



## **CALENDAR UPDATES**

Please note the following has been approved and will be included in the 2015-16 Calendar.

### **10.3.1.D.4 MATHEMATICS MAJOR**

45-60 credits required, to include:

- a) MAT 113 or 114
- b) MAT 115, 120, and 151
- c) MAT 200 and 214
- d) MAT 400
- e) 24-39 credits of unspecified senior-level Mathematics courses including 12 credits at the 400-level

In addition to the above courses students must complete 6 credits in IT or CMPT courses

### **10.3.2.D.4 MATHEMATICS CONCENTRATION**

27-33 credits required, to include:

- a) MAT 113 or 114
- b) MAT 115, 120, and 151
- c) MAT 200 and 214
- d) One 400-level Mathematics course
- e) 6-12 credits of unspecified senior-level Mathematics courses

In addition to the above courses students must complete 3 credits in IT or CMPT courses

## **10.4 Minors**

### **PHYSICAL EDUCATION AND SPORTS STUDIES**

18-24 credits required to include:

- a) PESS 101
- b) 3-9 credits chosen from PESS 245, PESS 345, or SOC 230
- c) 3-9 credits chosen from DAN 340, PESS 201, PESS 293, or PESS 301
- d) 6-9 credits chosen from PACT and/or PAT courses, with at least two different activities

## **14.0 Course descriptions**

### **ENVH 601**

**3(3-0-0)**

#### **Environmental Management I**

An overview of the health concerns related to our air and waste management systems. Topics include air toxins and pollutants, management methods for ambient and indoor air quality, soil chemistry, management of contaminated sites, and waste management methods. Open to students in the Graduate Certificate in Environmental Public Health Practice or by permission of the department. Prerequisite: Introductory chemistry (6 credits) and general microbiology (3 credits), or consent of the Department.

May-12-14

**ENVH 602****3(3-0-0)****Environmental Management II**

This course offers an overview of the health concerns relating to our drinking and recreational water. Focus will be on the identification of chemical and bacterial hazards, and the risk management of public and private water supplies. Source protection and pollution concerns for ground and surface water; and water quality issues for recreational water and swimming pool water will be discussed. There will also be discussions on waterborne pathogens and procedures for declaring a Boil Water Advisory. Open to students in the Graduate Certificate in Environmental Public Health Practice or by permission of the department. Prerequisite: Introductory chemistry (6 credits) and general microbiology (3 credits), or consent of the Department

**ENVH 611****3(3-0-0)****Health Risk Assessment**

Course Description: Basic risk assessment and management principles and the application of risk assessment processes in the public and environmental health fields. Topics include hazard identification, dose-response determination, and exposure and site assessment. Open to students in the Graduate Certificate in Environmental Public Health Practice or by permission of the department.

**ENVH 612****3(3-0-0)****Environmental Management III**

Course Description: An overview of the public health concerns relating to solid and liquid waste management systems. A review of the solid waste disposal system will include municipal waste systems, biomedical waste, composting, and incineration. Liquid waste management will include discussions on municipal wastewater treatment and private liquid waste disposal. Focus on pollution and operational problems associated with these management facilities and to introduce students to water reuse, wastewater reclamation and waste minimization. Graduates will be able to: interpret occupational health and safety legislation, develop OHS/Loss-Control Programs, conduct audits and inspections of existing OHS and environmental programs, and design and deliver effective OHS training programs for workers. Open to students in the Graduate Certificate in Environmental Public Health Practice or by permission of the department. Prerequisite: Introductory chemistry (6 credits) and general microbiology (3 credits), or consent of the Department.

**ENVH 621****3(3-0-0)****Environmental Health Practice I**

Course Description: An introduction to investigative principles and protocols as they apply to environmental health. Students develop and apply models for inspection, investigation, and risk analysis. Case scenarios include evaluation of food establishments, personal care facilities, housing, insect and vermin control, communicable disease control, nuisances and general sanitation. Principles are applied through visits to premises and the preparation of professional reports linking theory to practice. Open to students in the Graduate Certificate in Environmental Public Health Practice or by permission of the department.

**ENVH 622****3(3-0-0)****Environmental Health Practice II**

Course Description: An exploration of advanced investigative protocols as they apply to environmental health. Students develop and apply models for inspection, investigation, risk analysis, and risk management. Case scenarios include evaluation of agricultural facilities, child care facilities, adult care facilities, recreational water / public beaches, swimming pools and other aquatic facilities, work camps,

May-12-14

emergency response, outbreak investigation and management as well as surveillance and Notifiable Disease follow-up. Principles are applied through lectures, table-top exercises, visits to premises and the preparation of professional reports linking theory to practice. Open to students in the Graduate Certificate in Environmental Public Health Practice or by permission of the department.

