the sequence shown. Students are responsible to ensure that all prerequisite and co-requisite requirements are met prior to registering in a course. Courses may be offered in Spring or Summer semesters to accommodate clinical placement availability.

Program of Study

To fulfill Mount Royal University's residency requirements for degree completion, students must complete the 3000 and 4000 level nursing courses, with the exception of the 4000 level senior nursing option, through Mount Royal University. Students are responsible for ensuring they have met the residency requirements.

To fulfill the course requirements for the senior-level Nursing Option (NURS 4XXX) students may choose to register in a course offered through the School of Nursing and Midwifery at Mount Royal University. Students will need to consult an Academic Advisor prior to registering in a course.

General Education

Mount Royal's Bachelor of Nursing program requires specific general education courses to meet graduation requirements. These are specified in the program curriculum. For incoming students in the Bachelor of Nursing program, it is important to seek clarification of these requirements and up-to-date registration information through the Academic Advisors.

GRADUATION REQUIREMENTS

To be eligible for graduation, students must satisfactorily complete all degree program requirements. Students must maintain an overall a minimum GPA of 2.00 to be eligible for graduation.

Students completing degree requirements will be awarded a Bachelor of Nursing degree from Mount Royal University.

Students applying to graduate must do so by the date published in the Mount Royal University Calendar.

CERTIFICATE — ATHLETIC THERAPY

GENERAL INFORMATION

This program is designed to provide participants with advanced knowledge, experience and skills in the delivery of athletic therapy services. This program is accredited through the Canadian Athletic Therapists Association. The program includes theoretical, field and clinical practicum experiences that prepare practitioners for the certification exams (practical and written) for certification as a Certified Athletic Therapist (Canadian). Graduates will have completed a major portion of their clinical and field practicum required for certification. Additional clinical and field practicum may be obtained on an individual basis.

This program is taught at a post-degree level. The program intensity is such that expectations in the classroom and in practical settings are extremely high. The time commitments for this program include classroom activities for most days and late afternoon and/or evening practicum commitments.

ADMISSION REQUIREMENTS — ATHLETIC THERAPY — CERTIFICATE

Applicants to the program are classified as Category 1 or Category 2. Category 1 applicants have a completed degree and must meet the criteria outlined below. Category 2 applicants are attending one of our partner institutions (mentioned below) and must meet criteria as established by the partner institution.

Category 1 Applicants

Applicants for the Athletic Therapy program must possess a degree in kinesiology, physical education, human kinetics, exercise science or equivalent. Successful applicants must have completed the following courses (either as part of their degree matriculation or subsequent to the degree):

- Human Anatomy
- Human Physiology
- Exercise Physiology
- Biomechanics
- Prevention and Care of Athletic Injuries
- Strength, Conditioning and Flexibility

Students are conditionally accepted (if all other requirements are met) with the condition of successful completion of the two courses below. Details will be provided once conditionally accepted.

- Taping and Prophylactic Support
- Emergency Medical Responder (EMR)

The following courses may not be part of the standard kinesiology, physical education, human kinetics or exercise science curriculum. Therefore, students are typically accepted into the program but unable to graduate from the certificate until they can provide proof of completion of the courses.

- Sport Psychology
- Nutrition

For Category 1 students, admission is competitive and preference will be given to applicants with a minimum Grade Point Average of 3.00 on the conditional and final admission average. Conditional admission will be based on the four most recently completed courses by Dec. 31 and final admission will be based on the eight most recently completed courses by June 30. In addition, preference will be given to applicants with a Grade Point Average of 3.00 in Human Anatomy and in Prevention and Care of Athletic Injuries.

Additional Criteria – Category 1 Applicants

- 50 practical hours in the sport medicine field must be completed prior to entering the program (this experience must have been supervised by a Certified Athletic Therapist, a Sports Physiotherapist, a Sports Medicine Physician or a Chiropractor).
- A letter of support from the supervisor that includes a verification of the number of practical hours.
- Applicants will be required to pass an introductory anatomy examination prior to entering the program. Once all other admission criteria have been met, the applicant will be notified regarding the procedures to complete the examination requirement.

Category 2 Applicants

- The department has a formal agreement with the University of Calgary, the University of Regina, Trinity Western University and the University of Lethbridge for this program. Students enrolled in one of the four university partners come to Mount Royal University in the third year of their program and then return to their respective institution to complete their degree requirements. Students interested in this route should refer to each institution's academic advisor(s) and/or calendar requirements for more admission criteria information.

CURRICULUM

Advanced Certificate – Physical Education – Athletic Therapy

HPED 3110 – Musculoskeletal Assessment - Peripheral

HPED 3120 – Therapeutic Modalities

HPED 3130 – Rehabilitation Techniques I

HPED 4110 – Musculoskeletal Assessment - Spinal

HPED 4130 – Rehabilitation Techniques II

HPED 4140 – Practical Clinical Management and Administration

HPED 5100 – Senior Issues in Athletic Therapy

PHED 3350 – Field Practicum I

PHED 3352 – Field Practicum II

PHED 3354 – Clinical Practicum I

PHED 3356 – Advanced Clinical and Field Practicum **

Note: Courses in Semester 2 will be delivered in a block-placement format.

** Not a requirement for the University of Calgary Category II.

This course is typically offered in the spring/summer semester over 13 weeks. There is a possibility of completing this practicum placement outside of Calgary. Students must work with the practicum coordinator to arrange for placements outside of the Calgary region.

Biological Sciences

BCEM 2201 – General Biochemistry
 BCEM 3201 – Protein Biochemistry
 BCEM 3202 – Enzymes and Metabolic Systems
 BCEM 4212 – Biochemical Pharmacology
 BIOL 2101 – Genetics
 BIOL 2102 – How They Do It - Patterns of Reproduction
 BIOL 2202 – Cellular and Molecular Biology
 BIOL 2203 – Human Anatomy
 BIOL 2204 – Zoology II - Deuterostomes
 BIOL 2213 – Principles of Ecology and Evolution
 BIOL 2214 – Zoology I - Protosomes
 BIOL 2309 – Plants and People
 BIOL 3101 – Molecular Genetics
 BIOL 3102 – Intermediate Cell Biology
 BIOL 3103 – Introduction to Biophysics
 BIOL 3104 – Human Physiology I
 BIOL 3106 – Evolutionary Biology
BIOL 3107 – Entomology
 BIOL 3108 – Conservation Biology
 BIOL 3203 – Genomes
 BIOL 3204 – Histology
 BIOL 3205 – Human Physiology II
BIOL 3209 – Behavioral Ecology
 BIOL 3216 – Human Adaptation to Environmental Stress
 BIOL 4204 – Evolution in Health and Disease
 BIOL 4207 – Womb to Tomb: Embryology, Development, and Aging
 BIOL 5201 – Independent Projects I
 BIOL 5202 – Independent Projects II
 MIBI 2201 – Microbiology
 MIBI 3105 – Medical Microbiology

Note: Courses that are *italicized* are under development.

Mathematics and Computer Science

COMP 1502 – Programming II: Object Oriented Programming
 COMP 2008 – Scientific Computing I
 COMP 2503 – Programming III: Data Structures
 COMP 2511 – Web I: Client Development
 COMP 2521 – Database I: Data Modeling and Query Languages
 COMP 2531 – Computer Architecture and Operating Systems
 COMP 2541 – Systems Analysis
 COMP 3008 – Scientific Computing II
 COMP 3012 – Robotics
 COMP 3313 – Introduction to Computability
 COMP 3504 – Programming IV: Best Practices in Design and Development
 COMP 3512 – Internet II: Web Application Development
 COMP 3532 – System Administration and Maintenance
 COMP 3533 – Network Infrastructure and Security
 COMP 3551 – GUI Development
 COMP 4513 – Web III: Advanced Web Development
 COMP 4522 – Database-II: Advanced Databases
 COMP 4535 – Computer Security
 COMP 4543 – Project Management and Quality Assurance
 COMP 4545 – Information Systems Organization
 COMP 4553 – Human Computer Interaction
 COMP 4555 – Games Development
 MATH 1202 – Calculus for Scientists II
 MATH 1203 – Linear Algebra for Scientists and Engineers
 MATH 1271 – Discrete Mathematics
 MATH 2101 – Abstract Algebra
 MATH 2301 – Calculus III
 MATH 2302 – Calculus IV
MATH 2307 – Differential Equations I
 MATH 2311 – Linear Algebra
 MATH 2321 – Mathematical Probability
 MATH 2323 – Introduction to Mathematical Statistics
 MATH 3101 – Numerical Analysis
 MATH 3303 – Topics in Applied Mathematics and Data Analysis
 MATH 4101 – Abstract Algebra II
 MATH 4102 – Analysis
 MATH 4103 – Complex Numbers

CURRICULUM

Bachelor of Science – Environmental Science

CHEM 1202 – General Chemistry: Introduction to Quantitative Chemistry

CHEM 2157 – Industrial Organic Chemistry

ECOL 1111 – Terrestrial Ecology

ECOL 2219 – Aquatic Ecology

ECOL 2201 – Plant Survey and Classification

ECON 1101 – Principles of Microeconomics

(General Education Requirement Cluster 3, Tier 2)

ENVS 1105 – Data processing and Statistics

ENVS 1111 – Professional Development: Health and Safety for the Environment Industry

ENVS 2215 – Applied Instrumentation

ENVS 2221 – Water Pollution and Surface Water Analysis

ENVS 3305 – Soil Hydrology

ENVS 3307 – Air Pollution Monitoring

ENVS 3323 – Watershed Management

ENVS 3333 – Ground Water Contamination

ENVS 3335 – Issues in Environmental Assessment

ENVS 4405 – Air Quality

ENVS 4406 – Soil Genesis and Land Use

ENVS 4419 – Regulatory Management

ENVS 4431 – Management of Residuals

ENVS 4441 – Site System Remediation and Design

ENVS 44xx – Environmental Research Methods

GEOG 1105 – Introduction to Mapping, GIS and Remote Sensing

(General Education Requirement Cluster 1, Tier 2)

GEOG 2109 – Ecological Land Classification and Soil

GEOL 1101 – Physical Geology

Choose one: MATH 1200 – Calculus for Scientists I

MATH 1185 – Calculus with Applications

MATH 1203 – Linear Algebra for Scientists and Engineers

MGMT 3269 – Project Management

PSYC 2223 – Interpersonal Communication II; Teamwork, Diversity and Conflict Resolution (General Education Requirement Cluster 2, Tier 2)

General Education Requirement Cluster 1, Foundation

General Education Requirement Cluster 2, Foundation

General Education Requirement Cluster 3, Foundation

General Education Requirement Cluster 4, Foundation

General Education Requirement Cluster 4, Tier 2

Four (4) General Education Requirement Tier 3

Three (3) Senior Elective

Work Placement I (Inter-session for eligible students)

Work Placement II (Inter-session for eligible students)

** Courses in Italics are in Development*

Bachelor of Science – Geology

Entry into the program

Students who are enrolled in the Bachelor of Science – General Science program can apply to transfer into the Bachelor of Science – Geology program early in the Winter semester. This is a competitive process based on overall GPA and GPA in six defined courses from Year 1 of the General Science program. An interview may be necessary. Students are informed of the decision of the Department Earth Sciences at the end of the Winter semester.

Students admitted into the Geology Major must register in the following courses in the Fall semester immediately following their acceptance into the program, in order to maintain their position in the program:

GEOL 2101 – Introduction to Geologic Field Methods

GEOL 2103 – Minerals and Rocks

GEOL 2105 – Structural Geology

Field Schools and Field Trips

Field Schools and Field Trips are an integral part of the Geology major program. Students should note that there will be costs, in addition to tuition, to cover transportation, food and accommodation for the following Field Schools:

GEOL 2101 – Introduction to Geologic Field Methods

GEOL 3101 – Advanced Geologic Field Methods

Note that these courses will be held for approximately 12-14 days after the end of the Winter semester or before the start of the Fall semester.

In addition to Field Schools, individual courses may include Field Trips as part of the curriculum. These trips are typically 1-2 days in length but may be longer.

The department will make every effort to keep the additional costs to students of Field Schools and Field Trips as low as possible.

CURRICULUM

Bachelor of Science – Geology

CHEM 1201 – General Chemistry I

CHEM 1202 – General Chemistry II

COMP 1001 – Introduction to Computer-Based Problem Solving for the Sciences

GEOL 1101 – Physical Geology

GEOL 1103 – Historical Geology

GEOL 2101 – Introduction to Geologic Field Methods

GEOL 2103 – Minerals and Rocks

GEOL 2105 – Structural Geology

GEOL 2107 – Paleontology

GEOL 2109 – Stratigraphy and Sedimentation

GEOL 2111 – Crystallography and Optical Mineralogy

GEOL 3101 – Advanced Geologic Field Methods

GEOL 3103 – Igneous Petrology

GEOL 3107 – Geomorphology

GEOL 3109 – Sedimentary Petrology

GEOL 3111 – Metamorphic Petrology

MINOR IN BIOLOGY

In general, minors allow students to obtain recognition for achieving some level of expertise in a discipline outside of their major, and thus contribute to a broad-based education. The biology minor is based on the following general requirements: 8 to 10 courses from the department of Chemical and Biological Sciences, including a maximum of 3 courses at the 1000-level, and a minimum of 2 biology or microbiology courses at the 3000-level or higher. A minimum GPA of 2.00 is required in the courses comprising the minor. Although only one Biology minor is offered, students will need to follow an area of interest within the minor in order to obtain a minimum of two courses at the 3000-level or higher. This is due to the multiple prerequisite course requirements which exist for most senior-level biology courses.

Students in one of the two majors Cell and Molecular Biology OR Health sciences are not eligible for a minor in Biology.

Students interested in Physiology are advised to take:

BIOL 1202 – An Introduction to Cell Biology

BIOL 2101 – Genetics

BIOL 2202 – Cellular and Molecular Biology

BIOL 2203 – Human Anatomy

BIOL 3104 – Human Physiology I

BIOL 3205 – Human Physiology II

CHEM 1201 – General Chemistry I

CHEM 1202 – General Chemistry II

Students interested in Cellular/Molecular Biology are advised to take:

BCEM 2201 – General Biochemistry

BIOL 1202 – An Introduction to Cell Biology

BIOL 2101 – Genetics

BIOL 2202 – Cellular and Molecular Biology

CHEM 1201 – General Chemistry I

CHEM 1202 – General Chemistry II

CHEM 2101 – Organic Chemistry I

MIBI 2201 – Microbiology

Two of the following:

BIOL 3101 – Molecular Genetics

BIOL 3102 – Intermediate Cell Biology

BIOL 3203 – Genomes

MIBI 3105 – Medical Microbiology

Students interested in General Biology are advised to take:

BIOL 1202 – An Introduction to Cell Biology

BIOL 1204 – The Evolution of Eukaryotes

Plus two – four BIOL courses at the 2000-level

Plus two – four BIOL courses at the 3000-level or higher for a minimum of eight courses

MINOR IN BUSINESS

The minor in Business provides a general overview of the business environment to students in degree programs outside of the Bissett School of Business. Through exposure to the major functional areas in business, students will be able to supplement their discipline studies as they prepare to launch their careers following graduation. This minor is not available to students enrolled in the BBA.

Required courses:

ACCT 2121 – Financial Accounting Concepts

HRES 2170 – Introduction to Human Resources

MGMT 2130 – Management Principles & Practices

MKTG 2150 – Introduction to Marketing

Plus any three 3000-level or higher course offered by the Bissett School of Business

MINOR IN BUSINESS AND SOCIETY

This minor explores the relationship between business and society at large and how business and society influence one another. Students will examine the different roles that an organization can play relating to all of the various stakeholders in a constantly changing environment.

Required courses:

ENTR 3370 – Society, Innovation and Enterprise

INBU 2201 – Cross Cultural Management

MGMT 4402 – Corporate Social Responsibility

MGMT 4403 – Environmental Management & Sustainable Development

MGMT 4407 – Governance & Ethical Issues in Organizations

PHIL 2229 – Business Ethics

MINOR IN BUSINESS OF SPORT AND RECREATION

The minor in Business of Sport and Recreation provides a general overview of the organization, management and leadership of the sport and recreation industry. This will include a focus on all elements of the industry including amateur sport, community recreation and professional sport among others. Students will learn about the unique elements of this industry and how they can best prepare themselves to be leaders in it.

The minor is composed of three required courses and three options, for a total of six courses.

