

COURSE CATALOGUE

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Note: The courses given in this part of the Calendar are graduate-level courses available to students after admission to a graduate program and available to other students only with Faculty/School permission. Graduate students may take senior undergraduate courses for credit at the graduate level (see p. 165). For a complete listing of all University of Lethbridge Courses, see www.uleth.ca/ross/courses.

1. COURSE SUBJECT ABBREVIATIONS

The University assigns an abbreviated designation to each course subject. These subject abbreviations are listed in parentheses for subjects included in this Calendar's course listings.

Other subjects that do not appear in the course listings in this Calendar are abbreviated as follows:

Biomolecular Science	BMOL
Biosystems and Biodiversity	BSBD
Earth, Space, and Physical Science	ESPS
Evolution and Behaviour	EVBH
Population Studies in Health	POSH
Theoretical and Computational Science	TCSC

2. WHERE TO GET MORE INFORMATION

Students may obtain information about the content of a specific course by inquiring at the academic unit—Department, School or Faculty—which offers that course.

Information about which courses will be offered—when, where and by which instructor—is provided in the current term timetable, available online at www.uleth.ca/ross/timetable.

3. COURSE NUMBERING SYSTEM

The first digit indicates the level of the course:

3000 - 3998

Senior courses usually taken during the third year. Graduate students may take senior undergraduate courses for credit at the graduate level (see **Graduate Level, p. 165**).

4000 - 4998

Senior courses usually taken during the fourth year. Graduate students may take senior undergraduate courses for credit at the graduate level (see **Graduate Level, p. 165**).

5000 - 5998

Master's-level courses taken after admission to a graduate program and available to other students only with Faculty/School permission.

6000 - 6014, 6100

Master's-level courses which designate thesis and project work.

6600 - 6999

Master's-level courses in the Campus Alberta Applied Psychology program.

7000 - 7998

Doctoral-level courses taken after admission to a graduate program.

8000

Doctoral-level courses which designate thesis.

5850, 7850

Numbers which designate Topics courses in various disciplines.

5980-85

Numbers which designate Applied Research Studies in various disciplines.

5990, 7990

Numbers which designate Independent Study courses in various disciplines (3.0 credit hours).

5991, 7991

Numbers which designate Independent Study courses in various disciplines (1.5 credit hours).

5999, 9999

Placeholder courses.

4. DEFINITIONS

a. Term

Term refers to a period of study. Students should consult the **Academic Schedule (p. 17)** at the front of this Calendar to learn the specific dates for the start and end of each term.

b. Course

Course refers to a unit of study (called a course or course equivalent) normally studied for one term. A course normally carries a weighting of three credit hours. The University offers some units of study which deviate from this norm.

c. Course Types

1. Applied Research Studies

An opportunity for graduate students to gain applied research credit for unpaid internship-based experience. Contact the School of Graduate Studies for specific information (sgs@uleth.ca).

2. Independent Study

A course for which credit is earned through individual study under the supervision of an instructor.

3. Series

A course that is offered regularly at the University of Lethbridge, but whose content may vary with different offerings. Each Series has one number and different offerings in the series are indicated by the title of the course, as listed in the current term timetable. Students may take more than one offering of a Series course for credit if the offerings are distinct (i.e., if each offering taken has a different title).

Students wishing to improve their grade in a Series course must repeat the section with the identical title (for more information, see **Academic Regulations, Repeat of a Course, p. 38**).

A Series course may be specified as a required course in a major or program.

4. Topics

A course that is not offered regularly at the University of Lethbridge and whose content varies with different offerings. Any Faculty or School may offer Topics courses. Each Topics course is identified by the number 5850 or 7850, and different offerings are indicated by the title of the particular section, as listed in the current term timetable. Students may take more than one offering of a Topics course for credit if the offerings are distinct (i.e., if each offering taken has a different title).

Contact hours for Topics courses may vary according to the nature of the course. Check the specific Topics offering for complete information.

Students wishing to improve their grade in a Topics course must repeat the section with the identical title. From time to time, Topics offerings are made into regularly scheduled courses and listed in the Calendar. In this case, students must complete the regularly scheduled course that corresponds to the particular Topics offering in order to improve their grade (for more information, **Academic Regulations, Repeat of a Course, p. 38**).

A Topics course cannot be specified as a required course in any major or program.

5. Online

Courses may be offered online or have online components. Such courses are identified in the current term timetable. The course information listed in the Calendar (e.g., credit hours, course description) applies to all offerings of that course.

6. Placeholder

a. Active Student Status

A Placeholder course (e.g., Education 5999) that enables students not registered in credit courses to maintain active student status in their program. No credit hours are attached to this Placeholder.

b. Continuing Student Status

A Placeholder course (e.g., Visiting 9999, Exchange 9999) that enables students registered elsewhere to maintain continuing student status for registration purposes. No credit hours are attached to this Placeholder.

7. Graduate Level

Students in certain Master's and Doctoral programs may be permitted to take senior undergraduate courses for credit at the graduate level. For more information on which programs may permit enrolment in senior undergraduate courses, students should consult the applicable program-specific part of the University of Lethbridge Graduate Studies Calendar and Course Catalogue. Prior to registration, students must complete the required form available at www.uleth.ca/graduate-studies/forms and then submit it to the School of Graduate Studies for approval consideration. If permission to take a senior level undergraduate course is granted, the graduate student may enrol in a section of the course numbered either 5xxx or 7xxx, whereas the undergraduate students may enrol in the section numbered 3xxx or 4xxx.

d. Course Elements

1. Subject and Course Number

The subject identifies the course discipline, and the course number identifies the course level (see **Course Numbering System, p. 164**).

2. Course Title

A descriptive title is given for each subject and course number. The title of a given course may occasionally change. A change in course title does not constitute a new course. Accordingly, students who repeat a course with the same subject and course number, regardless of the course title, are bound by the regulations given in **Academic Regulations, Repeat of a Course (p. 38)**.

Special regulations apply to Topics and Series courses (see **Series, p. 164** and **Topics, p. 164**).

3. Credit Hours

The weighting factor of a course when determining GPA. Regular full-term credit courses carry a weighting of 3.0 credit hours, while half-credit courses carry a weighting of 1.5 credit hours. Some courses carry non-standard credit hours.

4. Contact Hours

There are two types of contact hours: (1) hours per week, and (2) other hours. 'Hours per week' are regularly scheduled weekly meeting times, while 'other hours' are meeting times that are scheduled at irregular times over the term.

Hours per week (regular): a-b-c

- a - number of required lecture or studio* hours per week
- b - number of required laboratory hours per week
- c - number of required hours per week in a different setting (e.g., tutorial)

Other hours (irregular): d-e-f

- d - number of required lecture or studio* hours per term
- e - number of required laboratory hours per term
- f - number of required hours per term in a different setting (e.g., tutorial, field trip, rehearsal)

All contact hours may be delivered by a number of means, including, but not limited to, the following:

- a regular University classroom
- a University computer lab
- online
- an off-campus location

* Studio courses are identified as such in the offering note for the course.

5. Prerequisite(s), Corequisite(s), Recommended Background, and Other Registration Restrictions

Some courses require an appropriate background of knowledge as indicated by the prerequisite(s), corequisite(s) and recommended background. A prerequisite must be completed successfully before a student is eligible to register in a given course. A corequisite must be taken prior to or in conjunction with another course. Students who have previously passed such a course will be deemed to have met the corequisite requirement.

A student lacking the prerequisite or corequisite for a particular course may apply for a waiver of prerequisite/corequisite from the Faculty/School offering the course.

For some courses, a recommended background is listed instead of, or in addition to, prerequisite(s) and corequisites(s) so that the student may judge his or her own academic preparation.

Prerequisites, corequisites and recommended backgrounds are normally expressed in terms of Alberta high school subjects, one or more courses, admission to programs offered by the University of Lethbridge, year of standing, and/or other special requirements.

A prerequisite or recommended background that specifies year of standing indicates that students are expected to have attained a certain level of academic or intellectual advancement prior to registering in a particular course.

For some courses, students may not exceed a defined year of standing prior to registering in the course. These courses are closed to students who have taken more than the specified number of courses or who are beyond the determined year of

standing at the time of registration. These limits are applied when a course is targeted to a specific group of junior students.

Although students may choose to have their program requirements governed by the Calendar in effect at the time of their most recent admission to the University, all students are bound by the current Calendar with regard to prerequisites, corequisites and recommended backgrounds for individual courses.

6. Equivalent

Equivalent courses can be substituted, one for the other, to meet any specified course requirement. The regulations that apply to repeated courses also apply to equivalent courses. Students should note, in particular, the calculation of GPA (see **Academic Regulations, Repeat of a Course, p. 38**).

7. Substantially Similar

Substantially similar courses contain a high percentage of similar course content but are not deemed equivalent. Students cannot use a substantially similar course to replace another course specified as a prerequisite. Students completing substantially similar courses must complete more than the minimum number of courses required in the program .

8. Grading

Grading indicates what type of grade will be awarded as defined in **Academic Regulations (p. 35)**. The standard grading mode employed by instructors is a letter grade; the alternative grading mode is Pass/Fail.

5. **TIMETABLE**

Normally classes start at 8:00 a.m. on a 50-minute schedule Mondays, Wednesdays and Fridays, and on a 75-minute schedule Tuesdays and Thursdays. Some classes may be scheduled on Saturdays, if necessary, or in the evenings. Normal lecture time is three hours per week, excluding laboratories. Special timetabling is arranged for summer session.

6. **DISCLAIMER**

The appearance of a course in this Calendar does not guarantee that the course will be offered during the academic year for which this Calendar is published.

The University reserves the right to add, modify or withdraw any course or courses without notice.

7. HOW TO READ A COURSE DESCRIPTION

See examples below. See also Additional Prerequisite(s)/ Corequisite(s)/Recommended Background examples on the next page.

Indicates graduate course level

Subject and Course Number → **EDUCATION 5637**

Course Title → **Educational Leadership Internship II**

Weighting factor of the course. See Credit Hours (p. 165). → *Credit hours: 3.0*

Course description → *Contact hours per week: 1.5-0-0*

→ *Other hours per term: 0-0-120*

Preliminary requirement which must be met or waived before course can be taken. See Prerequisite(s), Corequisite(s), Recommended Background, and Other Registration Restrictions (p. 165). → An in-depth professional development and supervised practice for graduate students in the M.Ed. (Educational Leadership) program. The internship has three components: (1) observing leadership in action in a school and/or school district setting, (2) practicing school leadership strategies, and (3) researching a school problem/issue.

→ *Prerequisite(s): Admission to the cohort for which the course is being offered or consent of the Assistant Dean of Graduate Studies and Research (Faculty of Education)*

Grading mode is pass/fail. See Grading (p. 166). → *Corequisite(s): Education 5635*

→ *Grading: Pass/Fail*

Hours per week (regular): a-b-c

a - number of required lecture or studio* hours per week

b - number of required laboratory hours per week

c - number of required hours per week in a different setting (e.g., tutorial)

* Studio courses are identified as such in the offering note for the course.

Other hours per term (irregular): d-e-f

d - number of required lecture or studio* hours per term

e - number of required laboratory hours per term

f - number of required hours per term in a different setting (e.g., tutorial, field trip, rehearsal)

* Studio courses are identified as such in the offering note for the course.

A course which must be taken prior to or in conjunction with another course. To meet the corequisite requirements for Education 5637, students must complete Education 5635 before or at the same time as Education 5637.

Indicates graduate course level

Subject and Course Number → **HEALTH SCIENCES 5300**

Course Title → **Advanced Statistics**

Weighting factor of the course. See Credit Hours (p. 165). → *Credit hours: 3.0*

Course description → *Contact hours per week: 3-2-0*

Preliminary requirement which must be met or waived before course can be taken. To meet the prerequisite requirements for Health Sciences 5300, students must be admitted to the M.Sc. program in the Faculty of Health Sciences AND have completed an undergraduate Statistics course within the last five years AND have basic computer literacy. See Prerequisite(s), Corequisite(s), Recommended Background, and Other Registration Restrictions (p. 165). → This course addresses descriptive statistics and statistical inference followed by a comprehensive study of statistical tests appropriate for most types of research questions and data sets. By the end of the course students will have fluency in univariate and multivariate tests, parametric and nonparametric tests, and the application of SPSS for statistical testing.

→ *Prerequisite(s): Admission to the M.Sc. program in the Faculty of Health Sciences*

→ *Recommended Background: Completion of an undergraduate Statistics course within the last five years AND Basic computer literacy*

→ *Equivalent: Health Sciences 5850 (Advanced Statistics) (prior to 2011/2012)*

→ *Substantially Similar: Health Sciences 5850 (Statistics in Health Sciences Research) (prior to 2011/2012)*

Health Sciences 5300 is 'substantially similar' to the "Statistics in Health Sciences Research" offering in the Health Sciences 5850 Topics Course, which was discontinued effective May 1, 2011. See Substantially Similar (p. 166) and Topics (p. 164).

Hours per week (regular): a-b-c

a - number of required lecture or studio* hours per week

b - number of required laboratory hours per week

c - number of required hours per week in a different setting (e.g., tutorial)

* Studio courses are identified as such in the offering note for the course.

Course description

Health Sciences 5300 is equivalent to the "Advanced Statistics" offering in the Health Sciences 5850 Topics Course, which was discontinued effective May 1, 2011. See Equivalent (p. 166) and Topics (p. 164).

ADDITIONAL PREREQUISITE(S)/COREQUISITE(S)/RECOMMENDED BACKGROUND EXAMPLES

Prerequisite(s), corequisite(s) and recommended background may require a single item or more than one item.