### **ISAM 558**

**9(0-3s-0)**

#### **Research Methods II**

The reading and research-intensive seminar course is designed to help students to understand and analyse selected problems in information systems assurance management. Upon successful completion of this course, students will acquire a solid understanding of the selected problems and each registered student will have developed a research proposal, which will be used as a basis for registration in either ISAM 570 or ISAM 571. ISAM 558 is a seminar course that builds on concepts covered in ISSM 538 and also on knowledge and skills from other first- and second-semester MISSM and MISAM courses. In ISAM 558, students continue to work on research proposals started in ISSM538, deepen their understanding of information systems assurance, learn to think critically about research problems, read literature critically and creatively in the fields of their research interest, evaluate the quality of research publications, and develop confidence that the identified problems can be addressed by graduate research. Students also apply critical and creative reading methods in evaluating and improving the quality of drafts of their own and peers' research proposals. MISAM Research Committee members oversee students' progress toward the course goals and are actively involved in ensuring that each student is making adequate progress in his or her research. Note: Credit may be obtained for only one of ISAM 539 or 558. Prerequisite: Completion or registration in all courses required for the degree, except the final research.

### **ISAM 580**

**9(0-3s-0)**

#### **Practicum Research Project**

A course where the student completes a research project while they are employed. The project must culminate in the production of a formal research document, which contributes to the information systems security and audit, assurance or government field/body of knowledge. The employment can add perspective to the research and can also form the entire subject to the research. Each student will conduct their research with the approval of the committee responsible for research in the MISAM program. The committee ensures that the project meets the standard for successful completion of the course and follows closely the previous committee-approval proposal. Note: Credit may be obtained for only one of ISAM 570 or 580. Prerequisite: Completion or registration in all courses required for the degree, except the final research.

### **ISAM 581**

**9(0-3s-0)**

#### **Research Project**

A course where the student completes a research project culminating in the production of a formal research document which contributes to the information systems security and audit, assurance or governance field/body of knowledge. Each student will conduct their research with the approval of the committee responsible for research in the MISAM program. The committee ensures that the project meets the standard for successful completion of the course and follows closely the previous committee approval proposal. Note: Credit may be obtained for only one of ISAM 571 or 581. Prerequisite: Completion or registration in all courses required for the degree, except the final research.

**PACT 111****3 (0-3L-0)****Basketball**

Through active involvement students will acquire theoretical knowledge, physical skills, and pedagogy used in the performance and instruction of the basics of basketball. Note: Credit may be obtained for only one of PAC 111 or PACT111.

**PACT 118****3 (0-3L-0)****Soccer**

Through active involvement students will acquire theoretical knowledge, physical skills, and pedagogy used in the performance and instruction of the basics of soccer. Note: Credit may be obtained for only one of PAC 118 or PACT 118.

**PACT 131****3 (0-3L-0)****Badminton**

Through active involvement students will acquire theoretical knowledge, physical skills, and pedagogy used in the performance and instruction of the basics of badminton. Note: Credit may be obtained for only one of PAC 131 or PACT 131.

**PACT 137****3 (0-3L-0)****Volleyball**

Through active involvement students will acquire theoretical knowledge, physical skills, and pedagogy used in the performance and instruction of the basics of volleyball. Note: Credit may be obtained for only one of PAC 137 or PACT 137.

**PESS 301****3 (0-3L-0)****Foundations of Human Movement**

An examination of human movement capacities through the study of functional anatomy, exercise physiology, motor control, and biomechanics and their interrelationships. Prerequisite: PESS 101

**PESS 345****3 (0-3L-0)****Introduction to Sports Management**

An introduction to the management of physical activity, recreation, and sport.