Required courses:

ENTR 2301 – The Entrepreneurial Experience

HPED 1400 – Organization and Administration of Sport

HPED 1640 – Program Planning

Three (3) of the following:

ACCT 2121 – Financial Accounting Concepts

ENTR 3302 – Innovation and Creativity for Entrepreneurial Practice

HPED 2440 – Community Development

HPED 2400 – Commercial Recreation

HPED 3400 – Facility and Event Management

HPED 3630 – Recreation and Sport Tourism

HPED 5400 – Senior Issues in Sport and Recreation Management

MGMT 3210 – Business Communication Theory and Practice

MGMT 3230 – Business Law

MKTG 2150 – Introduction to Marketing

MKTG 3258 – Marketing Research

CHEM 3802 – The Science and Politics of Nuclear Energy

CHEM 4213 – Drug Discovery

CHEM 5201 – Independent Projects I

CHEM 5202 – Independent Projects II

NOTE: The approved course list that appears here is valid as of September 2012. Approved courses may change periodically, so please see the advisor for the latest list.

NOTE: Please see the Calendar for more information about these courses, including course descriptions and pre-requisites.

MINOR IN COMPUTER INFORMATION SYSTEMS

A Minor in Computer Information Systems provides a powerful option to students who wish to pursue a degree in a non-computer related field of study and be equipped with a significant understanding of information and computer technology as they head out into the workplace. The Minor in Computer Information Systems consists of the following: a set of four core courses and a number of conceptually linked courses ("Areas of Interest"). The student is required to take the core courses and then choose courses from one area of interest or from a combination of areas in order to attain a total of eight to ten courses of which at least two courses must be 3000 level or above.

Required courses:

COMP 1502 – Programming II: Object Oriented Programming

COMP 2511 – Web I: Client Development

COMP 2521 – Database I: Data Modeling and Query Languages

One of:

COMP 1001 – Introduction to Computer-Based Problem Solving for the Sciences

COMP 1501 – Programming I: Introduction to Problem Solving and Programming

Development/Web Area of Interest:

COMP 2503 – Programming III: Data Structures

COMP 2541 – Systems Analysis

COMP 3504 – Programming IV: Best Practices in Design and Development

COMP 3512 – Web II: Web Application Development

COMP 3551 – GUI Development

COMP 3553 – Human Computer Interaction

COMP 4513 – Web III: Advanced Internet Application Development

COMP 4555 – Games Development

Network/Security Area of Interest:

COMP 2531 – Computer Architecture and Operating Systems

COMP 3532 – Systems Administration and Maintenance

COMP 3533 – Network Infrastructure and Security

COMP 4535 – Computer Security

Analyst Area of Interest:

COMP 2541 – Systems Analysis

COMP 3307 – Computing Applications in Small Business and Entrepreneurship

COMP 4543 – Project Management and Quality Assurance

COMP 4545 – Information Systems Organization

MGMT 3265 – Management Information Systems

MINOR IN ELEMENTARY SCHOOL HEALTH AND PHYSICAL EDUCATION

Required courses:

HPED 1040 – Wellness and the Student: From Personal Health to Community Action

HPED 3518 – Physical Growth and Development

PHED 2201 – The Essence and Experience of Physical Activity

PHED 2257 – Elementary School Physical Education II: Movement experiences in dance and gymnastics

Nine credits from the following:

BIOL 1216 – (3) Human Physiology

BIOL 2215 – ~~(3) The Human Organism~~

HPED 1010 – (3) Historical and Philosophical Foundations

HPED 1512 – (3) Human Anatomy

HPED 2507 – (3) Nutrition and Health

HPED 2510 – (3) Sport & Exercise Psychology

HPED 2703 – (3) Fundamental Fitness and Measurement

HPED 3320 – (3) Adapted Physical Activity

HPED 3740 – (3) Wellness and the Student: From Community Health to Global Action

PHED 2255 – (3) Elementary School Physical Education I: Movement experiences in games (PE)

Three credits from the following:

HPED 1070 – (3) Foundations of Outdoor Leadership

HPED 2520 – (3) Introductory and Intermediate Coaching

HPED 2830 – (1.5) Flexibility and Relaxation

HPED 2850 – (1.5) Introduction to Strength Training

HPED 2851 – (1.5) Cardiovascular Training

HPED 2870 – (1.5) Introductory Backpacking

HPED 2873 – (1.5) Introductory Rock Climbing

HPED 2882 – (3) Introductory Swimming

PHED 1239 – (1.5) Introductory Badminton

PHED 1249 – (1.5) Introductory Tennis

PHED 1293 – (3) Introductory Aquatic Lifesaving

PHED 2102 – (1.5) Basketball

PHED 2104 – (1.5) Introductory Power Skating and Hockey Coaching

PHED 2106 – (1.5) Soccer

PHED 2108 – (1.5) Introductory Golf

PHED 2110 – (1.5) Volleyball

MINOR IN GEOGRAPHY

The Geography Minor requires a minimum of 7 Geography courses

Required courses:

GEOG 1101 – Physical Environment

GEOG 1103 – Human Environment

GEOG 1105 – Introduction to Mapping, GIS and Remote Sensing

One of the following:

GEOG 2107 – Weather and Climate

GEOG 2109 – Soil Characteristics and Formation

GEOG 2111 – Landform Processes and Morphology

GEOG 2553 – Geographic Information Systems

GEOG 2555 – Remote Sensing

One of the following:

GEOG 2225 – Regional Geography of Canada

GEOG 2230 – Regional Geography of Europe

GEOG 2333 – Economic Geography

GEOG 2335 – Introduction to Urban Geography

GEOG 2337 – Political Geography

GEOG 2443 – Tourism and Recreation Geography

GEOG 2445 – Environmental Problems and Resource Management

One of the following:

GEOG 3107 – Advanced Biogeography

GEOG 3109 – Overseas Field Study in Physical Geography

GEOG 3309 – Overseas Field Study in Human Geography

GEOG 3445 – Global Environmental Issues

GEOG 3447 – Parks and Protected Areas

GEOG 3553 – Spatial Analysis and GIS

One other geography course from the list above or one of the following:

GEOG 1102 – World Regional Geography

GEOG 2335 – Introduction to Urban Geography

GEOG 2443 – Tourism and Recreation Geography

GEOG 2437 – Biogeography

GEOG 3129 – Advanced Physical Overseas Field School

GEOG 3329 – Advanced Human Overseas Field School

MINOR IN HISTORY

Required courses:

One 1000 level HIST course from at least two of the following areas (maximum four 1000 level courses):

- Canadian History
- European History
- American History

Four to six additional HIST courses at the 2000 level or above, of which at least two must be at the 3000 or 4000 level. (For a total of eight HIST courses in the minor)

MINOR IN HUMANITIES

Required courses:

At least one of:

RELS 1101 – World Religions: Western

RELS 1103 – World Religions: Eastern

RELS 1105 – The Nature of Religion

At least one of:

PHIL 1101 – Philosophy: Knowledge and Existence

PHIL 1149 – Philosophy: Values and Ethics

At least one of:

ENGL 2210 – English Literature to the Restoration **or**

ENGL 2211 – English Literature from the Restoration to the Present

One of:

HIST 1101 – Europe to 1500

HIST 1103 – Europe Since 1500

HIST 1111 – South Asia and the Indian Ocean

HIST 1117 – America to 1865

HIST 1119 – The United States: 1865 to the Present

HIST 1131 – Canada: Origins to 1867

HIST 1133 – Modern Canada

Four additional courses, two of which must be 3000 or 4000 level from applicable courses in Philosophy, History, Religious Studies, Humanities, Art History, Canadian Studies, Women's Studies, Romance Studies, Music and English (for a total of eight courses in the minor). For a list of applicable courses in the above areas, please consult an advisor.

****Note:** A maximum of four courses at the 1000 level may be counted as part of this minor.

MINOR IN HUMAN RESOURCES

The minor in Human Resources provides a general overview of the human resource discipline for students in degrees outside of the Bissett School of Business. This minor exposes students to introductory and advanced topics in the field of human resources. Students enrolled in the BBA – General Management major may also choose to complete a minor in Human Resources.

Required courses:

HRES 2170 – Introduction to Human Resources

HRES 3278 – Employee Relations

Plus any other four 3000-level or higher HRES course.

MINOR IN INTERNATIONAL BUSINESS AND ECONOMICS

This is an interdisciplinary minor that will give the students a theoretical and practical perspective on an area that can only grow in importance in an increasingly globalized world market. Students will benefit from the opportunity to study the interrelated fields of International Business and Economics.

Required courses:

ECON 1101 – Principles of Microeconomics

ECON 1103 – Principles of Macroeconomics

INBU 3301 – Global Business Environment

Five of the following (at least one must be chosen from this group):

ECON 2229 – International Money and Finance

ECON 2221 – International Trade

One of:

ECON 2261 – Development Economics

ECON 2263 – Development Economics – Field School Program

At least one must be chosen from this group:

FNCE 3302 – International Finance

INBU 3302 – International Marketing

INBU 3305 – International Market Strategies

INBU 3306 – International Trade Research

INBU 3307 – International Trade Law

INBU 3730 – Special Projects in International Business

INBU 4408 – International Trade Management

MINOR IN LINGUISTICS

Required courses:

LING 1111 – The Nature of Language I

LING 1113 – The Nature of Language II

LING 2201 – Syntax I

Five additional LING courses, of which two must be at the 3000 level or higher

MINOR IN MARKETING

The minor in Marketing provides a general overview of the marketing discipline for students in degree programs outside of the Bissett School of Business. This minor exposes students to introductory and advanced topics in the field of marketing. Students enrolled in the BBA – General Management major may also choose to complete a minor in Marketing.

Required courses:

MGMT 2262 – Business Statistics I

MKTG 2150 – Introduction to Marketing

MKTG 3150 – The Science of Persuasion

MKTG 3258 – Evidence-Based Marketing

Two of the following:

Any marketing course (MKTG)

INBU 3302 – International Marketing

MINOR IN MATHEMATICS

The student is required to take the three core courses and then choose four courses from the approved Mathematics option in order to attain a total of seven courses of which at least two courses must be 3000 level or above.

Required courses:

MATH 1200 – Calculus for Scientists I

MATH 1202 – Calculus for Scientists II

MATH 1203 – Linear Algebra for Scientists and Engineers

Approved options:

MATH 1271 – Discrete Mathematics

MATH 1505 – Puzzling Adventures in Mathematics

MATH 2101 – Abstract Algebra

MATH 2207 – Mathematical Methods

MATH 2301 – Calculus III

MATH 2302 – Calculus IV

MATH 2307 – Differential Equations I

MATH 2311 – Linear Algebra

MATH 2321 – Mathematical Probability

MATH 2323 – Introduction to Mathematical Statistics

MATH 3101 – Numerical Analysis

MATH 3102 – Mathematical Modeling

MATH 3303 – Topics in Applied Mathematics and Data Analysis

MATH 3325 – Theory of Interest

MATH 4101 – Abstract Algebra II

MATH 4102 – Analysis I

MATH 4103 – Complex Numbers

MATH 4105 – Applied Linear Models

Note: Courses in *Italics* are under development.

MINOR IN MATHEMATICS FOR ELEMENTARY EDUCATION

The student is required to take the three core courses and then choose three courses with at least one course must be 3000 level or above from the approved Mathematics options in order to attain a total of six courses of which at least two courses must be 3000 level or above.

Required courses:

MATH 1150 – Mathematical Reasoning

MATH 1160 – Higher Arithmetic

MATH 4201 – Seminar

Approved options:

MATH 1102 – Introduction to Geometry

MATH 1103 – Introduction to Statistical Reasoning

MATH 1205 – The Beauty of Mathematics

MATH 1505 – Puzzling Adventures in Mathematics

MATH 3201 – Visual Art and Mathematics: An Integrated Understanding

MATH 3202 – Mathematics through the Ages

ARTH 3317 – Contemporary Art from 1970 to Today

(3 credits – TG) 3 hours lecture

This course examines Contemporary art from 1970 to the present in different geographic contexts focusing on various genres, themes and stylistic movements. In exploring the changing meaning of visual culture, the lectures analyze the theories, concepts and institutions informing current art practices.

Recommended Preparation: Any 1000-level Art History Course.

**ARTH 3401 – The Grand Tour: Travel Studies in Western Europe**

(3 credits – TG) 3 hours lecture

The art and architecture of selected western European regions will be explored from an interdisciplinary perspective as a prelude to a field study trip to Europe, offering students an experiential knowledge and a greater appreciation of the regions' artistic and cultural history.

Prerequisites: General Education 1201, 1202, or 1203 and consent of the department.

Recommended Preparation: Art History 1101 and/or 1103.

Note: Students will be responsible for paying all costs, including travel, associated with the field trip.

ARTH 3402 – Travel Studies in Art and Architecture

(3 Credits – TG) 3 hours lecture

This course is designed to promote a first-hand and focused engagement with art, architecture, and current exhibition practices. The locations of study will vary but will include at least one multi-night trip to destinations such as New York, Chicago, Los Angeles, Toronto and Montreal.

Recommended Preparation: Art History 1101 and/or 1103.

Note: Students will be responsible for paying all costs, including travel, associated with the field trip.

ARTH 4411 – Poetic Intentions in Architecture

(3 credits – TG) 3 hours lecture

This advanced seminar examines significant buildings with the intention of discovering their essential nature. Students will explore architecture as the embodiment of ideas through the investigation of concepts ranging from light, transparency, opacity and texture, to more nuanced themes, such as the narrative of passage, extreme topographies and genius loci. The seminar provides opportunities for the exploration of links between theory and design in contemporary architecture.

Prerequisite: Any one of Art History 2205, 2207, 2209, 3199, 3309, 3311, 3313, 3315, 3317, 3401 or 3402.

ARTH 4850 – Topics in Art History

(3 credits – TG) 3 hours lecture

This course offers the opportunity for advanced study of selected topics in art history. Specific content will vary by term and instructor.

Prerequisite: One of Art History 3309, 3311, 3313, 3315 and 3317.

ARTH 3199, 4199 – Directed readings

See **Directed Readings** which are listed alphabetically in this section of the calendar.

ASTRONOMY (ASTR)**ASTR 1101 – The Solar System**

(3 credits – TG) 3 hours lecture

This is primarily a descriptive course aimed at non-science students. Conceptual understanding will be stressed over strict mathematical derivation. The topics covered in this course emphasize astronomy in our own solar neighbourhood. Topics include the Sun, the terrestrial and Jovian planets and their moons, comets, asteroids, as well as the formation of the solar system.

Note: Only one of Astronomy 1101 and Astronomy 1301 can be used for graduation purposes.

**ASTR 1103 – The Universe at Large**

(3 credits – TG) 3 hours lecture, 2 hours lab

This is primarily a descriptive course aimed at non-science students. Conceptual understanding will be stressed over strict mathematical derivation. The topics covered in this course emphasize larger-scale astronomy. Topics include the lives and deaths of stars, supernovae, pulsars, black holes, the Milky Way and other galaxies, active galaxies and quasars, and cosmology.

Note: Only one of Astronomy 1103 and Astronomy 1303 can be used for graduation purposes.

**ASTR 1301 – Planetary Astronomy**(3 credits – TG) 3 hours lecture, ~~2 hours lab~~

This course covers basic concepts of astronomy, with emphasis on our solar system. Topics include Newton's laws and gravitation, the terrestrial and Jovian planets, comets, asteroids, the formation of the solar system, and extra-solar planets. This course stresses scientific explanation and uses mathematics, the language of science, whenever possible.

Prerequisites: Mathematics 30 (Pure or Applied) and Physics 30 or equivalent. This course is recommended for science majors.

Note: Only one of Astronomy 1101 and 1301 can be used for graduation purposes.

**ASTR 1303 – Stars, Galaxies, and Cosmology**(3 credits) 3 hours lecture, ~~2 hours lab~~

This course covers basic concepts of astronomy, with emphasis on the universe outside the solar system. Topics include the properties of the Sun and other stars, the life and death of stars, galaxies, large-scale structure, and cosmology. This course stresses scientific explanation and uses mathematics, the language of science, whenever appropriate.

Prerequisites: Mathematics 30 (Pure or Applied) and Physics 30 or equivalent. This course is recommended for science majors.

Note: Only one of Astronomy 1103 and 1303 can be used for graduation purposes.

**ASTR 2105 – Astrobiology**

(3 credits) 3 hours lecture

This course will give an overview of the major topics in astrobiology. Topics include **life on Earth, the conditions and possibility for life elsewhere in the solar system**, the detection and properties of exoplanets, and SETI (Search for Extraterrestrial Intelligence). This course stresses scientific explanation and uses mathematics, the language of science.

Prerequisites: Physics 1201, Biology 1202.

Recommended Preparation: Astronomy 1301 or 1303.

**BIOCHEMISTRY (BCEM)****BCEM 2201 – General Biochemistry**

(3 credits – TG) 3 hours lecture, 3 hours lab

This course deals with the biochemistry of the major groups of biological molecules. Topics include carbohydrates, polypeptides, lipids, nucleic acids, and their precursors. Laboratory exercises will involve the isolation and characterization of selected biological molecules.

