



University
of Regina

2024-2025

GRADUATE COURSE CATALOGUE

The Course Catalogue is a list of approved courses currently active at the University of Regina. This is not a list of scheduled classes; rather, it is a list of potential courses that may be scheduled in a specific term.

*This course catalogue document is up to date as of **February 15, 2024**. For the most up to date information, please visit the online course catalogue.*

https://banner.uregina.ca/prod/sct/bwckctlg.p_disp_dyn_ctlg

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How to Read Course Descriptions

ACAD 100

3:3-0

Academic Discourse: Writing, Research, and Learning Strategies

This course provides first-year students with tools for successful communication across the disciplines by emphasizing elements of effective writing and academic research. Topics include rhetorical considerations for effective writing, process-oriented writing and revision, critical reading skills, approaches to group collaboration, research tools, bibliographies, academic integrity, and citation methods.

The formatting of each course is as follows:

The first line is the Subject Code and Course Number. To the far right are the Credit Hours and Contact Hours, which are formatted using a 3-digit code.

1. The first digit represents the number of Credit Hours the course is worth.
2. The second digit represents the maximum number of lecture hours per week.
3. The third digit represents the maximum number of hours per week spent in labs, seminars, ensembles, or studios.

The second line is the Full Course Title. If there is a dash followed by "an AA-ZZ series", this means that various topics may be offered under this base course. The base course does not get scheduled – only the courses offered within the series.

The following lines are the Course Description. This is a brief summary of the content to be covered in the course. The course description is followed by required prerequisites, corequisites, special approvals, and any special notes.

1. Three asterisks (***) bracket all required prerequisites and corequisites with prerequisites appearing first followed by corequisites.
2. Two asterisks (**) bracket all required special approvals and follow the pre/corequisites,
3. One asterisk (*) brackets any additional information related to the specific course and follows special approvals.

How to Search Courses Online

The first step is getting to the Course Catalogue online, which can be found at: https://banner.uregina.ca/prod/sct/bwckctlg.p_disp_dyn_ctlg

The catalogue term you choose will give you information relevant to that term. Once the term has been selected, click on "Submit".

This will take you to the Search function. The Subject is the only required field that must be entered. By clicking on one subject, and then, while holding the shift button, on another subject above or below, you can select several subjects at once.

You may wish to submit a Course Number Range. If you enter a number into the "from" box, then only that course will be outputted.

If you enter a number in the "from" box AND the "to" box, both courses, and all courses in between, will be outputted.

Note: All output will be in alphabetical order by Subject Code and then by Course Number.

You may also search by "Title". You do not have to enter the full title. If you search for a word, it will give you ALL titles that contain that word.

Note: The search is case sensitive. If you search for MaTH, no courses will be retrieved.

You may search by "Level". If you enter a "Subject", and then choose "Level Undergrad", all undergrad courses for the subject will display.

You may search by "Credit range", which is the number of credits you are looking for, for each course.

Once your search criteria are entered, select "Get Courses" to retrieve the result.

Format of Online Courses Catalogue

The online format is slightly different.

Appearing will be the "Subject Code", "Number", and a dash with the "Full Course Title".

Below that will be the "Course Description", which is the same description as printed in this section. This is the location where you will see the description, prerequisites, corequisites, approvals, and any special notes.

After the description will be the "Hours". The "Credit", "Lecture", "Lab", and "Other hours" will be clearly labelled.

Following will be the "Level" of the course, the possible "schedule types", and the "Faculty" and "Department" to which the course belongs.

The final information on this page is "Course Attributes". A Course Attribute is used to identify courses that fall into a specific group.

Note: You can click on anything that is underlined.

You can click on the title, which will show Registration Restrictions placed on the course.

Note: It is the restriction that is on at the Section level that affects registration (which can be different from that of Catalogue).

A schedule type that is underlined means there are sections scheduled for this course during the semester that you chose as the Catalogue Term. If you click on one, you will get a list of the CRNs and the information about the sections for that specific course.

The Self Service Class Schedule works the same and is located in the same area. The only difference is there are more search options and there is more information that relates directly to the section. When searching the Class Schedule, you can get to the course's catalogue record (to check out the description, prerequisites, co-requisites, approvals needed, notes, etc.) by clicking on the View Catalogue Entry link.

Course Catalogue

AGIN	Aging Studies
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AGIN 800 0:0-0
Aging Studies

The course involves a series of seminars (or related public events) on a variety of topics related to aging studies. These seminars are normally coordinated by the Centre on Aging and Health. Approximately five seminars or related public events are offered per calendar year.

AGIN 803 3:3-0
End-of-Life Issues for Human Service Workers

This course deals with the impact of end-of-life issues on people, their families and social work and health care practitioners. The role of the social worker in practice, research, education and policy in end-of-life care will be explored.

AGIN 816 3:3-0
Aging, Society and Human Service Work

This course considers social work practice, research, education and policy with seniors in the community and in institutions. The focus of the course will be the role of the social work perspective in each of these professional activities with seniors.

AGIN 890 3:3-0
Physiology of Aging

An advanced study of the alteration in physiological function associated with the normal aging of body systems and the clinical consequences of these changes for maintenance of optimal function, physical activity, health and longevity.

Note: Students should have a background in undergraduate physiology prior to taking this course.

AGIN 893 3:3-0
Patterns of Health and Illness in the Elderly

This course offers broad-based knowledge and skills through integrated interprofessional education related to health challenges in the aging population. Physiological changes and psychosocial aspects of aging as they relate to common health problems will be examined.

AGIN 901 3-15:15-0

Thesis Research
Thesis Research.

AMPS	Adv Manufacturing Processing
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AMPS 880 1-3:3-0

Selected Topics

Selected topics in Advanced Manufacturing and Process Systems.

AMPS 900 3:1-0

AMPS Seminar Course

Students enrolled in this course will attend the graduate seminar in engineering (ENGG 900). In addition to presenting a seminar at that forum, students will attend a number of lectures from a variety of local industrial and governmental organizations.

AMPS 901 3-15:1-0

Thesis Research

Thesis research.

ANTH	Anthropology
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ANTH 800 3:3-0
Anthropology Seminar

A seminar devoted to the study of special topics and reports of research projects.

ANTH 809 3:3-0

Selfhood and Morality

This course examines the history, the theories, the debates and the ethnographic sources of the anthropological study of selfhood and morality, with a strong focus on issues of agency, intentionality and sociality. Course work will involve analysis of theoretical writings, ethnographic accounts, films, and pertinent works of literature.

ANTH 839 3:3-0

Key Amazonianist Debates

This course examines key debates in the anthropological study of indigenous Amazonian peoples. It focuses on fertile debates concerning human ecology, social organization and historical population processes in Amazonia, and native understandings of sociality, cosmology, selfhood, morality and emotions. The course also addresses issues in political and economic anthropology.

ANTH 853 3:3-0

Advanced Ethnographic Research

This course explores the various ways that socio-cultural anthropologists conduct ethnographic fieldwork, and the methodological, epistemological and ethical issues that they face in their research.

ANTH 890 3:3-0

Directed Readings

Directed readings on selected topics.

ANTH 890AL 3:3-0

Advanced Anthropology of Gender

This reading course is an enriched, graduate level course. The student will study the relationship between gendered forms of political and economic empowerment and textile weaving cooperatives in Latin America.

ANTH 890AN 3:3-0

Anthropology of Performance

This directed reading course will examine key theoretical approaches concerning performance as a cultural practice that both reproduces and contests social values and norms. Students will submit bi-weekly reading reports to be discussed in two-hour seminars. A substantial final paper is required in lieu of an exam at the end of the semester.

ANTH 890AO 3:3-0

Anthropology of Religion

This advanced course is designed to familiarize graduate students with classical and contemporary approaches to the anthropological study of religion. Students and the instructor will meet monthly to discuss written responses to assigned readings. A major essay will be required at the end of the course in lieu of a final exam.

ANTH 890AP 3:3-0

Advanced Anthropology of Landscape

This course will explore the relationship between persons and places, theorizing about the salience of 'routes and roots' from various perspectives. Based on contemporary theory (e.g. Bourdieu, Ingold, Clifford, Jackson) landscapes will be analysed as cultural constructs that allow insights to gender, ethics, cosmology, personhood, and local history.

ANTH 890AQ 3:3-0

Advanced Theory in Anthropology since the 1950s

An in-depth exploration of some of the principal schools of thought that have shaped the work of anthropologists since 1950.

* Note: Student can not receive credit for both ANTH 890AQ and ANTH 402. *

ANTH 890AT 3:3-0

Biopolitics, Governmentality, and Neoliberalism

This graduate-level seminar will focus on key theoretical readings in the area of biopolitics, governmentality, and neoliberalism. The class will include foundational texts from Foucault and include essays and articles to supplement the core texts. Students will learn to synthesize key theoretical concepts and apply these concepts to empirical examples.

ANTH 890AU 3:0-0

The Ethnography of the Massim Region

This course provides detailed knowledge of the Massim Region of Papua New Guinea, a "classic" field in Anthropology since 1922, when Bronislaw Malinowski started to publish about the Trobriand Islands. A focus will be on the Southern part of this region, where the Dobu language is used. Since the library does not have much material, my own collection will be used to teach this class.

ANTH 890AW 3:0-0

New Melanesian Ethnography: a review of theory

This course focuses on texts belonging to this category of theory, in particular by Roy Wagner, Marilyn Strathern, Debbora Battaglia, Joel Robbins, Alex Golub, Jerry Jacka, Justin Shaffner, and others. The student

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will be assisted in considering the application of New Melanesian Ethnography to their own work.

ANTH 890AX Anthropology of Sociability 3:0-0

This reading course will critically examine recent theories concerned with human group formation, communing, sociability, hierarchy maintenance, and interaction. The objective is to familiarize the student with current theoretical and ethnographic explorations of these phenomena by anthropologists and other social scientists.