A specified item may be a single course, a course chosen from a list, year of standing, admission to a University of Lethbridge program or some other special requirement (for example, an audition, an interview, a specified cumulative grade point average).

When a student must complete two or more prerequisites, items are separated by "AND" (see examples #1 and #2 below).

When a student must complete one course chosen from a list, the items are normally preceded by "One of".

When a student may satisfy the prerequisite(s)/corequisite(s) by alternate methods, the alternatives are normally separated by "OR" (see example #3 below).

EXAMPLE 1

*Prerequisite(s): Education 5621 AND
Education 5622 AND
Education 5623 AND
Education 5704 AND
Education 5705 AND
Education 5706 AND
Education 5707 AND
Education 5708*

In this example, all eight of the courses listed must be completed prior to registering in the course.

EXAMPLE 2

*Corequisite(s): Education 5704 AND
Education 5705*

In this example, two corequisites must be met to register in the course. Students must complete or have previously completed both Education 5704 and Education 5705.

EXAMPLE 3

*Prerequisite(s): Management 5100
OR
Admission to another graduate program at the University of
Lethbridge*

To meet the prerequisites, students must have completed Management 5100 OR have been admitted to a graduate program at the University of Lethbridge.

APPLIED RESEARCH STUDIES (APRS)

Faculty of Arts and Science

APPLIED RESEARCH STUDIES 5980

Applied Research Studies I

Credit hours: 0.00

Other hours per term: 0-0-120

Using a suitable internship experience as a basis, a learning plan and learning outcomes within a particular disciplinary perspective are prepared for Applied Research Studies I. Depending upon the discipline, students may be required to review and complete risk management and safety materials, manuals, and tests.

Prerequisite(s): Admission to a graduate program AND
Permission of the School of Graduate Studies Dean or Designate

Grading: Pass/Fail

APPLIED RESEARCH STUDIES 5981

Applied Research Studies II

Credit hours: 0.00

Other hours per term: 0-0-120

Using a suitable internship experience as a basis, a learning plan and learning outcomes within a particular disciplinary perspective are prepared for Applied Research Studies II. Depending upon the discipline, students may be required to review and complete risk management and safety materials, manuals, and tests.

Prerequisite(s): Admission to a graduate program AND
Permission of the School of Graduate Studies Dean or Designate

Grading: Pass/Fail

APPLIED RESEARCH STUDIES 5982

Applied Research Studies III

Credit hours: 0.00

Other hours per term: 0-0-120

Using a suitable internship experience as a basis, a learning plan and learning outcomes within a particular disciplinary perspective are prepared for Applied Research Studies III. Depending upon the discipline, students may be required to review and complete risk management and safety materials, manuals, and tests.

Prerequisite(s): Admission to a graduate program AND
Permission of the School of Graduate Studies Dean or Designate

Grading: Pass/Fail

APPLIED RESEARCH STUDIES 5983

Applied Research Studies IV

Credit hours: 0.00

Other hours per term: 0-0-120

Using a suitable internship experience as a basis, a learning plan and learning outcomes within a particular disciplinary perspective are prepared for Applied Research Studies IV. Depending upon the discipline, students may be required to review and complete risk management and safety materials, manuals, and tests.

Prerequisite(s): Admission to a graduate program AND
Permission of the School of Graduate Studies Dean or Designate

Grading: Pass/Fail

APPLIED RESEARCH STUDIES 7980

Applied Research Studies I

Credit hours: 0.00

Other hours per term: 0-0-120

Using a suitable internship experience as a basis, a learning plan and learning outcomes within a particular disciplinary perspective are prepared for Applied Research Studies I. Depending upon the discipline, students may be required to review and complete risk management and safety materials, manuals, and tests.

Prerequisite(s): Admission to the Ph.D. program AND
Permission of the School of Graduate Studies Dean or Designate

Grading: Pass/Fail

APPLIED RESEARCH STUDIES 7981

Applied Research Studies II

Credit hours: 0.00

Other hours per term: 0-0-120

Using a suitable internship experience as a basis, a learning plan and learning outcomes within a particular disciplinary perspective are prepared for Applied Research Studies II. Depending upon the discipline, students may be required to review and complete risk management and safety materials, manuals, and tests.

Prerequisite(s): Admission to the Ph.D. program AND
Permission of the School of Graduate Studies Dean or Designate

Grading: Pass/Fail

APPLIED RESEARCH STUDIES 7982

Applied Research Studies III

Credit hours: 0.00

Other hours per term: 0-0-120

Using a suitable internship experience as a basis, a learning plan and learning outcomes within a particular disciplinary perspective are prepared for Applied Research Studies III. Depending upon the discipline, students may be required to review and complete risk management and safety materials, manuals, and tests.

Prerequisite(s): Admission to the Ph.D. program AND
Permission of the School of Graduate Studies Dean or Designate

Grading: Pass/Fail

APPLIED RESEARCH STUDIES 7983

Applied Research Studies IV

Credit hours: 0.00

Other hours per term: 0-0-120

Using a suitable internship experience as a basis, a learning plan and learning outcomes within a particular disciplinary perspective are prepared for Applied Research Studies IV. Depending upon the discipline, students may be required to review and complete risk management and safety materials, manuals, and tests.

Prerequisite(s): Admission to the Ph.D. program AND
Permission of the School of Graduate Studies Dean or Designate

Grading: Pass/Fail

ARCHAEOLOGY (ARKY)
Faculty of Arts and Science

ARCHAEOLOGY 5010
Cultural Resource Management

Credit hours: 3.00
Contact hours per week: 3-0-0
Survey of international heritage law and Canadian (provincial) legislation. Particular attention is paid to how archaeological practice is geared towards practical elements of cultural resource management work and professional strategies involving diverse stakeholders.
Prerequisite(s): Admission to the M.A. program

ART (ART)
Faculty of Fine Arts

ART 5148
Graduate Studio I
Credit hours: 6.00
Contact hours per week: Variable
Self-directed study focusing on conceptual and material development in studio practice.
Prerequisite(s): Admission to the M.F.A. program with a major in Art
Substantially Similar:
Art 5048 (prior to 2015/2016)

ART 5149
Graduate Studio II
Credit hours: 6.00
Contact hours per week: Variable
Self-directed study focusing on conceptual and material development in studio practice.
Prerequisite(s): Art 5148
Substantially Similar:
Art 5049 (prior to 2015/2016)

Note: All prerequisite courses must have a minimum 'B-' grade.

ART 5160
Theory in Art Studio
Credit hours: 3.00
Contact hours per week: 3-0-0
An exploration of the role of theory in contemporary art practices. Through seminar-style presentations, discussions, and various approaches to writing, students will critically examine how art production can engage with diverse fields of literary fiction, film, artist writings, popular culture, science, philosophy and theory.
Prerequisite(s): Admission to the M.F.A. program with a major in Art

ART 5261
Art NOW Graduate Seminar
Credit hours: 3.00
Contact hours per week: 3-0-0
Directed readings on assigned topics. Attendance at Visiting Artists Series.
Prerequisite(s): Admission to the M.F.A. program with a major in Art

ART 5850
Topics in Art
Credit hours: 3.00
Contact hours per week: 3-0-0
Topics in art not covered by regular courses may be offered under this designation, depending on student interest and availability of faculty and expertise.
Prerequisite(s): Admission to the M.F.A. program with a major in Art

ART HISTORY (ARHI)
Faculty of Fine Arts

ART HISTORY 5150
Art History Graduate Seminar (Series)
Credit hours: 3.00
Contact hours per week: 3-0-0
Offerings in subject areas dealing with significant developments in art history.
Prerequisite(s): Admission to the M.F.A. program with a major in Art
Equivalent: Art History/Museum Studies 5150 (prior to 2016/2017)

ARTS AND SCIENCE (ASCI)
Faculty of Arts and Science

ARTS AND SCIENCE 5011
Co-op Work Experience I
Credit hours: 0.00
Co-op Work Experience I requires the student to complete a Work Term successfully, be evaluated by the Co-op Coordinator and employer and complete a Work Term report graded by an assigned faculty member.
Prerequisite(s): Admission to the Co-operative Education Option in the Master of Arts or Master of Science program
Grading: Pass/Fail

ARTS AND SCIENCE 5012
Co-op Work Experience II
Credit hours: 0.00
Co-op Work Experience II requires the student to complete a Work Term successfully, be evaluated by the Co-op Coordinator and employer and complete a Work Term report graded by an assigned faculty member.
Prerequisite(s): Arts and Science 5011
Grading: Pass/Fail

ARTS AND SCIENCE 5013
Co-op Work Experience III
Credit hours: 0.00
Co-op Work Experience III requires the student to complete a Work Term successfully, be evaluated by the Co-op Coordinator and employer and complete a Work Term report graded by an assigned faculty member.
Prerequisite(s): Arts and Science 5012
Grading: Pass/Fail

ARTS AND SCIENCE 5014
Co-op Work Experience IV
Credit hours: 0.00
Co-op Work Experience IV requires the student to complete a Work Term successfully, be evaluated by the Co-op Coordinator and employer and complete a Work Term report graded by an assigned faculty member.
Prerequisite(s): Arts and Science 5013
Grading: Pass/Fail

BIOLOGY (BIOL)
Faculty of Arts and Science

BIOLOGY 5010**Advances in Molecular and Cellular Biology (Series)**

Credit hours: 3.00

Contact hours per week: 3-0-0

Recent advances in the fields of genetics, molecular biology, and cellular biology, with an emphasis on primary literature and modern techniques.

Prerequisite(s): Admission to the M.Sc. program

BIOLOGY 5410**Advances in Organismal Biology (Series)**

Credit hours: 3.00

Contact hours per week: 3-0-0

Recent advances in the fields of organismal biology, including physiology and developmental biology, with emphasis on primary literature and modern techniques.

Prerequisite(s): Admission to the M.Sc. program

BIOLOGY 5500**Graduate Seminar Series: Current Topics in Biological Sciences**

Credit hours: 3.00

Contact hours per week: 3-0-0

A scientific literature-based course in which students will critically examine recent developments in a range of biological sciences, including cellular/molecular biology, organismal biology, and evolution/ecology. Seminar-style format including oral presentations, group discussions of assigned readings and scientific writing.

Prerequisite(s): Admission to the M.Sc. program

Note: This course is required for M.Sc. students in graduate programs in the Department of Biological Sciences.

BIOLOGY 5710**Advances in Ecology and Evolution (Series)**

Credit hours: 3.00

Contact hours per week: 3-0-0

Recent advances in the fields of ecology, evolution and systematics, with an emphasis on primary literature and modern techniques.

Prerequisite(s): Admission to the M.Sc. program

BIOLOGY 7010**Advances in Molecular and Cellular Biology (Series)**

Credit hours: 3.00

Contact hours per week: 3-0-0

Recent advances in the field of Biomolecular Science, including genetics, molecular biology, bioinformatics, and cellular biology, with an emphasis on primary literature and modern techniques.

Prerequisite(s): Admission to the Ph.D. program

BIOLOGY 7410**Advances in Organismal Biology (Series)**

Credit hours: 3.00

Contact hours per week: 3-0-0

Recent advances in the field of Biosystems, including developmental biology, animal physiology, and plant physiology, with emphasis on the primary literature and modern techniques.

Prerequisite(s): Admission to the Ph.D. program

BIOLOGY 7500**Graduate Seminar Series: Current Topics in Biological Sciences**

Credit hours: 3.00

Contact hours per week: 3-0-0

A scientific literature-based course in which students will critically examine recent developments in a range of biological sciences, including cellular/molecular biology, organismal biology, and evolution/ecology. Seminar-style format including oral presentations, group discussions of assigned readings and scientific writing.

Prerequisite(s): Admission to the Ph.D. program

Note: This course is required for all students in Ph.D. programs under direct supervision of a member or adjunct member of the Department of Biological Sciences.

BIOLOGY 7710**Advances in Ecology and Evolution (Series)**

Credit hours: 3.00

Contact hours per week: 3-0-0

Recent advances in the fields of Ecology and Evolution, including biodiversity, systematics, evolutionary biology, behavioural ecology, molecular evolution, and environmental science, with an emphasis on primary literature and modern techniques.

Prerequisite(s): Admission to the Ph.D. program

**CAMPUS ALBERTA APPLIED
PSYCHOLOGY** (CAAP)
Faculty of Education

CAAP 6601**Theories of Counselling and their Application to Client Change**

Credit hours: 3.00

Contact hours per week: Online facilitated instruction

Students are engaged in a critical evaluation of a range of contemporary counselling theories and they will begin to develop a description of their own emerging theory.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: CAAP 601; Education 5705

CAAP 6603**Professional Ethics and Conduct**

Credit hours: 3.00

Contact hours per week: Online facilitated instruction/face-to-face summer institute

Addresses legal and ethical issues in the practice and regulation of counselling in a variety of contexts including school counselling, private practice and non-profit agencies. The focus is on ethical decision-making models and codes of conduct, professional standards and guidelines, federal and provincial laws/statutes, and the impact of counsellor's values on the counselling process.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: CAAP 603; Education 5621; Education 5620 (Ethics and Professional Practice) (prior to 2012/2013)

CAAP 6605**Foundational Counselling and Conflict Resolution Skills**

Credit hours: 3.00

Contact hours per week: Online facilitated instruction/face-to-face summer institute

Focuses on the understanding and acquisition of skills that are essential for the development of working alliances in counselling contexts. The course will introduce a theoretical framework for the application of counselling skills in addition to providing opportunity for skill practice.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: CAAP 605;
Education 5704

CAAP 6607**Counselling Diverse Clients**

Credit hours: 3.00

Contact hours per week: Online facilitated instruction

Focuses on increasing personal awareness, identification of conceptual frameworks, and development of in-depth knowledge of equity and diversity issues in counselling. Students will be expected to examine their own attitudes, behaviours, perceptions and biases.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: CAAP 607;
Education 5622;
Education 5620 (Gender and Culture) (prior to 2012/2013)

CAAP 6611**General Counselling Practicum**

Credit hours: 3.00

Contact hours per week: 2-0-0 Online facilitated instruction/face-to-face seminar

Other hours per term: 0-0-150

Provides an opportunity for professional development and supervised practice in a general counselling setting. Students will be involved in direct work with clients under the supervision of a qualified professional.