Prerequisite: Chemistry 2101 with a grade of C- or higher.

Prerequisite or Co-requisite: Chemistry 2102.

BCEM 3201 – Protein Biochemistry

(3 credits – TG) 3 hours lecture, 3 hours lab

The structure function relationships that exist within this broad category of biomolecules will be investigated. Topics will include levels of protein structure, domains, mosaics, and functional roles of selected proteins or protein classes. Laboratory exercises will involve the utilization of purification techniques in the isolations of selected proteins from simple cellular systems.

Prerequisite: Biochemistry 2201 with a grade of C- or higher.

BCEM 3202 – Enzymes and Metabolic Systems

(3 credits – TG) 3 hours lecture, 3 hours lab

Students will investigate the nature of catalytic proteins, their properties, and the kinetics of enzyme catalyzed reactions. An understanding of these concepts will then be applied to some of the important metabolic pathways that support life. Laboratory exercises will highlight the study of enzymes and metabolism.

Prerequisites: Chemistry 2102 with a grade of "C-" or higher, and Biochemistry 2201 with a grade of "C-" or higher.

BCEM 4212 – Biochemical Pharmacology

(3 credits) 3 hours lecture

This course covers the fundamental biochemical and physiological concepts of pharmacology. Important concepts include drug administration, sites of action, distribution, metabolism, elimination and adverse effects. The biochemical mechanisms themselves and how they are related to physiological states and effects such as neuronal excitation, blood pressure, and inflammation will be examined. Frequently encountered drugs are used to illustrate these concepts.

Prerequisites: Biochemistry 2201 with a grade of C- or higher.

BIOLOGY (BIOL)**BIOL 0115 – Introduction to Biology**

(0 credits) 3 hours lecture, 3 hours lab

This is a credit-free upgrading course; special fees apply. Topics include energy flow in the biosphere, energy flow in the cell, adaptation, population and matter and energy exchange.

Corresponding Alberta High School Equivalent: Biology 30.

BIOL 0130 – Fundamentals of Biology

(0 credits) 3 hours lecture, 1 hour tutorial, 3 hours lab

This is a credit-free upgrading course; special fees apply. Topics in this course include: cell chemistry, cell ultra-structure, organelle function, metabolic pathways of photosynthesis and respiration, mitotic and meiotic processes, genetics and heredity and human systems.

Corresponding Alberta High School Equivalent: Biology 30.

Recommended Preparation: Biology 0115 or Biology 20.

BIOL 1202 – Introduction to Cell Biology

(3 credits – TG) 3 hours lecture, 3 hours lab

This course will employ an inquiry approach to expose students to the biology of the cell. The major groups of biological molecules will be studied prior to introducing students to how these macromolecules interact to form prokaryotic or eukaryotic cells. Laboratories will introduce students to basic equipment and techniques used in the study of cells and also develop authentic laboratory skills.

Prerequisite: Chemistry 30 or equivalent.

BIOL 1204 – The Evolution of Eukaryotes

(3 credits – TG) 3 hours lecture, 3 hours lab

This course follows Biology 1202 and moves from an investigation of cellular biology to the mechanisms of evolution which has provided much of the diversity seen in modern eukaryotes. It will provide insight into the necessity and methods of determining evolutionary history using the major groups Protista, Fungi, Plants, and Animals. Evolution will be used as a context in which biological diversity can be explained.

Prerequisite: Biology 1202 with a grade of C- or higher.

BIOL 1205 – The Organization and Diversity of Life

(3 credits – TG) 3 hours lecture

This course introduces students to the diversity of living organisms and to the common patterns of organization and function that unite them. Particular emphasis is placed on evolution as a unifying principle in biology. The evolutionary history of modern organisms is explored.

**BIOL 1212 – Human Anatomy and Physiology**

(3 credits – TG) 3 hours lecture, 2 hours lab

This course provides an introduction to the anatomy and physiology of the systems of the human body. Topics include cells and tissues plus the anatomy and physiology of the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, immune, respiratory, digestive, urinary and reproductive systems.

**BIOL 1215 – Evolution and Heredity**

(3 credits – TG) 3 hours lecture, 1 hour tutorial

This course is designed to give students an appreciation of evolution by explaining the mechanisms of the evolutionary process in terms of the laws of inheritance as well as the interaction of heredity and the environment. It is oriented toward human populations, their biological histories and their congenital medical problems.

Recommended Preparation: Biology 30 or equivalent.

BIOL 1216 – Human Physiology

(3 credits – TG) 3 hours lecture, 3 hours lab

This course describes how the systems of the human body perform their functions. Topics include physiology of the nervous system, hormonal control mechanisms, muscle physiology, body defence mechanisms and physiology of the reproductive, circulatory, respiratory, urinary and digestive system. Labs are designed to let the student discover and gain an appreciation of how his/her body functions.

Prerequisite: Biology 30 or equivalent.

**BIOL 1220 – Anatomy and Physiology I**

(3 credits – TG) 3 hours lecture, 3 hours lab

A basic course in human anatomy and physiology designed for students in the health studies fields. Topics include: terminology, membranes, skin and glands, cells and tissues, the skeletal system, the muscular system, central and peripheral nervous systems, autonomic nervous system, and the endocrine system. Each topic includes an emphasis on homeostasis.

BIOL 1221 – Anatomy and Physiology II

(3 credits – TG) 3 hours lecture, 3 hours lab

This course is a continuation of Biology 1220 and involves a second semester of basic human anatomy and physiology. It includes the following systems and areas: the cardiovascular system, the lymphatic system, the immune system, the respiratory system, digestion and nutrition, the urinary system, body fluids, electrolytes and fluid balance, the reproductive systems and embryology. Each topic includes an emphasis on homeostasis.

Prerequisite: Biology 1220.

BIOL 2101 – Genetics

(3 credits – TG) 3 hours lecture

This course will provide an overview of genetic principles through the historical recounting of seminal work and the logic used therein, and then connect theory to practical skills such as gene mapping and pedigree interpretation. Students will be introduced to the connection between the central dogma of modern biology (replication, transcription, and translation) and the establishment of phenotype. It is strongly suggested that students do not enroll in this course until their second year of studies.

Prerequisite: Biology 1202 or equivalent, with a grade of C- or higher.

BIOL 2102 – How They Do It: Patterns of Reproduction

(3 credits – TG) 3 hours lecture

Reproduction is one of the fundamental properties of living systems. This course will cover a broad range of biological topics using reproduction (both asexual and sexual) as a unifying theme.

Prerequisite: Biology 1205 or Biology 1202 with a grade of C- or higher, or consent of the department.



Note: This course is not recommended for students majoring in the biological sciences.

BIOL 3203 – Genomes**(3 credits) 3 hours lecture, 1 hour computer lab**

Students will apply what they've learned about gene structure and cell biology in preceding courses to study cases of human diseases. The structures of the genomes from human and model systems will be compared. Online bioinformatics and proteomics exercises will allow students to take a hands-on approach toward investigating disease and evolutionary theories in the context of modern biology.

Prerequisites: Biology 2202 and Biochemistry 2201 with a grade of C- or higher.

BIOL 3204 – Histology**(3 credits) 3 hours lecture, 3 hours lab**

The course provides an introductory survey of the microscopic structure and organization of human cells, tissues and organ systems with an emphasis on the relationships between structure and function. The labs, which involve extensive microscopy, are strongly integrated with the lectures. Appropriate examples of histopathology will be explored.

Prerequisites: Biology 1202 and Biology 2203, each with a grade of C- or higher.

BIOL 3205 – Human Physiology II**(3 credits) 3 hours lecture, 3 hours lab**

This course is a continuation of Biology 3104-Human Physiology I. The major topics studied in this course include the immune system, blood, the cardiovascular system, the respiratory system, the urinary system, the digestive system, fluid and acid-base balance, metabolism and thermoregulation, and the body's response to exercise stress.

Prerequisite: Biology 3104 with a grade of C- or higher.

BIOL 3216 – Human Adaptation to Environmental Stress**(3 credits – TG) 3 hours lecture**

This course will address human physiological adaptations in response to extreme and diverse environmental conditions. Using applied examples and case studies, the problems of hypoxia (high altitude), high pressure (diving and submarines), high gravitational forces (fighter pilots), microgravity (space flight), radiation, circadian stress as well as excessive heat, cold, humidity and pollution may be examined. Students will play an active role in their understanding of environmental physiology through completion of an independent research paper and presentation of a specific area of interest.

Prerequisite: One of Biology 1212 or Biology 1216 or Biology 1221 or Biology 3205 with a minimum of C- or higher, or with the consent of the department.

BIOL 3301 – Animal Behaviour**(3 credits) 3 hours lecture**

This course provides an introduction to the science of animal behaviour from an evolutionary perspective. Students will explore the theories and mechanisms to understand how and why animals behave the way they do. Topics will draw on examples from across the animal kingdom to illustrate diversity of behaviours.

Prerequisites: One of Biology, 1204, 1205, Anthropology 1101, 1102, Psychology 1103.

BIOL 4101 – Advanced Cellular and Molecular Biology I**(3 credits) 6 hours lab**

In this course students carry out one or more laboratory research projects, obtaining experience with experimental design, data analysis, and laboratory techniques. Lectures provide students with guidance and relevant theoretical information.

Prerequisites: Biology 3101, 3102 and 3203 each with a grade of C- or better.

**BIOL 4102 – Pathophysiology: Mechanisms of Disease****(3 credits – TG) 3 hours lecture**

Students will study the development and consequences of diseases that result from alterations in the function of molecules, cells, organs and systems, including the influence of environment and genetics. The course will use a multidisciplinary approach to understand basic disease processes and their underlying mechanisms. The course will focus on a selected set of human diseases, chosen to illustrate fundamental features of pathophysiological processes.

Prerequisites: Biology 2202, Biology 3204, 3205 and Biochemistry 2201, each with a grade of C- or higher.

BIOL 4202 – Advanced Cellular and Molecular Biology II**(3 credits) 6 hours lab**

In this course, students continue their laboratory research projects from the prerequisite course (Biology 4101 – Advanced Cellular and Molecular Biology I), obtaining experience with experimental design, data analysis, and laboratory techniques. Lectures provide students with guidance and relevant theoretical information.

Prerequisite: Biology 4101 with a grade of C- or higher.

BIOL 4203 – Current Topics in Cellular and Molecular Biology**(3 credits) 3 hours lecture**

Current topics in cellular and molecular biology, and related fields, will be explored through faculty- and student-led seminars. The seminar discussions will focus on peer-reviewed literature, covering both recent and landmark papers in selected topics. Students are required to present the findings of recent papers, participate in analysis of the findings, and complete written critical reviews of selected topics.

Prerequisite: Biology 4101 or equivalent with a grade of C- or higher.

BIOL 4204 – Evolution in Health and Disease**(3 credits) 3 hours lecture**

This course explores ways in which an understanding of evolutionary mechanisms both aids in the understanding of disease processes and informs the development of effective treatments. Emphasis will be placed on 'civilized diseases', which result from mismatch between our evolutionary history and modern lifestyles. In addition to evolution within our species, the course will examine co-evolutionary processes between pathogens/parasites and their human hosts.

Prerequisite: Biology 1202 with a grade of "C-" or higher, or equivalent.

BIOL 4207 – Womb to Tomb: Embryology, Development and Aging**(3 credits) 3 hours lecture, 3 hours lab**

This course examines the complete arc of the human life cycle, from fertilization to senescence. Particular emphasis will be placed on embryological development, and on ways in which diseases associated with aging may be forestalled, minimized or prevented. Labs will be devoted to the examination of chick and pig embryos.

Prerequisite: Biology 3204 with a grade of "C-" or higher, or equivalent.

BIOL 4208 – Seminars in Health Science**(3 credits) 3 hours lecture**

This is an interactive seminar and project-based course in which students will explore the themes of (1) critical appraisal of scientific and medical literature, (2) scientific integrity and professionalism and (3) scientific communication. Students will be given the opportunity for in-depth independent investigation on a topic of their choice in the area of human health science and related fields. A critical written review and oral presentation of the topic, as well as ongoing thoughtful contribution to class discussions will be required.

Prerequisites: Biology 3204, Biology 3205 and Philosophy 2223 with a grade of "C-" or higher or consent of the department.

COMM 1727 – Introduction to Visual Journalism

(3 credits) 90-minute lecture, 90-minute tutorial & two 30-minute labs

This course introduces students to key practices in photo, audio, and video journalism, and the application of acquired skills in reporting and producing stories in local communities, while also developing a critical understanding of key aspects in the production of visual journalism.

COMM 1728 – Journalism Projects

(3 credits) 90-minute lecture, 90-minute tutorial, two 30-minute labs

Grounded through Communications 1707 and 1727 in the main elements of contemporary journalism in multiple media, students will undertake projects in audio, video or photojournalism or in multimedia journalism for online broadcast or publication, while applying key critical theoretical understandings to their own practices.

Prerequisites: Communications 1707 and 1727.

COMM 1841 – Introduction to Public Relations

(3 credits – TG) 2 hours lecture, 1 hour tutorial

This course will provide students with an overview of the field of public relations and environments in which practitioners work. Public relations will be considered from the perspective of human communication theories. Students will also learn the history and role of public relations in different organizational settings, and all key components of the public relations process from both a theoretical and practical point of view. Issues facing the practitioner and the industry will also be discussed.

COMM 1845 – Interpersonal Communications

(3 credits – TG) 3 hours lecture

This course introduces the fundamentals of interpersonal communications with a focus on ‘influencing with integrity’. Students will practice communicating one-on-one and in small groups; learn effective listening and conflict resolution skills; appreciate differences in others; and examine personal values, intentions and behaviours.

COMM 1849 – Applied Writing I for Public Relations

(3 credits) 2 hours lecture, 2 hours tutorial

This course will introduce students to intermediate-level elements of writing for specific communications disciplines. Considerations of audience, purpose and technique in media will be examined for a variety of writing assignments in public relations.

Prerequisite: Communications 1841.

COMM 2500 – Introduction to Communication Studies

(3 credits – TG) 3 hours lecture and tutorial combined

When we consume information or communicate with others we are sharing and assessing facts, ideas, opinions, and biases. In doing so we are developing a sense of who we are as individuals, and we’re also making decisions about how our world functions. This course will introduce students to the discipline of Communication Studies, and permit examination of a range of communication theories, which describe these dynamic social and personal processes.

**COMM 2501 – Media History and Contemporary Issues**

(3 credits – TG) 3 hours lecture and tutorial combined, and/or in a blended delivery format, or entirely online

An introduction to the key ideas and events in the history of media. The development of professional communication is examined with an emphasis on the role of journalism in democratic societies. Significant issues and opportunities influencing contemporary communication environments will likewise be explored.

**COMM 2503 – War & Media: The Evolution and Impact of News From the Front Lines**

(3 credits) 3 hours lecture

The course will examine how media coverage of war has evolved from the 1850s through to the present day, its influence and significance, and the degree to which it has (or perhaps has not) served the public good. It will also examine the fundamental tension between the media's quest for openness, and governments' inclination towards secrecy in the name of preserving operational security. Students will delve into the historical and social context of a number of conflicts, and encounter such iconic figures as Winston Churchill, Ernest Hemingway, Martha Gellhorn, Robert Capa and Sebastian Junger. Students will be immersed in these journalists' first-hand accounts from the front lines in the form of writings, radio clips, television footage, photography, documentaries, blogs and other elements of social media. These will be studied to gain a fuller understanding of the physical, technical and ethical difficulties (such as censorship and military/political pressure) that journalists face when assembling their first draft of history.

**COMM 2663 – Rhetoric**

(3 credits – TG) 3 hours lecture

This course gives students the opportunity to refine their writing skills by applying the principles of rhetoric and stylistics. To this end, analysis of such realms of discourse as advertising, magazine articles, fiction, political speech and debate will be emphasized to understand how these forms of communication achieve their effects. The rhetorical analysis of texts will, moreover, apply to students' own writing. Rhetorical theory and application will, in other words, be closely linked to ensure that students understand, through practice, the stylistics resources available in language that make ideas clear, cogent and compelling.

COMM 2666 – Typography

(3 credits) 2 hours lecture, 2 hours lab

Introduction to the topic of typography and examination of the role of type in visual communication and information design through normative and conceptual relationships. Topics will include principles of typography and layout, concept development, and the historical foundations of typography. Students will use typographical principles and methods of visual organization to solve assigned communication problems.

Prerequisites: Communications 1600, 1610 and 1620.

COMM 2667 – Information Architecture

(3 credits) 3 hours lecture

Introduction to the principles and best practices of effective information design for both print and electronic media. The course includes such topics as information types, information categorization and hierarchies, types of organizational patterns, message and document genres, structural markup languages, structured information design and technologies, content management, and single sourcing.

Prerequisites: Communications 1661 and 1600.