ANTH 890AY Advanced Theories in Posthumanist Anthropology 3:3-0

This graduate-level reading course will focus on key theoretical readings in the area of non-anthropocentric human and social sciences, redefining the social as a collective of humans and non-humans, and including animals, plants, and other subjects. The class will include foundational texts ranging from science studies to feminist theory to philosophy as well as anthropology. The student will learn to synthesize key theoretical concepts and apply these concepts to empirical examples.

ANTH 901 Research 3-15:0-0
Thesis research.

ART	Art
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ART 801 Group Studio 3:3-0

Group seminar led by studio faculty to discuss and write about student's studio practice.

ART 802 Group Studio 3:3-0

Group seminar led by studio faculty to discuss and write about student's studio practice.

ART 803 Group Studio 3:3-0

Group seminar led by studio faculty to discuss and write about student's studio practices.

ART 804 Group Studio 3:3-0

Group seminar led by studio faculty to discuss and write about student's studio practice.

ART 820 Intermedia 6:6-0

Studio course in areas including installation, performance, audio, video, bookworks and electronic media, under the supervision of a faculty member(s), chosen by the student in consultation with the graduate committee.

ART 820AC Video Installation 6:6-0

The class will focus on the development of video imagery and the creation of a video installation. The course will blend technical learning, research into the history and practice within the field and the completion a creative project, accompanied by a two-page statement.

ART 820AD Kinetic Investigations 6:6-0

Working between Intermedia and Sculpture, the course will focus on studio production and research, investigating art works that employ movement and/or interactivity.

ART 820AF Investigating Interactivity 6:6-0

This graduate studio course is geared towards contextualizing and resolving strategies for promoting interactivity in artistic practice. Calling upon technical and conceptual modes of investigation, notions of location for the placement of artistic work to promote interactive viewer experiences will be explored.

ART 820AG Installation Art 6:0-0

The class will focus on the development of works that address the intersection of art, audience and site/space. The course will blend practical investigations in spatial practice with research into aspects of installation art.

ART 820AH Electronics for Interactivity 6:6-0

Electronics for artists. An introduction to topics including: history of physical computing and embedded electronics; resistive circuit theory and functional computer programming; sensors and actuators; power systems and mechatronics; soldering. The course will focus on a single embedded platform such as Arduino or Raspberry Pi.

ART 820AJ Investigating Interactivity II 6:6-0

This graduate studio course is geared towards further contextualizing and resolving strategies for promoting interactivity in artistic practice as begun in Art 820AF.

ART 820AL Documenting Practice 6:6-0

This graduate studio course, resulting in a book work, will focus on documentation as a critical investigation into the question of what constitutes art practice. The student will engage in a disciplined approach to documenting practice in a range of media which may include writing, film, imaging, print, and drawing.

ART 820AN Media Archaeology 6:6-0

This course supports studio art production and theoretical investigation in the area of media archaeology. With an emphasis on experimentation and studio production, this course encourages investigations of 'old' moving-image media within an intermedia art context. Students will contextualize practice with theoretical and historical research.

ART 820AO Performance Art Practice 6:0-0

This course will focus on the development of works in performance art, blending practical investigations with historical and contextual research.

ART 820AP A/V Intermedia Explorations 6:0-0

This course will focus on intermedia approaches to making use of archival materials in storytelling and contemporary art making, exploring intersections of print, photo, audio, video, and other suitable media.

ART 820AQ Feminist Constructions 6:0-0

This course will focus on the development of artworks exploring gender and the body through a feminist lens, blending practical investigations with historical and contextual research.

ART 820AR Art and Climate Change 6:0-0

This course will focus on the material and conceptual development of artworks exploring issues of climate change and environmental activism.

ART 820AS Eco Art & Intermedia Research 6:0-0

This class will employ an intermedia approach to creating work that investigates critical place inquiry and environmental crisis. Focusing on processes which involve a minimal environmental impact, the student will explore intersections of 2D and 3D, performance, and photo documentation.

ART 830 Drawing 6:6-0

Studio course in the area of drawing, under the supervision of a faculty member(s), chosen by the student in consultation with the graduate committee.

ART 830AA Drawing and Paper-Based Projects 6:6-0

A course involving an exploration of drawing and related paper based projects.

ART 830AB Intermedia Approaches to Drawing 3-6:6-0

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Experiments in drawing with both tradition and digital media. Course requirements are a completed suite of art-works or an installation, in addition to research and presentations

ART 830AC 3-6:6-0

Drawing and Imagery Development

A studio-based course in drawing, where the student will be developing imagery for use in printmaking practice. Investigation into media and paper supports, scale, methods of drawing. Preparatory and finished drawings will be required. The student will research contemporary artists whose work is based in the medium of drawing.

ART 830AH 6:6-0

Drawing Relating to Sculpture

A studio course where drawings will be created in various media. Student will complete a body of finished drawings as well as preparatory sketches.

ART 830AJ 6:6-0

Drawing: Narrating the Body

A studio course focussing on the creation of drawings based on the body. The student will also conduct research into contemporary artists working with drawing mediums.

ART 830AL 6:6-0

Drawing as Research

This is an applied research course in which the student will?through drawing, digital photography, collage, text, and other graphic means?research text as image/art.

ART 830AM 6:0-0

Expressionism in Drawing

Explorations in drawing using a wide range of drawing materials and papers, 5 projects including a research project on an artist related to the student?s work.

ART 840 6:6-0

Painting

Studio course in the area of painting under the supervision of a faculty member(s) chosen by the student in consultation with the graduate committee.

ART 840AB 6:6-0

Painting in Contemporary Contexts and Practices

Build on the skills and ideas developed by the student in previous work and courses. Emphasis is on deepening those skills and ideas, especially on the building of a substantial body of work.

ART 840AI 6:6-0

Aboriginal Visual Narratives

The student will research traditional and contemporary Aboriginal visual narrative strategies and then make works (paintings) that reflect this research.

ART 840AJ 6:6-0

Contemporary Aboriginal Painting and Sculpture

This course involves the exploration of contemporary Aboriginal painting and sculpture and its relation to traditional subject matter. The course will also include research into related artworks, contemporary artists and subject matter.

ART 840AK 6:6-0

Formal Issues in Painting

Studio work in the area of painting. Colour studies and research into artists of relevance to student?s practice. Further investigations into conceptual notions within painting practice. Completion of 4 works required.

ART 840AM 6:0-0

Painting Technique and Concept

The student will produce a substantial and cohesive body of work, developing technical and conceptual aspects of their painting practice. Discussions with the instructor will address technique and concept, and the relationship of the student?s work to contemporary art practice.

ART 840AO 6:0-0

Personal Imagery in Painting

The student will develop imagery of personal significance and create oil paintings utilizing this imagery. Four significant paintings will be completed as well as research and preparatory works.

ART 850 6:6-3

Sculpture

Studio course in the area of sculpture, under the supervision of a faculty member(s) chosen by the student in consultation with the graduate committee.

ART 850AA 6:6-0

Graduate Sculpture

A studio-based exploration of contemporary sculpture, ART 850AA will explore themes relevant to current three-dimensional practices. Students will be encouraged to examine their current practice with the intent of making new discoveries while reinforcing strengths. Course content will vary depending on the student?s objectives. Exploration and experimentation will be encouraged.

ART 850AB 6:0-0

Graduate Sculpture II

Art 850 AB will continue to encourage students to stretch their studio practice while fine tuning objectives. Exploration and discovery will be supported with an emphasis on refinement and display. Acknowledging discipline-based practices, students will be challenged to think beyond the autonomous stand-alone object.

ART 850AC 6:6-0

Exploration in Scale for Non-Majors

Fostering a greater understanding of the transformation of scale, students will be lead through advanced maquette making. The goal is to assist students in realizing at least one "study" in a 1:1 scale. Geared to non-majors, a variety of materials and approaches will be explored with their specific needs considered.

ART 850AD 6:6-0

Maquette Development

The student will develop a range of sculptural concepts and designs through the construction of various preparatory models/maquettes.

ART 850AE 6:6-0

3D Modelling, Rendering

Directed study in the area of sculpture, under the supervision of a faculty member(s). The class will focus on material and scale explorations in context of contemporary sculpture / 3D practices. New methodologies such as computer rendering will be examined as a component of the class.

ART 850AG 6:6-0

Kinetic Sculpture and Design Research

This is an applied research course in which the student will design a series of kinetic sculptures. The course includes background research into related art works, prototype drawing, technical research and seminar discussion. The student will produce a portfolio of project designs and several working maquettes

ART 850AI 6:6-0

Investigation between Sculpture and Drawing

This class will focus on the relationship between sculpture and drawing. The student will create several maquettes and a minimum of four sculptural/drawing works. The course will also include research into related artworks, contemporary artists and subject matter.

ART 850AJ 6:6-0

Multiples Duplicates Doubles

Focussed on multiples, the course will utilize historical and current technologies. The class will take a critical look at various techniques, methodologies and philosophies relevant to the topic, positioned within contemporary practice.

ART 850AL 6:0-0

3D Human Form Studies

The student?s primary objective in this class is to gain a better understanding of the human form as a three-dimensional subject; self-directed anatomical studies will lead to fully rendered forms. Studies will be conducted in your choice of medium in preparation for advanced mould-making and casting.

ART 850AM 6:0-0

CAD in Sheet Media

This course will utilize computer assisted drawing (CAD) to create imagery in various sheet media. Content is student driven with the instructor?s

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guidance. Students must have an excellent understanding of one of the following: drawing, printmaking, modelling or computer rendering. Finish will be explored with an emphasis on durable techniques.

ART 850AN 3-6:0-0

CAD in Sheet Media II

CAD in Sheet Media II continues studies in CAD in Sheet Media. Content is student driven with the instructor's guidance. Students will continue working at a more advanced level with the objective of creating work for display. Various display methods will be explored.

ART 850AO 3-6:0-0

From Found to Fabricated

This course will examine how an idea can exist across several mediums. The history and nature of each medium will be explored. An emphasis will be placed on exploring possible connections otherwise unexplored. Mediums may be as diverse as light and wood; materials may be found or purchased.