Prerequisite(s): Admission to the cohort for which the course is being offered AND
CAAP 6601 (CAAP 601) AND
CAAP 6603 (CAAP 603) AND
CAAP 6605 (CAAP 605) AND
CAAP 6607 (CAAP 607) AND
CAAP 6613 (CAAP 613) AND
CAAP 6615 (CAAP 615)

Equivalent: CAAP 611;
Education 5709

Grading: Pass/Fail

Note: All prerequisite courses must have a minimum 'B-' grade.

CAAP 6613**Assessment: Processes and Application**

Credit hours: 3.00

Contact hours per week: Online facilitated instruction/face-to-face summer institute

Addresses the measurement of characteristics of individuals across the life span and diverse groups in a variety of contexts. Assessment models, psychometric theory and concepts, ethics of testing, and utilization of various classification systems for diagnosing client functioning are addressed. Standardized and non-standardized assessment techniques are examined to measure client change and individual characteristics.

Prerequisite(s): Admission to the cohort for which the course is being offered AND
CAAP 6601 (CAAP 601) AND
CAAP 6605 (CAAP 605)

Equivalent: CAAP 613;
Education 5707

Note: All prerequisite courses must have a minimum 'B-' grade.

CAAP 6615**Counselling Strategies and Interventions**

Credit hours: 3.00

Contact hours per week: Online facilitated instruction/face-to-face summer institute

An intensive study of a variety of counselling techniques arising from counselling theories to address common presenting problems in children, youth and adults. Skill development in laboratory settings emphasizes counsellor self-evaluation, case conceptualization, the ethical practice of delivering the treatment plan, intervention efficacy, matching of interventions to client issues, and consultation issues.

Prerequisite(s): Admission to the cohort for which the course is being offered AND
CAAP 6601 (CAAP 601) AND
CAAP 6605 (CAAP 605)

Equivalent: CAAP 615;
Education 5706

Note: All prerequisite courses must have a minimum 'B-' grade.

CAAP 6617**Research and Program Evaluation Skills**

Credit hours: 3.00

Contact hours per week: Online facilitated instruction

Qualitative and quantitative research methods are examined, ranging from single-subject designs to program evaluation strategies, applicable to counselling settings.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: CAAP 617;
Education 5410 (Methods of Inquiry)

CAAP 6619**Specialized Counselling Practicum**

Credit hours: 3.00

Contact hours per week: 2-0-0 Online
facilitated
instruction/face-to-
face seminar

Other hours per term: 0-0-150

Provides an opportunity for professional development and supervised practice in a specialized counselling context. Students will be involved in direct work with clients under the supervision of a qualified professional. The practicum allows students to actively explore issues encountered in working with a specialized client population or area of practice.

Prerequisite(s): Admission to the cohort for which the course is being offered

Corequisite(s): CAAP 6611 (CAAP 611)

Equivalent: CAAP 619;
Education 5711

Grading: Pass/Fail

Note: Students must have a minimum 'B-' grade in CAAP 6613 (CAAP 613) AND CAAP 6615 (CAAP 615).

CAAP 6631**Cognitive and Affective Bases of Behaviour**

Credit hours: 3.00

Contact hours per week: Online facilitated
instruction

Focuses on theories of cognition and affect by examining how humans process information and organize their knowledge and emotional experiences. Contemporary issues will be addressed in several areas of application including regulation of affect and behaviour in everyday life and in unusual circumstances.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: CAAP 631;
Education 5623;
Education 5620 (Learning Processes) (prior to 2012/2013)

CAAP 6633**Counselling Issues Across the Life Span**

Credit hours: 3.00

Contact hours per week: Online facilitated
instruction

In-depth study of human development and functioning across the lifespan. Focus is on normative life transitions, the family life cycle, atypical developmental risk factors, and selected emotional and behavioral disorders in children and adolescents. Special attention is given to attachment theory across the life span and implications for relational development.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: CAAP 633;
Education 5620 (Human Development)

CAAP 6635**Biosocial Foundations of Health Psychology**

Credit hours: 3.00

Contact hours per week: Online facilitated
instruction

Current research in biosocial health psychology is addressed including the study of behavioural responses to stress, addictions and chronic illness. Emphasis is on interpersonal emotional processes and lifestyle modifications to adjust to health-related stressors. Additional topics include consequences of common psychophysiological reactions and syndromes such as anxiety disorders; eating disorders; and depressive disorders including grief and loss.

Prerequisite(s): Admission to the cohort for which the course is being offered AND
CAAP 6601 (CAAP 601) AND
CAAP 6607 (CAAP 607) AND
CAAP 6617 (CAAP 617)

Equivalent: CAAP 635;
Education 5620 (Health Psychology)

Note: All prerequisite courses must have a minimum 'B-' grade.

CAAP 6637**Group Counselling and Process Skills**

Credit hours: 3.00

Contact hours per week: Online facilitated
instruction/face-to-
face summer
institute

This course will provide a conceptual understanding of group process, applied to a wide range of contexts and clientele. The course will build on the construct of the working alliance as a foundation for the counselling process and will incorporate various theories of group counselling and group process into an overall conceptual framework. The course delivery will consist of two integrated components: (a) an online component focusing on group theories and conceptual aspects of working in group contexts and (b) a face-to-face component delivered during a summer institute.

Prerequisite(s): Admission to the cohort for which the course is being offered AND
CAAP 6601 (CAAP 601) AND
CAAP 6603 (CAAP 603) AND
CAAP 6605 (CAAP 605) AND
CAAP 6607 (CAAP 607)

Equivalent: CAAP 637;
Education 5620 (Group Counselling and Process Skills)

Note: All prerequisite courses must have a minimum 'B-' grade.

CAAP 6681**Clinical Supervision**

Credit hours: 3.00

Contact hours per week: Online facilitated
instruction

The purpose of this course is for students to learn the process of clinical supervision and, as a result, become better consumers of supervision, more effective supervisors, and more able to evaluate their current and future development and involvement in supervisory roles.

Prerequisite(s): Consent of the Assistant Dean of Graduate Studies and Research (Faculty of Education) AND
CAAP 6601 (CAAP 601) AND
CAAP 6603 (CAAP 603) AND
CAAP 6605 (CAAP 605) AND
CAAP 6607 (CAAP 607)

Equivalent: CAAP 681

Note: All prerequisite courses must have a minimum 'B-' grade.

CAAP 6695

Graduate Practicum: Selected Topics

Credit hours: 3.00

Contact hours per week: Online facilitated instruction

Students will negotiate a suitable description for this course with their instructor.

Prerequisite(s): Consent of the Assistant Dean of Graduate Studies and Research (Faculty of Education)

Equivalent: Any offering in the CAAP 695 Series with the same title as the offering in the CAAP 6695 Series

CAAP 6850

Graduate Seminar: Selected Topics

Credit hours: 3.00

Contact hours per week: Online facilitated instruction

Students will negotiate a suitable description for this course with their instructor.

Prerequisite(s): Consent of the Assistant Dean of Graduate Studies and Research (Faculty of Education)

Equivalent: Any offering in the CAAP 693 Series with the same title as the offering in the CAAP 6850 Series

CAAP 6990

Independent Study

Credit hours: 3.00

Contact hours per week: Online facilitated instruction

Students may be permitted to earn credit by Independent Study, which is designated by the course number CAAP 6990.

Prerequisite(s): Consent of the Assistant Dean of Graduate Studies and Research (Faculty of Education)

CAAP 6999

CAAP Placeholder

Credit hours: 0.00

This is a placeholder registration for students admitted to the CAAP program, who are not registered in a course in a particular term.

Prerequisite(s): Consent of the Assistant Dean of Graduate Studies and Research (Faculty of Education)

Grading: 'X' grade

Note: No fees are assessed for this registration.

CHEMISTRY

(CHEM)

Faculty of Arts and Science

CHEMISTRY 5250

Advanced Contemporary Chemistry

Credit hours: 3.00

Contact hours per week: 3-0-0

Current developments in Chemistry at the graduate level with a focus on leading-edge developments in the discipline. Specific topics will be presented each week by invited speakers, staff and by the graduate students themselves.

Prerequisite(s): Admission to the M.Sc. program

Substantially Similar: Chemistry 7250

CHEMISTRY 7250

Advanced Contemporary Chemistry

Credit hours: 3.00

Contact hours per week: 3-0-0

Current developments in Chemistry at the graduate level with a focus on leading-edge developments in the discipline. Specific topics will be presented each week by invited speakers, staff and by the graduate students themselves.

Prerequisite(s): Admission to the Ph.D. program

Substantially Similar: Chemistry 5250

COMPUTER SCIENCE

(CPSC)

Faculty of Arts and Science

COMPUTER SCIENCE 5110

Studies in Algorithms (Series)

Credit hours: 3.00

Contact hours per week: 3-0-0

Advanced topics in algorithms. Subjects may include, but are not limited to, discrete and continuous optimization, computational geometry, computational mathematics.

Prerequisite(s): Admission to the M.Sc. program

COMPUTER SCIENCE 5210

Studies in Systems (Series)

Credit hours: 3.00

Contact hours per week: 3-0-0

Advanced topics in the design of systems. Subjects may include, but are not limited to, database systems, computer networks, operating systems, topics related to circuit design, compilers and compilation techniques, parallel and distributed systems.

Prerequisite(s): Admission to the M.Sc. program

COMPUTER SCIENCE 5310

Studies in Computational Intelligence (Series)

Credit hours: 3.00

Contact hours per week: 3-0-0

Advanced topics in computational intelligence. Subjects may include, but are not limited to, artificial intelligence, data mining, image processing, audio processing, natural language processing, human-computer interaction, bioinformatics, computer vision, machine learning.

Prerequisite(s): Admission to the M.Sc. program

Equivalent: Computer Science 5850 (Advanced Artificial Intelligence) (prior to 2012/2013) is equivalent to the same offering in the Computer Science 5310 Series

CULTURAL, SOCIAL, AND POLITICAL THOUGHT

(CSPT)

Faculty of Arts and Science

CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5101/ CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7101

Research Methodology

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced investigation of epistemological, ontological, and ethical concerns relating to research methodology.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5101 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5103/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7103**

Qualitative Interviewing

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of methodological, epistemological, and practical techniques in qualitative interviewing. Emphasis is placed on interview technique, reflexivity, transcription, and interpretation.

Prerequisite(s): Admission to a graduate program

Corequisite(s): Cultural, Social, and Political Thought 5101/Cultural, Social, and Political Thought 7101

Equivalent: Social Sciences 5103 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5105/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7105**

Ethnographic Methods

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of core ethnographic techniques and approaches. Includes consideration of critical issues concerning the positioning of the researcher (in terms of 'insider' and 'outsider' perspectives) and the transformation of qualitative data into text.

Prerequisite(s): Admission to a graduate program

Corequisite(s): Cultural, Social, and Political Thought 5101/Cultural, Social, and Political Thought 7101

Equivalent: Social Sciences 5105 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5107/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7107**

Discourse Analysis

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of the concept of discourse, theoretical models of discourse, and the different approaches used in the analysis of discourse.

Prerequisite(s): Admission to a graduate program

Corequisite(s): Cultural, Social, and Political Thought 5101/Cultural, Social, and Political Thought 7101

Equivalent: Social Sciences 5107 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5201/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7201**

Feminism, Gender, and Sovereignty

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of texts, theories, and actions that animate feminist thought and interrogate gender as a form of social order and control, as well as the social conditions and conflicts in which feminist ideas and practice arise and circulate.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5201 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5203/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7203**

Historical Materialism

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of Marxist traditions. Topics may include theory and practice, ideology, objectification, commodification and commodity fetishism, modes of production, exchange and consumption, and alienation.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5203 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5205/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7205**

Structuralism/Functionalism

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of theories of structure and/or function in social thought including structural-functionalism, structuralism and systems analysis, and critiques or revaluations of these theories.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5205 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5207/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7207**

Culture and History

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of cultural theory and history in Weberian and related traditions. Topics may include historical relations between culture and social practice, and processes of modernization and rationalization as they apply to identity, status, and power.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5207 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5301/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7301**

Queering Feminism, Gender, and Power

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of texts and theories that disrupt social normativities, as well as the study of the social conditions and conflicts in which queer and feminist thought arise and circulate.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5301 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5303/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7303**

Critical Theory

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of critical theories of society, culture, and communications. Topics may include hegemony, legitimation, transgression, ideology, and reification.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5303 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5305/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7305**

Postmodernism/Poststructuralism

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of key debates concerning representation, power, identity, and late capitalism. This course may outline postmodernism and poststructuralism as distinct but overlapping philosophical and artistic traditions that inform the politics of signification, discourse, ideology, and recent economic transformations.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5305 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5307/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7307**

Postcolonialism

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of historical conditions of (post) Colonialism and Colonial dimensions of multiculturalism. This course may examine the complexities and contradictions within black liberation discourse, diasporic studies, critical multiculturalism, anti-Colonial struggle, and recent discussions of hybridity.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5307 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5701
Professional Skills Seminar**

Credit hours: 1.50

Contact hours per week: 3-0-0

A series of workshops and presentations relating to the practical aspects of academic study, the development of professional skills, and the enhancement of critical scholarly practices.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5701 (prior to 2016/2017)

Grading: Pass/Fail

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5850/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7850**

Topics in Cultural, Social, and Political Thought

Credit hours: 1.50

Contact hours per week: 3-0-0

Selected topics to be offered as determined by student program needs and available University resources. Topics may include auto-ethnography, archival research and historical methods, and visual methods.