COMM 2670 – Programming for Information Designers

(3 credits) 2 hours lecture, 1 hour tutorial

Discussion of, and practice with, programming techniques with emphasis on web-based applications. Elements of good style and usability are introduced.

Prerequisite: Communications 1610.

COMM 2673 – Introduction to Digital Layout

(3 credits) 2 hours lecture, 2 hours lab

An introduction to digital layout and presentation graphics. Students will learn how to develop and organize information to be used for a variety of print media. A series of problems based on the relationship between typography and imagery will be assigned.

Prerequisites: Communications 1620, 1610 and 2666.

COMP 1209 – Introduction to Computing for Applied Degrees

(3 credits – TG) 2 hours lecture, 2 hours lab

This course develops the knowledge and skills required to be a proficient user of fundamental computer applications. Students will learn how to effectively use some of the following computer applications: word processors, spreadsheets, databases, presentation programs and the Internet.

Note: Credit will be allowed for only one of Computer Science 1205, 1207, 1209, 1213 and 2203.

COMP 1370 – Introduction to Internet Development (formerly COMP 1371)

(3 credits) 2 hours lecture, 2 hours lab

This course lays the groundwork for effective creation of Internet documents and sites. Students will acquire an in-depth understanding of HTML and an introduction to Cascading Style Sheets. Students will explore strategies for readability and interactivity.

Note: Credit will be allowed for only one of Computer Science 1274, 1370 or 1371.

COMP 1501 – Programming I: Introduction to Problem Solving and Programming

(3 credits) 3 hours lecture, 1 hour tutorial, 1 hour lab

This course provides an introduction to problem solving in the context of computer programming. The problem solving process is explored in depth, with a focus on applying the key steps in a variety of situations. The course emphasizes the design of fundamental algorithmic solutions and the implementation of those solutions in a visual development environment. Pre-existing modular building blocks for objects and methods form the basis for program implementation.

Note: Only one of Computer Science 1001 and 1501 can be used to satisfy program requirements.

COMP 1502 – Programming II: Object Oriented Programming

(3 credits) 3 hours lecture, 1 hour tutorial, 1 hour lab

The concepts and practices essential to programming within an object-oriented environment are studied. The course also encompasses the key facets of designing a modular solution, developing and executing a test plan and debugging in a systematic manner. Exception handling is also covered.

Prerequisite: Computer Science 1501 or ~~1544~~ 2511 with a minimum grade of C-.

COMP 1615 – Introduction to Programming (formerly COMP 2215)

(3 credits – TG) 3 hours lecture, 1 hour tutorial

Introduction to algorithm design and implementation using a structured programming language. Discussion of, and practice with, elementary programming techniques with emphasis on good style.

**COMP 1631 – Introduction to Computer Science I (formerly COMP 2231)**

(3 credits – TG) 3 hours lecture, 2 hours tutorial

Problem solving and programming in a structured programming language. Data representation, program control, basic file handling, the use of simple data structures and their implementation.

Note: This course is intended for prospective majors in Computer Science and for others with a sound mathematical background. Credit may not be obtained for both Computer Science 1501 and 1631.

COMP 1633 – Introduction to Computer Science II (formerly COMP 2233)

(3 credits – TG) 3 hours lecture, 2 hours tutorial

Continuation of Computer Science 1631. The implementation of abstract data structures using pointers and objects, with emphasis on modularity and software design.

Prerequisite: Computer Science 1631 with a minimum grade of C- or higher.

COMP 2008 – Scientific Computing I: Modeling and Simulation

(3 credits) 3 hours lecture, 1 hour tutorial

This course provides an introduction to the fundamentals of scientific computing, the modeling process, computer simulations, and scientific applications. While the focus is on cellular automaton simulations and Monte Carlo techniques, a limited number of system dynamics models may also be examined.

Prerequisite: Computer Science 1001 with a minimum grade of C-.

COMP 2011 – Directed Field Studies I for Computer Information Systems (formerly ENTR 2011)

(15 credits)

The Directed Field Studies provides Computer Information Systems students with an opportunity to extend what they have learned in the classroom into a relevant work environment. It is also an opportunity to acquire new knowledge (both technical and business) through observation, practice and self-assessment. Directed Field Studies are highly individualized so that each student will gain something unique from the course. Normally this first Directed Field Studies will involve a single employer, and will be arranged through the University. It must allow an appropriate and effective learning opportunity. A significant amount of time is required from the student during the semester prior to the Directed Field Studies (e.g. attending workshops, interviewing, developing suitable learning objectives).

Prerequisites: All first and second year Computer Science courses in the Computer Information Systems and Business program, Entrepreneurship 2201, Administration 1120, 1210 and 1130 or 1150.

COMP 2503 – Programming III: Data Structures

(3 credits) 3 hours lecture, 1 hour tutorial

Data structures important to computing such as basic linear structures, trees, heaps and hash tables will be studied. Additionally searching and sorting methods will be covered. The representation, uses and algorithms for manipulating these data structures will be examined. The emphasis is on using these structures to solve problems.

Prerequisite: Computer Science 1502 with a minimum grade of C-.

COMP 2511 – Web I: Client Development (formerly COMP 1511)

(3 credits) 3 hours lecture, 1 hour lab

This course covers the concepts and practice necessary for creating Internet content. The course provides a technical overview of the Internet environment and the structure of the World Wide Web. The technical segment will focus on the design and implementation of an effective web site at the introductory level.

Prerequisite: Computer Science 1001 or 1501 or 1615 or 1631 with a minimum grade of C-.

**COMP 2521 – Database I: Data Modeling and Query Languages**

(3 credits) 3 hours lecture, 1 hour tutorial

This course emphasizes concepts necessary to design and implement databases. Conceptual and logical data modeling is covered in detail. The technical segment focuses on the relational database environment.

Prerequisite: Computer Science 1502 with a minimum grade of C-.

COMP 2531 – Computer Architecture and Operating Systems

(3 credits) 3 hours lecture, 1 hour lab

This course covers fundamental hardware and system software topics. Hardware including CPU architecture and computer organization is studied first. Then students explore the inner workings of operating systems, including file systems, process scheduling, concurrency, and memory management.

Prerequisite: Computer Science 1501 or 1001 with a minimum grade of C-.

COMP 2541 – Systems Analysis

(3 credits) 3 hours lecture, 1 hour tutorial

This course provides an introduction to systems analysis in the development of computer-based information systems. The theory and models of software evolution are studied. The course covers system development methodologies and key systems analysis tools and techniques, with a focus on object-oriented strategies.

Prerequisites: Management 3210 and either Computer Science 1502 or ~~1514~~ 2511 with a minimum grade of C-.

COMP 2613 – Introduction to Computability (formerly COMP 3313)

(3 credits – TG) 3 hours lecture, 2 hours tutorial

This course provides students with an opportunity to gain insight into the theoretical foundations of computing science. Topics include abstract machines (finite automata; push down automata and Turing machines), the hierarchy of formal languages (regular, context-free, and recursive) recognized by these machines, and applications of these languages.

Prerequisites: Mathematics 1271 and Computer Science 1633 or 2005 with minimum grades of C- or higher.

COMP 2631 – Information Structures I (formerly COMP 3331)

(3 credits – TG) 3 hours lecture, 2 hours tutorial

Data structures important to computer science will be studied, including trees, graphs and hash tables. Searching and sorting techniques will be emphasized. Associated algorithms and their time and space efficiency will also be studied.

Prerequisite: Computer Science 1633 with a minimum grade of C- or higher.

Recommended Preparation: Mathematics 1271 with a minimum grade of C- or higher.

COMP 2633 – Foundations of Software Engineering (formerly COMP 3333)

(3 credits – TG) 3 hours lecture, 2 hours tutorial

Introduction to software development problems and to the processes and methods used to address them. Software life cycles models. Software process improvement. Goals and methods for requirements analysis and specification, software design, implementation, integration and testing of software. An introduction to one or more informal methods (focusing on object-oriented approaches) currently in wide spread use.

Prerequisite: Computer Science 2631 with a minimum grade of C- or higher.

COMP 2635 – Information Structures II

(3 credits – TG) 3 hours lecture, 2 hours tutorial

This course is a continuation of Computer Science 2631. Advanced data structure topics, including collision resolution in hash tables, search algorithms, tree structures, and strings will be covered. Advanced algorithmic tools for storing and manipulating information will be studied.

Prerequisite: Computer Science 2631 with a minimum grade of C- or higher.

COMP 2655 – Computing Machinery I (formerly COMP 3355)

(3 credits – TG) 3 hours lecture, 2 hours tutorial

An introduction to computing machinery, establishing the connection between programs expressed in a compiled language, an assembly language, and machine code, and how such code is executed. Includes the detailed study of a modern CPU architecture, its assembly language and internal data representation, and the relationship between high-level program constructs and machine operations.

Prerequisite: Computer Science 1633 with a minimum grade of C- or higher.

Recommended Preparation: Mathematics 1271 with a minimum grade of C- or higher.

COMP 2659 – Computing Machinery II (formerly COMP 3325)

(3 credits – TG) 3 hours lecture, 1 hour tutorial, 1 hour lab

An introduction to combinational and sequential digital logic design, focusing on its application to the creation of modern computing machinery. Includes hardware interfacing to peripheral devices, and programming techniques for asynchronous and real-time machine input/output.

Prerequisites: Philosophy 1179 and Computer Science 2655 with minimum grades of C- or higher.

COMP 3008 – Scientific Computing II: Data and Visualization

(3 credits) 3 hours lecture, 1 hour tutorial

This course provides an introduction to the underlying theory and practical concepts in data visualization. A number of topics pertaining to data will be covered, including types of data, its acquisition, representation, storage and access, as well as various forms of data analysis. The foundations of visualization and consequent design principles will be presented. Current examples and case studies in data visualization will be examined, with particular emphasis on scientific applications.

Prerequisite: Computer Science 2008 with a minimum grade of C-.

COMP 3011 – Directed Field Studies II for Computer Information Systems (formerly ENTR 3011)

(15 credits)

The Directed Field Studies provides Computer Information Systems students with an opportunity to extend what they have learned in the classroom into a relevant work environment. It is also an opportunity to acquire new knowledge (both technical and business) through observation, practice and self-assessment. Students will be expected to achieve higher levels of competencies than they did in the first Directed Field Studies course. They must demonstrate their entrepreneurial abilities by generating a suitable work experience, which must be approved prior to the start of the course. It must allow an appropriate and effective learning opportunity. A significant amount of time is required from the student during the semester(s) prior to the Directed Field Studies (e.g. attending work shops, self marketing, developing suitable learning objectives).

Prerequisites: Computer Science 2011, plus 22 courses of the Computer Information Systems and Business program, including 11 Computer Science courses and 6 Business courses.

COMP 3012 – Robotics

(3 credits) 3 hours lecture, 1 hour tutorial, 2 hours laboratory

This course provides an introduction to the underlying theory and practical concepts in robotics. This includes aspects of geometry, kinematics, statics, dynamics, control, motion planning, trajectory generation, and programming. Students also receive practical experience using a rapid prototyping tool to construct a robotic system.

Prerequisites: One of Computer Science 1502 or 2233 or 2531 with a minimum grade of C-, and one of Mathematics 1200 or 1203 or 1505 or equivalent with a minimum grade of C-.

COMP 3307 – Computing Applications in Small Business and Entrepreneurship

(3 credits) 2 hours lecture, 2 hours tutorial

This course covers the design and implementation of databases to manage distribution and inventory for a business. It also includes the design and development of print and electronic promotional pieces using desktop publishing and web authoring software, and the exchange of data between applications. The goal of the course is to enable students to use computing resources to gain a competitive edge.

COMP 3309 – Information Technology and Society

(3 credits – TG) 3 hours lecture

A study of the implications of information technology for society. Historical perspectives, social context of computing, legal and ethical problems, economic issues, and philosophical frameworks for analysis will be covered.

**COMP 3504 – Programming IV: Software Engineering**

(3 credits) 3 hours lecture, 1 hour tutorial

The course introduces software engineering concepts and applies object-oriented design principles to mobile app development using a state of the art IDE and APIs. Topics include agile programming, test-driven development, refactoring, design patterns, memory management, multithreading and basic user interface design principles.

Prerequisites: Computer Science 2503 and 2541 with a minimum grade of C-.

COMP 3512 – Web II: Web Application Development

(3 credits) 3 hours lecture, 1 hour tutorial

This course focuses on the concepts and technologies needed to develop web-centric applications. The overall architecture of Internet applications is examined at a high level. Special emphasis is given to server-side programming, including the creation of multi-tier and multi-layer web applications and using Web Services to integrate web applications with other IT applications.

Prerequisites: Computer Science ~~4544~~ 2511, 2503 and 2521 with a minimum grade of C-.

COMP 3532 – System Administration and Maintenance

(3 credits) 3 hours lecture, 1 hour lab

This course covers the deployment and maintenance of modern computer systems, with particular emphasis on the administration of user accounts. The course includes an overview of basic administrative tasks associated with network operating systems such as Windows and Linux.

Prerequisite: Computer Science 2531 with a minimum grade of C-.

COMP 3533 – Network Infrastructure and Security

(3 credits) 3 hours lecture, 1 hour lab

This course covers the principles and practice of computer networking, focusing on the high-level protocol-oriented aspects of computer networks. Networking as it relates to database and file service applications is examined along with Internet structure, protocols and routing. Various aspects of security in networked information systems are studied.

Prerequisite: Computer Science 3532 with a minimum grade of C-.

COMP 3551 – GUI Development

(3 credits) 3 hours lecture, 1 hour tutorial

This course focuses on the design and development of contemporary event driven graphical user-interface (GUI) applications. Special emphasis will be given to events, event handling, and exception handling. Different GUI design approaches and design patterns will be examined. Graphics, audio, and timers will also be covered.

Prerequisite: Computer Science 3504 with a minimum grade of C-.

COMP 3553 – Human-Computer Interaction**(formerly COMP 4553)**

(3 credits) 3 hours lecture, 1 hour tutorial

This course covers the fundamental theory and practice in the design and evaluation of human-computer interfaces. The impacts of computer-based information systems on individuals and organizations are examined along with the rationale for a user-centric approach in all IT applications and systems.

Prerequisite: Computer Science ~~4544~~ 2511 and 2503 with a minimum grade of C-.

COMP 3591 – Mandatory Work Experience

(0 credits)

The Bachelor of Computer Information Systems degree requires that all students complete at least one paid work experience term. Through a competitive process, students are hired by suitable employers, monitored by the University and evaluated by the employer. The course includes work term assignments, on-site performance assessments, employer evaluations and a group debriefing session at the end of the term.

Prerequisites: COOP 0001, Computer Science ~~4544~~ 2511, 2503, 2521, 2531, and 2541 as well as two of the following: Accounting 2121, Human Resources 2170, Management 2130, and Marketing 2150.

COMP 3649 – Programming Paradigms**(formerly COMP 3349)**

(3 credits – TG) 3 hours lecture, 2 hours tutorial

This course will examine the basic principles of several major programming paradigms, with emphasis on declarative paradigms such as functional and logic programming. Data types, control expressions, loops, types of references, lazy evaluation, different interpretation principles and information hiding will be studied.

Prerequisites: Computer Science 2631 and Philosophy 1179 with minimum grades of C- or higher.

COMP 4401 – Quality Assurance and Testing

(3 credits) 3 hours lecture, 1 hour lab

This course covers the issues involved in ensuring a high quality deployment of a new application. Topics include quality assurance, project management, integrating a new application with existing applications, quality control (testing) and deployment strategies.

Prerequisite: Computer Science 4403.

COMP 4409 – Advanced Internet Application Development

(3 credits) 3 hours lecture, 1 hour lab

This course focuses on the design and development of complex Internet applications. Topics included in this course are: Internet application technology, patterns, frameworks and best practices in the design and development of Internet applications. The overall architecture of Internet applications will be examined. Students will use a current Internet development platform to create real-world Internet applications.

Prerequisite: Computer Science 4421.

Recommended Preparation: Computer Science 1278.

COMP 4513 – Web III: Advanced Web Development

(3 credits) 3 hours lecture

This course covers advanced web development topics, applying the foundation client and server techniques learned in Web I and II, and database topics from Databases I. In addition to practical theory, students will learn about asynchronous JavaScript, web services, electronic commerce, search engine optimization and content management systems. Students will use a modern API to develop an application using maps, social network plug-ins, or other advanced web technology.

Prerequisite: Computer Science 3512 with a minimum grade of C-.

COMP 4522 – Database-II: Advanced Databases

(3 credits) 3 hours lecture

This course covers advanced concepts and techniques associated with information management. Database implementation and administration issues are examined in depth. Emerging database trends such as data warehousing and data mining are introduced. The course also provides an overview of distributed database topics, including distributed transactions.