ART 850AP 6:0-0

Focus On the Hand

This course will explore the fuzzy intersection between "Art" and "Craft"; two terms many contemporary artists blur as one. Focusing on material exploration and experimentation, the student will work to better understand the role of the handmade within their own practice.

ART 850AQ 6:0-0

Solidifying the Soft

ART 850AQ will focus on sculptural explorations utilizing soft media such as (but not limited to) cloth and yarn. Emphasis will be placed on material transformation, experimentation and display. Students will be encouraged to try various ways of presenting their work while examining contemporary artists who utilize similar processes.

ART 850AR 6:0-0

Abstraction and Representation

This studio course will focus on the intersection between abstraction and representation. An in-depth examination of the uncertainty of creative modalities, the course will look at how practices reflect and adapt to things like: social change, political unrest, environmental concerns, collective anxiety, discomfort and/or uncertainty.

ART 860 3-9:9-3

Ceramics

Studio course in the area of ceramics, under the supervision of a faculty member(s), chosen by the student in consultation with the graduate committee.

ART 860AA 1-6:6-0

Graduate Ceramic Studio

The course is structured around the development of studio work in ceramics with the consideration and context of the historical and contemporary issues in sculpture, craft, and design.

ART 860AD 3-9:9-0

Ceramic Vessel as Sculpture

This studio course will use the vessel as a subject for sculpture through an exploration of the aesthetics and abstract, non-objective form of the vessel.

ART 860AF 3-9:9-0

Advanced Ceramics Installation

This studio course will use experimental ceramic-based installation formats to develop a concept or theme. Independent research into relevant artistic practices, directed readings, and material investigations will be required. Media may include fired ceramics, unfired clay, found objects or other materials.

ART 860AG 3-9:9-3

The Body and the Clay Vessel

A studio course exploring the expressive potential of creating ceramic vessels in relation to body movement and historically embedded ceramic processes. Six to eight completed ceramic vessels as well as experimental works and research will be undertaken.

ART 860AH 3-9:9-0

Figure and Form

This is an applied research course in which the student will create a series of ceramic sculptures based on the human figure in motion. The course

includes background research into related art works, prototype drawing, and seminar discussion. The resulting works may also include drawing, video and other media.

ART 860AI 3-9:9-3

Ceramic Sculptural Form

The student will work within ceramic sculptural methods, developing a range of techniques, including: hand building, wheel-throwing, casting, and various surface treatments to produce a body of work informed by specific thematic content determined the first class. In addition, the student will investigate current ceramic sculptural practices.

ART 860AJ 3-9:9-3

Advanced Ceramic Sculpture

The student will work with advanced technical and conceptual contemporary ceramic sculptural methods. Techniques will include hand building, and mold-making, and various surface treatments. A body of work informed by specific thematic content determined the first class will be created.

ART 860AK 3-9:9-3

Figurative Ceramic Sculpture

The student will create figurative ceramic sculpture using a conceptual framework relevant to contemporary ceramics practices. Techniques will include hand building, moldmaking and various surface treatments. A body of work informed by specific thematic content determined first class will be created.

ART 870 3-9:9-3

Print Media

Studio course in the area of print media, under the supervision of a faculty member(s), chosen by the student in consultation with the graduate committee.

ART 870AA 3-9:9-0

Thematic Approaches to Printmaking (I)

This studio course focuses on projects in graduate level printmaking. Independent studio work based on thematic and technical motivations of the student, in consultation with the instructor will be undertaken. Weekly meetings to discuss the overall development of the project(s) including related theoretical and conceptual components will inform a thematic trajectory for ongoing research and studio production.

ART 870AB 3-9:0-0

Exploring the Self: Family History, Traditions and Heritage

This graduate level printmaking course focuses on exploring personal connections to family history, traditions, language, and heritage as a broad theme for criticism and contextualization of the Self. Discussions of overall development, including related theoretical and conceptual components, will inform a thematic trajectory for studio research.

ART 870AC 3-9:9-0

Process and Content: The Technical and Conceptual in Printmaking

Continuing a dialogue with ideas around personal connections to family history, traditions, language, and heritage as a broad theme for the criticism and contextualization of the Self, the content of this graduate level course will be (re)focused on the manner in which varying print processes inform the work.

ART 870AD 3-9:9-0

Illustration and the Book

Engaging a dialogue with ideas around personal history, traditions, and identity, the content of this course will be focused on the manner in which the interconnectedness of Printmaking processes, illustration, and book arts serve as an aesthetic, conceptual, and functional vehicle for production and dissemination of compelling visual work.

ART 870AE 3-9:9-3

Binding and Book Arts

Engaging a variety of approaches to collating, connecting, and displaying narrative and/or non-narrative printed material, this studio course focuses on the aesthetic, functional, and conceptual implications of binding, as they relate to book arts.

ART 870AF 3-9:9-3

Text & Typography

This class will investigate the technical and conceptual implications of the use of text in contemporary printmaking. Theoretical and practical notions

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of Typography ? from hand-set type and letterpress printing, through to digital typesetting for silkscreen, lithography, or intaglio, and screen-based and non-conventional ?printing? ? will form the basis for this course.

ART 870AG 3-9:9-3

Interactive Printmaking

This graduate level class will focus on interactivity and unconventional approaches to printmaking media. Three-dimensionality, mobility and motion-sensitivity, and the integration of print media into a broad array of contemporary artistic practice will form the conceptual and practical basis of this course.

ART 870AH 3-9:9-3

Seriality and narrative

This graduate level studio course examines seriality and narrative using printmaking, painting, and drawing, in conventional and digital modes of image-making.

ART 884 6:6-0

Selected Topics in Photo-based Imaging

Studio course in the area of photo based imaging, under the supervision of a faculty member(s) chosen by the student in consultation with their supervisor.

ART 884AA 6:6-0

Document Represent Present

This graduate studio course will focus on the technical and creative development of photographic works based on existing studio works. Camera, digital editing, and printing skills will be developed. The student will also conduct research into contemporary innovations in digital photographic presentation, and conceptual investigations into photography.

ART 884AB 6:6-0

Conceptual Print Practice

Exploring digital imaging as a fast way to sketch ideas for print project. The student will research contemporary conceptual art practices and their precedents to contextualize working with image and text, seriality, and list-making in print projects.

ART 884AC 6:6-0

Photography and Activism

This graduate studio course will focus on the technical and creative development of digital photographic works and a research-creation documentation website. Art historical, theoretical, and contextual research into the relationships of photography, mass media, and activism will be conducted and documented throughout the semester.

ART 884AD 6:6-0

Photography and Performance

This course in photography explores gender and autobiographical narrative, and documentation of live performance. The student will be engaged in performative work utilizing costumes and props. A body of original photographic work will be produced as well as a journal reflecting on the ideas manifested in the photographs.

ART 884AE 6:0-0

Photography and Performance II

This course continues to explore gender, autobiographical narrative, and the documentation of the performance of self using photography. A body of work will be produced from several series and photo-based sketches, along with written documentation of the artist's process, practice, and works created.

ART 884AF 6:0-0

MFA Photo-Based Media I

This graduate course focuses on research and creation in the area of photography and video. The primary subject is transportation, immigration, and loss from a feminist point of view. The final project is likely a photo and video projection installation.

ART 884AG 6:0-0

MFA Photo-Based Media II

This graduate course will focus on the continued development of ideas and artworks in photo-based media during the second semester or later, of the Visual Arts MFA.

ART 884AH 6:0-0

MFA Photo-Based Media III

This graduate course will focus on the continued development of ideas and artworks in photo-based media during the third semester, or later, of the Visual Arts MFA.

ART 884AI 6:0-0

MFA Photo-Based Media IV

This graduate course will focus on the continued development of ideas and artworks in photo-based media during the fourth semester, or later, of the Visual Arts MFA.

ART 884AJ 6:0-0

PhD Photo-Based Media I

This graduate course focuses on the development of ideas and artworks in photo-based practices (including still and video). Independent studio work based on thematic and technical innovations of the student, in consultation with the instructor, will be undertaken.

ART 890 3-9:9-0

Directed Studies

Study in any area under the supervision of a faculty member(s) chosen by the student in consultation with the graduate committee.

ART 890BH 3-9:0-0

Creative Art Writing

In this graduate course, students study and produce critical and creative writing about their art practices and/or the practices of others.

ART 890BI 3-9:0-0

Environmental Art Context

This course in environmental art practice will focus on the creative development of studio works and readings related to environmental art, ephemerality, and the philosophy of art. Weekly blog posts will include documentation of studio process, as well as reflective and critical writing in response to readings.

ART 890JP 6:0-0

The Art of Kyoto

For hundreds of years, Kyoto has been the centre of traditional arts and crafts in Japan. On this Study Tour, we will visit sites of artistic and cultural importance, and meet local artists and educators as a means to better understanding the local and global importance of this dynamic city.

ART 902 1-9:0-0

Research and Exhibition

Research into studio concerns and preparation of the exhibition. Students must complete 12 credit hours in total.

ARTH	Art History
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ARTH 810 3-6:6-0

Selected Topics in Art History

Seminar course examining selected topics in Art History

ARTH 890 3-6:6-0

Directed Reading Art History

Directed study in Art History under the supervision of a faculty member.

ARTH 890AA 3-6:6-0

Migrating Practice

This course will interrogate the theoretical notion of migration in relation to practise in three specific domains: literature, theory and art. We will locate migration theory by examining a novel and two short stories; four contemporary art exhibitions; and two works dealing with migration as a theoretical foundation.

ARTH 890AB 3:3-0

Collecting in Context

This course examines ways in which museums display art, how institutions think and to what extent collections have impacted on national and local identity. Topics and case studies will allow for consideration of concepts including public and private ownership, the state and the individual, antiquarianism, custodianship and provenance.