**REL 385****3 (3-0-0)****Orthodoxy and Heresy in Early Christianity**

The primary purpose of the class will be to explore the variety of non-canonical (i.e. apocryphal) texts which were developed and widely read in the first several centuries of the Christian era. Examination of these NT apocryphal writings will show diversity in early Christianity in the form of either Christian “orthodoxy” or “heresy”. Heresy historically has been a constant companion of orthodoxy Christianity and functioned like a pumice on Christianity in the sense that the primary faith contents of Christianity were refined as the early Christians struggled with the challenges posed by the heretics to define the Christian rule of faith with clarity and preserve its wholesomeness. To examine this, the course will examine the various strands of Christianity and the key issues of debate among them by looking into diversity in early Christian thought and practice by investigating both “orthodoxical” and “heterodoxical” expressions contained in NT apocryphal writings. Prerequisite: REL 101 or 150

May-12-14

### **13.3.2 Master of Information Systems Assurance Management**

60 credits, required to include:

- a) ISAM 512
- b) ISAM 521
- c) ISAM 522
- d) ISAM 558
- e) ISAM 542
- f) ISAM 549
- g) ISAM 580 or 581
- h) ISSM 521
- i) ISSM 538
- j) ISSM 541
- k) ISSM 543
- l) ISSM 545
- m) ISSM 551
- n) ISSM 553
- o) Two of ISSM 507, 525, 531, 533, 536, 541, 561, or 563

## **13.4. Graduate Diploma Programs**

### **Graduate Diploma in Environmental Public Health Practice**

The practice of environmental public health is critical to the wellness of communities. This diploma explores all aspects of the natural and built environment that can influence human health and disease. Students will be exposed to the diversity of the field including food and drinking water safety, waste management, air and soil quality, communicable disease control, emergency response and occupational health.

Courses from this diploma may be used towards the Bachelor of Environmental Health (After Degree) with the exception that students who undertake ENVH 621 and ENVH 622 will be required to attend the laboratories of ENVH 521 and ENVH 522.

#### **A. ADMISSION REQUIREMENTS**

1. A Bachelor degree from a recognized educational institution in a related background including but not limited to healthcare, science, agriculture, and engineering.
2. A statement of career interests and a resume.

#### **B. PROGRAM REQUIREMENTS**

1. 18 credits required, to include:
  - a) ENVH 601
  - b) ENVH 602
  - c) ENVH 611
  - d) ENVH 612
  - e) ENVH 621
  - f) ENVH 622
2. achieve a minimum overall GPA of 2.7 in the required courses.
3. must complete 12 of 18 credits at Concordia.
4. complete program within 2 years

## **C. GRADUATION REQUIREMENTS**

Students graduate on one of three degree-conferral dates following successful completion of their program requirements. For further information about graduation requirements, see *Graduation and Convocation*, section 13.2.2.E.

### **13.4. Graduate Diploma Programs**

#### **Graduate Diploma in Information Security**

The Graduate Diploma in Information Security is an 18 credit program is entirely coursework. Any coursework taken or diploma received will count towards the Master of Information Systems Security Management (MISSM) should the student or graduate apply to the MISSM program at a later date. Note that holders of the Master of Information Systems Assurance Management (MISAM) degree may not apply for the MISSM degree; however they may receive the Graduate Diploma in Information Security.

#### **A. ADMISSION REQUIREMENTS**

1. Four-year Bachelor degree from a recognized educational institution, preferably in business/management, engineering, management of information systems or computing science. Students entering the program require a minimum GPA of 3.0 or equivalent in the last 60 credits of undergraduate study;
2. A GPA of 3.0 on a general Network Technology course and an Operating Systems course or equivalent knowledge;
3. A security clearance;
4. Demonstrated fulfilment of Concordia's English Language Requirement.

#### **B. PROGRAM REQUIREMENTS**

1. 18 credits required, to include:
  - a) ISSM 521
  - b) ISSM 525
  - c) ISSM 533
  - d) ISSM 536
  - e) ISSM 551
  - f) 3 credits chosen from ISSM 531 or 535
2. achieve a minimum overall GPA of 3.0 in the required courses.
3. must complete 12 of 18 credits at Concordia.
4. complete program within 3 years

#### **C. GRADUATION REQUIREMENTS**

Students graduate on one of three degree-conferral dates following successful completion of their program requirements. For further information about graduation requirements, see *Graduation and Convocation*, section 13.2.2.E.

## 15.0 CONTINUING EDUCATION

### 15.1 ACADEMIC UPGRADING

Concordia's academic upgrading programs enable students to prepare for admission to and success in undergraduate programs at Concordia University College of Alberta and other Alberta post-secondary institutions.