Prerequisite: Computer Science 2521 with a minimum grade of C-.

COMP 4535 – Computer Security

(3 credits) 3 hours lecture

This course covers the concepts and techniques of computer security. It focuses on security issues relevant to the Internet and protecting an organization's internal network. Risk assessment and development of security policies are covered.

Prerequisite: Computer Science 3533 with a minimum grade of C-.

COMP 4543 – Project Management and Quality Assurance

(3 credits) 3 hours lecture

This course covers strategic approaches for successful management of system development or enhancement projects, from both technical and organizational perspectives. The steps involved in ensuring a high quality deployment of a new application are examined.

Prerequisite: Computer Science 2541 with a minimum grade of C-.

COMP 4545 – Information Systems Organization

(3 credits) 3 hours lecture

This course provides a strategic perspective of an Information Systems Organization. There are two dimensions: the first deals with Information as a strategic resource and the second deals with administering and controlling this strategic resource. This course discusses how the organization manages and uses information to ensure its competitive advantage.

Prerequisite: Computer Science 2541 with a minimum grade of C-.

CYCC 1142 – Fieldwork

(3 credits) 3 hrs tutorial, 120 hrs fieldwork

This introductory field placement course allows students an opportunity for face-to-face interaction with children/youth, reflection on practice and/or project involvement, which will lead to an understanding of the field. Programs available to children, youth and families and the diversity of treatment methods, philosophies and developmental theories will be explored.

Prerequisite: Child and Youth Care Counsellor 1132.

CYCC 1221 – Fundamental Skills in Counselling

(3 credits – TG) 3 hours lecture

This course emphasizes the acquisition of skills necessary to counsel individuals on a one-to-one basis. Students' attitudes toward professional relationships and issues in child and youth care counselling are explored. Students will broaden their understanding of basic developmental theories, including cognitive, social and emotional domains of developmental as these relate to counselling.

Prerequisite: Child and Youth Care Counsellor 1110.

CYCC 1232 – Working with Vulnerable Children, Youth and Families

(3 credits) 3 hours lecture

This course emphasizes attitudes, knowledge, skills, and proficiencies unique to the competent child and youth care counsellor. This course will explore interventions and strategies utilized when working with vulnerable children, youth and families within a variety of environments.

CYCC 2210 – Policies, Systems, and Issues Regarding Children and Youth

(3 credits) 3 hours lecture

This course examines the political, systemic and legal issues regarding children and youth, including current provincial and federal legislation. Issues of delinquency, socialization, advocacy for vulnerable children and youth, and professional and ethical practice, are examined within the contexts of historical, ecological and environmental factors.

CYCC 2216 – Group Process and Counselling Theory

(3 credits – TG) 3 hours lecture

This course is designed to understand the next wave theories of counselling and to learn effective group process and facilitation. Students will acquire the skills necessary to facilitate groups effectively. The role of groups in the treatment of vulnerable children youth and families is explored.

CYCC 2226 – Assessment and Intervention

(3 credits) 3 hours lecture

This course integrates and applies developmental theory and practice. Students are provided with the developmentally appropriate tools they will need to effectively assess, evaluate and provide intervention for vulnerable children, youth and families.

CYCC 2235 – Youth Care Practice with Families

(3 credits – TG) 3 hours lecture

This course examines diverse family types, focusing on assessing family needs and dynamics through systems theories. Students will learn intervention strategies for working with vulnerable children, youth and families.

CYCC 2241 – Practicum

(3 credits) 2 hours tutorial, 250 hours fieldwork

Students begin a practicum in a residential, school or community agency to learn the specific skills required to work with vulnerable children, youth and families. They will have the opportunity to integrate developmental theories and practice through seminars, supervised practice and campus activities.

Prerequisite: Child and Youth Care Counsellor 1142.

CYCC 2242 – Practicum

(6 credits) 2 hours seminar, 290 hours practicum

Students continue their CYCC 2241 practice to learn skills required to work with vulnerable children, youth and families. They will integrate developmental theory and practice through seminars and supervised practice. Students will engage in leadership activities with a first year Fieldwork student and campus/community activities. Practicum II learning integration will culminate with a block placement.

Pre-requisite: Child and Youth Care Counsellor 2241.

CYCC 1199, 1299 – Directed Readings

See **Directed Readings** which are listed alphabetically in this section of the calendar.

DIRECTED READINGS

(3 credits) Subject to the approval of the Chair.

Directed Readings are intended to provide a more flexible approach for students who want to pursue and receive credit in areas of study which are of particular interest to them. Two Directed Reading courses can be used for graduation purposes but they must be in different disciplines. A Directed Reading cannot replicate an existing course. The objectives of the Directed Reading course(s) must be filed in the Office of the Registrar and will be made available to any institution requesting them for evaluation purposes. Arrangements for Directed Readings must be completed on or before the Add/Drop deadline.

ECOLOGY (ECOL)**ECOL 1111 – Terrestrial Ecology (formerly ECOL 2211)**

(3 credits) 3 hours lecture, 3 hours lab

The study of the interactions and the interdependencies of organisms in terrestrial ecosystems will be the focus of this course. Ecological processes and interactions at the individual, population and community levels within terrestrial ecosystems will be examined. Spatial and temporal patterns of variability within terrestrial ecosystem components and the resulting effects on ecosystem function will be investigated. Natural variability as well as human-induced changes will be profiled. This course will also examine how managed and unmanaged natural terrestrial ecosystems interact with industrial systems. The resulting effects of these interactions on biodiversity and ecosystem function will be critically examined.

ECOL 1210 – Ecology

(3 credits – TG) 3 hours lecture, 3 hours lab

This course explores the relationships between living organisms and their environment. Major topics include introductions to ecology, evolution, the natural history of Alberta, and ecological interactions. An understanding of biodiversity, species at risk issues and natural resource management will be developed. Recreational impacts on ecological systems will be examined as well. This course is intended for students in the Bachelor of Applied Ecotourism and Outdoor Leadership program.

ECOL 2201 – Plant Survey and Classification

(3 Credits) 3 hours lecture, 3 hours lab

This course provides an introduction to the principles and application of field survey, classification and identification of common types of vegetation found in Alberta. The theoretical component of the course focuses on the particular traits that define the major plant families found in Alberta. In the laboratory, taxonomic keys and field guides will be used to identify plants to the species level, with application to the environmental assessment and reclamation of native and disturbed sites.

Prerequisites: Ecology 1111, Geography 1101 or Biology 1204.

EDUC 3351 – Aboriginal Cultural Dimensions and Classroom Applications (formerly EDUC 2351)

(3 credits – TG) 3 hours lecture

This course is designed to prepare and sensitize prospective teachers to aboriginal perspectives, values, and methods as they relate to the learning context. The course will include an in-depth examination of traditional aboriginal education and associated values.

Prerequisites: Education 3010.

EDUC 3361 – Exceptional Students, Special Needs, and Inclusive Schooling

(3 credits – TG) 3 hour lecture

This course examines characteristics of students exhibiting a range of mild, moderate, and severe disabilities and students exhibiting exceptional gifts and talents. Diverse educational, cultural, and linguistic backgrounds will be discussed. The course also examines methods that can be used in adapting classroom instruction and management of the diverse needs.

Prerequisite: Education 3010.

EDUC 3372 – Early Literacy Teaching English as a Second Language (TESL)

(3 credits – TG) 3 hours lecture

This course will introduce the student to ways of working with young English Language Learners as they begin to acquire early literacy concepts and skills, develop oral language and breadth, and depth of vocabulary knowledge. The course will comprise a balanced approach to an early literacy program that is necessary for success in academic literacy.

Prerequisites: Linguistics 1111 and 1113 or Education 2371.

EDUC 4020 – Practicum II

(6 credits) 9 week practicum

This practicum II experience focuses on inquiry, reflective planning as well as teaching and assessment practices, including an action research project. Students will be expected to be directly involved in all aspects of teaching for 50% by the third week, 75% by the end of the sixth week and 100% during the final three weeks of the practicum.

Prerequisites: Education 3010

Co-requisites: Education 4107, 4101 and 4201.

EDUC 4101 – Program of Studies and Curriculum Instruction in Teaching Art

(3 credits) 3 hours lecture

This course examines the fundamental knowledge, understanding, values, attitudes, skills, and processes required to implement an effective program of studies for Teaching Elementary Art in Alberta schools. The course will address relevant instructional methodologies, unit planning, curriculum integration, and resource development. Students will investigate a range of assessment strategies to meet student needs.

Prerequisites: Education 3010.

Co-requisites: Education 4107, 4020 and 4201.

EDUC 4104 – Program of Studies and Curriculum Instruction in Teaching Music

(3 credits) 3 hours lecture

This course is designed to provide musical experiences which will help the student gain skills to appropriately enhance the musical growth of children in K–6 classrooms. The course participant's personal skill and understanding of musical concepts will be developed; musical needs and capabilities of young children will be investigated; methods of teaching music to young children will be presented through observation and application.

Prerequisites: Education 3010.

Co-requisites: Education 4105.

EDUC 4105 – Program of Studies and Curriculum Instruction in Teaching Physical Education

(3 credits) 3 hours lecture

This course examines the fundamental knowledge, understanding, values, attitudes, skills, and processes required to implement an effective program of studies for teaching Physical Education in Elementary School Education in Alberta schools. The course will address relevant instructional methodologies, unit planning, curriculum integration, and resource development. Students will investigate a range of assessment strategies.

Prerequisites: Education 3010.

Co-requisites: Education 4104.

EDUC 4107 – Program of Studies and Curriculum Instruction in Teaching Social Studies

(3 credits) 3 hours lecture

This course explores the knowledge and skills required to implement programs of studies in teaching Social Studies in Elementary (1 – 6) Education. The course will address a range of approaches to develop instruction, plan units of study, integrate curriculum, develop resources and assessment strategies to meet students' needs.

Prerequisites: Education 3010.

Co-requisites: Education 4101, 4020 and 4201.

EDUC 4201 – Integrating Ideas, Values and Praxis

(3 credit) 3 hours lecture

In this capstone course, participants will critically reflect upon significant issues and experiences gleaned from their education, general education, schooling and elective courses, field experiences and practica. The major focus will be upon the development of a professional teaching e-portfolio and an action research project.

Pre-requisites: Education 3010.

Co-requisites: Education 4101, 4107 and 4020.

EDUC 4321 – Developing a Philosophy of Education

(3 credits – TG) 3 hours lecture

This course examines basic beliefs concerning what is "sensible", "right", and "good" in promoting learning. Participants will critically reflect upon significant issues and experiences and will develop their philosophy of teaching and learning.

Prerequisites: Education 1231 and 1233.

EDUC 4325 – The Impact of Social Issues in Education and Schooling

(3 credits – TG) 3 hours lecture

This course examines factors such as the economy, the state, social class, gender, ethnicity, sub-cultural membership, ideology, religion, and the home environment, and their relationship to and impact on learning in general and schooling in particular.

Prerequisites: Education 1231 and 1233.

EDUC 4471 – ESL in Mainstream: Language through Content Teaching English as a Second Language (TESL)

(3 credits – TG) 3 hours lecture

This course will introduce students to the principles of language through content (LTC) teaching and would enable them to respond to the needs of ESL learners as they attempt to learn language AND content together in the context of the mainstream classroom.

Prerequisites: Linguistics 1111 and 1113 or Education 2371.

EDUC 3199, 4199 – Directed Readings

See **Directed Readings** which are listed alphabetically in this section of the calendar.

EARLY LEARNING AND CHILD CARE (ELCC)

ELCC 1104 – Introduction to Early Learning and Child Care

(3 credits) 3 hours lecture

This initial course provides students with an overview of the field of early childhood education and the profession. Students will begin to develop a personal philosophy of early learning as they gain knowledge in quality care for children, types of early childhood programs and professional roles from diverse perspectives. Students will also learn foundations in governing regulations and policies. This course will be offered in a blended manner.



ELCC 1109 – Principles of Development I

(3 credits) 3 hours lecture

Child development is a basic core course for the Early Learning and Child Care program and sets the theoretical and practical framework for understanding how children grow and develop from social and cultural perspectives. This course is the first of two courses that cover the theories and sequences of development from pre-birth to twelve years.



ELCC 1110 – Learning Through Play I

(3 credits) 3 hours lecture

This course will examine play as the foundation of children's development. Topics to be discussed include definitions and theories of play, the values and types of play, and the roles of the adult and the environment in diverse contexts.

Pre or Co-requisite: Early Learning and Child Care 1109.



ELCC 1180 – Fieldwork

(3 credits) 1 hour lecture, 100 hours fieldwork

This course will provide students with the opportunity to integrate and apply theoretical methods by observing and interacting in different early learning settings. Students are required to be in fieldwork one day per week throughout the semester.



ELCC 1209 – Principles of Development II

(3 credits) 3 hours lecture

Child development is a basic core course for the Early Learning and Child Care program and sets the theoretical and practical framework for understanding how children grow and develop from a social and cultural perspective. This course will cover the theories and sequences of development from pre-birth to age twelve.

Pre or Co-requisite: Early Learning and Child Care 1109.



ELCC 1213 – Communicating with Parents and Professionals in Early Learning and Child Care Settings

(3 credits – TG) 3 hours lecture

This course will examine communication strategies necessary for early learning and child care professionals in their interactions with colleagues, parents and other professionals. This will include both verbal and written communications, problem solving and conflict resolution approaches applicable to the child care professional.

Recommended preparation Early Learning and Child Care 1104.



ELCC 1282 – Practicum I

(3 credits) 2 hours bi-weekly, 260 hours practicum

Practicum I allows the student the opportunity to integrate play and child development theories with young children in early learning settings. Students will gain experience in guiding children's behaviours and experience in a variety of skill development areas. For two days per week students will interact with young children in an early childhood setting under supervision. Students will be accepted into practica on the basis of academic performance and health.

Pre or Co-requisites: Early Learning and Child Care 1180, 1209 and 2110.

Note: Students must successfully complete Early Learning and Child Care 1282 with a minimum 'C' grade to enrol in Early Learning and Child Care 2185.



ELCC 2110 – Learning Through Play II (formerly ELCC 1120)

(3 credits) 3 hours lecture

This course provides the foundations for the creation of play based learning environments along with opportunities for practice. Students will explore the theory, methods and techniques of developmentally appropriate practice in planning play experiences.

Pre or Co-requisites: Early Learning and Child Care 1104, 1109, and 1110.



ELCC 2121 – Guidance and Planning (formerly ELCC 1121)

(3 credits) 3 hours lecture

This course covers the planning of play environments with children to age twelve with a focus on emergent curriculum and a variety of curricular areas. Students will analyze how the planning of environments, programs and early childhood educator practices might influence children's engagement, learning and behaviors. They will consider the role of the early childhood educator in documenting, supporting and facilitating children's learning in early childhood settings. Students will also consider the significance of relationships, the environment and understanding children's behaviour as it relates to guidance situations.

Prerequisites: Early Learning and Child Care 1209, 1282 and 2110.

Co-requisite: Early Learning and Child Care 2285.

ELCC 2211 – Child, Family and Community (formerly ELCC 1211)

(3 credits) 3 hours lecture

This course focuses on the family of the preschool child. Students will explore and develop an understanding of family and the factors affecting families today. Issues affecting families are discussed in terms of the effect they have on all members of the family and on the development of the child. The role of the educator in understanding, accepting and supporting the diversity of families is discussed. Various means of developing partnerships with parents will be explored.

Prerequisites: Early Learning and Child Care 1209 and 1213.

ELCC 2215 – Young Children with Special Needs (formerly ELCC 1215)

(3 credits) 3 hours lecture

This course provides students with information about young children with diverse needs. Along with learning about specific types of conditions and an introduction to the field of exceptional children and their families, this course will discuss some techniques to include children with special needs into early learning settings.

Prerequisites: Early Learning and Child Care 1209 and 2110.

ELCC 2217 – Professional Practices in Early Childhood Organizations (formerly ELCC 1217)

(3 credits) 3 hours lecture

This course discusses professional practices in relation to leadership and management organizational structure of child care programs.

Pre or Co-requisite: Early Learning and Child Care 1282.

ENVS 3335 – Issues in Environmental Assessment**(3 credits) 3 hours lecture**

This course will review and analyze provincial, national and international environmental assessment issues. Important representative case studies will be reviewed. Guest speakers will be drawn from appropriate organizations. Current methodologies in environmental impact assessment will be covered, including overviews of Risk Assessment, Cumulative Effects Assessment and Strategic Environmental Assessment. The advantages of moving towards Comprehensive Risk Assessment and Comprehensive Policy Support Assessment will be critically discussed. These integrated decision methodologies will be necessary to support industrial ecology infrastructure and be crucial to making progress towards economic and environmental efficiency at all system levels.