ARTH 890AC 3:3-0

Preliminary Corpus Definition

For the course the student will define the preliminary corpus of the thesis project in terms of content, theory, and methodology.

Course Catalogue

ARTH 890AD 3-6:6-0
Landmark Texts in Post-Colonial Theory
 An investigation of major theoretical works in post-colonial theory, including texts by Edward Said, Homi Bhabha and Gayatri Spivak and others.

ARTH 890AE 3-6:6-0
Studies in the History of Virtual Art
 This course will examine the history of virtual art and its role in the larger scheme of art in the early part of this century. Consisting of reading, oral discussions and writings, the student will examine the art historical traditions of virtual art.

ARTH 890AF 3-6:6-0
Cultural Studies Theory and Practice: Display and Identity
 This course examines some of the foundational texts of contemporary cultural studies. The course emphasizes a critical approach to display culture and identity.

ARTH 890AG 6:6-0
Contemporary Aboriginal Art
 The student will compile an annotated data base of Contemporary Aboriginal Art and Artists.

ARTH 890AH 3-6:6-0
Curating in Practice
 The practical application of curatorial theory and museological methodologies within an institutional context. Development of a working knowledge of contemporary display cultures will be emphasized.

ARTH 890AI 3-6:6-0
Visual Storytelling Strategies of the First Nations of the Great Plains
 An art historical study of visual storytelling strategies of the First Nations of the Great Plains. Students will research 19th and 20th century tepee liners, ledger drawings and winter count hide paintings to determine the variety of reasons for the production of these objects.

ARTH 890AJ 3-6:6-0
Collecting and Display in the Museum
 By selecting and discussing a series of case studies, this course will explore traditions, conventions, theories, and practices of collecting and displaying art in historic and contemporary museums.

ARTH 890AK 3-6:0-0
Expanding the Moving Image
 This course covers experimental contemporary practices in moving image arts. Topics include: 360° immersive cinema and systems; glitch, generative and software art; VR, augmented reality and mixed reality; media + architecture and media facades; moving image as tactical media; media archaeologies. Students develop case studies examining diverse practices.

ARTH 890AL 3-6:6-0
Topics in Sculpture I
 By analyzing a series of case studies and different historiographical approaches, this course investigates the history of sculpture, dealing with issues of style, iconography, relations between artists and patrons, and the role of sculptors in society in different times and cultures.

ARTH 890AM 3-6:6-0
Topics in Sculpture II
 This course will investigate a series of case studies shedding light on the practice of sculpture throughout history, looking at sculptors in their workshops and studios, focusing on issues such as techniques, materials, scale, relationship between sculpture and its display context.

ARTH 890AN 3-6:6-0
Theories in Curation
 This course involves a critical investigation of directions in curatorial theory and practice. Student will analyze a range of models and perspectives in this growing body of literature.

ARTH 890AO 3:0-0
Imagining the Non-Human in Early Modern Europe
 By analyzing a series of case studies and different historiographical approaches, this course investigates relations between people and animals, focussing especially on the early modern European context, and

investigating both practices and theories of collecting, and principles of representation.

ARTH 890AP 3:0-0
Collecting: History and Theory
 This course explores histories and theories of collecting in the Western world, with particular emphasis on material culture, mobility of objects, and strategies of display.

ARTH 890AQ 3-6:0-0
Visual Culture of Metis Travel
 Independent research-based class into the visual and material culture of Metis movement, which will include a literature scan, archival research, and interviews with a contemporary builder of Red River carts. Topics will include: routes, maps, Red River carts, York boats, dog teams and visual markers of movement.

ARTH 890AR 3:0-0
Bronze: Making and Collecting
 This course explores histories, practices, and theories of bronze casting and collecting in the Western world, with particular emphasis on small bronzes, their circulation, and their status in the context of the history of sculpture from the Renaissance to the 21st century.

ARTH 890AS 3-6:0-0
Theories of Art for Makers
 This course will examine key concepts, theories, and frameworks in contemporary art with the goal of enriching the practices of makers. Through in depth engagement with art works and theoretical readings, graduate students will develop an understanding of how research concerns are informing current practices of art making.

ARTS	Arts
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ARTS 601 0:0-0
Graduate Co-op Work Term I
 This is the first one semester co-op placement for graduate students in the Faculty of Arts. To register in this class a student must be in good standing and enrolled full-time in a Master's program in the Faculty of Arts. A student who completes both ARTS 601 and ARTS 602 will have the designation "Co-operative Education" added to their degree. A "credit" grade requires both a satisfactory work-term report and a satisfactory employer's evaluation.

ARTS 602 0:0-0
Graduate Co-op Work Term II
 This is the second one semester co-op placement for graduate students in the Faculty of Arts. To register in this class a student must be in good standing and enrolled full-time in a Master's program in the Faculty of Arts. A student who completes both ARTS 601 and ARTS 602 will have the designation "Co-operative Education" added to their degree. A "credit" grade requires both a satisfactory work-term report and a satisfactory employer's evaluation.

ARTS 800 3:0-0
Studies in Culture
 The course will provide advanced study into the definition and practice of culture from a number of theoretical and disciplinary perspectives. It is based on an existing course, ENGL 817AA, The Poetics of Culture, but the content will be adapted by individual instructors.

BIOC	Biochemistry
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BIOC 800 3:3-0
Comprehensive Review in Biochemistry
 Students read in-depth in a selected field of biochemistry to prepare a written review and a presentation of present knowledge and current research in the topic selected. A high standard of writing is required. An oral examination will be conducted by a committee of the department. The student must consult the BIOC 800 Coordinator regarding the selection of a topic and details of this course requirement.

BIOC 801 3:3-0
Research Proposals
 Students are required to submit a research proposal involving an original idea for a research project that has not yet been undertaken. The topic must be approved by the BIOC 801 Coordinator and be distinct from the

Course Catalogue

student's research problem. The student is required to defend the proposal before a committee of the department.

BIOC 821 3:3-3

Physical Biochemistry

This upper level course serves to introduce the student to physical biochemistry, the study of biological systems using physical techniques. We will investigate the principles that underscore each physical technique and the biological questions that each method can address. Emphasis will be placed on techniques that apply to protein systems.

BIOC 827 1-3:3-0

Selected Topics Biochemistry

Advanced topics in biochemistry related to student and staff interest: nucleic acids, vitamins, co-enzymes, enzymes and biophysics. May be repeated for credit if the topic is different.

BIOC 827AF 3:3-0

Surface Biology

This graduate level reading course will begin with a short history of scanning probe methods, followed by a detailed description of AFM and NSOM. The theoretical principles of AFM and NSOM will be examined in detail and then used to evaluate studies from current literature.

BIOC 827AG 3:3-0

Chemical Biology

Chemical biology can be defined as an interdisciplinary science where chemistry is applied to problems in biology. Many topics in this fast growing field are covered including protein engineering, abzymes, chemical genetics, genomics/proteomics, ribozyme/DNAzyme, metabolic engineering, antibiotic resistance, DNA nanotechnology, and chemical ecology.

BIOC 827AH 3:3-0

Natural Products Biosynthesis

This course aims to provide a comprehensive and balanced introduction to natural products from a biosynthetic perspective. Applying fundamental chemical principles, the relationships between the various structures encountered in nature will be shown to provide a rationale for the metabolic sequences leading to various natural products.

BIOC 827AM 3:3-0

Advanced Microscopy

This course will introduce students to physical biochemistry (biophysics). We will examine the modern physical microscopy methods that can be used to probe a range of biological systems, from proteins to whole cells, the principles that underscore each technique and the biological questions that each type of microscopy can address.

BIOC 827AO 1-3:3-0

Mitochondrial Systems Biology

This course focuses on exploring different protocols and approaches used in studying mitochondrial proteins in mammalian systems. In addition, the course aims at developing the appropriate skills of drafting a manuscript as well as choosing relevant papers as references of this topic.

BIOC 827AP 3:3-0

Systems Biology and Network Medicine

The course will focus on interactive lectures and open classroom discussions on understanding how complex systems as networks can be useful in understanding protein function and disease mechanisms, as well as will cover the principles of systems and network biology. During this course, students will develop practical skills in writing and evaluating research papers as part of the course curriculum.

BIOC 827AQ 3:3-0

Industrial Chemicals, Environmental Impact and Human Health

Hurricane Harvey presents real life chemical questions. Power is interrupted, cooling stops, chemical explosions occur and chemicals/by-products of chemical fires escape. This directed reading course will look at the movement of chemicals through the environment and the consequences of these noxious agents.

BIOC 827AR 3:3-0

Chemical Basis of Biological Systems

The course will address contemporary topics of chemical biology demonstrating the integration of chemical, biochemical and biological approaches to problems of relevance to medicine, the environment and

drug design. The course focus may vary from year to year; the integrative approach to chemical biology will remain the course goal.

BIOC 827AS 3:3-0

Selected Topics in Chemical Biology and Nanotheranostics

Selected topics in the development of theranostic nanoparticle systems will be discussed in terms of their structure, stability, and dynamics. In addition, recent developments in protein engineering, chemical genetics, ribozymes and nucleic acid aptamers will be introduced.

BIOC 827AT 3:3-0

Uncovering disease related proteins by proteomics and microscopy

Covers theoretical aspects of proteomics and confocal microscopy, used to discover and validate, respectively, disease related proteins for diagnosing clinical conditions. Emphasis on critical analysis of research articles using two major topics.

BIOC 827AU 3:3-0

Chemical Ecology

Chemical Ecology integrates chemistry and biology to examine chemical interactions and their environment, and the consequence of those interactions. Topics include cellular and system responses to nutrients, drugs and xenobiotics, and the integrations of those responses.

BIOC 827AV 3:3-0

Chemogenomics

This course surveys the field of chemogenomics, which analyzes biological problems at the whole-genome level using chemicals. Topics covered include: chemogenomic methodologies; applications in comprehensively studying compound-target relationships and the interdependent biological networks that respond to chemical and metabolic stress; applications in drug discovery and mode of action determination.