Prerequisite(s): Admission to a graduate program (Additional Prerequisites may be specified, including any recommended background, for individual offerings)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7101/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5101**

Research Methodology

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced investigation of epistemological, ontological, and ethical concerns relating to research methodology.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5101 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7103/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5103**

Qualitative Interviewing

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of methodological, epistemological, and practical techniques in qualitative interviewing. Emphasis is placed on interview technique, reflexivity, transcription, and interpretation.

Corequisite(s): Cultural, Social, and Political Thought 7101/Cultural, Social, and Political Thought 5101

Equivalent: Social Sciences 5103 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7105/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5105**

Ethnographic Methods

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of core ethnographic techniques and approaches. Includes consideration of critical issues concerning the positioning of the researcher (in terms of 'insider' and 'outsider' perspectives) and the transformation of qualitative data into text.

Corequisite(s): Cultural, Social, and Political Thought 7101/Cultural, Social, and Political Thought 5101

Equivalent: Social Sciences 5105 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7107/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5107**

Discourse Analysis

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of the concept of discourse, theoretical models of discourse, and the different approaches used in the analysis of discourse.

*Corequisite(s): One of Cultural, Social, and Political Thought 7101/
Cultural, Social, and Political Thought 5101*

Equivalent: Social Sciences 5107 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7201/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5201**

Feminism, Gender, and Sovereignty

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of texts, theories, and actions that animate feminist thought and interrogate gender as a form of social order and control, as well as the social conditions and conflicts in which feminist ideas and practice arise and circulate.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5201 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7203/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5203
Historical Materialism**

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of Marxist traditions. Topics may include theory and practice, ideology, objectification, commodification and commodity fetishism, modes of production, exchange and consumption, and alienation.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5203 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7205/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5205
Structuralism/Functionalism**

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of theories of structure and/or function in social thought including structural-functionalism, structuralism and systems analysis, and critiques or revaluations of these theories.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5205 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7207/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5207
Culture and History**

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of cultural theory and history in Weberian and related traditions. Topics may include historical relations between culture and social practice, and processes of modernization and rationalization as they apply to identity, status, and power.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5207 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7301/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5301**

Queering Feminism, Gender, and Power

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of texts and theories that disrupt social normativities, as well as the study of the social conditions and conflicts in which queer and feminist thought arise and circulate.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5301 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7303/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5303
Critical Theory**

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of critical theories of society, culture, and communications. Topics may include hegemony, legitimation, transgression, ideology, and reification.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5303 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7305/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5305
Postmodernism/Poststructuralism**

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of key debates concerning representation, power, identity, and late capitalism. This course may outline postmodernism and poststructuralism as distinct but overlapping philosophical and artistic traditions that inform the politics of signification, discourse, ideology, and recent economic transformations.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5305 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7307/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5307**

Postcolonialism

Credit hours: 1.50

Contact hours per week: 3-0-0

Advanced exploration of historical conditions of (post) colonialism and colonial dimensions of multiculturalism. This course may examine the complexities and contradictions within black liberation discourse, diasporic studies, critical multiculturalism, anti-colonial struggle, and recent discussions of hybridity.

Prerequisite(s): Admission to a graduate program

Equivalent: Social Sciences 5307 (prior to 2016/2017)

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7701
Professional Skills Seminar**

Credit hours: 1.50

Contact hours per week: 3-0-0

A series of workshops and presentations relating to the practical aspects of academic study, the development of professional skills, and the enhancement of critical scholarly practices.

Prerequisite(s): Admission to the Ph.D. program

Grading: Pass/Fail

**CULTURAL, SOCIAL, AND POLITICAL THOUGHT 7850/
CULTURAL, SOCIAL, AND POLITICAL THOUGHT 5850
Topics in Cultural, Social, and Political Thought**

Credit hours: 1.50

Contact hours per week: 3-0-0

Selected topics to be offered as determined by student program needs and available University resources. Topics may include auto-ethnography, archival research and historical methods, and visual methods.

Prerequisite(s): Admission to a graduate program (Additional prerequisites may be specified, including any recommended background, for individual offerings)

DRAMA (DRAM)
Faculty of Fine Arts

DRAMA 5148

Graduate Studio I

Credit hours: 6.00

Contact hours per week: Variable

Self-directed study focusing on conceptual and material development in studio practice.

Prerequisite(s): Admission to the M.F.A. program with major in Theatre and Dramatic Arts

DRAMA 5149

Graduate Studio II

Credit hours: 6.00

Contact hours per week: Variable

Self-directed study focusing on conceptual and material development in studio practice.

Prerequisite(s): Drama 5148

DRAMA 5150

Graduate Theatre Studies (Series)

Credit hours: 3.00

Contact hours per week: 3-0-0

Graduate level course with offerings in subject areas dealing with significant developments in theatre and dramatic arts such as major artists/theorists, major playwrights, genres and styles, historical periods, non-Western Theatre, dance, and film.

Prerequisite(s): Admission to the M.F.A. program with major in Theatre and Dramatic Arts

DRAMA 521 I

Graduate Seminar in Theories of Theatre

Credit hours: 3.00

Contact hours per week: 3-0-0

Advanced theories of theatre since Aristotle, with an emphasis on the 20th Century and contemporary critical theory.

Prerequisite(s): Admission to the M.F.A. program with major in Theatre and Dramatic Arts

DRAMA 5600

Theatre Studio Performance

Credit hours: 3.00

Contact hours per week: Variable

Approved participation in one major production of the Department of Theatre and Dramatic Arts. Preparation of material from the perspective of actor, designer or technician.

Prerequisite(s): Admission to the M.F.A. program with major in Theatre and Dramatic Arts

DRAMA 5850

Topics in Dramatic Arts

Credit hours: 3.00

Contact hours per week: Variable

Topics in drama not covered by regular courses may be offered under this designation, depending on student interest and availability of faculty and expertise.

Prerequisite(s): Admission to the M.F.A. program with major in Theatre and Dramatic Arts

DRAMA 5990

Independent Studies in Dramatic Arts

Credit hours: 3.00

Contact hours per week: Variable

Independent studies of any topic in the Dramatic Arts.

Prerequisite(s): Admission to the M.F.A. program with major in Theatre and Dramatic Arts

ECONOMICS (ECON)
Faculty of Arts and Science

ECONOMICS 5010

Microeconomic Theory

Credit hours: 3.00

Contact hours per week: 3-0-0

An introduction to graduate-level microeconomic theory, including topics such as utility maximization and individual choice, decision-making under uncertainty, producer theory (technology, costs and profit maximization), alternative market structures (competition, monopoly and oligopoly), general equilibrium, game theory and the economics of information.

Prerequisite(s): Admission to the M.A. program

Recommended Background:

One course (3.0 credit hours) in Microeconomics at the senior undergraduate level AND
One course (3.0 credit hours) in Mathematics for Economics

ECONOMICS 5012

Macroeconomic Theory

Credit hours: 3.00

Contact hours per week: 3-0-0

An introduction to graduate-level macroeconomic theory, including topics such as economic growth, consumption, investment, real and nominal frictions in the goods, labour, and credit markets, models of short-run economic fluctuations, and monetary and fiscal policy design.

Mathematical treatments of current macroeconomics models that are popular in the literature, including classical and new-Keynesian rational expectations models, real business cycle models, and models that can generate multiple equilibria, as well as empirical evidence.

Prerequisite(s): Admission to the M.A. program

Recommended Background:

One course (3.0 credit hours) in Macroeconomics at the senior undergraduate level AND
One course (3.0 credit hours) in Mathematics for Economics

ECONOMICS 5960

Econometric Theory and Applications

Credit hours: 3.00

Contact hours per week: 3-0-0

Introduction to the specification, estimation and testing of economic models. Topics include the classical linear regression model, t tests, structure tests, specification error, the consequences of the violation of the classical assumptions, detection and correction of autocorrelation, and heteroscedasticity. Additional topics such as asymptotic theory, maximum likelihood estimation, instrumental variables, simultaneous equation models, and selected topics such as models for limited dependent variables, models for panel data, ARCH models, units roots, and error correction models may be added at the discretion of the instructor.

Prerequisite(s): Admission to the M.A. or M.Sc. (Management) program

EDUCATION (EDUC)
Faculty of Education

EDUCATION 5200
Curriculum Studies and Classroom Practice (Series)

Credit hours: 3.00

Contact hours per week: 3-0-0

An examination of the relationship between curriculum studies and practices in a variety of educational settings. Credit can be obtained from only one course within the series.

Prerequisite(s): Admission to the cohort for which the course is being offered

EDUCATION 5210
Graduate Seminar in Curriculum Studies (Series)

Credit hours: 3.00

Contact hours per week: 3-0-0

In-depth study of specific topics in and approaches to curriculum, dependent on student interests and Faculty resources. Examples might include: Teachers' Life Histories and Curriculum Development; Critical Pedagogy and Curriculum; Evaluation of Curriculum; Language in Education; and Critical Thinking: Issues and Approaches.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: Education 5850 (Critical Thinking) is equivalent only to the "Critical Thinking: Issues and Approaches" offering in the Education 5210 Series;

EDUCATION 5300
The Foundations of Modern Educational Theory and Practice (Series)

Credit hours: 3.00

Contact hours per week: 3-0-0

An interdisciplinary analysis of the evolution of modern educational theory and practice as it relates to a variety of educational settings. Credit can be obtained from only one course within the series.

Prerequisite(s): Admission to the cohort for which the course is being offered

EDUCATION 5310
Graduate Seminar in Foundational Studies (Series)

Credit hours: 3.00

Contact hours per week: 3-0-0

In-depth study of specific topics in and approaches to educational foundations, dependent on student interests and Faculty resources. Examples might include: The Historical Context of Educational Thought; Educational Psychology and Instructional Decision-Making; Ideas of the Great Educators.

Prerequisite(s): Admission to the cohort for which the course is being offered

EDUCATION 5400
The Nature of Educational Research (Series)

Credit hours: 3.00

Contact hours per week: 3-0-2

An introduction to the paradigms of educational inquiry, the framing of research questions and research processes and methods as it relates to a variety of educational settings. Credit can be obtained from only one course within the series.

Prerequisite(s): Admission to the cohort for which the course is being offered

EDUCATION 5410
Graduate Seminar in Educational Research (Series)

Credit hours: 3.00

Contact hours per week: 3-0-0

In-depth study of specific topics in and approaches to research design and methodology, dependent on student interest and Faculty resources. Examples might include: Quantitative Methods in Educational Research; Interpretive Inquiry; Action Research.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: CAAP 6617 (CAAP 617) is equivalent to Education 5410 (Methods of Inquiry); Any CAAP course with the same title as the offering in the Education 5410 Series

EDUCATION 5500
Understanding Professional Practice and Professional Development (Series)

Credit hours: 3.00

Contact hours per week: 3-0-0

An introduction to a broad variety of methods in which knowledge and understanding of professional practice and professional development can be enhanced and applied through field studies for professionals in education and education-related contexts in community settings. Credit can be obtained from only one course within the series.

Prerequisite(s): Admission to the cohort for which the course is being offered

EDUCATION 5510
Graduate Seminar in the Practice of Teaching (Series)

Credit hours: 3.00

Contact hours per week: 3-0-0

In-depth study of specific topics in and approaches to teaching practice, dependent on student needs and Faculty resources. Examples might include: Instructional Supervision; Professional Development of Teachers; Leadership in Educational Practice.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: Education 5850 (Reducing Workplace Stress) is equivalent only to the "Professional Health and Well-Being" offering in the Education 5510 Series; Any offering in Education 5850 with the same title as the offering in the Education 5510 Series

EDUCATION 5550
Practicum in Education

Credit hours: 3.00

Other hours per term: 10-0-100

This experience allows graduate students to explore independent scholarly activity in the context of teaching in their own or another's classroom. The student works with a faculty member to develop a proposal and the details of the study. Students should consult the Assistant Dean, Graduate Studies and Research in the Faculty of Education for more information.

Prerequisite(s): Admission to the cohort for which the course is being offered

Grading: Pass/Fail

EDUCATION 5551

Educational Supervision: Effective Mentoring Relationships

Credit hours: 3.00

Contact hours per week: 3-0-0

This course will help teacher mentors and other educators become more knowledgeable and skillful in teacher supervision in general and mentoring in specific. It will explore some of the challenges and issues in beginning teacher induction as well as examine current research about mentoring, classroom observations, analysis of teaching and professional growth.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: Education 5510 (Educational Supervision: Effective Mentoring Relationships) (prior to 2012/2013)

Grading: Pass/Fail

EDUCATION 5560

Internship in Education

Credit hours: 3.00

Other hours per term: 10-0-100

This experience allows graduate students to examine and/or implement some practical aspect of his or her study in a field placement. The student works with a faculty member to develop a proposal and the details of the study. Students should consult the Assistant Dean, Graduate Studies and Research in the Faculty of Education for more information.

Prerequisite(s): Admission to the cohort for which the course is being offered

Grading: Pass/Fail

EDUCATION 5610

Graduate Seminar in Educational Leadership and Administration (Series)

Credit hours: 3.00

Contact hours per week: 3-0-0

In-depth study of specific topics in and approaches to educational administration and leadership, dependent on student interests and Faculty resources. Examples might include: Supervision, Evaluation and Accountability; Leadership in Educational Organizations; Understanding Educational Change; Educational Governance, Structure and Finance.