Prerequisites: Successful completion of Semesters 1, 2, and 3 of the Biogeochemical Stream or equivalents or consent of the department.

ENVS 4405 – Air Quality**(3 credits) 3 hours lecture, 3 hours lab**

This course will examine the composition, evolution, and future of the earth's atmosphere. It will include human impact, mitigating initiatives and will examine the predictive methods and databases currently in use to predict future scenarios. It will examine the atmosphere as part of the biogeochemical cycling of its constituents.

Prerequisites: Chemistry 2157.

ENVS 4406 – Soil Genesis and Land Use**(3 credits) 3 hours lecture, 3 hours lab**

This course addresses soil systems formation, interpretation, and processes as they relate to soil development, survey and classification. The course also examines soil databases and their application for site evaluation and suitable use with significant attention to environmental issues. Students will develop critical reading skills in order to synthesize and apply information from soil databases towards land management decisions, conservation, and restoration. Students will also participate in research projects under faculty supervision and present their scientific findings in a written report which will then be presented to the department.

Prerequisites: Geography 2109 and Environmental Science 3305.

ENVS 4407 – Pollution Prevention: Toward Zero Emissions**(3 credits) 3 hours lecture**

This course is a study of the principles of recovery, reuse and recycling ("3R's") of pollutants and contaminants. Examples will be drawn from the 176 currently listed in the National Pollutant Release Inventory (NPRI). Measures taken to reduce the release, allow tracking of transfers, and achieving reductions will be analyzed. Measures to control and reduce emission of carbon dioxide, methane, and other greenhouse gases will be discussed. The technologies and techniques as well as the voluntary and legislative measures will be compared. The petroleum industry will be analyzed in detail with an examination of wellsite and facility technologies.

Prerequisites: Successful completion of Semesters 1, 2, 3, 4, and 5 of the Biogeochemical stream and the Physical Processes stream courses or equivalents or consent of the department.

ENVS 4413 – Principles of Eco-Industrial Development**(2 credits) 2 hours lecture**

Students will be introduced to the process of initiating, planning, designing, marketing, financing and operating eco-industrial parks and eco-industrial networks. An examination of case studies on existing eco-industrial parks and the application of key concepts through the completion of a term project with a network of local companies will be involved.

Prerequisites: Successful completion of Semesters 1, 2, 3, 4, and 5 courses or equivalent or consent of the department.

ENVS 4417 – Design for the Environment**(3 credits) 2 hours lecture, 3 hours lab**

This course develops concepts and procedures to integrate and implement the vision of industrial ecology into business decisions. It will examine how leadingedge industrial ecology precepts can be implemented in the real world. The course will explore a systematic approach to support business decisions within the industrial ecology framework. Students will develop skills in incorporating environmental objectives and constraints into process and product design, materials and technology choices. Case studies will highlight DFE success stories. Project work will provide hands-on experience in the DFE field. The course will examine local, regional and global issues related to the design and redesign of industrial systems in order to make them more sustainable.

Prerequisites: Successful completion of Semesters 1, 2, 3, 4, 5, 6 and 7 of the Biogeochemical Stream courses or Physical Processes Stream courses or equivalents or consent of the department.

ENVS 4419 – Regulatory Management**(3 credits) 3 hours lecture**

Students will be introduced to the processes associated with Regulatory Management through case studies of relevant local, regional, national, and international laws, regulations, and treaties governing the environment. The understanding of the origins, current status, and future impacts of these studies will provide insight into the effects of environmental initiatives on the region, the province, Canada and in the international arena.

Prerequisite: Environmental Science 3335.

ENVS 4421 – Environmental Resource Management**(3 credits) 3 hours lecture**

This course investigates development and use of natural resources in modern society with an emphasis on the interrelationship between industrial activities and resource consumption, and their effects on the biosphere. Topics covered include analyses of new directions in products and systems' design, and their impacts on sustainable environmental resource management. Critical international issues in environmental resource management will also be examined.

Prerequisite: Environmental Science 3335 or Geography 2445 or equivalent or departmental approval.

ENVS 4423 – Market Based Initiatives**(3 credits) 3 hours lecture**

This course will examine the initiatives being taken by local, regional, and national governments, and the United Nations to encourage organizations to improve their environmental outcomes for economic reasons. Emission trading, the evolution of environmental law and its role in regulatory management, and the elements of ISO-14000 will be reviewed.

Prerequisite: Mathematics 1200.

ENVS 4431 – Management of Residuals**(3 credits) 3 hours lecture**

This course is designed to provide the students an understanding of the principles and concepts of waste management. Topics include: environmental chemistry of hazardous wastes, principles of industrial metabolism, waste disposal, health risks, regulatory aspects of residuals management, principles of industrial metabolism, optimization of materials.

Prerequisites: Successful completion of Semester 1, 2, 3, 4 and 5 of the Biogeochemical Stream courses or equivalents or consent of the department.

ENVS 4433 – Quality Assurance/Quality Control**(3 credits) 3 hours lecture, 3 hours lab**

This course will examine the use of QA/QC procedures to the management of the quality aspects of data collection, generation and use. It will provide an overview of the legal framework within which the data collection, generation and use must operate. It will examine the relationship between QA/QC and legal concepts such as due diligence and strict liability.

Prerequisites: Computer Science 1209 and Environmental Science 2205 or equivalents or consent of the department.

GEOLOGY (GEOL)

GEOL 1101 – Physical Geology

(3 credits – TG) 3 hours lecture, 3 hours lab

This course provides a study of the principles of physical geology. Topics include: the classification and identification of rocks and minerals; processes in the earth's interior; plate tectonics and mountain building; surface processes and geologic hazards; and geologic resources, and an introduction to geologic time.

Note: Credit can only be obtained for one of Geology 1120, 1101, 2209.



GEOL 1103 – Historical Geology

(3 credits – TG) 3 hours lecture, 3 hours lab

A study of the earth's geologic history as interpreted from sedimentary rocks. Emphasis will be on rock types and fossils, and their stratigraphic and environmental significance, as they relate to the physical and organic evolution of North America, from Precambrian to Recent times.

Prerequisite: Geology 1101 with a grade of C- or higher.



GEOL 1109 – Introduction to Geology

(3 credits – TG) 3 hours lecture, 1 hour lab

Topics covered in this course include basic concepts regarding the major features of the earth: its rock and mineral composition; processes controlling erosion, deposition and surface structures; formation of the landscape; the history of the earth; plate tectonics and geologic hazards and how it all relates to you.

Note: Designed primarily for non-science students.



GEOL 1151 – Introduction to the Petroleum Industry

(3 credits – TG) 3 hours lecture

An overview of the history, operations and technical aspects of the petroleum industry. The course content will emphasize the geologic occurrence of petroleum. Topics include: origin, migration and occurrence of petroleum; methods of exploration; and production and uses of petroleum.

Note: A non-science background is assumed.



GEOL 2101 – Introduction to Geologic Field Methods

(3 credits – TG) 10-day field school

This course introduces the concepts of mapping geology at large and small scales. Detailed maps will be prepared using pace, compass and triangulation methods. Geologic sections will be measured with staff and tape and students will complete field reports. The field work will concentrate mainly on sedimentary rocks and basic structural geology. Field exercises are typically conducted outside of Calgary and normally occur during the two week period before Labour Day.

Prerequisite: Geology 1103 with a grade of C- or higher and consent of the department.

Note: This course occurs in rugged field conditions and varying weather, for which participants must be prepared and equipped. Students may be required to cover food and accommodation costs.

GEOL 2103 – Minerals and Rocks

(3 credits – TG) 3 hours lecture, 3 hours lab

This course focuses on the identification of rocks and rock forming minerals in hand sample and under the binocular microscope. Included are rock classification schemes; the interpretation of rock textures and structures; an introduction to the petrographic microscope; orthoscopic optical techniques and elementary petrography.

Prerequisites: Chemistry 1201 and Geology 1103 with a minimum grade of C- or higher or departmental approval.

GEOL 2105 – Structural Geology

(3 credits – TG) 3 hours lecture, 3 hours lab

This course will introduce orthographic and stereographic techniques used to examine tectonic structures. Students will also study the classification of tectonic structures, geological maps and cross sections, the mechanical principles involved in the deformation of rocks and the manipulation of structural data.

Prerequisites: Geology 1103 with a grade of C- or higher.

Note: There will be a weekend field trip during the course. Students will be required to cover food and accommodation costs.

GEOL 2107 – Palaeontology

(3 credits – TG) 3 hours lecture, 3 hours lab

Principles of classification, comparison of fossil with modern forms, morphology of invertebrate fossils, their evolutionary history and paleoecologic significance.

Prerequisite: Geology 1103 with a grade of C- or higher.

GEOL 2109 – Stratigraphy and Sedimentation

(3 credits – TG) 3 hours lecture, 3 hours lab

This course is an introduction to stratigraphic principles and sedimentary processes. Included are the properties, classification and interpretation of sedimentary rocks, stratigraphic nomenclature and stratigraphic relationships and interpretations.

Prerequisite: Geology 1103 with a grade of C- or higher.

GEOL 2111 – Crystallography and Optical Mineralogy

(3 credits – TG) 3 hours lecture, 3 hours lab

External and internal symmetry, chemistry, structure and conoscopic optical properties of crystalline material as a basis for more refined identification of rock-forming minerals.

Prerequisite: Geology 2103 with a grade of C- or higher.

GEOL 2151 – Environmental Geology and Earth Resources

(3 credits – TG) 3 hours lecture

Environmental geology involves the application of geological information to environmental problems. This course examines the interaction between man and the environment from a geological perspective with an emphasis on natural resource development in Western Canada.

Prerequisite: Geography 1101 or Geology 1101 or Geology 1109



GEOL 2153 – Natural Hazards and Disasters

(3 credits – TG) 3 hours lecture

This course examines natural disasters and provides a survey of important historical and recent disasters from a geologic perspective. Topics covered include: earthquakes, tsunami, volcanic eruptions, landslides, mudflows, flooding, climate change, droughts and extraterrestrial impacts. The lab component of this course involves two one day field trips to examine locally occurring natural hazards.

Prerequisite: Geography 1101 or Geology 1101 or Geology 1109



GEOL 2155 – Geological History of Life

(3 credits – TG) 3 hours lecture

The history of life from the earliest records to the present. Fossils, geological time, extinction, evolution. The rise and development of various animals and plants including trilobites, ammonites, dinosaurs, and horses.

Recommended Preparation: Geology 1109.



HIST 2108 – Gender History in Canada

(3 credits – TG) 3 hours Lecture

This course examines gender dynamics in Canada from the eighteenth century to the present day. Themes include sexuality and the body, gender regulation and performance, racialization and colonization, politics, law, popular culture, work, religion, violence, and war.

Recommended Preparation: Women's Studies 1172 or any History course.

NOTE: History 2108 replaces History 2208 and 2209. Students can only use one of History 2108, 2208, 2209 or Women's Studies 2241 to meet Bachelor of Arts (History) graduation and/or General Education requirements.

HIST 2202 – The Historian's Craft

(3 credits – TG) 3 hours lecture

The Historian's Craft is an introduction to history as a distinct field of study. It aims to help students understand what history is, what it means to be a historian, and how to write history. The course is intended primarily but not exclusively for history majors in order to prepare them for the advanced study of history in upper-division courses.

Prerequisite: Any one of the following courses: History 1100, 1101, 1103, 1111, 1117, 1119, 1131, or 1133.

HIST 2204 – The Medieval World

(3 credits – TG) 3 hours lecture

This course surveys the history of medieval Europe from c. 500 to c.1500. It focuses on the development of the political, religious and social structures that shaped Europe. Topics explored may include the ordering of society, belief systems, warfare and violence, art and architecture, literature, education and intellectual developments, and religious and political institutions.

HIST 2205 – Health, Disease and Medicine in Western Society

(3 credits – TG) 3 hours lecture

This survey course in the social history of medicine focuses on the "medical revolution" of the nineteenth century. Topics include epidemics, mental illness, the development of the medical profession, and the role of medicine in culture and society.

Recommended Preparation: Any 1000-level History course.

HIST 2206 – The History of Ancient Rome

(3 credits – TG) 3 hours lecture

This course surveys the history of Ancient Rome from the early kings to the spread of Christianity and the fragmentation of the Roman Empire in the West. Particular attention will be paid to the military, political, social and cultural achievements of the Romans, and to their long-standing legacy within Western Europe.

HIST 2207 – Histories of Western Sexualities

(3 credits – TG) 3 hours lecture

Histories of Western Sexualities aims to help students understand that, contrary to our intuitive understanding, sexuality – both our sexual practices and our attitudes towards sexuality – have varied enormously over time and between cultures – that is, our sexuality is "historically contingent" and "socially constructed". Given the enormity of the subject, the course will focus on sexuality in Western cultural experience and the topics covered will vary from semester to semester.

**HIST 2208 – Women and Gender in Canada to 1900**

(3 credits – TG) 3 hours lecture

This course examines women's experiences and gender dynamics in Canada from the eighteenth through the nineteenth century. Themes include race and racism, family, politics and political culture, spousal and sexual violence, religion, public and private spheres, as well as sexuality.

Recommended Preparation: Women's Studies 1172 or any first year history course.

HIST 2209 – Women and Gender in Canada Since 1900

(3 credits – TG) 3 hours lecture

This course examines women's experiences and gender dynamics in twentieth century Canada. Themes include feminism's three waves, the social welfare state, the rise of the Left, World War II, post-war family and consumption, immigration and race, heterosexism and homophobia, environmentalism, and anti-racism.

Recommended Preparation: Women's Studies 1172 or any first year history course.

HIST 2210 – Travel Studies in Canadian History

(3 credits – TG) 3 hours lecture

Themes and course content will vary, but may include topics such as the settlement of the west, the military history of Canada, Aboriginal/European relations, urban history, and Canadian cultural history. This course will include at least one multi-night field trip to sites in Canada.

Recommended Preparation: History 1131 and/or 1133.

Note: Students will be responsible for paying all costs, including travel, associated with the field trip.

HIST 2212 – Travel Studies in American History

(3 credits – TG) 3 hours lecture

Themes and course content will vary, but may include topics such as the Revolutionary War, the American Civil War, Aboriginal Peoples of the United States, urban history, and American cultural history. This course will include at least one multi-night field trip to sites in the United States.

Recommended Preparation: History 1117 and/or 1119.

Note: Students will be responsible for paying all costs, including travel, associated with the field trip.

HIST 2213 – Travel Studies in European History

(3 credits – TG) 3 hours lecture

Themes and course content will vary, but may include topics such as the two World Wars, religion and the state, social history, and European cultural history. This course will include at least one multi-night field trip to sites in Europe.

Recommended Preparation: History 1101 and/or 1103.

Note: Students will be responsible for paying all costs, including travel, associated with the field trip.

HIST 2215 – History of the People of the Plains: Treaty 7 Field Course

(3 credits – TG) 3 hours lecture

This course examines the history of the Native peoples in what is now southern Alberta. Topics include Natives prior to European contact, the events leading to Treaty Seven, and the impact of Treaty Seven on First Nations. This course combines lectures in a traditional classroom setting with a week-long experiential field study component.

Note: Students will be responsible for paying all costs, including travel, associated with the field trip.



MGMT 4402 – Corporate Social Responsibility

(3 credits) 3 Hours Lecture

This course deals with the interrelationship of corporate social responsibility, corporate integrity, organizational culture, corporate strategy and organizational management/leadership. Topics covered may include: fair-trade and globalization and other converging and emerging ideas about the continuing evolution of CSR.

Prerequisite: Management 3276 or Entrepreneurship 4431 or 4461.

**MGMT 4403 – Environmental Management & Sustainable Development**

(3 credits) 3 hours lecture

This is an advanced management course that introduces students to the issues, concepts, problems and processes of environmental management. Various management topics will be discussed including the design, implementation, and operation of an Environmental Management System, the tools of environmental management, and the concept of Sustainable Development. Students will gain an understanding of management processes and concepts and their application to the field of environmental management. Specific environmental issues will also be discussed and their relationship to the management of an organization.

**MGMT 4407 – Governance and Ethical Issues in Organizations**

(3 credits – TG) 3 hours lecture

Ethical governance in organizations can be described as the unnatural state. This course explores governance decision making in organizations. Emphasis will be placed on assessing the competing interests between social and personal values.

**MGMT 4431 – Leadership Development (formerly ENTR 4431)**

(3 credits – TG) 3 hours lecture

The course offers a balanced integration of theory and practice of skills generally accepted as necessary to leaders of small enterprises and other organizations. The course is designed to help guide individuals in developing specific personal management competencies. Topics include problem solving, decision-making, team building, initiating and managing change, organization, and managing conflict.

Prerequisite: Human Resources 2170 or Entrepreneurship 2237.