#### 15.1.1 ABORIGINAL AND GENERAL UNIVERSITY AND COLLEGE ENTRANCE PROGRAM

(NOTE: THIS PROGRAM HAS BEEN SUSPENDED AS OF 2013-2014)

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Concordia University College of Alberta is the innovator of university and college entrance programming and is recognized province-wide. The University and College Entrance Program (UCEP) began in 1985 as a unique approach to meeting a need demonstrated by the Aboriginal population in acquiring the skills necessary to be eligible for post-secondary programs. We are part of a proud history in an institution that has been able to provide students the opportunity to pursue education in a welcoming, spiritual environment. The UCEP experience is enhanced by the close-knit community of students and the support of skilled teaching staff.

The University and College Entrance Program, designed for students who are 20 years of age or older, is an eight-month, full-time program that covers the concepts from Grades 10, 11 and 12. The program enables students to achieve the necessary matriculation course equivalents for admission to Alberta post-secondary institutions under the non-matriculated applicant requirements.

UCEP is an intensive, accelerated program. Students are expected to commit to the requirements of the program to ensure success, enabling them to proceed toward their post-secondary and career goals. While the passing grade for all UCEP courses is 50%, students should consult with an admission advisor regarding minimum admission averages.

#### A. ADMISSION REQUIREMENTS

Applicants are expected to show that they can work at a minimum skill level of grade 10 in English and Mathematics in order to be considered for the program. In addition to the academic requirements, all UCEP applicants are required to:

- a) be 20 years of age or older at the time of completion,
- b) complete an English and Mathematics placement test,
- c) complete a thorough career-investigation report,
- d) complete an individual assessment interview.

For more information, please call 780-413-7800 or visit [www.ucep.concordia.ab.ca](http://www.ucep.concordia.ab.ca)

#### B. ENGLISH LANGUAGE REQUIREMENTS

English is the principal language of instruction at Concordia. To ensure that UCEP students have the best opportunity to achieve academic success, all international students applying to the UCEP program are required to present a (TOEFL) BCT score of 197 or an iBT score of 70.

When requesting that official TOEFL test scores be sent to Concordia University College of Alberta, students should indicate Concordia's institution code, 0916.

#### C. COURSE DESCRIPTIONS

	Credits
<b>ABST 90 Aboriginal Studies</b>	<b>0</b>
Aboriginal Studies 90 is a course based on the perspectives and world views of the indigenous people of First Nations, Metis, and Inuit ancestry from a Canadian viewpoint. The course provides a base knowledge regarding both historical and current issues facing Aboriginal peoples from an Aboriginal perspective.	
<b>BIO 90 Pre-University Biology</b>	<b>15</b>
A basic course in the biological sciences dealing with topics that give an overall background in biology, preparing students for entry into post-secondary courses. Includes physiology, genetics, botany, zoology, ecology, and an introduction to writing biology research papers. This course is equivalent to Biology 30.	
<b>CH 90 Pre-University Chemistry</b>	<b>10</b>
Chemistry 90 includes the basic knowledge and process skills that are a prerequisite for post-secondary courses. It is a comprehensive course in chemistry for students who have had no previous courses in high school chemistry or no high school chemistry for a significant period of time. This course is equivalent to Chemistry 30.	
<b>CMPT 90 Computers</b>	<b>5</b>
Through lectures and labs, students review basic word processing and Internet research skills and continue with intermediate and advanced word processing. The course also includes an introduction to spreadsheets and presentation graphics.	
<b>ENG 90 Pre-University English</b>	<b>15</b>
An intensive and comprehensive review and skill development course in the language arts. Assesses areas where students need improvement and provides the English skills needed to begin a post-secondary program. This course is equivalent to English 30-1.	

May-12-14

- MATH 90 Pre-University Mathematics** **15**  
Provides the mathematical background required for university courses in mathematics and the natural and social sciences. Reviews basic mathematics and covers all areas of algebra and trigonometry. This course is equivalent to Pure Mathematics 30.
- SCI 80 Introductory High School Science** **5**  
Provides a foundation for future science courses (Chemistry, Biology, and Physics). An introduction to the language of science, scientific method, laboratory protocols, and the basics of scientific study. Students are encouraged to develop curiosity, open-mindedness, and critical thinking skills when exploring the complexity of the natural world. This course is equivalent to Science 10.
- SS 90 Pre-University Social Studies** **15**  
In the first half of the year, this course examines the main themes in European history from the scientific revolution to the Cold War. The second part of the course traces the development of Canada from the earliest period of First Nations' occupation, through the development of the Canadian body politic in 1867 and finishes with an in-depth examination of modern Canadian history. This course is equivalent to Social Studies 30 and provides an excellent framework for first and second-year university history courses.
- PHY 90 Pre-University Physics\*** **10**  
A non-calculus course in introductory general physics progressing from the basic laws of motion through classical to modern physics. Mathematics will be simple but necessary. No prior knowledge of chemistry or physics is assumed. The minimum objective of this course is to provide knowledge and skill with physics basics and scientific thinking so that entry into first-year university physics is a smooth transition. This course is equivalent to Physics 30. Prerequisite: Pure Mathematics 30 or MAT 90. This course is offered during the Spring Session only (May and June).
- NS 152 Introductory Cree** **6 (4-0-1)**  
An overview of the Plains Cree language beginning with the Cree sound system, basic conversation, the basics of the structure of the Cree language, and writing of the Cree language using Roman orthography. Note: Native Studies 152 is a university-level course. Not open to students with matriculation standing in Cree.