Prerequisite(s): Admission to the cohort for which the course is being offered

EDUCATION 5620

Graduate Seminar in Counselling Psychology (Series)

Credit hours: 3.00

Contact hours per week: 3-0-0

In-depth study of specific topics in and approaches to counselling psychology for educational and community settings, dependent on student interest and faculty resources. Examples might include: Gender and Culture Issues in Counselling; Counselling in Special Settings; Consultation Techniques.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: CAAP 6625 (CAAP 625) is equivalent to Education 5620 (Systemic Community Change: A Comprehensive Approach to Human Service Delivery) (prior to 2014/2015); CAAP 6633 (CAAP 633) is equivalent to Education 5620 (Human Development); Education 5621 is equivalent to Education 5620 (Ethics and Professional Practice) (prior to 2012/2013); Education 5622 is equivalent to Education 5620 (Gender and Culture) (prior to 2012/2013); Education 5623 is equivalent to Education 5620 (Learning Processes) (prior to 2012/2013); CAAP 6603 (CAAP 603) is equivalent to Education 5620 (Ethics and Professional Practice) (prior to 2012/2013); CAAP 6607 (CAAP 607) is equivalent to Education 5620 (Gender and Culture) (prior to 2012/2013); CAAP 6631 (CAAP 631) is equivalent to Education 5620 (Learning Processes) (prior to 2012/2013); Any CAAP course with the same title as the offering in the Education 5620 Series

EDUCATION 5621

Counselling Psychology: Ethics and Professional Practice

Credit hours: 3.00

Contact hours per week: 3-0-0

This course addresses professional, legal and ethical issues in the practice, science and regulation of Counselling Psychology. Course topics include but are not limited to: ethical decision-making models, codes of conduct, and professional standards; informed consent issues across many domains of practice; counsellor's values and attitudes; dual relationships; ethical issues with vulnerable populations; and consequences of unethical conduct. Extensive reference will be made to the Canadian Code of Ethics for Psychologists.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: CAAP 6603 (CAAP 603); Education 5620 (Ethics and Professional Practice) (prior to 2012/2013)

EDUCATION 5622

Counselling Psychology: Gender and Cultural Issues

Credit hours: 3.00

Contact hours per week: 3-0-0

This course examines unique gender and cultural issues faced when working with diverse populations. Multicultural competence is enhanced by studying the historical, sociological, familial and societal influences placed upon each ethnic or minority group. Strengths and weaknesses of current therapeutic models will also be discussed along with the recognition of one's own ethnicity, prejudices and beliefs that may have an impact on the therapeutic relationship. Multicultural interventions, trends, research and future directions will also be explored while the important topic of ethics is prominent throughout the course.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: CAAP 6607 (CAAP 607); Education 5620 (Gender & Culture) (prior to 2012/2013)

EDUCATION 5623**Counselling Psychology: Learning Processes***Credit hours: 3.00**Contact hours per week: 3-0-0*

In-depth study of the major theories of learning as well as current research in the area. The practical implications of learning theory in educational and Counselling Psychology settings are explored.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: CAAP 6631 (CAAP 631); Education 5620 (Learning Processes) (prior to 2012/2013)

EDUCATION 5630**Educational Leadership and the Change Process***Credit hours: 3.00**Contact hours per week: 3-0-0*

An interpretation of the change process, leadership models, administration theory and the role of vision in leadership.

Prerequisite(s): Admission to the cohort for which the course is being offered

EDUCATION 5631**School Culture and the Instructional Program***Credit hours: 3.00**Contact hours per week: 3-0-0*

An examination of the leader's role in facilitating a positive school culture and in positioning teaching and learning as the focal point of schools.

Prerequisite(s): Admission to the cohort for which the course is being offered

EDUCATION 5632**Managing the Organization***Credit hours: 3.00**Contact hours per week: 3-0-0*

The nature of leadership practice in an organizational context-the leader as manager. Understanding school system management processes and developing human resources. Assessing the larger political, social, economic, legal and cultural contexts.

Prerequisite(s): Admission to the cohort for which the course is being offered

EDUCATION 5633**Governance, Collaboration and Community Engagement***Credit hours: 3.00**Contact hours per week: 3-0-0*

Examination of relationships, partnerships, governance and moral decision-making in an ethical culture.

Prerequisite(s): Admission to the cohort for which the course is being offered

EDUCATION 5634**Collaborative Problem Solving***Credit hours: 3.00**Contact hours per week: 1.5-0-0**Other hours per term: 0-0-40*

The resolution of school-system problems in a collaborative environment. Students will develop strategies, establish methods of inquiry, gather and interpret data, draw conclusions and report to stakeholders.

Prerequisite(s): Admission to the cohort for which the course is being offered

EDUCATION 5635**Educational Leadership Internship I***Credit hours: 3.00**Contact hours per week: 1.5-0-0**Other hours per term: 0-0-120*

This course will allow students to synthesize and apply their knowledge, to practice and to develop the skills addressed in the leadership core and concentration courses. The field placement will provide a real leadership setting-planned and guided co-operatively by the Faculty of Education and the school district.

Prerequisite(s): Admission to the cohort for which the course is being offered

Grading: Pass/Fail

EDUCATION 5636**Advanced Seminar in Educational Leadership***Credit hours: 3.00**Contact hours per week: 3-0-0*

Opportunity for learners to present, critique and synthesize the practicum experience, and to demonstrate the skills developed in core and specialization courses.

Prerequisite(s): Admission to the cohort for which the course is being offered

EDUCATION 5637**Educational Leadership Internship II***Credit hours: 3.00**Contact hours per week: 1.5-0-0**Other hours per term: 0-0-120*

An in-depth professional development and supervised practice for graduate students in the M.Ed. (Educational Leadership) program. The internship has three components: (1) observing leadership in action in a school and/or school district setting, (2) practicing school leadership strategies, and (3) researching a school problem/issue.

Prerequisite(s): Admission to the cohort for which the course is being offered

Corequisite(s): Education 5635

Grading: Pass/Fail

EDUCATION 5701**Gender and Educational Practice***Credit hours: 3.00**Contact hours per week: 3-0-0*

Gender issues as they relate to the philosophy, structure and conduct of educational systems.

Prerequisite(s): Admission to the cohort for which the course is being offered

EDUCATION 5703**Pedagogy and Global Culture***Credit hours: 3.00**Contact hours per week: 3-0-0*

Themes and issues surrounding the concept of global culture and implications for the meaning and conduct of pedagogy. Topics include: Postmodernism; the Cultural Implications of the New Biology; Native Sensibility and the Face of the Other.

Prerequisite(s): Admission to the cohort for which the course is being offered

EDUCATION 5704**Counselling Psychology: Skills***Credit hours: 3.00**Contact hours per week: 3-0-0*

Understanding and acquisition of communication skills in interpersonal and counselling contexts. Emphasis is placed on the identification and development of specific communication skills that are essential for working in helping contexts in particular, and for the development of working alliances in general.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: CAAP 6605 (CAAP 605)

EDUCATION 5705

Counselling Psychology: Theory

Credit hours: 3.00

Contact hours per week: 3-0-0

Theoretical foundations in the various schools of psychotherapy. Psychoanalytic, humanistic, behavioural, cognitive, constructivist and systems therapies are covered.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: CAAP 6601 (CAAP 601)

EDUCATION 5706

Counselling Psychology: Interventions

Credit hours: 3.00

Contact hours per week: 3-0-0

Theoretical and practical framework for the planning and implementation of client change interventions in counselling.

Students work in a variety of simulated contexts to gain practice using a range of frequently used counselling interventions that have demonstrated clinical efficacy.

Prerequisite(s): Admission to the cohort for which the course is being offered

Corequisite(s): Education 5704 AND Education 5705

Equivalent: CAAP 6615 (CAAP 615)

EDUCATION 5707

Counselling Psychology: Assessment

Credit hours: 3.00

Contact hours per week: 3-0-0

Through theoretical analysis and applied skill development in laboratory settings, students will develop proficiency in the administration of assessment procedures and in the interpretation of assessment results. Standardized and non-standardized assessment techniques are covered.

Prerequisite(s): Admission to the cohort for which the course is being offered

Corequisite(s): Education 5704 AND Education 5705

Equivalent: CAAP 6613 (CAAP 613)

EDUCATION 5708

Counselling Psychology: Career Counselling

Credit hours: 3.00

Contact hours per week: 3-0-0

Major career theories, and core career counselling processes of meaningful client engagement, exploration of potential, decision strategies, preparation and implementation strategies. Occupational information sources, computer-based career programs and services, and career guidance programs are evaluated from the context of theory and core career counselling processes.

Prerequisite(s): Admission to the cohort for which the course is being offered

Corequisite(s): Education 5704

Equivalent: CAAP 6621 (CAAP 621) (prior to 2014/2015)

EDUCATION 5709

Counselling Psychology: Practicum I

Credit hours: 3.00

Contact hours per week: 2-0-0

Other hours per term: 0-0-150

Professional development and supervised practice for graduate students in counselling psychology. The class seminars provide opportunity for group supervision of student work with clients, and for in-depth exploration of issues encountered in the practicum settings. The practicum settings provide opportunity for supervised practice in counselling techniques with clients.

Prerequisite(s): Admission to the cohort for which the course is being offered AND

Education 5621 AND

Education 5622 AND

Education 5623 AND

Education 5704 AND

Education 5705 AND

Education 5706 AND

Education 5707 AND

Education 5708

Equivalent: CAAP 6611 (CAAP 611)
Note: All prerequisite courses must have a minimum 'B-' grade.

EDUCATION 5711

Counselling Psychology: Practicum II

Credit hours: 3.00

Contact hours per week: 2-0-0

Other hours per term: 0-0-150

Advanced professional development and supervised practice for graduate students in counselling psychology. Students will develop and/or practice their counselling skills within a specialized setting or with a specialized counselling focus.

Prerequisite(s): Admission to the cohort for which the course is being offered

Corequisite(s): Education 5709

Equivalent: CAAP 6619 (CAAP 619)

EDUCATION 5712

Counselling Psychology: Research Methods

Credit hours: 3.00

Contact hours per week: 3-0-0

This core course will introduce students to the basic principles of research methods and design as applied to counselling psychology research. The course will address research both for critical consumption and for practice.

Prerequisite(s): Admission to the cohort for which the course is being offered

Equivalent: CAAP 6617 (CAAP 617); EDUC 5400 (The Nature of Educational Research) (prior to 2014/2015); EDUC 5400 (Research Methods in Counselling Psychology)

EDUCATION 5762

Problem Solving with Communication Technologies

Credit hours: 3.00

Contact hours per week: 3-0-0

Teaching of problem-solving techniques and strategies with emphasis on communication technology-based approaches.

Prerequisite(s): Admission to the cohort for which the course is being offered

Substantially Similar: Education 4762

EDUCATION 5763**Communication Technologies in the Curriculum**

Credit hours: 3.00

Contact hours per week: 3-0-0

Strategies for effective use of communication technologies in the classroom. Identification and development of educational resources and activities for integrating communication technologies in the curriculum.

Prerequisite(s): Admission to the cohort for which the course is being offered

Substantially Similar:
Education 4760

EDUCATION 5764**The Internet and Education**

Credit hours: 3.00

Contact hours per week: 3-0-0

An introduction to the services available on the Internet that are of particular interest to teachers and others interested in issues affecting education today.

Prerequisite(s): Admission to the cohort for which the course is being offered

Substantially Similar:
Education 4764

EDUCATION 5765**New Media and Learning**

Credit hours: 3.00

Contact hours per week: 3-0-0

A study of the educational value of New Media. Students will develop knowledge and skills to effectively integrate and discuss the role of New Media in learning. Topics include New Media applications, the value of New Media for learning, the development of curriculum-based projects, and principles of design and layout.

Prerequisite(s): Admission to the cohort for which the course is being offered

Substantially Similar:
Education 4765

EDUCATION 5766**Web-Based Learning**

Credit hours: 3.00

Contact hours per week: 3-0-0

The design and development of websites for the enhancement of personal learning. Students will create a number of websites that correspond to various topics of personal interest, and which incorporate a variety of psychological learning principles such as semantic mapping, notebook creation and journal writing.

Prerequisite(s): Admission to the cohort for which the course is being offered

Substantially Similar:
Education 4766

EDUCATION 5767**Web-Based Teaching**

Credit hours: 3.00

Contact hours per week: 3-0-0

The design and development of websites for instructional purposes. Students critically review web-based instructional sites, and create a website that corresponds to an instructional unit and which incorporates a variety of instructional design principles.

Prerequisite(s): Admission to the cohort for which the course is being offered

Substantially Similar:
Education 4767

EDUCATION 5769**Educational Issues in Communication Technologies (Series)**

Credit hours: 3.00

Contact hours per week: 3-0-0

Educational issues in communication technologies dependent on student interest, needs and availability of faculty resources.

Prerequisite(s): Admission to the cohort for which the course is being offered

Substantially Similar:
Education 4769

EDUCATION 5850**Special Topics**

Credit hours: 3.00

Contact hours per week: 3-0-0

Additional graduate Education electives are offered as determined by student program needs and available University resources.

Prerequisite(s): Admission to the cohort for which the course is being offered

EDUCATION 5960**Professional Development**

Credit hours: 1.50

Other hours per term: 20-0-0

This series offers one-half term credit courses (20 hours of instruction) designed to meet the specific needs of graduate students.

Prerequisite(s): Admission to the cohort for which the course is being offered

EDUCATION 5990**Independent Study**

Credit hours: 3.00

The graduate student undertakes to study independently a topic not covered under regular electives or Special Topics courses. The student works under the supervision of a faculty member to develop a proposal and the details of the study. Students should consult the Assistant Dean, Graduate Studies and Research in the Faculty of Education for more information.