BIOC 827AW 3:3-0

Advanced Microscopy with Application to Medicine

We will focus on advanced microscopic methods and laser-based methods that support current and future medical diagnostics, and enable the development of new medical imaging techniques.

BIOC 827AX 3:3-0

Biochemistry: Mechanisms of Toxicity

This course will address current issues of chemical biology demonstrating the integration of chemical, biochemical and biological approaches to problems of relevance to medicine, the environment and drug design. Topics include nutrients, xenobiotics, biological toxicants, and environmental toxicology.

BIOC 827AY 3:3-0

Advances in Antimicrobial Research: from Genomes to Drugs

This course surveys the applications of genomics techniques in antimicrobial research and antibiotic drug discovery. Topics include the use of mutant libraries, deep sequencing, and other genome-scale approaches in mapping the bacterial interactions with chemical perturbants, drug mode of action determination, and drug discovery.

BIOC 827AZ 3:3-0

Systems Biology and Network Medicine

The course will review how and why protein interaction networks can be used for discovery of disease-causing biological disruptions, genomic approaches to identify mutations that are the source of disease, and a broad spectrum of methodologies to survey cellular interaction networks of relevance in modern medicine.

BIOC 901 3-15:15-0

Research

Thesis Research.

BIOL	Biology
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BIOL 801 3:3-0

Comprehensive Exam

A Departmental Committee will examine the candidate's knowledge in the area(s) of Biology related to the student's research proposal. Students will submit a comprehensive research proposal, which will serve as the basis for an oral examination. * Note: To be completed in the first 12 months of the program. *

BIOL 802 3:3-0

Course Catalogue

Comprehensive Review of a Selected Topic in Biology

The student will write and present an in-depth literature review of current knowledge in an area of biology (selected in consultation with the Department Head and supervisor). At an oral examination, a departmental committee will examine the candidate's knowledge related to the review. Required of all PhD students, to be completed in the first 20 months of the program.

BIOL 803 3:3-0
Scientific Research Skills for Biological Sciences Graduate Students
 The focus of this course is to develop general skills and knowledge in the field of scientific research. Students will be introduced to the philosophy of science with discussions about how to identify important and feasible research topics. Students will also be taught about communicating with the media, giving clear oral presentations and posters, and will have the opportunity to do extensive writing and oral presentations which will be rigorously critiqued by a number of faculty members. *** Pre-requisite: Admission to a M.Sc. program in Biological Sciences***.

BIOL 810 0-3:3-3
Modelling Biological Data
 A guide to contemporary statistical models for biological data. Emphasizes practical skills in using software for implementing models, testing hypotheses, and making predictions about biological and ecological systems. Prior programming experience is recommended.

BIOL 820 3:3-3
STI Animal Physiology
 Selected topics in (STI) animal physiology.

BIOL 820AA 3:3-3
Animal Development
 Students and instructor will explore various topics in early animal development and/or various factors which might alter the normal developmental trajectory. Prerequisite: Permission from instructor.

BIOL 825 3:3-3
STI Animal Behaviour
 Selected topics in (STI) animal behaviour.

BIOL 825AD 3:3-0
Advanced Animal Behaviour
 The purpose of the course will be to review and discuss a variety of issues related to avian incubation. Subtopics will include energetics, predator evasion, subdivision of labour, and nest selection.

BIOL 825AE 3:3-0
Animal Behavior and Wildlife Conservation
 An examination of how the science of Animal Behaviour is and/or should be used to further Wildlife Conservation issues.

BIOL 830 3:3-3
STI Molecular Genetics
 Selected topics in (STI) molecular genetics.

BIOL 830AD 3:3-0
The Evolution and Development (Evo-Devo) of Plant Leaves
 Topics: Morphology and development of leaves in major plant taxa; evolution of leaves; genetic determination of leaf initiation and morphogenesis.

BIOL 830AG 3:3-0
Topics in Molecular Genetics
 A course for graduate students that will explore advanced topics in molecular genetics.

BIOL 830AH 0-3:3-0
Dark-growth of Plants
 Growth and developmental responses of plants when deprived of light. Reversal upon restoration of light. Hormonal and genetic interactions with light and dark signals.

BIOL 835 3:3-3
STI Ecology
 Selected topics in (STI) ecology.

BIOL 835AG 0-3:3-1.5
Statistical Ecology

This course is designated to introduce you to sampling and experimental design, data collection, hypothesis testing, data analysis and presentation of ecological data. We will also discuss statistical methods that were uniquely designed for tackling ecological problems. Distribution free statistical procedures (permutation and bootstrap) and multivariate analyses will be covered.

BIOL 835AH 3:3-0
Stable Isotope Ecology: Methods and Applications
 This course focuses on basic methodology and applications of stable isotope analysis in ecology. Discussing the classical and current literature in the field will enable students to critically evaluate published studies and help design their own research projects.

BIOL 835AI 3:3-0
Quaternary Ecology and Palynology
 Analysis and ecological significance of Quaternary changes in biological distribution. Emphasis on study of pollen grains, spores and other microfossils in Quaternary, especially Holocene, ecology.

BIOL 835AJ 3:3-0
Ecology: Conservation & Wildlife Management
 A graduate course for M. Sc. Students that will examine advanced concepts in Ecology and Animal Behaviour, and their application to Resource Management.

BIOL 835AK 3:3-0
Microbial Pathogenesis, Virulence, and Host Specificity
 A course for graduate students that will explore advanced concepts in microbial pathogenesis, virulence, and host specificity, and their relationship to emerging infectious diseases.

BIOL 835AL 3:3-0
Principles of Applied and Environmental Microbiology
 A course for graduate students that will allow students to explore various topics in applied and environmental microbiology.

BIOL 835AN 3:3-0
Taphonomy of Fossil Insects and Vertebrates
 The course will examine physical and chemical processes that act as filters on the preservation of arthropods and vertebrates. The biases that this creates in the fossil record, and the range of techniques that can be used to observe taphonomic changes will also be examined.

BIOL 835AO 3:3-0
Carbon cycling in Saskatchewan
 A reading course examining the global carbon cycle. We will emphasize pools and processes that are relevant in the province of Saskatchewan.

BIOL 835AP 3:0-0
Natural Vegetation and Ecological Processes in Riparian Ecosystems
 Natural vegetation and ecological processes occurring in riparian ecosystems (temperate zone and Prairies of Canada, adjacent US) will be described and discussed. Topics: natural vegetation, occurrence (current vs. historical), disturbance and succession, C and nutrient capture, soil processes (N, P, etc.), water movement, upland and aquatic interface interactions, plantations.

BIOL 845 3:3-3
STI Population Genetics
 Selected topics in (STI) population genetics.

BIOL 845AA 3:3-0
Selected Topics in Population Genetics
 This course deals with population genetics theory underlying the spacial distribution of genetic variation within and among species.

BIOL 845AB 3:3-0
Selected Topics in Population Genetics
 An advanced course examining aspects of molecular and population genetics.

BIOL 850 3:3-3
STI Microbiology
 Selected topics in (STI) microbiology.

BIOL 850AE 3:3-0
Current Topics in Microbiology

Course Catalogue

Graduate students will develop their critical thinking skills using problem based learning approaches and by formulating a research proposal. Communication skills will be developed by presenting seminars. Current topics in microbiology will be used as the source material for the assignments.

BIOL 850AF **3:3-0**
Microbes and the Environment
 Graduate Students will participate in discussions on current topics in environmental microbiology and review the literature in emerging research topics in soil microbiology, plant-microbe interactions and food microbiology.

BIOL 850AG **3:3-0**
Microbes and the Environment
 Graduate Students will participate in discussions on current topics in environmental microbiology and review the literature in emerging research topics in soil microbiology, plant-microbe interactions and food microbiology.

BIOL 850AH **3:3-0**
Antibiotic Resistance in the Environment
 A discussion and evaluation of current topics regarding dissemination of antibiotic resistance in the environment and it's relevance to pathogenic bacteria.

BIOL 855 **3:3-3**
STI Plant Morphology
 Selected topics in (STI) plant morphology.

BIOL 855AB **3:3-0**
Wood Anatomy of Extreme Events
 This course will investigate, through literature review and lab work, the signature of extreme events (e.g. intense precipitation, high temperatures, low temperatures/freezing) in the anatomy of montane and boreal coniferous tree species. Comprehensive review and techniques papers will be produced. The lab work will focus on two species: *Pseudotsuga menziesii* (Douglas fir) and *Pinus flexilis* (Limber pine).

BIOL 860 **3:3-3**
STI Plant Physiology
 Selected topics in (STI) plant physiology.

BIOL 880 **0-6:6-6**
Directed Readings
 Directed readings for individual students or groups of students on selected topics.

BIOL 880AB **1-6:6-6**
Adv Quat Ecol & Palynology
 A detailed consideration of techniques (palynology, dendrochronology, paleolimnology, dating, stable isotopes) used to reconstruct Quaternary environments, and an analysis of their application to the construction of models to and forecast the ecological effects of climate change. Particular emphasis will be on the reconstruction of both species and community dynamics.

BIOL 880AJ **3:3-0**
Global Biogeochemistry
 This course will present an in-depth examination of elemental cycles within the context of global change. Topics will include the biogeochemical properties of water, carbon, nitrogen, sulphur, phosphorus, and some contaminants and the ways in which anthropogenic activities have altered the behaviour and movement of these elements

BIOL 880AK **3:3-0**
Genomics
 This course covers the fundamental theories and bioinformatic methodologies underlying comparative evolutionary and functional genomics with examples from bacteria, plants, animals and humans.

BIOL 880AL **3:3-0**
Wood Anatomy and Dendroecology
 This course will present a comprehensive examination of the anatomy of woody stems and roots, focusing on the tree species found in western Canada. Applications to dendroecology will be explored, using examples such as slope stability, the resolution of drought events within the growing season, pest dynamics, and flooding.