### **15.1.2 LEARNING FOUNDATIONS PROGRAM (NOTE: THIS PROGRAM HAS BEEN SUSPENDED AS OF 2013-2014)**

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The Learning Foundations program, designed specifically for individuals 20 years of age or older, is an intensive eight month, full-time program that enables students to acquire the foundational, academic skills to gain entrance into high school credit courses, including Concordia's University and College Entrance Program. The courses cover concepts from grades 7, 8 and 9 in mathematics, English, science and computers.

For more information, contact the Continuing Education Office at 780-413-7800 or visit [www.ucep.concordia.ab.ca](http://www.ucep.concordia.ab.ca).

#### **A. ADMISSION REQUIREMENTS**

For entry into the Learning Foundations Program, students are required to:

- a) be 20 years of age or older,
- b) complete an English and mathematics placement test,
- c) complete a thorough career investigation report,
- d) complete an individual assessment interview

#### **B. ENGLISH LANGUAGE REQUIREMENTS**

English is the principal language of instruction at Concordia. To ensure that UCEP students have the best opportunity to achieve academic success, all international students applying to the UCEP program are required to present a (TOEFL) BCT score of 197 or an iBT score of 70.

When requesting that official TOEFL test scores be sent to Concordia University College of Alberta, students should indicate Concordia's institution code, 0916.

#### **C. COURSE DESCRIPTIONS**

- |   | <b>Credits</b> |
|---|----------------|
| <b>ENG 70 English Skills Development</b>  | <b>0</b>       |
| English 70 is an English skills development program that draws together basic aspects of the secondary English curriculum. Fundamental skills in literature, grammar/usage/mechanics, composition/writing, viewing and reading/language development are coordinated in a program of eight months.   |                |
| <b>MAT 70 Math Skills Development</b>   | <b>0</b>       |
| In Math Skills Development, students develop proficiency in the mathematics operations necessary for success in Mathematics 90 or high school level (grades 10-12) mathematics courses. Students review operations with whole numbers, fractions, decimals, ratios, and percent. Students develop measurement and graphing skills. Students become familiar with the fundamentals of algebra, geometry, and trigonometry. |                |
| <b>SCI 70 Science Skills Development</b>  | <b>0</b>       |
| Science 70 is designed to provide a foundation for future science courses (Physics, Chemistry, and Biology). Students are introduced to the language of science, scientific method, laboratory protocols, and the basics of scientific study. Students are  |                |



encouraged to develop curiosity, open-mindedness, and critical thinking skills when exploring the complexity of the natural world.

*Note: The following courses are intended for students applying directly to post-secondary programs.*

**ESL 100** **3 (3-0-2)**

**English for Advanced Education I**

This course enables students whose first language is other than English to develop the language and communication skills required to succeed in post-secondary education and employment settings. The focus of this introductory course is the development and improvement of listening, speaking, reading, and writing skills. Prerequisite: Minimum TOEFL score of 530 or consent of the Faculty.

**ESL 101** **3 (3-0-2)**

**English for Advanced Education II**

In this intermediate course students whose first language is other than English continue to develop the language and communication skills that they began to learn in ESL 100. The focus is to further facilitate the development and improvement of listening, speaking, reading, and writing skills for post-secondary or employment use. Prerequisite: ESL 100 or consent of the Faculty.

**ESL 200** **3 (3-0-2)**

**English for Advanced Education III**

This advanced course provides students whose first language is other than English to develop the language and communication skills necessary to excel in graduate programs or professional work environments. The focus of the course is to prepare students for graduate-level tasks, research, and a variety of employment situations. Prerequisite: ESL 101 or consent of the Faculty.