Prerequisite(s): Consent of the Assistant Dean of Graduate Studies and Research (Faculty of Education)

EDUCATION 5999**Master of Education Placeholder**

Credit hours: 0.00

This is a placeholder registration for students admitted to the M.Ed. program, who are not registered in a course in a particular term.

Prerequisite(s): Admission to the cohort for which the course is being offered

EDUCATION 7210**Contemporary Issues in Formal and Distributive Leadership**

Credit hours: 3.00

Contact hours per week: 3-0-0

An intensive critical study of major issues within theories, conceptual frameworks, concepts, research, institutional policies, programs and professional practices in the student's dissertation research area within the concentration of formal and distributive leadership.

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

EDUCATION 7211

Contemporary Issues in Learning, Teaching, and Curriculum

Credit hours: 3.00

Contact hours per week: 3-0-0

An intensive critical study of major issues within theories, conceptual frameworks, concepts, research, institutional policies, programs and professional practices in the student's dissertation research area within the concentration of learning, teaching and curriculum.

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

EDUCATION 7212

Counselling Psychology: Contemporary Issues in Counselling Psychology

Credit hours: 3.00

Contact hours per week: 3-0-0

A critical study of major theories, practices, conceptual frameworks, and concepts in counselling psychology to identify substantive issues, problems and questions. Students will identify and address issues which relate to their research interests and specific research study.

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

EDUCATION 7300

Theories in Formal and Distributive Leadership

Credit hours: 3.00

Contact hours per week: 3-0-0

Advanced theoretical studies within the major interactive elements of formal and distributive leadership in a variety of contexts and educational organizations.

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

EDUCATION 7301

Theories in Learning, Teaching, and Curriculum

Credit hours: 3.00

Contact hours per week: 3-0-0

Advanced theoretical studies within the major interactive elements of learning, teaching and curriculum.

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

EDUCATION 7400

Advanced Qualitative Research Methods

Credit hours: 3.00

Contact hours per week: 3-0-0

A critical examination and application of paradigms, concepts, and assumptions within qualitative research approaches in education, including epistemologies, ethics, and the relationship between research interests, qualitative research questions, methods, data interpretation and analysis.

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

EDUCATION 7401

Advanced Quantitative Research Methods

Credit hours: 3.00

Contact hours per week: 3-0-0

A critical examination and application of paradigms, concepts, and assumptions within quantitative research approaches in education, including epistemologies, ethics, and the relationship between research questions, methods, data interpretation and analysis.

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

EDUCATION 7402

Counselling Psychology: Advanced Qualitative Research Methods

Credit hours: 3.00

Contact hours per week: 3-0-0

A critical examination and application of paradigms, concepts, and assumptions within qualitative research approaches in counselling psychology, including epistemologies, ethics, and the relationship between research interests, qualitative research questions, methods, data interpretation and analysis.

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

EDUCATION 7403

Counselling Psychology: Advanced Quantitative Research Methods

Credit hours: 3.00

Contact hours per week: 3-0-0

A critical examination and application of paradigms, concepts and assumptions within quantitative research approaches in counselling psychology, including epistemologies, ethics and the relationship between research questions, methods, data interpretation and analysis.

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

EDUCATION 7410

Doctoral Seminar One

Credit hours: 3.00

Contact hours per week: 3-0-0

An orientation to doctoral studies in education, exploration of candidates' research interests, refinement of research topics, and exploration of the broader responsibilities within the research community.

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

EDUCATION 7411

Doctoral Seminar Two

Credit hours: 3.00

Contact hours per week: 3-0-0

Research proposal development and exploration of the broader responsibilities of successful participation within the research community.

Prerequisite(s): Education 7410

EDUCATION 7412

Counselling Psychology: Doctoral Seminar One

Credit hours: 3.00

Contact hours per week: 3-0-0

An orientation to doctoral studies, exploration of candidates' research interests, refinement of topics, and exploration of the broader responsibilities within the research community.

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

EDUCATION 7413**Counselling Psychology: Doctoral Seminar Two**

Credit hours: 3.00

Contact hours per week: 3-0-0

Research proposal development and exploration of the broader responsibilities of successful participation within the research community within Counselling Psychology.

Prerequisite(s): Education 7412

EDUCATION 7510**Counselling Psychology: Theory and Practice of Clinical Supervision**

Credit hours: 3.00

Contact hours per week: 3-0-0

An introduction to theory and practice of clinical supervision.

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

EDUCATION 7550**Practicum in Education**

Credit hours: 3.00

Contact hours per week: 3-0-0

Other hours per term: 10-0-100

This course enables doctoral students to engage in field studies by developing and experimenting with innovative professional practices within appropriate professional contexts.

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

Grading: Pass/Fail

EDUCATION 7551**Advanced Collaborative Research Practicum**

Credit hours: 3.00

Contact hours per week: 3-0-0

Other hours per term: 0-0-100

An aggregation of practical research experiences of increasing complexity across the broad variety of tasks involved in implementing and conducting research.

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

Grading: Pass/Fail

EDUCATION 7560**Internship in Education**

Credit hours: 3.00

Other hours per term: 10-0-100

This course enables doctoral students to engage in field studies and explorations in a particular professional role with a view to understanding and learning new professional/developmental skills and/or innovative ways to improve or transform that role.

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

Grading: Pass/Fail

EDUCATION 7705**Counselling Psychology: Historical, Philosophical, and Theoretical Foundations**

Credit hours: 3.00

Contact hours per week: 3-0-0

The evolution of Counselling Psychology as a distinct discipline, the influence of diverse theoretical and philosophical paradigms; and contemporary theories of counselling psychology.

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

EDUCATION 7709**Counselling Psychology: Doctoral Practicum I**

Credit hours: 3.00

Contact hours per week: 2.5-0-0

Other hours per term: 0-0-200

Advanced professional development and supervised practice for doctoral students in Counselling Psychology (Part I).

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

EDUCATION 7711**Counselling Psychology: Doctoral Practicum II**

Credit hours: 3.00

Contact hours per week: 2.5-0-0

Other hours per term: 0-0-200

Advanced professional development and supervised practice for doctoral students in Counselling Psychology (Part II).

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

EDUCATION 7713**Counselling Psychology: Advanced Collaborative Research Practicum**

Credit hours: 3.00

Contact hours per week: 3-0-0

An aggregation of experiences designed to acquire practical research skills of increasing complexity across the broad variety of tasks involved in preparing, implementing, conducting, completing, and disseminating research in Counselling Psychology.

Prerequisite(s): Admission to the Ph.D. in Education cohort for which the course is being offered

Grading: Pass/Fail

EDUCATION 7990**Independent Study**

Credit hours: 3.00

Contact hours per week: 3-0-0

This course enables doctoral students in Education to undertake independent study of a topic not covered under regular electives or special topics courses.

Prerequisite(s): Consent of the Assistant Dean of Graduate Students and Research (Faculty of Education)

FINE ARTS (FA)
Faculty of Fine Arts

FINE ARTS 5020
Information Literacy for the Fine Arts

Credit hours: 3.00

Contact hours per week: 3-0-0

A course designed to provide the M.F.A./ M.Mus. graduate student with the conceptual framework and skills necessary to identify, locate, evaluate and use a variety of information sources. Emphasis is on sound decision-making in information-seeking behavior across the rapidly changing information landscape.

Prerequisite(s): Admission to the M.F.A. or M.Mus. program

Equivalent: Art 5850 (Research Methods in the Fine Arts) (prior to 2011/2012); Art 5850 (Information Literacy for the Fine Arts) (prior to 2011/2012); Drama 5850 (Research Methods in Dramatic Arts) (prior to 2011/2012); Drama 5850 (Information Literacy for the Fine Arts) (prior to 2011/2012); Music 5020 (prior to 2011/2012)

GEOGRAPHY (GEOG)
Faculty of Arts and Science

GEOGRAPHY 5025
Graduate Research Methods

Credit hours: 3.00

Contact hours per week: 3-0-0

Overview of contemporary research methods in Geography and/or Archaeology. Students will complete a number of assignments that will allow them to apply their acquired knowledge and skills directly to their research. Students will be assessed based on written components and oral presentations, including a research proposal and thesis outline.

Prerequisite(s): Admission to the M.A. or M.Sc. program

Equivalent: Geography 5850 (Graduate Research Methods) (prior to 2011/2012)

GEOGRAPHY 5753
Graduate Seminar in Remote Sensing

Credit hours: 3.00

Contact hours per week: 3-0-0

Contemporary issues in remote sensing and image analysis. Advanced approaches to classification, modelling, change detection, and scaling. The role of remote sensing science in integrated studies of global change. Research and new directions.

Prerequisite(s): Admission to the M.A. or M.Sc. program

Recommended Background:

Two undergraduate courses in remote sensing or related areas, including one at the 3000 or 4000 level

Substantially Similar:

Geography 4753

GEOGRAPHY 7025
Graduate Research Methods

Credit hours: 3.00

Contact hours per week: 3-0-0

Overview of contemporary research methods in Geography and/or Archaeology. Students will complete a number of assignments that will allow them to apply their acquired knowledge and skills directly to their research. Students will be assessed based on written components and oral presentations, including a research proposal and Thesis outline.

Prerequisite(s): Admission to the Ph.D. program

HEALTH SCIENCES (HLSC)
Faculty of Health Sciences

HEALTH SCIENCES 5100
Research Methods

Credit hours: 3.00

Contact hours per week: 3-0-0

Students are offered an in-depth examination and comparison of qualitative, quantitative and mixed methods designs. Specific areas emphasized in the course include: evidence justifying the research enterprise; developing research questions and hypotheses as appropriate; establishing a research design; reviewing data analysis; and understanding knowledge translation. Students will have the opportunity to apply their course-acquired knowledge of research designs toward their thesis, i.e., conduct a literature review and development of methodology.

Prerequisite(s): Admission to a graduate program

Equivalent: Health Sciences 5850 (Research Methods) (prior to 2011/2012)

HEALTH SCIENCES 5200
Philosophy of Inquiry

Credit hours: 3.00

Contact hours per week: 3-0-0

Students are exposed to perspectives in philosophy of science. Students will explore ways in which philosophies underpin methods of inquiry and knowledge development. The focus will be on assisting students to discover and articulate the philosophies (values, beliefs and assumptions) that inform the development of their individual, emerging research projects.

Prerequisite(s): Admission to a graduate program

Equivalent: Health Sciences 5850 (Philosophy of Inquiry) (prior to 2011/2012)

HEALTH SCIENCES 5300**Advanced Statistics**

Credit hours: 3.00

Contact hours per week: 3-2-0

This course addresses descriptive statistics and statistical inference followed by a comprehensive study of statistical tests appropriate for most types of research questions and data sets. By the end of the course students will have fluency in univariate and multivariate tests, parametric and nonparametric tests, and the application of SPSS for statistical testing.

Prerequisite(s): Admission to a graduate program AND Health Sciences 3450/ Psychology 3450 or equivalent

Equivalent: Health Sciences 5850 (Advanced Statistics) (prior to 2011/2012)

Substantially Similar:
Health Sciences 5850 (Statistics in Health Sciences Research) (prior to 2011/2012)

HEALTH SCIENCES 5400**Advanced Qualitative Analysis**

Credit hours: 3.00

Contact hours per week: 3-0-0

Major theoretical and philosophical aspects of various qualitative methodologies such as phenomenology, hermeneutics, narrative, ethnography, and grounded theory will be discussed. Each student will generate a qualitative research proposal.

Prerequisite(s): Admission to a graduate program

Equivalent: Health Sciences 5850 (Advanced Qualitative Analysis) (prior to 2011/2012)

HISTORY**(HIST)**

Faculty of Arts and Science

HISTORY 5000**Historiography**

Credit hours: 3.00

Contact hours per week: 3-0-0

The history of thinking and writing about the past. Topics will include some of the key texts, authors, concepts, theories, methods, and debates in the development of the historical discipline.

Prerequisite(s): Admission to the M.A. program

Equivalent: History 5850 (Historiography and Historical Methods) (prior to 2017/2018)

KINESIOLOGY**(KNES)**

Faculty of Arts and Science

KINESIOLOGY 5901**Interdisciplinary Research Dialogues I**

Credit hours: 0.75

Other hours per term: 0-0-12

Seminar-based course. Research questions and conventions from across the disciplines (Humanities, Science, and Social Science) in Kinesiology. Emphasis is on creating productive research dialogues within and between students, faculty and diverse disciplinary approaches to the field.

Prerequisite(s): Admission to the M.A. or M.Sc. program

Grading: Pass/Fail

Note: Students will normally be required to attend and contribute to four scheduled three-hour seminars over the course of the term.

KINESIOLOGY 5902**Interdisciplinary Research Dialogues II**

Credit hours: 0.75

Other hours per term: 0-0-12

Continuation of Kinesiology 5901.

Prerequisite(s): Kinesiology 5901

Grading: Pass/Fail

Note: Students will normally be required to attend and contribute to four scheduled three-hour seminars over the course of the term.

KINESIOLOGY 5903**Interdisciplinary Research Dialogues III**

Credit hours: 0.75

Other hours per term: 0-0-12

Continuation of Kinesiology 5902.

Prerequisite(s): Kinesiology 5902

Grading: Pass/Fail

Note: Students will normally be required to attend and contribute to four scheduled three-hour seminars over the course of the term.

KINESIOLOGY 5904**Interdisciplinary Research Dialogues IV**

Credit hours: 0.75

Other hours per term: 0-0-12

Continuation of Kinesiology 5903.

Prerequisite(s): Kinesiology 5903

Grading: Pass/Fail

Note: Students will normally be required to attend and contribute to four scheduled three-hour seminars over the course of the term.