BIOL 880AM **1-6:3-0**
Neurophysiology
 This course provides an in-depth introduction to the organization of the nervous system, in both health and disease. Here electrical and chemical properties of neurons and supportive glial cells will be studied. Comparison between different species and analytic scientific techniques will be used to construct/deconstruct the nervous system.

BIOL 880AN **3:3-0**
Biometrics
 A practical and computer-assisted approach to the design of biological experiments and to multivariate analyses of discrete and continuous variables.

BIOL 880AP **3:0-0**
Molecular Plant Microbe Interactions
 An examination of genomics tools and molecular mechanisms to study plant-microbe interactions.

BIOL 880AQ **3:3-0**
Trends in Pathogen and Health Research
 The intent of this course is to provide a comprehensive introduction to different state-of-the art analytical techniques commonly used in pathogen and health research. The course will showcase recent publications in this field, explain their applied methods as well as point out strengths and weaknesses. During this course, students will deepen skills in writing and evaluating research papers.

BIOL 880AR **1:1-0**
Scientific Data Management
 This course will develop best practices in ecology and evolution data management, including such topics as tidy data principles and implementation in R, algorithm-based quality assessment, metadata best practices and coding, relational databases, data versioning, geospatial and taxonomic data standards, archiving and accessing data in digital repositories, and the new FAIR principles for scientific data management.

BIOL 880AS **1:1-0**
Synthesis Statistics for Ecology and Evolution
 This course will train students in statistical approaches to synthesizing the highly structured, multisourced datasets that typify ecology and evolution research, including data collation, integration, analysis, and visualization, with a focus on hierarchical models, formal model integration, reducing uncertainty with prior knowledge, and updating models when new information is collected. Students will develop skills in R programming, collaborative research, reproducible workflows, data analysis, and communication.

BIOL 880AT **1:1-0**
Scientific Collaboration
 This course puts into practice recent research on effective team science, teaching skills to optimize collaboration, including: cross-discipline communication, meeting facilitation, conflict resolution, team workflow, digital collaboration, authorships and IP, and working group organization. Particular attention will be paid to participant diversity and acknowledging power imbalances, negotiating roles, and cross-cultural communication.

BIOL 880AU **1:1-0**
Productivity and Reproducibility in Research
 Students will learn how to integrate open science best practices into their individual and collaborative research workflows, and use digital platforms and tools to enable registered reports, literate programming, version control, and provenance tracking.

BIOL 887 **1:0-0**
Research Seminar
 Credit is earned by delivering a seminar in the Graduate Student Seminar Series.

BIOL 888 **1:0-0**
Seminars in Biology
 Seminars by invited speakers. All Graduate Students must register for two semester hours, but should attend each semester while in residence. This course is given in conjunction with BIOL 488 during the fall and winter semesters.

BIOL 901 **1-15:15-0**

Course Catalogue

Research

Original research, required of all master's and doctoral candidates.

CHEM	Chemistry
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CHEM 800 3:3-0
Comprehensive Review in Chemistry
 Students read in-depth in a selected field of chemistry to prepare a written review and a presentation of present knowledge and current research in the topic selected. A high standard of writing is required. An oral examination will be conducted by a committee of the department. The student must consult the CHEM 800 Coordinator regarding the selection of a topic and details of this course requirement.

CHEM 801 3:3-0
Research Proposals
 Students are required to submit a research proposal involving an original idea for a research project that has not yet been undertaken. The topic must be approved by the CHEM 801 Coordinator and be distinct from the student's research problem. The student is required to defend the proposal before a committee of the department.

CHEM 817 3:3-0
Select Topics Analytical Chem
 Topics in advanced analytical chemistry related to student and staff interests. This course may be repeated for credit if different topics are discussed on the second occasion.

CHEM 817AA 3:3-0
Mass Spectrometry
 This course involves a detailed study of mass spectrometric (MS) detection in chromatography of organic compound identity and quantitative analysis. The lectures will emphasize mass spectrometer instrument design and applications including gas and liquid chromatography coupled with MS and MS/MS for environmental, pharmaceutical and clinical applications.

CHEM 817AB 3:3-0
Inductively Coupled Plasma -MS
 The course involves a detailed study of inductively coupled plasma - mass spectrometry (ICP-MS) detection in analysis of inorganic compounds at trace levels. Emphasis will be placed on instrument design, analytical protocol, calibration methods, and new advances in sample introduction accessories. Environmental and clinical applications will be discussed.

CHEM 837 3:3-0
Select Topics Inorganic Chem
 Topics in advanced inorganic chemistry related to student and staff interest. May be repeated for credit if topic is different.

CHEM 837AA 3:3-0
Mag Res Spec in Inorg Chem
 This course will involve a study of electron paramagnetic resonance (EPR) and nuclear magnetic resonance (NMR) spectroscopy as applied to transition metal complexes. The EPR portion will include fundamental aspects, isotropic and anisotropic systems. The NMR portion will be devoted to the use of coupling in inorganic chemistry.

CHEM 837AB 3:3-0
Organometallic Chemistry
 A detailed discussion of organometallic chemistry of the transition metals will be presented. Principles including the 18-electron rule, bonding in organometallic complexes, and fluxionality will be discussed. Organometallic structures, reactions and reaction mechanisms will be presented along with practical applications of organometallic compounds, including catalysis and organic synthesis.

CHEM 837AC 3:3-0
Advanced Main Group Chemistry
 This course will use a combined lecture/seminar format to examine in detail the chemistry of the p-block elements, including fundamental concepts of structure and bonding. Current literature will be used to discuss recent advances in p-block chemistry, industrial applications, and biological, environmental, and geological aspects of the p-block elements.

CHEM 837AD 3:3-0
Main Group Chemistry
 Structure, bonding and applications of main group compounds. Atomic structure and periodic trends, noble gas, solid state, and atmospheric

chemistry. Directed readings and a term paper will be assigned in an area of main group chemistry chosen by the student.

Note: Permission of the Department Head is required to register

CHEM 841 3:3-0
Advanced Organic Chemistry
 Advanced concepts in organic synthesis including discussions on modern strategies and synthetic methodologies.

CHEM 847 3:3-0
Select Topic Struc Organ Chem
 Advanced topics related to student and staff interest. May be repeated for credit if the topic is different.

CHEM 847AC 3:3-0
Organic Stereoselectivity
 The fundamental principles and strategies employed in achieving control in stereoselective organic reactions, and the applications of stereoselective reactions in the synthesis of select natural and/or non-natural products of biological and medicinal interests will be examined and discussed. Graduate students will attend the same Chem 490AE lectures.

CHEM 847AG 3:3-0
Synthetic Methods and Applications of Aromatic Compounds
 Modern synthetic methods for the construction of aromatic compounds. Introduction to the use of aromatic molecules in various applications.

CHEM 857 3:3-0
Select Topics Physical Chem
 Specialized topics related to student and staff interest, such as surface chemistry and polymer chemistry. May be repeated for credit if the topic is different.

CHEM 857AB 3:3-0
Group Theory and Electrochemical Methods
 This course covers the principles of symmetry, group theory, and electrochemical methods used by chemists. Applications in chemical bonding, vibrational and electronic spectroscopy, electroanalytical chemistry, spectroelectrochemistry, electrocatalysis, energy systems, and environment and water analysis will be discussed.

CHEM 857AC 3:3-0
Electrochemistry and Photochemistry
 This course will be an introduction to molecular photochemistry and electrochemistry. Photophysical, photochemical and electrochemical processes and their theories will be discussed. Applications of electrochemistry and photochemistry in biomedicine, catalysis, energy systems, photosynthesis, photovoltaics, sensors, synthesis, and vision will be examined.

CHEM 857AD 3:3-0
Selected Topics in Pure and Applied Inorganic Chemistry
 Selected advanced topics in inorganic chemistry will be discussed, including spectroscopy, solid state chemistry, magnetic materials and catalysis.

CHEM 857AE 3:3-0
Industrial Chemistry
 Overview of industrial chemistry including business considerations and chemical evaluations, patents, and process chemistry. Agrichemicals, blends and additives, basic inorganic chemicals, oil extraction, emulsions, petrochemicals, pharmaceuticals, polymer, water issues, and Saskatchewan chemical industries will be covered.

CHEM 857AF 3:3-0
The Mechanics of Nuclear Magnetic Resonance Spectroscopy
 This course will explore foundational aspects of nuclear magnetic resonance, including introductions to: spin operators; density matrix theory; coherences; NMR interactions; and the NMR spectrometer. Discussion of data processing, multidimensional NMR and NMR crystallography will also be provided.

CHEM 857AG 3:3-0
Electrochemistry
 This course will be an introduction to molecular electrochemistry. Electrochemical processes and their theories will be discussed. Applications of electrochemistry in analytical chemistry, catalysis, energy systems, and synthesis will be examined.

Course Catalogue

Note: Students may receive credit for one of CHEM 857AG or CHEM 490AL.

CHEM 857AH 3:0-0
Ionic Solutions
 This reading course studies Volume I (Ionics) of Modern Electrochemistry (2nd edition, print 1998, e-book 2002), by Bockris and Reddy; e-book available via our Archer Library. The student will learn more about ionic solutions: solvation structure and energies, activity coefficients, ion diffusion and conductivity, and ionic liquids.

CHEM 867 3:3-0
Select Topic Theoretical Chem
 Specialized topics related to student and staff interest. May be repeated for credit if the topic is different.

CHEM 867AA 3:3-0
Advanced Theoretical Chemistry
 Molecular electronic structure theory and approximations, Dirac notation, molecular vibration and rotation, statistical mechanics and bulk properties.

CHEM 867AB 3:3-0
Computational Chemistry
 Electronic structure of molecules, molecular orbital theory, semi-empirical methods, ab initio methods, molecular mechanisms, use of computer programs.
 Note: Students may receive credit for one of CHEM 867AB or CHEM 461.

CHEM 901 3-15:15-0
Research
 Thesis research.

CS	Computer Science
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CS 600 3:0-0
Computer Science Co-op Placement Report
 Students enrolled in a work study program will be required to complete a report on their Work Placement.