**MGMT 5333 – Strategic Management**

(3 credits – TG) 3 hours lecture

This capstone course develops the conceptual and applied skills associated with analyzing a competitive situation from a general management point of view. It addresses issues affecting the fundamental direction of the firm, considers the formulation and implementation of strategy, focuses on the extent to which different aspects of the firm fit with key environmental forces, and discusses the organization's ability to leverage its unique core competencies. The course views the organization holistically and, as such, goes beyond the mere integration of specific organizational functions.

Prerequisites: Management 3276, or Entrepreneurship 4431 or 4461, Marketing 2150, Human Resources 2170 or Entrepreneurship 2237, Accounting 3224 or Administration 1329, Finance 3227.

Pre or Co-requisite: Logistics & Supply Chain Management 3403 or Airflight 1242.

MGMT 2299, 3399 – Directed Readings

See Directed readings which are listed alphabetically in this section of the calendar.

MICROBIOLOGY (MIBI)**MIBI 1217 – Environmental Microbiology**

(3 credits) 2 hours lecture, 3 hours lab

This course provides an introduction to microbial structure and function, the role of microbes in the environment, and the use of microbes in bioremediation and the production of biofuels. The laboratory component of the course provides the student with hands-on training in microbiological techniques.

MIBI 2201 – Microbiology I

(3 credits – TG) 3 hours lecture, 3 hours lab

This course provides an introduction to microbiology, with emphasis on prokaryotes: their evolution, structure, genetics, metabolism, growth and nutrition. Students will also be introduced to some of the applications of microbiology in medicine, industry, and environmental science. The laboratory provides students with practice culturing, studying and identifying microorganisms using aseptic, microscopic and biochemical techniques.

Prerequisites: Chemistry 1201, Chemistry 1202, and Biology 2101, with grades of C- or higher.

MIBI 3105 – Microbiology II

(3 credits) 3 hours lecture

This course provides students with an opportunity to delve more deeply into topics introduced in Microbiology I. Concepts in microbial genetics, metabolism, ecology, and pathogenicity will be developed, and various applications of microbiology in medicine and industry will be explored.

Prerequisites: Microbiology 2201, Biochemistry 2201 and Biology 2202, or equivalents, with grades of C- or higher.

Recommended Preparation: Mathematics 2233

MARKETING (MKTG)**MKTG 2150 – Introduction to Marketing**

(3 credits – TG) 3 hours lecture

This course provides an introduction to the fundamental concepts and principles of marketing including an introduction to the 4 P's or marketing mix - product, price, place and promotion. Upon successful completion of this course, the student will have the ability to: evaluate customer wants and needs; analyze and interpret market research; link trends in the environment to marketing decisions; develop a customer or target market profile for a product (good, service or idea); and communicate a marketing strategy effectively in visual, verbal and written formats. This course serves as the foundation for subsequent marketing courses.

**MKTG 2154 – Professional Selling**

(3 credits – TG) 3 hours lecture

This course provides an in-depth study of the sales process: prospecting, presenting, meeting objections and closing. Emphasis is placed on understanding the sales process and developing the skills necessary for successful selling. Using information access and retrieval skills, a complete sales presentation is developed and presented to the class.

MKTG 3150 – The Science of Persuasion

(3 credits) 3 hours lecture

Marketing ultimately hinges on the ability to comprehend human motivation in order to understand the attitudes and behaviours of people and organizations. In this course, students investigate the theory and practice of persuasion, learning to use these concepts to develop persuasive and compelling stories in visual, verbal and written formats.

Prerequisite: Marketing 2150.

**MKTG 3253 – Retail Management**

(3 credits – TG) 3 hours lecture

This course provides an introduction to the nature, scope, problems and challenges of retail management. The strategy and decision-making involved in location analysis, retail organization, merchandising and managing the retail mix is examined.

Prerequisite: Marketing 2150.

SEMESTER				
	1	2	3	4
Keyboard				
Piano	1131	1231	1331	1431
Vocal				
Voice	1141	1241	1341	1441
Strings				
Violin	1151	1251	1351	1451
Viola	1152	1252	1352	1452
Cello	1153	1253	1353	1453
Bass	1154	1254	1354	1454
Harp	1155	1255	1355	1455
Guitar	11156	1256	1356	1456
Winds				
Oboe	1161	1261	1361	1461
Clarinet	1162	1262	1362	1462
Flute	1163	1263	1363	1463
Bassoon	1164	1264	1364	1464
Saxophone	1165	1265	1365	1465
Brass				
Trumpet	1171	1271	1371	1471
Trombone	1172	1272	1372	1472
French Horn	1173	1273	1373	1473
Tuba	1174	1274	1374	1474
Percussion				
Percussion	1191	1291	1391	1491

NONPROFIT STUDIES (NPRO)

NPRO 2010 – Directed Field Studies I

(15 credits)

The Directed Field Studies course requires students to work for an employer in a nonprofit capacity. This on-the-job experience combined with faculty mentoring will enable students to become skillful at both personal and situational analysis and to demonstrate proficiency in multi-discipline and business applications. Students must complete a series of research projects to relate their practical experience with their academic studies. Students may, with prior approval, engage in a new nonprofit organizational startup.

Prerequisites: Nonprofit Studies 2201, 2247, and 3305 with minimum grades of C or higher, or consent of the department.

NPRO 2201 – Rebels with a Cause

(3 credits) 3 hours lecture

This course introduces the context of social innovation and participation in Canada in the third sector. It explores the history of the nonprofit sector, its role in service delivery, and its composition, among other topics.



NPRO 2247 – Introduction to Volunteer Management

(3 credits) 3 hours lecture

This course discusses the role of the volunteer in the community and within a nonprofit organization. Course material will include a brief history of voluntarism, the recruitment and training of volunteers, and the role of volunteers in the planning and delivery of community programs. Special attention will be paid to the unique aspects of managing volunteers, including risk management, retention, recognition, and incentives.



NPRO 3010 – Directed Field Studies II

(15 credits)

This course requires students to work for an employer in the nonprofit sector of the economy. Students will typically be employed in a nonprofit organization, in government, or in industry. This on-the-job experience combined with faculty mentoring will enable students to become skillful at both personal and situational analysis and to demonstrate proficiency in multi-discipline nonprofit and business applications. Students may, with prior approval, engage in a new nonprofit organizational startup. Students will build upon the experiences gained from their first work term and demonstrate a higher level of competency in the nonprofit sector.

Prerequisites: Nonprofit Studies 2010 and Management 4407 with minimum grades of C or higher, or consent of the department.

NPRO 3305 – Agents of Social Change

(3 credits) 3 hours lecture

Framed by a discussion of social innovation, civic engagement, relationships and advocacy, this course examines programs of social change. It explores the processes, structures, organizations and programs in the third sector and helps students understand how to effect positive change.



NPRO 3730 – Special Topics in Social Innovation and Nonprofit Studies

(3 credits) 3 hours lecture

This course provides an examination of selected topics in social innovation, the third sector of nonprofit studies. As this is a variable content course, the specific topic will be announced and advertised each time it is offered. Students may not receive credit for this course more than once.



NPRO 4405 – Strategic Management for the Nonprofit Sector

(3 credits) 3 hours lecture

This course introduces the fundamentals of strategic planning and strategic management for the nonprofit sector. A variety of perspectives, models, and approaches to strategic planning are presented. Factors such as organizational leadership, culture, complexity, and dynamic issues external to the organization are covered.

Prerequisites: Nonprofit Studies 2010 or consent of the department.

NATURAL SCIENCE (NTSC)

NTSC 1112 – An Introduction to Current Environmental Issues

(3 credits – TG) 3 hours lecture

This course involves a current, comprehensive and holistic overview of critical environmental issues for non-science majors. The environmental issues explored in this course from various points of view will serve as a valuable and solid foundation for students, who will be making decisions that shape the future of their society.



NTSC 1115 – An Introduction to Forensic Science

(3 credits) 3 hours lecture, ~~3 hours lab~~

This course offers students an opportunity to gain an understanding of a variety of forensic techniques, ranging from blood pattern analysis and identification of human remains, to gas chromatography, and DNA 'fingerprinting'. ~~Hands-on laboratory exercises will reinforce these concepts~~ Successful students will also gain insight into how the 'CSI Effect' has altered the relationship between science and the legal system.



NTSC 2115 – Forensic Science I: Lab Analysis by Specialists

(3 credits) 3 hours lecture, 3 hours lab

This course deals with the theoretical and practical aspects of forensics crime scene analysis. Topics will include: the discovery and examination of evidence found in and around human/animal remains to determine time of death; the analysis of drugs, unknown powders, bodily fluids found at crime scenes; determination of document fraud and arson; discussions about the use of computers and databases to help solve crimes and pinpoint suspects. A discussion of the legal and ethical issues resulting from the use of forensics scientific analysis and conduct in forensic investigations will also be included.

Prerequisite: Natural Science 1115.

NTSC 2201 – Environmentally Sustainable and Healthy Societies

(3 credits – TG) 3 hours lecture

Every human being, every institution and every organization can make a difference in the quest for a sustainable and healthy future for humankind. This course will examine current practices that result in unhealthy societies and unsustainable environmental impacts and the changes that must be made in order to establish a sustainable and healthy future planet. Our future depends on managing our planet in ways that create sustainable relationships with our ecosystems.



NTSC 3000 – Experimental Science for Elementary Education

(3 credits) 1 hour lecture, 2 hours lab

This course will provide material and demonstrations that can be used in the elementary classroom. Demonstrations will include examples from all disciplines and levels within the Alberta Education elementary science program. Students will be expected to write up lab reports and to design, test, and present their own demonstration to the class.

Prerequisites: Two of Biology 1202, Chemistry 1201, Ecology 1210, Geology 1101, Physics 1201

NTSC 3301 – Environmental Health

(3 credits – TG) 3 hours lecture

Many aspects of human health are affected by the environment, and many diseases can be initiated, promoted, sustained or stimulated by environmental factors. For that reason the interactions of people with their environment are an important component of public health. This course introduces students to the complexity of environmental health issues facing society today.

Prerequisite: Natural Science 2201 or Biology 1202 or Chemistry 3357 or Nursing 2279 or 3375 or consent of the department.



NTSC 3321 – Environmental and Developmental Legacy of Alberta's Oil and Gas Industry

(3 credits) 3 hours lecture

This course investigates the development of Alberta's oil and gas industry in relation to how it affects our environment and our socio-economic development. Topics covered include analyses of changes in the environmental and socioeconomic status of Alberta since the oil discovery; and how changes in petroleum technologies and petroleum policies affect our environment and our economy. These concepts will be illustrated by using case studies drawn from companies and agencies involved in the Alberta's oil and gas development.

NATIVE STUDIES (NTST)

NTST 0130 – Introduction to Native Studies

(0 credits)

This course will provide an overview of Aboriginal world views and belief systems. Students will gain an awareness of similarities and differences among First Nations in the area of social organizations, spiritual beliefs and cultural practices.

NURSING (NURS)

NURS 1111 – Theoretical Foundations of Nursing I

(3 credits) 3 hours lecture, 4 hours – field study

This course introduces the curriculum framework concepts of person, nursing, health and environment and the Bachelor of Nursing program goals. Emphasis will be placed on the history and evolution of the concepts of health and nursing as a basis for understanding the profession of nursing and knowledge based practice. Students will participate in a field experience observing nurses in a variety of roles.

NURS 1112 – Health Promotion with Individuals I

(3 credits) 2 hours lecture, 2 hours lab

The focus of this course will be on the individual's holistic experience of health within the context of family and health promotion. Students will integrate theory and practice of health assessment related to determinants and patterns of health, foundational nursing care principles and intervention strategies.

Pre or Co-requisites: Biology 1220.

NURS 1213 – Health Promotion with Individuals II

(3 credits) 2 hours lecture, 2 hours lab

This course is a continuation of Health Promotion for Individuals I. Additional focus will be placed on understanding the family and the individual's holistic experience of health and health promotion. Students will further integrate theory and practice of health assessment related to determinants and patterns of health, nursing care, teaching principles and intervention strategies. This 1200 level course builds on content in the previous level of the program. Students must complete courses in the lower level of the program prior to registering for this course.

Prerequisites: Nursing 1111 and 1112.

Pre or Co-requisite: Biology 1221.

NURS 1214 – Professional Practice I

(3 credits) 105 hours practice experience

The primary focus is on supporting/promoting health in providing safe, focused and knowledgeable nursing care to individuals experiencing episodic illness. Students will apply their understanding of patterns of health in the context of the determinants of health, and primary health care principles using a variety of guided learning experiences.

Pre or Co-requisite: Nursing 1213.

NURS 2111 – Theoretical Foundations of Nursing II

(3 credits) 3 hours lecture

This course continues exploration of the concepts of person, nursing, health and environment, with emphasis on holistic understanding of the individual's experience of illness in the context of the determinants of health, professional practice and primary health care. Students will also gain understanding of the local and national environments in which nurses practice. This 2000 level course builds on content in the previous levels of the program. Students must complete all Nursing 1100 and 1200 courses in the lower levels of the program prior to registering for this course.

Prerequisites: Nursing 1213 and 1214.

NURS 2112 – Alterations in Health: Nursing Knowledge and Therapeutics I

(4 credits) 8 hours lecture, 2 hours lab alternating weeks – first half of semester

This course helps students to understand nursing care for diverse individuals experiencing alterations in health, using health promotion approaches and resources. Students integrate the principles of pharmacology, pathophysiology and related nursing practice knowledge, critical thinking and clinical judgment.

Prerequisites: Nursing 1213 and 1214.

Co-requisite: Nursing 2111 and 2113.

RECR 1247 – Theory and Practice in Leadership

(3 credits – TG) 3 hours lecture

This course studies leadership theory and introduces leadership skills that apply the theory in personal, community and work settings. Students are introduced to leadership skills inventories that allow them to analyze and evaluate their leadership skills. Students will reflect on their leadership experiences and develop strategies to plan personal learning opportunities to maximize their leadership skills.

RECR 2217 – Recreation and Sport Tourism**(formerly RECR 1217)**

(3 credits – TG) 3 hours lecture

This course is an investigation of principles and practices of marketing in sport and recreation studies.

RELIGIOUS STUDIES (RELS)**RELS 1101 – World Religions: Western**

(3 credits – TG) 4 hours lecture

This course is an introduction to Western religions including Judaism, Christianity and Islam.

**RELS 1103 – World Religions: Eastern**

(3 credits – TG) 4 hours lecture

This course is an introduction to Eastern religions such as Hinduism, Sikhism, Jainism, Buddhism, Confucianism, Daoism, and Shinto.

**RELS 1104 – Religion and Violence**

(3 credits – TG) 3 hours lecture

This course introduces students to the study of religion by exploring the relationship between religion and violence. Themes covered may include: theories of religion and violence, self-harm, martyrdom, sacrifice, symbolic violence, resistance to religiously-sanctioned violence, religion and domestic violence, religion and non-violence.

**RELS 1105 – The Nature of Religion**

(3 credits – TG) 4 hours lecture

An introduction to the study of religion which relates religious traditions to contemporary thought and culture.

**RELS 2208 – Religion and Popular Culture**

(3 credits – TG) 3 hours lecture

This course examines religious beliefs, practices, institutions, etc as expressed in works of popular culture. The course may focus on religion in a specific type of media (e.g. film, TV, literature, art) or on a religious theme (e.g. apocalypticism or the environment).

**RELS 2209 – Religious Experience**

(3 credits – TG) 3 hours lecture

This course examines a variety of types of religious experience (e.g. communal solidarity, moral development, conversion, mysticism, possession, trance, ecstasy). Emphasis will be placed on different theoretical accounts of the origin, nature and/or significance of these experiences.

**RELS 2212 – Religious Traditions of China**

(3 credits) 3 hours lecture

This course will introduce the major religious traditions of China, including Confucianism, Daoism, Buddhism, and popular Chinese religion. Examining the history, teachings, and practices of these traditions will provide insight into Chinese religion and culture.

**RELS 2215 – World Christianity**

(3 credits – TG) 3 hours lecture

This course examines Christianity as a global phenomenon, considering important issues and movements around the world. Topics include types of Christianity, Mission, Ecumenism, Pentecostalism, Fundamentalism, social justice issues, roles and status of women, globalization, secularization, and/or relations between Christianity and other religious traditions.

**RELS 2243 – Good and Evil**

(3 credits – TG) 3 hours lecture

This course examines religious views of moral issues with an emphasis on the nature and consequences of right action. The course may focus on dualistic worldviews (i.e., ethics as a struggle between good and evil) and/or on karmic and non-dualistic worldviews. Issues may include interpersonal relations, social justice, treatment of non-humans, sexuality, violence, and biomedical advances.