MANAGEMENT**(MGT)**

Faculty of Management

MANAGEMENT 5100**Orientation**

Credit hours: 0.00

Other hours per term: 0-0-32

Introduction to Master of Science (Management) program philosophy, structure and participants. This four-day orientation is a comprehensive review of selected topics, including statistics, information systems, library facilities and resources, and career development; this module is designed to orient students and faculty into the program.

Prerequisite(s): Admission to the M.Sc. (Management) program

OR

Admission to another graduate program at the University of Lethbridge

Grading: Pass/Fail

MANAGEMENT 5110**Management Field Overviews**

Credit hours: 1.50

Contact hours per week: 3-0-0

A comprehensive and rigorous cross-disciplinary analysis of fundamental management issues. Students are introduced to research programs in a variety of functional areas (e.g., organizational development, information systems, marketing, finance, accounting).

Prerequisite(s): Management 5100

OR

Admission to another graduate program at the University of Lethbridge

Note: Management 5110 is a six-week course.

MANAGEMENT 5115**Research Workshops**

Credit hours: 0.00

Other hours per term: 0-0-32

Workshops will be held to assist students in completing their degree requirements and in developing their thesis.

Prerequisite(s): Management 5100

OR

Admission to another graduate program at the University of Lethbridge

Grading: Pass/Fail

MANAGEMENT 5120

Thinking by Design I

Credit hours: 1.50

Contact hours per week: 3-0-0

This course is the first of a pair of courses that aim to equip the graduate student with the necessary divergent and convergent thinking skills useful for the rigorous critique of research problems and the generation and extension of new ideas. Management 5120 begins with a review of reasoning. The course then explores why the world is not always as rational, normal and linear as we might hope such that the tools of traditional reasoning must often be augmented with other techniques. Chief among these techniques will be the exploration and practice of Lateral Thinking.

*Prerequisite(s): Successful completion of previous M.Sc. (Management) module
OR
Admission to another graduate program at the University of Lethbridge*

Note: *Management 5120 is a six-week course.*

MANAGEMENT 5125

Thinking by Design II

Credit hours: 1.50

Contact hours per week: 3-0-0

The second course begins with mapping mental states and processes to ensure that students share a common language as they get deeper into 'thinking about thinking.' The course then moves into Design Thinking to bring together divergent and convergent thinking through the Inspiration - Ideation - Implementation process. Initially developed for product design use, the course strives to demonstrate how this approach can yield payoffs that extend far beyond the marketplace to general research endeavours and broad social concerns.

*Prerequisite(s): Successful completion of previous M.Sc. (Management) module
OR
Admission to another graduate program at the University of Lethbridge*

Note: *Students must have a minimum 'B-' grade in Management 5110, Management 5120, Management 5130, Management 5170, and Management 5200.
Management 5125 is a six-week course.*

MANAGEMENT 5130

Ways of Knowing

Credit hours: 1.50

Contact hours per week: 3-0-0

This course will examine the nature of scientific research. Students will gain an understanding of the philosophy behind the positivist approach to social science, as well as criticisms of the approach. The course will address induction, confirmation, the importance of falsification, the role of theory, paradigm assessment, paradigm shifts, conceptualization, and limitations of the scientific method.

*Prerequisite(s): Admission to the M.Sc. (Management) program
OR
Admission to another graduate program at the University of Lethbridge*

Note: *Management 5130 is a six-week course.*

MANAGEMENT 5150

Research Methods in Management

Credit hours: 3.00

Contact hours per week: 3-0-0

A comprehensive introduction to and application of research methods in the field of Management. Topics include, for example, research methods paradigms, research designs (e.g., experimental, ex post facto); data gathering, analysis, and interpretation; research and the issue of relevance, ethical issues in research.

*Prerequisite(s): Management 5100
OR
Admission to another graduate program at the University of Lethbridge*

MANAGEMENT 5160

Qualitative Methods and Analysis

Credit hours: 3.00

Contact hours per week: 3-0-0

A comprehensive introduction and application of qualitative research methods in the field of Management. Provides an in-depth analysis of the conceptual and practical issues to be considered when engaging in qualitative research. Topics include, for example, the general categories of ethnography, interviews, focus groups, documentary analysis, content analysis, and discourse analysis.

*Prerequisite(s): Successful completion of previous M.Sc. (Management) module
OR
Admission to another graduate program at the University of Lethbridge*

Note: *Students must have a minimum 'B-' grade in Management 5110, Management 5120, Management 5130, Management 5170, and Management 5200.*

MANAGEMENT 5170

Data Management and Statistical Techniques I

Credit hours: 1.50

Contact hours per week: 3-0-0

A comprehensive introduction and application of univariate and bivariate statistical techniques. From a Social Scientist perspective, the following statistical topics, for example, may be examined: data management, descriptive statistics, hypothesis testing, non-parametric statistics, univariate statistics (t-tests, ANOVA), and correlation.

*Prerequisite(s): Successful completion of previous M.Sc. (Management) module
OR
Admission to another graduate program at the University of Lethbridge*

Note: *Management 5170 is a six-week course.*

MANAGEMENT 5175

Data Management and Statistical Techniques II

Credit hours: 1.50

Contact hours per week: 3-0-0

A comprehensive introduction and application of measurement assessment and multivariate statistical techniques. From a Social Scientist perspective, the following statistical topics, for example, may be examined: factor analysis, reliability, validity, MANOVA, regression, path analysis, and structured equation modeling (partial least squares, Lisrel).

*Prerequisite(s): Successful completion of previous M.Sc. (Management) module
OR
Admission to another graduate program at the University of Lethbridge*

Note: *Students must have a minimum 'B-' grade in Management 5110, Management 5120, Management 5130, Management 5170, and Management 5200.
Management 5175 is a six-week course.*

MANAGEMENT 5200

Major Seminar I (Series)

Credit hours: 3.00

Contact hours per week: 3-0-0

A selection from a list of topics will be offered in this seminar. The topics vary according to the major of the students.

Prerequisite(s): Management 5100

MANAGEMENT 5225**Major Seminar II (Series)***Credit hours: 3.00**Contact hours per week: 3-0-0*

Students will be exposed to various research topics in their chosen major/area to provide sufficient instruction in their area of research.

*Prerequisite(s): Admission to the M.Sc.**(Management) program**OR**Admission to another graduate program at the University of Lethbridge***Note:** *Students must obtain approval of their supervising area before registering.***MANAGEMENT 5300****Major Seminar III (Series)***Credit hours: 3.00**Contact hours per week: 3-0-0*

This seminar develops students' understanding by examining multiple perspectives in the specific area of the major.

*Prerequisite(s): Successful completion of previous M.Sc. (Management) module***Note:** *Students must have a minimum 'B-' grade in Management 5110, Management 5120, Management 5130, Management 5170, and Management 5200. Students must have a minimum 'B-' grade in all graded courses in the previous module.***MATHEMATICS****(MATH)***Faculty of Arts and Science***MATHEMATICS 5405****Algebra (Series)***Credit hours: 3.00**Contact hours per week: 3-0-0*

Offerings in group and ring theory, modules, commutative and non-commutative algebras.

*Prerequisite(s): Admission to the M.Sc. program***MATHEMATICS 5460****Advanced Number Theory (Series)***Credit hours: 3.00**Contact hours per week: 3-0-0*

Topics in analytic and algebraic number theory, elliptic curves and modular forms.

*Prerequisite(s): Admission to the M.Sc. program***MATHEMATICS 5505****Analysis (Series)***Credit hours: 3.00**Contact hours per week: 3-0-0*

Offerings in measure theory, Banach spaces, Lp-spaces, Fourier and Complex analysis.

*Prerequisite(s): Admission to the M.Sc. program***MATHEMATICS 7460****Advanced Number Theory (Series)***Credit hours: 3.00**Contact hours per week: 3-0-0*

Topics in analytic and algebraic number theory, elliptic curves, and modular forms.

*Prerequisite(s): Admission to the Ph.D. program***MUSIC****(MUSI)***Faculty of Fine Arts***MUSIC 5000****Musicology Seminar (Series)***Credit hours: 3.00**Contact hours per week: 3-0-0*

Areas of special interest not covered by regular music courses may be offered under this designation, depending upon student interest and availability of expertise of faculty.

*Prerequisite(s): Admission to the M.Mus. program***MUSIC 5010****Music Theory Seminar (Series)***Credit hours: 3.00**Contact hours per week: 3-0-0*

Areas of special interest not covered by regular music courses may be offered under this designation, depending upon student interest and availability of expertise of faculty.

*Prerequisite(s): Admission to the M.Mus. program***MUSIC 5450****Collaborative Piano/Guitar - Voice***Credit hours: 3.00**Contact hours per week: 2-0-1*

Studies in vocal accompanying performance and literature. Bi-weekly class performances and bi-weekly coaching with the instructor, with other performances as arranged. A written project related to the performance repertoire will be required.

*Prerequisite(s): Admission to the M.Mus. program***MUSIC 5451****Collaborative Piano/Guitar - Instruments***Credit hours: 3.00**Contact hours per week: 2-0-1*

Studies in instrumental accompanying performance and literature. Bi-weekly class performances and coaching with the instructor, with other performances as arranged. A written project related to the performance repertoire will be required.

*Prerequisite(s): Admission to the M.Mus. program***MUSIC 5748****Graduate Studio I***Credit hours: 3.00**Contact hours per week: 1-4-0*

One hour of individual and up to four hours of master class instruction per week.

*Prerequisite(s): Admission to the M.Mus. program***MUSIC 5758****Recital***Credit hours: 3.00**Contact hours per week: 1-4-0*

One hour of individual and up to four hours of master class instruction per week. Design and presentation of a full-length recital.

*Prerequisite(s): Music 5748***Note:** *All prerequisite courses must have a minimum 'B-' grade.***MUSIC 5848****Graduate Studio II***Credit hours: 3.00**Contact hours per week: 1-4-0*

One hour of individual and up to four hours of master class instruction per week.

*Prerequisite(s): Music 5748***Note:** *All prerequisite courses must have a minimum 'B-' grade.***MUSIC 5850****Special Topics in Music***Credit hours: 3.00**Contact hours per week: 3-0-0*

Topics in music not covered by regular courses may be offered under this designation, depending on student interest and availability of faculty and expertise.

Prerequisite(s): Admission to the M.Mus. program

MUSIC 5871

Opera Workshop I

Credit hours: 3.00

Contact hours per week: 3-0-0

Preparation and performance of musical material in an opera workshop production.

Prerequisite(s): Admission to the M.Mus. program

MUSIC 5872

Opera Workshop II

Credit hours: 3.00

Contact hours per week: 3-0-0

Preparation and performance of musical material in an opera workshop production.

Prerequisite(s): Admission to the M.Mus. program

MUSIC ENSEMBLE ACTIVITY

(MUSE)

Faculty of Fine Arts

MUSIC ENSEMBLE ACTIVITY 5770

Ensemble I

Credit hours: 1.50

Contact hours per week: 0-0-4

Participatory ensemble studies in a Department of Music approved ensemble. Weekly rehearsals with supplementary rehearsals and performances as required.

Prerequisite(s): Admission to the M.Mus. program

MUSIC ENSEMBLE ACTIVITY 5775

Ensemble II

Credit hours: 1.50

Contact hours per week: 0-0-4

Participatory ensemble studies in a Department of Music approved ensemble. Weekly rehearsals with supplementary rehearsals and performances as required.

Prerequisite(s): Admission to the M.Mus. program

MUSIC ENSEMBLE ACTIVITY 5880

Ensemble III

Credit hours: 1.50

Contact hours per week: 0-0-4

Participatory ensemble studies in a Department of Music approved ensemble. Weekly rehearsals with supplementary rehearsals and performances as required.

Prerequisite(s): Admission to the M.Mus. program

MUSIC ENSEMBLE ACTIVITY 5885

Ensemble IV

Credit hours: 1.50

Contact hours per week: 0-0-4

Participatory ensemble studies in a Department of Music approved ensemble. Weekly rehearsals with supplementary rehearsals and performances as required.

Prerequisite(s): Admission to the M.Mus. program

NEUROSCIENCE

(NEUR)

Faculty of Arts and Science

NEUROSCIENCE 5025

Contemporary Problems in Brain, Behaviour, and Cognitive Science (Series)

Credit hours: 3.00

Contact hours per week: 3-0-0

In-depth study of specific topics in, approaches to, and contemporary research in psychology and neuroscience. Discussion of preparation of talks and research posters. Includes seminars on various contemporary problems in brain, behaviour, and cognitive science by staff, invited speakers and graduate students.

Prerequisite(s): Admission to the M.Sc. program

NEUROSCIENCE 5650

Cortical Function

Credit hours: 3.00

Contact hours per week: 3-0-0

In-depth study of selected topics in cortical organization and function.

Prerequisite(s): Admission to the M.Sc. or Ph.D. program

Recommended Background: B.Sc.

NEUROSCIENCE 5901

Neuroscience Research Dialogues I

Credit hours: 0.75

Other hours per term: 0-0-12

Seminar-based course. Research questions and conventions from across disciplines (Humanities, Science, and Social Science) in Neuroscience. Emphasis is on creating productive research dialogues within and between students, faculty and diverse disciplinary approaches to the field.

Prerequisite(s): Admission to the M.Sc. program

Grading: Pass/Fail

Note: *Students will normally be required to attend and contribute to scheduled seminars over the course of the term.*

NEUROSCIENCE 5902

Neuroscience Research Dialogues II

Credit hours: 0.75

Other hours per term: 0-0-12

Continuation of Neuroscience 5901.

Prerequisite(s): Neuroscience 5901

Grading: Pass/Fail

Note: *Students will normally be required to attend and contribute to scheduled seminars over the course of the term.*

NEUROSCIENCE 5903

Neuroscience Research Dialogues III

Credit hours: 0.75

Other hours per term: 0-0-12

Continuation of Neuroscience 5902.