CS 601 0:0-0
Graduate Co-op Work Term I
 This is the first one semester graduate work experience placement for graduate students in Computer Science. To register in this class a student must be in good standing and enrolled full-time in a Master's program in Computer Science. A preliminary work term report must be submitted before the end of the semester. A student who completes both CS 601 and CS 602 will have the designation ?Co-Operative Education? added to their degree.
 Prerequisites: two CS 800-level graduate courses, CGPA of at least 80%

CS 602 0:0-0
Graduate Co-op Work Term II
 This is the second one semester graduate work experience placement for graduate students in Computer Science. To register in this class a student must be in good standing and enrolled full-time in a Master's program in Computer Science. A final work term report must be submitted before the end of the semester. A student who completes both CS 601 and CS 602 will have the designation ?Co-Operative Education? added to their degree.
 Prerequisites: CS 601, CGPA of at least 80%

CS 700 3:3-3
Software Development Fundamentals
 Modern software development principles and practices. Topics include modern software development fundamentals and methodologies, unit testing, source code control, teamwork, and modern programming languages, frameworks, software development tools, and environments.

CS 710 3:3-3
Python & Data Fundamentals
 Data-centred programming in Python. Topics include Python fundamentals, object-oriented design, data modelling, advanced data structures, extract, transform, and load (ETL) philosophy, data-centred libraries (e.g., Pandas, NumPy, SciPy, scikit-learn), SQL databases, No-SQL databases, statistical analysis tools.

CS 711 3:3-3
Foundations of Data Science

Broad overview of the data science process lifecycle and methods. Topics include data ethics, data discovery, data preparation, model planning, machine learning model implementation, and evaluation, visualization, and delivery.

CS 712 3:3-3
Foundations of Statistics & Machine Learning
 Statistical basis for machine learning. Topics include distributions, probabilities, sampling, hypothesis testing, Bayes' theorem, maximum likelihood, machine learning theory, classes of machine learning, linear regression, kernel methods, dimensional reduction, gradient descent, ensemble techniques, and neural networks.

CS 713 3:3-3
Applied Machine Learning
 Machine learning approaches applied to real-world problems. Topics include classification, regression, clustering, decision trees and random forests, Bayesian networks, deep learning, face and object recognition, time-series forecasting, anomaly detection, natural language processing, and machine translation.

CS 714 3:3-3
Big Data Analytics & Cloud Computing
 Techniques for performing big data analytics within a cloud environment. Topics include foundations of cloud computing, containers, micro-services, distributed file systems, MapReduce, real-time data processing, scale-up, scale-out, and cloud-based machine learning. Students will undertake a milestone-based project using Microsoft Azure, Amazon Web Services, Google Cloud, or some other cloud platform.

CS 715 3:3-3
Advanced Data Science & Machine Learning
 State-of-the-art in data science and machine learning. Topics may include the latest advancements in reinforcement learning, deep learning, spatio-temporal forecasting, and natural language processing. Students will pursue real-world data science project that employs the latest machine learning methods and techniques.

CS 716 3:3-3
Communication in Data Science
 Mechanisms for communication within Data Science projects. Topics include communication fundamentals, visualization fundamentals, data science notebooks, and visualization libraries. Students will be expected to communicate information about a data science project in four different modes: structured abstract, poster, project notebook, and oral presentation.

CS 718 0:0-0
Data Science Seminar
 Students will attend a professionally focused seminar series with topics including entrepreneurship, ethics, intellectual property, innovation, start-up culture, and EDI.

CS 719 6:3-0
Data Science Seminar & Project
 A milestone-based project will be pursued, serving as a capstone for the Data Science Stream. Final projects will be demonstrated and presented in a public venue.

CS 730 3:3-3
Human-Computer Interaction Fundamentals
 Theory related to the design of usable software. Topics include contexts for human computer interaction, foundations of usability, cognitive models, perceptual models, social models, physical capabilities, accessibility, interface standards, user experience, principles of good design.

CS 731 3:3-3
Human-Centered Interface Design & Implementation
 Practice of designing and implementing usable software. Topics include processes for human-centered interface development, task analysis, usability requirements, user-centred design, design patterns, prototyping, and modern graphical user interface libraries, builders, and environments. Students will undertake a milestone-based project leading to the design and implementation of a web-based application.

CS 732 3:3-3
Foundations of Human-Centred Evaluation Methods
 Methods for evaluating human-centred software. Topics include usability testing, cognitive walkthroughs, heuristic evaluations, controlled laboratory

Course Catalogue

studies, naturalistic studies, and Research Ethics Board applications. Students will design and conduct a comprehensive study of a user interface.

CS 733 3:3-3

Computer Graphics & Animation

Techniques and software for generating computer graphics and animations. Topics include geometric and mathematical modelling, image rendering and synthesis, principles of animation, and graphics and animation frameworks.

CS 734 3:3-3

Mobile Computing

Design and implementation of software for a networked mobile environment. Topics include the benefits and limitations of modern mobile devices, network programming, sensor programming, interface design for small screens, touch-based interaction, voice-based interaction, hybrid mobile application development practices.

CS 735 3:3-3

Virtual and Augmented Reality

Design and implementation of software in virtual and augmented reality environments. Topics include virtual reality (VR) and augmented reality (AR) technology, 3D modelling, locomotion, interaction, audio, psychological and physical effects, and telepresence. Students will undertake a milestone-based project leading to the design and implementation of a VR or AR application.

CS 736 3:3-3

Information Visualization

Design and development of interactive visualization techniques for the analysis, comprehension, exploration, and explanation of large collections of abstract information. Topics include principles of visual perception, information data types, visual encodings of data, representations of complex data types, and interaction methods.

CS 738 0:0-0

Human Centred Computing Seminar

Students will attend a professionally focused seminar series with topics including entrepreneurship, ethics, intellectual property, innovation, start-up culture, and EDI.

CS 739 6:3-0

Human-Centred Computing Seminar & Project

A milestone-based project will be pursued, serving as a capstone for the Human-Centred Computing Stream. Final projects will be demonstrated and presented in a public venue.

CS 802 3:3-0

Parallel Algorithm

Theoretical and practical aspects of parallel algorithms; functional descriptions of various parallel models of computations; interconnection networks for multi-computers. Prior to registering for this course, students should have a background in parallel computing comparable to the senior undergraduate level.

CS 805 3:3-0

Computer Graphics

Geometric and other advanced modelling techniques; image rendering and synthesis techniques; interactive graphics; issues in computer animation. Prior to registering in this course, students should have a background in computer graphics comparable to the senior undergraduate level.

CS 807 3:3-0

Interactive Hardware and Embedded Computing

Hardware design for physical and pervasive computing systems. Wired and wireless communication protocols; sensors and actuators; resource constraints; location- and context-awareness. Applications include: wearable computing, wireless sensor networks, robotics and automation, internet of things. Embedded hardware platforms such as ARM (raspberry Pi) and AVR (Arduino).

CS 808 3:3-0

Adv Animation Software Design

Principles of animation. Current research areas in animation software design. Features and architecture of animation software. Timelines, motion pathways, parameteric keyframing kinematics, gaseous phenomena, and facial animation.

CS 809 3:3-0

Interactive Entertainment SW

This course surveys current research on the design and implementation of interactive entertainment software, including computer games. Topics include: interactivity, principles of interactive entertainment, hardware platforms, current software development tools and languages, game loop, design of virtual worlds and virtual characters, real-time requirements, incorporating multimedia resources, aesthetics.

CS 811 3:3-0

Theory of Computing

Study of fundamental concepts of computer science from the theoretical point of view; basic concepts of computational complexity theory, algorithm analysis and their relation to the set of problems which can be programmed; "good" algorithm design. Prior to registering in this course, students should have a background in introductory compiler design, or algorithm analysis comparable to the senior undergraduate level.

CS 815 3:3-0

Computer Vision

Sensing techniques; sensing data pre-processing; higher level scene description; model-based recognition; motion analysis. Prior to registering in this course, students should have a background in image processing comparable to the senior undergraduate level.

CS 820 3:3-0

Artificial Intelligence

Logics; natural language processing; knowledge representation; uncertainty reasoning; machine learning; expert systems; neural networks. Prior to registering for this course, students should have a background in artificial intelligence comparable to the senior undergraduate level.

CS 824 3:3-0

Informational Retrieval

Content analysis; types of storage and retrieval systems; retrieval models; information theory; multimedia retrieval; hypertext; information network and inference. Prior to registering for this course, students should have a background in algorithms and data structures, and database and information retrieval comparable to the senior undergraduate level.

CS 825 3:3-0

Image Processing

Image models; image transformations; enhancement and restoration techniques; image segmentation; feature extractions and higher level descriptions. Prior to registering in this course, students should have a background in image processing, and numerical and symbolic computing comparable to the senior undergraduate level.

CS 826 3:3-0

Bioinformatics and Biomedical Applications

This course provides an introduction to research in bioinformatics, which is the analysis of biological and medical data. Topics include sequence and image analysis, modelling of complex processes, biomedical database organization, and biomedical data mining. Selected biomedical data applications are also examined.

CS 827 3:3-0

Computer Audio

Representation of audio, audio compression, spatialization and surround sound. Analysis and synthesis of sound waveforms. Speech and music. Temporal and spectral processing.

CS 828 3:3-0

Human Computer Communication

Theory and practice related to the design and implementation of usable software and easy-to-learn interfaces. Specific topics will include user-centered design and task analysis; prototyping and the iterative design cycle; interface design and methods of evaluation.