**RELS 2251 – Sikhism**

(3 credits – TG) 3 hours lecture

This course is an introduction to Sikh religion and identity. Particular attention will be given to the historical context from which Sikhism arose, the worldviews and goals it articulates, the development and content of its authoritative literature, and its religious practices. Sikhism outside of the Indian context may also be discussed.

**RELS 2252 – Hinduism**

(3 credits – TG) 3 hours lecture

This course is an examination of the major religious developments in Hinduism from ancient times to the modern period. The course introduces students to the central thinkers, literature, beliefs, and practices associated with Hinduism.

**RELS 2253 – Christianity**

(3 credits – TG) 3 hours lecture

This course is an overview of Christianity, including Orthodoxy, Catholicism and Protestantism. Topics may include beliefs, rituals, institutions, experts, art, architecture, artifacts and popular religiosity. The focus is contemporary, with some historical background. Christianity in Canada and relations between Christianity and society will be addressed: for example, issues of politics, economics, ethics, mass media, gender, race and/or class.

**RELS 2255 – Judaism**

(3 credits – TG) 3 hours lecture

This course provides an introduction to the history, practices, beliefs, institutions and literature of the Jewish religion, from biblical times until the modern era. The course will describe the distinctive features associated with Judaism in different time periods, and the values, beliefs, and rituals that developed in response to the historical and cultural settings encountering Judaism.

**RELS 2279 – Buddhism**

(3 credits – TG) 3 hours lecture

A study of the doctrinal development and practices of the Buddhist tradition, including treatment of topics such as early Buddhism, Mahayana, and Tibetan Vajrayana.

**RELS 2281 – Women and Religion**

(3 credits – TG) 3 hours lecture

This course examines the origins, content, and influence of the views of women contained in various religious traditions and practices.



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England, S., BA, MA (Calgary), PhD (Arizona State)

Engler, S., BA (UBC), MA (Toronto), PhD (Concordia)

Gardiner, M., BA, MA (Calgary), PhD (McMaster)

Haggarty, L., BA, MA (Victoria), PhD(c) (Saskatchewan)

Hawley, M., BA, PhD (Calgary)

Henderson, J., BA, MA (Manitoba), PhD (York)

Hutchison, E., BA (Trent), MA, PhD (York)

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Department of Justice Studies

Aulakh, H., B.Sc., M.Sc. (Punjab Agricultural), PhD (Saskatchewan)

Filipuzzi, N., BJS (Applied) (Mount Royal), MA, PhD (SFU)

Foster, B., BA, MA (SFU), PhD (UBC); Acting Chair

Holmgren, J., BA (UCFV), MA (SFU), PhD (Calgary); Institute Director, Criminology and Justice Research

King, D., BA, MA (Regina)

LaHaye, R., Dip. Correctional Careers (Mount Royal), MCA (Ottawa)

Sundberg, K., BA (Victoria), MA (Royal Roads), PhD (Monash)

Tavcer, S., BA (Alberta), MC (Leuven), PhD (Freiburg)

Tomaszewski, E., BA (Augsburg), MA, PhD (Carleton)

Trussler, T., BA (St Francis), MA (Calgary), PhD (McGill)

Winterdyk, J., BA (Laurier), MA, PhD (SFU)

Department of Languages & Cultures

Eche, A., BA, MA, PhD (France)

Grillo Arbulu, MT., MA (Peru), PhD (UBC)

Huet, J., BA (Dijon), MA, PhD (Alberta)

Lopez, E., BA (Granada), MA (Liverpool), PhD (Durham)

Merrells, T., BA, MA, PhD (Calgary)

Mossiere, G., BA (Lyon), MA (Calgary), PhD(c) (Calgary); Chair

Plaza, M.J., BA (Barcelona), MA, PhD (Minnesota)

Pollock, M., B.Sc., PhD (Western Ontario)

Sassine, A., BA, MA (Windsor), PhD (Wayne State)

Sessarego, C., B.Ed. (Argentina), MA, PhD (Calgary)

Wang, Y., BA (China), M.Sc. (Connecticut), PhD (Alberta)

Department of Policy Studies

Atkinson, B., BA, MA (Carleton), PhD (Alberta)

Bratt, D., BA, MA (Windsor), PhD (Alberta); Chair

Brownsey, K., BA, MA (Victoria), PhD (Queen's)

Das, A., BA, MA (India), PhD (Manitoba)

Foster, B., BA, MA (SFU), PhD (UBC)

Jung, YC., BA (Yonsei), MA (York), MA (Exeter), PhD (Ottawa)

Kusi-Sekyere, B., BA (Ghana), MA, PhD (Manitoba)

Leung, A., B.Sc. (San Jose), MA (York), PhD (Carleton)

McGregor, M., BA, MA (Calgary)

Roberts, K., BA, MA (Manitoba), PhD (Calgary)

Sabiston, D., BA, MA (Carleton), PhD (Ottawa)

Sutherland, R., BA, MCS (Calgary), PhD (McGill)

Widdowson, F., BA (Hons), MA (Victoria), PhD (York)

Williams, L., BA, MA (Calgary)

Professor Emeritus

Fellows, M., BA, MA (Calgary)

Department of Psychology

Atkinson-Leadbetter, K., B.Sc. (UBC), M.Sc. (Toronto), PhD (Calgary)

Cann, D., BA (Cape Breton), MA, PhD (Western Ontario)

Chaston, T., B.Sc., PhD (Alberta)

Clark, M., BA, M.Sc., PhD (Calgary), C.Psyc

Desjarlais, M., BA (Hons) (Regina), MA, PhD (Brock)

Field, E., B.A.Sc., M.Sc., PhD (Lethbridge); Chair

Foursha-Stevenson, C., B.Sc. (Calgary), MA, PhD (Rutgers)

Grant, N., BA (Winnipeg), MA, PhD (Queen's)

Kwong, T., BA (Newfoundland), PhD (Alberta)

McGrath, A., BA (Hons) (St. Thomas), MA, PhD (Carleton)

McLeod, B., B.Sc. (Hons) (Toronto), PhD (McMaster)

Morin, A., BA, M.Ps., PhD (Laval)

Murdoch, D., BA (Guelph), PhD (McGill)

Ogden, N., BA, M.Sc., PhD (Calgary)

Raab, V., BA, M.Sc., PhD (Calgary)

Scherzer, C., BA (Concordia), M.Sc. (Springfield), PhD (Arizona)

Taylor, J., B.A.Sc. (Toronto), B.Sc., M.Sc., PhD (McMaster)

Techentin, C., B.Sc. (Vincent), PhD (New Brunswick)

Uttl, B., B.Sc. (McMaster), MA, PhD (UBC)

Vernon, A., BA (Hons), MA (Saskatchewan), PhD (Victoria)

Professor Emerita

Johnson, J., BA, M.Sc. (Calgary), PhD (Walden)

Mascher, J., Research Project Coordinator, Alberta Health Services
 Poirier, C., Recreation Coordinator, Hull Family and Child Services
 Richardson, J., Mount Royal University Student Representative
 Sandhu, J., Community Social Worker, The City of Calgary
 Smey Carston, C., Chair, Department of Child and Youth Studies, Mount Royal University
 Soenen, D., Director, Wood's Homes
 Unger, L., Provisional Psychologist, Renfrew Educational Services
 Valenti, M., Executive Director, Mount Royal University Child Care and Preschool
 Wooley, P., CEO Families Matter Society
 Yu, J., Mount Royal University Student Representative

Bachelor of Applied Ecotourism and Outdoor Leadership

East, B., Calgary Board of Education
 Fink, L., Student
 Godfrey, C., Manager, Base Camp Enviros
 Jamieson, J., General Manager, Rocky Mountain YMCA/Camp Chief Hector
 O'Neil, R., Director, Fall Protection Group, Inc.
 Pavelka, J., Associate Professor, Physical Education and Recreation Studies, Mount Royal University
 Price, S., Chair, Physical Education and Recreation Studies, Mount Royal University
 Reynolds, J., Coordinator, Ecotourism and Outdoor Leadership Program, Medicine Hat College

Bachelor of Applied Interior Design

Evans Warren, H., Chair, Department of Interior Design & Art History, Mount Royal University
 Jordanov, B., Labbe-Leech Interiors Ltd.
 Keshen, J., Dean, Faculty of Arts
 Mitchell, T., Haworth
 Niddrie, W., Cambium Woodworks 2005 Ltd.
 Petit, S., Shaw Contract
 Scott, L., Interior Design Alumni Chapter, City Core Developments
 Young, C., ce de ce inc.
 TBA, First year student representative
 Stehmeier, C., Second year student representative
 Tran, V., Third year student representative

Bachelor of Arts – Criminal Justice

Briegel, M., Child & Youth Studies
 Chisolm, G., Manager, Training Unit-Security Services, Solicitor General of Alberta
 Diamond, C., Prison Support Coordinator,

Elizabeth Fry Society of Canada
 Hanly, M., Warden, Drumheller Institution
 Redwood, K., Co-Executive Director, Pathways CSA
 Skelton, C., Staff Sergeant-Recruiting, Calgary Police Service
 Whitelaw, B., Inspector, Calgary Police Service
 Young, S., Chief Probation Officer - Calgary

Bachelor of Business

Administration – Accounting

Bandura, M., FCGA, International Financial Group
 Dafoe, V., CMA, VP ARC Resources Ltd.
 Davé, R., Co-operative Education Coordinator, Mount Royal University
 Madison Bank., Student, BASS President, Mount Royal University
 Kinnear, V., Dean (acting), Bissett School of Business, Mount Royal University
 MacPherson, D., Associate Professor, Mount Royal University
 Mallory, D., CA, President, CEO, BLZ Energy
 Olexyn, T., CMA, Director, ConocoPhillips
 Smistad, R., Chair, Mount Royal University
 Schaefer, R B. Comm, CMA, SVP Finance, ARC Resources
 Stein, T., CMA, FCMA, CHRP, Pekarsky Stein
 Timm, V., BA, CMA, Asst. Director, Canada Revenue Agency
 Wesley, L., CA, KPMG, LLP
 Worthington, L., FCMA Senior VP, CPA

~~Smistad, R., Chair, Bissett School of Business, Mount Royal University~~

~~Spyker, C., Associate Professor, Bissett School of Business, MRU~~

~~Stein, T., CMA, FCMA, CHRP, Pekarsky Stein~~

~~Sunderji, N., CMA, Finance Manager, City of Calgary~~

~~Wesley, L., CA, KPMG, LLP~~

~~Young, M., Dean, Bissett School of Business, Mount Royal University~~

Bachelor of Business

Administration – Financial Services

Biddell, G., BMO Investments Inc.
 Bristow, T., Western Financial Group
 Callbeck, K., Insurance Institute of Southern Alberta
 Chow, M., Alumni Representative, TD Bank
 Daumler, R., Investors Group
 Fischer, J., Chair, Mount Royal University
 Galbraith, M., CIBC
 Hanley, H., Co-operative Education Coordinator, Mount Royal University
 Kinnear, V., Dean (acting), Bissett School of

Business, Mount Royal University
 Lys, K., Student, Mount Royal University
 Pallas, M., Investment Industry Regulatory Organization of Canada
 Roy-Heaton, C., Assistant Professor, Mount Royal University
 Ryan, R., Tuffrisk
 Semper, E., TD Canada Trust
 Sharman, A., Boyden Global Executive Search
 Smith, D., ATB Financial
 Tharani, T., Scotiabank
 Wong Bailey, R., Freedom 55 Financial

Bachelor of Business

Administration – Human Resources

Azim Garcia A., Labour Relations, Canadian Pacific Railway
 Bucher, R., Right Management
 Chadwick, D., Leverage Point Learning
 Cook, C., Assistant Professor, Mount Royal University
 Corbett, P., Genera
 Cutts, E., ATCO Power
 Derbyshire, P., Chair (acting), Mount Royal University
 Hansen-Somers, L., Managing Partner HRAC Ltd.
 Harder, K., Student Rep, Mount Royal University
 Jackson, L., EFW Radiology
 Kanji, A., Student Rep, Mount Royal University
 Kinnear, V., Dean (acting), Bissett School of Business, Mount Royal University
 Koop, J., Director Employee Training & Development, Calfrac
 MacPherson, J., HRIA Director, Learning & Standards
 Merrick, C., VP Human Resources, Black Diamond Ltd.
 Peacock, M., Associate Professor, Mount Royal University
 Roberts, K., Student Rep, Mount Royal University
 Smith, W., Co-operative Education Coordinator, Mount Royal University
 Thomas, W., Manager Human Resources, Alliance Pipeline Ltd.
 Varella, P., Associate Dean (acting), Bissett School of Business, Mount Royal University

Academic Offices

Bissett School of Business	EB2005
Conservatory	W302
Faculty of Arts	EA3109
Faculty of Communication Studies	T254
Faculty of Continuing Education and Extension	EC3100
Faculty of Health and Community Studies	Y322
Faculty of Science and Technology	B240
Faculty of Teaching and Learning	T185
International Education	EB3021

Administration

Academic Affairs	A314
Administrative Services	A318
Centre for Business Development	EC2003
Custodial/Housekeeping Services	U108
Engineering Services	X210
Facilities Planning	X210
Finance, Planning and Risk Services	A250
Foundation, The	A150
Freedom of Information and Protection of Privacy (FOIP)	A319
Human Resources	D101
Information Technology Services and Service Desk	E251
Mail Room	K105
Maintenance	U100
Mount Royal Faculty Association (MRFA)	W315
Mount Royal Support Staff Association (MRSSA)	W301
Office of Research	A322
Office of Institutional Analysis and Planning (OIAP)	A321
Payroll/Employee Services	E208
Physical Resources	X210
President's Office	A304
Receiving	I108
Sodexo Catering Services	J212
Student Affairs and Campus Life	U205
Supply Chain Services	A250
University Advancement	A150

Campus Services

Academic Advising Services	C109
Academic Development Centre	T110
Accessibility Services	Y201
Admissions and Recruitment Office	B156
Alumni Relations	F101
Bank Machines	
Recreation	U – Wing Level 2
Starbucks	East Gate, Level 1
Tim Hortons	J – Wing Level 1
Wyckham House	Z – Wing Level 2
BookStore	H100
Campus Card Services	E251
Career Services	A200
Chaplaincy	F121
Copy Centres	
Document Services	K – Wing
Copywrite, Wyckham House	Z – Wing
Cougar Athletics	U235
Dental office (Dental Choice)	Z – Wing
EnCana Wellness Centre	
Health Services Centre	U216
Optimal Therapies	U216
Student Counselling Services	U216
Enrolment Services	A101
Fees Office	A101
Iniskim Centre	C201
Library	G100
Lost and Found	X200
Media Production Services	T115
Ombudsperson	Y320G
Parking Office	EA1016
Pharmacy	Z – Wing
Recreation Office	U231
Recreation Customer Service Centre	U130
Registrar	A101
Registration (credit and non-credit programs)	A101
Residence	
East Court Office	31 Mount Royal Court
West Court Administration	Bldg B, Rm 1019
SAFEWALK	X200
Security and Public Safety	X200
Servus Credit Union	E150
Skills Investment Program	E106
START, Student Technology and Resource Tutors Program	T106
Student Awards and Financial Aid	E102
Student Learning Services	T123
Student Records and Transcripts	A101
Students' Association (SAMRU)	Z – Wing
Ticket Centre	W302

Facilities

Aerobics Studios	U130
Athletics Room	U132
Aquatic Centre (Swimming Pool)	U130
Child Care Centre	Y279
Climbing Centre	U130
Conference Services	EC1003
Conservatory	W302
EnCana Wellness Centre	U216
Fitness Centre	U130
Gymnasiums	
Stanley Gymnasium	U130
Triple Gymnasium	U130
Lincoln Park Room	J301
Running Track	U130
Squash Courts	U130
Terrace Room	J-Wing, Rm 209
Theatres	
Jenkins Theatre	I115
Leacock Theatre	S216
Moot Court	EA1031
Nickle Theatre	V200
Wright Theatre	S232
Wyatt Recital Hall	F123
University Board Room	A341
Wyckham House (Student Association Building)	Z – Wing

Institutes and Centres

Centre for Child Well-Being	T354
Centre for Criminology & Justice Research	T154
Criminal Justice Research Lab	T168
Iniskim Centre	C201
Institute for Nonprofit Studies	WC 3rd Floor
Institute for Scholarship of Teaching and Learning	T186

Food Services

Café a la Cart	EB, Level 1
C-Store	J-Wing, Level 1
East Gate Café (Starbucks)	East Gate, Level 1
Herb 'n Market	J – Wing Level 2
Jugo Juice	EA, Level 1
Mr. Sub	J-Wing, Level 1
Recreation Concession Stand	U-Wing, Level 2
EC Café	CCL, Level 1
The Hub	Z-Wing, Wyckham House
Tim Hortons	J-Wing, Level 1
Wyckham House Food Court	Z-Wing, Wyckham House