Prerequisite(s): Neuroscience 5902

Grading: Pass/Fail

Note: *Students will normally be required to attend and contribute to scheduled seminars over the course of the term.*

NEUROSCIENCE 5904

Neuroscience Research Dialogues IV

Credit hours: 0.75

Other hours per term: 0-0-12

Continuation of Neuroscience 5903.

Prerequisite(s): Neuroscience 5903

Grading: Pass/Fail

Note: *Students will normally be required to attend and contribute to scheduled seminars over the course of the term.*

NEUROSCIENCE 7025

Contemporary Problems in Brain, Behaviour, and Cognitive Science (Series)

Credit hours: 3.00

Contact hours per week: 3-0-0

In-depth study of specific topics in, approaches to, and contemporary research in psychology and neuroscience. Discussion of preparation of talks and research posters as well as preparation for comprehensive examinations. Includes seminars on various contemporary problems in brain, behaviour, and cognitive science by staff, invited speakers and graduate students.

Prerequisite(s): Admission to the Ph.D. program

NEUROSCIENCE 7901**Neuroscience Research Dialogues I**

Credit hours: 0.75

Other hours per term: 0-0-12

Seminar-based course. Research questions and conventions from across disciplines (Humanities, Science, and Social Science) in Neuroscience. Emphasis is on creating productive research dialogues within and between students, faculty and diverse disciplinary approaches to the field.

Prerequisite(s): Admission to the Ph.D. program

Grading: Pass/Fail

Note: Students will normally be required to attend and contribute to scheduled seminars over the course of the term.

NEUROSCIENCE 7902**Neuroscience Research Dialogues II**

Credit hours: 0.75

Other hours per term: 0-0-12

Continuation of Neuroscience 7901.

Prerequisite(s): Neuroscience 7901

Grading: Pass/Fail

Note: Students will normally be required to attend and contribute to scheduled seminars over the course of the term.

NEUROSCIENCE 7903**Neuroscience Research Dialogues III**

Credit hours: 0.75

Other hours per term: 0-0-12

Continuation of Neuroscience 7902.

Prerequisite(s): Neuroscience 7902

Grading: Pass/Fail

Note: Students will normally be required to attend and contribute to scheduled seminars over the course of the term.

NEUROSCIENCE 7904**Neuroscience Research Dialogues IV**

Credit hours: 0.75

Other hours per term: 0-0-12

Continuation of Neuroscience 7903.

Prerequisite(s): Neuroscience 7903

Grading: Pass/Fail

Note: Students will normally be required to attend and contribute to scheduled seminars over the course of the term.

NEW MEDIA

(NMED)

Faculty of Fine Arts

NEW MEDIA 5148**Graduate Studio I**

Credit hours: 6.00

Contact hours per week: Variable

Self-directed study focusing on conceptual and material development in studio practice.

Prerequisite(s): Admission to the M.F.A. program with major in New Media

Substantially Similar:

New Media 5048 (prior to 2015/2016)

NEW MEDIA 5149**Graduate Studio II**

Credit hours: 6.00

Contact hours per week: Variable

Self-directed study focusing on conceptual and material development in studio practice.

Prerequisite(s): New Media 5148

Substantially Similar:

New Media 5049 (prior to 2015/2016)

Note: All prerequisite courses must have a minimum 'B-' grade.

NEW MEDIA 5151**New Media Theory and History**

Credit hours: 3.00

Contact hours per week: 3-0-0

A critical survey of canonical writings and prominent developments in the history of New Media as a field of study, creative sphere, and catalyst for socio-cultural transformation.

Prerequisite(s): Admission to the M.F.A. program with a major in New Media

Equivalent: New Media 5850 (New Media Theory and History) (prior to 2013/2014)

NEW MEDIA 5850**Topics in New Media**

Credit hours: 3.00

Contact hours per week: 3-0-0

Topics in New Media not covered by regular courses may be offered under this designation, depending on student interest and availability of faculty and expertise.

Prerequisite(s): Admission to the M.F.A. program with major in New Media

NURSING

(NURS)

Faculty of Health Sciences

NURSING 5100**Nursing Ethics, Policy, and Politics**

Credit hours: 3.00

Contact hours per week: 3-0-0

This course uses advanced studies in nursing ethics as a foundation for understanding the nursing profession in the context and politics of the health care system. Critical reasoning will be key to discussions of ethical dilemmas arising from nursing practice. Trends and issues within the nursing profession will be explored in relation to the politics of health care at the micro and macro level. The influence of nursing on social and health policy will be used to inspire student accountability and responsibility within health care environments.

Prerequisite(s): Admission to the M.N. program

NURSING 5110**Health Research: Critique, Synthesis, and Application**

Credit hours: 3.00

Contact hours per week: 3-0-0

In this course, students will examine the research process in-depth and develop an advanced understanding of both qualitative and quantitative methodology. Students will critique study designs, methodology, and conclusions, synthesize these understandings, and apply that knowledge to nursing problems and issues using principles of knowledge translation and uptake. The course will address the challenges of implementing evidence-informed nursing practice.

Prerequisite(s): Admission to the M.N. program

NURSING 5120**Nursing as Art and Science**

Credit hours: 3.00

Contact hours per week: 3-0-0

Students will explore the foundations of the nursing profession by discussing the work and contributions of nursing philosophers, theorists and scientists. Nursing knowledge will be discussed as a product of the interaction between nursing philosophy, theory, practice and research. The complexity of nursing as an artistic expression of nursing knowledge in practice will be revealed in discussions of nursing care situations.

Prerequisite(s): Admission to the M.N. program

NURSING 5130

Practice Experience

Credit hours: 3.00

Other hours per term: 8-0-48

Students gain focused practice experience in a health/ social service/educational setting under the supervision of a professional who will facilitate the student's learning goals in that environment. This experience is supplemented by regularly scheduled tutorial sessions during which students are expected to share insights and learning with classmates. Students explore a nursing role new to them or study a familiar nursing role in depth. Participation in this course will likely generate ideas for subsequent student project or Thesis topics.

Prerequisite(s): Nursing 5100 AND Nursing 5110 AND Nursing 5120

Grading: Pass/Fail

NURSING 5140

Populations and Places for Nursing Practice

Credit hours: 3.00

Contact hours per week: 3-0-0

Students will learn about the nuances of practising nursing with a variety of client populations in a diverse range of settings. The variation in populations may be based on age, race, culture, education, economic status or place of residence. This analysis of differences will be the foundation for an identification of the commonalities of nursing practice in all settings, with all populations. Knowledge gained may be directly relevant to subsequent student project or thesis topics.

Prerequisite(s): Admission to the M.N. program

NURSING 5150

Project Development Seminar

Credit hours: 3.00

Contact hours per week: 3-0-0

This course is for students who have selected the project route. Participants will engage in student-led dialogue and debate about the process and components of developing and executing a project. Included will be key issues such as project format standards, time management, interdisciplinary integration of knowledge, and knowledge-to-action strategies. Students will participate in peer review and presentation activities in a blended learning format.

Prerequisite(s): Admission to the M.N. program

Grading: Pass/Fail

NURSING 5160

Thesis Proposal Seminar

Credit hours: 3.00

Contact hours per week: 3-0-0

This course is intended to support and assist students in the preparation of a Thesis proposal and to facilitate the transition from course work to a masters-level research study. Participants will engage in student-led dialogue and debate about the process and components of designing, developing, and executing a scientific inquiry. Included will be key issues such as Thesis format standards, psychological and time management demands, committee formation, human subject research committee (ethics) review preparation, and project management. Students will participate in peer review and presentation activities in a blended learning format.

Prerequisite(s): Admission to the M.N. program

Grading: Pass/Fail

NURSING 5170

Teaching and Learning in Nursing

Credit hours: 3.00

Contact hours per week: 3-0-0

Students in this course will examine the integration of learning-teaching principles and theory into the practice of nursing in clinical and educational settings. The use of creative approaches to support the growth of learner knowledge and skills will be emphasized. Students will select a focus for their assignments - clients and families, healthcare staff members or nursing students.

Prerequisite(s): Admission to the M.N. program

NURSING 5180

Concepts and Innovations in Nursing Practice

Credit hours: 3.00

Contact hours per week: 3-0-0

This course gives students an opportunity to explore an aspect of nursing practice or health care delivery in depth. The aspect selected could be related to the client/patient/family, the care provider/ health care team, and/or the health care system. Knowledge of change and leadership theories will provide a foundation for understanding how nurses can demonstrate leadership and innovation related to the aspect of focus.

Prerequisite(s): Admission to the M.N. program

NURSING 5999

Master of Nursing Placeholder

Credit hours: 0.00

This is a placeholder for students admitted to the M.N. program who are not registered in a course in a particular term.
Prerequisite(s): Admission to the M.N. program
Grading: 'X' grade

NURSING 6001

Thesis

Credit hours: 12.00

Contact hours per week: Variable

Satisfactory Thesis will include a written report and an oral defence examination that meets expectations of the School of Graduate Studies.

Prerequisite(s): Nursing 5130 AND Nursing 5140 AND Nursing 5150 AND Non-nursing elective

Grading: Pass/Fail

NURSING 6002

Final Project

Credit hours: 6.00

Contact hours per week: Variable

The project involves the development of a product or process that could be used to improve a nursing practice or nursing education setting. Students may focus the project on topics related to the client/patient/family, the care provider/ health care team, the health care system, or the nursing education setting.

Prerequisite(s): Nursing 5130 AND Nursing 5140 AND Nursing 5150 AND Nursing 5170 AND Nursing 5180 AND Non-nursing elective

Grading: Pass/Fail

PHYSICS**(PHYS)**

Faculty of Arts and Science

PHYSICS 5005**Advanced Electrodynamics**

Credit hours: 3.00

Contact hours per week: 3-0-0

Advanced topics in theoretical electrodynamics. General topics covered will include Green's functions, boundary value problems, multipole expansions, waveguides, resonant cavities, radiating systems, scattering, dynamics of relativistic particles, collisions, and radiation damping. More advanced and special topics may include optical properties of matter, non-linear optics, plasmonic lenses, optoelectronic devices, frequency doubling in lasers, metamaterials, and photonic crystals.

Prerequisite(s): Admission to the M.Sc. program

PHYSICS 5015**Advanced Quantum Mechanics**

Credit hours: 3.00

Contact hours per week: 3-0-0

Advanced topics in quantum mechanical theory. General topics will include path integrals, perturbation theory, semi-classical approximation, and quantum angular momentum. More advanced and special topics may include quantum statistical mechanics, Dirac equation and relativistic quantum mechanics, Aharonov-Bohm effect, quantum optics, coherent states, Casimir effect, quantum entanglement, and quantum computing.

Prerequisite(s): Admission to the M.Sc. program

Equivalent: Physics 5850 (Advanced Quantum Mechanics) (prior to 2016/2017)

PHYSICS 5300**Theoretical Physics I**

Credit hours: 3.00

Contact hours per week: 3-0-0

Advanced topics in theoretical physics relevant to current research. Independent thinking, presentation and writing skills.

Prerequisite(s): Admission to the M.Sc. program

PHYSICS 5325**Theoretical Physics II**

Credit hours: 3.00

Contact hours per week: 3-0-0

Advanced topics in theoretical physics relevant to current research. Independent thinking, presentation and writing skills.

Prerequisite(s): Admission to the M.Sc. program

PHYSICS 5500**Experimental Physics I**

Credit hours: 3.00

Contact hours per week: 3-1.5-0

Advanced topics in experimental physics relevant to current research. Independent thinking, presentation and writing skills.

Prerequisite(s): Admission to the M.Sc. program

PHYSICS 5525**Experimental Physics II**

Credit hours: 3.00

Contact hours per week: 3-1.5-0

Advanced topics in experimental physics relevant to current research. Independent thinking, presentation and writing skills.

Prerequisite(s): Admission to the M.Sc. program

PHYSICS 7300**Theoretical Physics I**

Credit hours: 3.00

Contact hours per week: 3-0-0

Advanced topics in theoretical physics relevant to current research. Independent thinking, presentation and writing skills.

Prerequisite(s): Admission to the Ph.D. program

PHYSICS 7325**Theoretical Physics II**

Credit hours: 3.00

Contact hours per week: 3-0-0

Advanced topics in theoretical physics relevant to current research. Independent thinking, presentation and writing skills.

Prerequisite(s): Admission to the Ph.D. program

PHYSICS 7500**Experimental Physics I**

Credit hours: 3.00

Contact hours per week: 3-1.5-0

Advanced topics in experimental physics relevant to current research. Independent thinking, presentation and writing skills.

Prerequisite(s): Admission to the Ph.D. program

PHYSICS 7525**Experimental Physics II**

Credit hours: 3.00

Contact hours per week: 3-1.5-0

Advanced topics in experimental physics relevant to current research. Independent thinking, presentation and writing skills.

Prerequisite(s): Admission to the Ph.D. program

PSYCHOLOGY**(PSYC)**

Faculty of Arts and Science

PSYCHOLOGY 5050**Graduate Seminar (Series)**

Credit hours: 3.00

Contact hours per week: 3-0-0

Contemporary and historically important topics in psychology. Offerings will vary according to the interests of incoming students and expertise of the instructor(s).

Prerequisite(s): Admission to the M.A. or M.Sc. program

PSYCHOLOGY 7050**Graduate Seminar (Series)**

Credit hours: 3.00

Contact hours per week: 3-0-0

Contemporary and historically important topics in psychology. Offerings will vary according to the interests of incoming students and expertise of the instructor(s).

Prerequisite(s): Admission to the Ph.D. program