CS 829 3:3-0

Information Theory and Applications

This course covers the fundamentals of information theory and its application in content distribution over the Internet. Topics covered include: information theory, channel codes, content distribution network, and peer-to-peer network coding. * Note: Prior to registering in this course, students should have a background in Data Communications and Network comparable to the senior undergraduate level. *

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CS 830 Machine Learning Models of learning; inductive inference; constructive and selective induction; learning from examples; explanation-based learning; machine discovery; grammatical inference; knowledge acquisition; applications. Prior to registering for this course, students should have a background in artificial intelligence comparable to the senior undergraduate level.	3:3-0	CS 839 Web Intelligence & E-commerce The course investigates research topics related to Web Intelligence and Electronic Commerce. The topics include: web technology, network infrastructure, web-based business models, agents, Extended Markup Language, web mining, security, web information filtering and retrieval, and intelligent information systems.	3:3-0
CS 831 Knowledge Discov in Databases Knowledge discovery from databases in the nontrivial extraction of implicit, previously unknown, and potentially useful information from databases. This course focuses on data sources, extraction techniques, efficiency concerns, and measures of novelty and usefulness. Prior to registering for this course, students should have a background in database and information retrieval, and artificial intelligence comparable to the senior undergraduate level.	3:3-0	CS 842 Introduction to Data Science This course provides a broad overview of the data science process lifecycle which includes data discovery, data preparation, model planning, machine learning model implementation and evaluation, visualization, and delivery. The course provides hands-on data science experience via a real-world project.	3:3-0
CS 833 Operating Systems Multiple processes and scheduling; resource management; storage management; file systems; deadlock problem; queuing models; distributed systems; fault tolerant systems; operating systems for parallel architectures. Prior to registering for this course, students should have a background in an introduction to operating systems, and computer system architecture comparable to the senior undergraduate level.	3:3-0	CS 855 Mobile Computing Mobile Computing focuses on conducting research in the design, development, and evaluation of software in a networked mobile environment. The primary topics to be covered in the course include network computing, graphics programming, human-computer interaction, and evaluation methods, all focused on the challenges and opportunities afforded by modern mobile computing devices.	3:3-0
CS 834 Fundamentals of Computer Systems Security This course presents the objectives and the fundamentals of computer and network system security: confidentiality, integrity, availability, authentication, and authorization. Common security concepts are detailed, such as cryptography, symmetric/asymmetric encryption, digital signature, certificate authority, hashing, communication protocol security, and audit. Mathematical foundations and applications of these methods will be explained.	3:3-0	CS 858 Virtual and Augmented Reality Design and implementation of software in virtual and augmented reality environments. Development practices, assets and avatars, interaction, locomotion, psychological effects, audio, multiplayer considerations, applications. Limitations and future developments. *Additional Fee: \$10.*	3:3-0
CS 835 Pattern Recognition Statistical pattern recognition; parameter estimation and supervised learning; nonparametric techniques; linear discriminant functions; unsupervised learning and clustering; syntactic pattern recognition; applications. Prior to registering for this course, students should have a background in algorithms and data structures comparable to the senior undergraduate level.	3:3-0	CS 872 Software Engineering Review of fundamental concepts; project planning; requirements analysis; program design, implementation and testing; object-oriented development; metrics and cost estimation; software reuse; CASE technology; configuration management; software engineering and Ada. * Note: Prior to registering in this course, students should have a background in software engineering methodology comparable to the senior undergraduate level. *	3:3-0
CS 836 Rough Sets & Applications Theory of rough sets is a fundamental mathematical methodology for modelling classification or decision problems involving imprecise or uncertain information. Its implications include pattern classification, data mining, machine learning, control algorithm acquisition from data, circuit design and others. The course will provide the basics of the methodology and will include the study of the above applications of rough sets. Prior to registering for this course, students should have a background in discrete computational structures, artificial intelligence and statistical methods comparable to the senior undergraduate level.	3:3-0	CS 875 Database Systems Database management system architecture; relational, network and hierarchical data models; theoretical and practical aspects of database applications; study of data definition and data manipulation facilities and database management systems; security and integrity; distributed database management system architecture. * Note: Prior to registering in this course, students should have a background in advanced topics in database systems, and database and information retrieval comparable to the senior undergraduate level. *	3:3-0
CS 837 Information Visualization Information Visualization focuses on the design, development, and study of interactive visualization techniques for the analysis, comprehension, exploration, and explanation of large collections of abstract information. Topics to be covered include principles of visual perception, information data types, visual encodings of data, representations of relationships, interaction methods, and evaluation techniques.	3:3-0	CS 890 Directed Readings Readings in programming languages; artificial intelligence; numerical computation; database management systems; graphics and computer vision; architecture; software engineering.	1-3:3-0
CS 838 Uncertain Reasoning in AI Advances in using uncertain knowledge to make decisions rationally and effectively (for prediction, classification, diagnosis, etc.). Focus is placed on modelling with Bayesian networks and various methods for inference therein. Deep learning probabilistic circuits, including arithmetic circuits and sum-product networks, will be extensively studied, emphasizing construction, learning, semantics, and inference. *Note: Before registering for this course, students should have a background in discrete computational structures, artificial intelligence and statistical methods comparable to the senior undergraduate level.*	3:3-0	CS 890AA Advanced Database Systems A course in special topics in which the student makes an independent study in computer science under the supervision of a faculty member in the department. This course focuses on advanced database systems from theory to implementation.	1-3:3-0
		CS 890AC Data Analysis from the Internet Data Analysis from the Internet: Language, indexing and classification; extracting and abstracting by computer; stylistic analysis, statistical models and the entropy of English; hidden Markov models; probabilistic context-free grammars; data analysis via data mining and rule induction; ELEM2.	3:3-0
		CS 890AG Natural Language Processing Grammars, semantics of language, NLP systems, existing systems. *Note: Students may receive credit for one of CS 890AG or CS 490BH.*	3:3-0

Course Catalogue

CS 890AI Parallel & Distributed Process A course in special topics in which the student makes an independent study in computer science under the supervision of a faculty member in the department. * Note: The student and the supervisor must present a detailed outline of the proposed study to the head of the department for approval before registration. *	3:3-0	Mathematical background of Cryptography, cryptographic protocols and techniques, symmetric-key cryptography algorithms and security analysis. One-way hash functions and public-key algorithms. Examples of cryptographic systems.
CS 890AJ Directed Readings in Bayesian Methodologies Students should understand basic principles of Bayesian networks, including representation (Bayesian and Markov networks) and inference (variable elimination and join tree propagation). A comprehensive project, including a functioning system and extending the field in a new direction, is required.	3:3-0	CS 890BP Computer Graphics Topics Multi-resolution surface representations; rendering techniques for continuous levels of detail; virtual reality.
CS 890AK Computability and Complexity Finite automata. Context-free grammars and push-down automata. Turing machine. The universal Turing machine. Nondeterministic Turing machine. The halting problem and unsolvability. Post correspondence problem. Time complexity. Space complexity.	3:3-0	CS 890BR Constraint Programming Constraint satisfaction, stochastic search, CLP, TSLP.
CS 890AQ Mgmt Intelligent Info System Strategic and tactical rewards resulting from the effective use of corporate information systems will be presented. Topics include techniques and tools for developing management support systems. Case studies on development and use of the systems will be discussed.	3:0-0	CS 890BV Model-Based Data Mining Survey of statistical models. XML specification of domain knowledge. Data summarization. Anomaly detection. Java-based implementation of data mining procedures. Project.
CS 890AR Instructional Design for CS	3:3-0	CS 890BY Agent Based Systems Agent-oriented Software; Agent-oriented Software lifecycle; a real application; development in UML; Rational Rose.
CS 890AU Adv Artificial Intelligence Advanced artificial intelligence: advanced issues in artificial intelligence.	3:3-0	CS 890CA Foundation of Data Mining This course investigates research topics in data mining.
CS 890AW Web Mining Overview of basic issues of Web Mining in the context of Web Intelligence (WI). Investigations of adaptive personal web page design based on results from mining web log data.	3:3-0	CS 890CB Research Methods in CS Review of the major consideration and tasks involved in conducting scientific research, with emphasis on Computer Science. Research Methodology. Technical writing.
CS 890AY Adv.Topics in Geometric Model Advanced Topics in Geometric Modelling: Milti resolutions polygon, mesh structures, polygon mesh optimization, interactive design.	3:3-0	CS 890CE Constraint-Based Agents Agents Search paradigms and frameworks Global constraint for local search Structural constraint satisfaction Applications
CS 890BA Secure Computers and Networks Secure Computers and Networks: Fundamentals of Computer Security, Cryptography and Security Standards, Fire walls and Web Security and Case studies.	3:3-0	CS 890CF Human Computer Communication Theory and practice related to the design and implementation of usable software and easy-to-learn interfaces. Specific topics will include user-centered design and task analysis; design and methods of evaluation.
CS 890BD Adv. Topics in Visualization Advanced Topics in Visualization: volume rendering techniques, visualization of high dimensional data, animation of dynamic simulation results.	3:3-0	CS 890CG Computer Audio Topics Representation of audio, compression, spatialization and surround sound, analysis and synthesis, speech, music, temporal and spectral processing. ** Written permission of the instructor is required to register. **
CS 890BE Spec. Topics in Comp. Graphics Special Topics in Computer Graphics: 3D Toon rendering, hair modeling and rendering, volume rendering techniques.	3:3-0	CS 890CI Topics in Software Security Research topics on security of mobile code-language environments, extensible software, and operating systems.
CS 890BI Advanced Web Browser Interface Topics in Advanced Web Browser Interfaces.	3:3-0	CS 890CJ Specification Implementation Algebraic Specifications Object Orientated Refinement C++ Java
CS 890BK Data Cleaning Introduction to data cleaning. Missing values. Noisy Data. Inconsistent data, Syntactic transformation techniques. Integrity checking. Semantic transformation techniques. Software for data cleaning. Project.	3:3-0	CS 890CO Heuristic Algorithms in Optim In this course, we will study state-of-the-art heuristic algorithms for finding approximation solutions, including simulated annealing, genetic algorithms, ant colony algorithms, tabu search and others.
CS 890BN Cryptography and Data Security	3:3-0	CS 890CP Searching Networks In this course, we will study state-of-the-art methods for computing the optimal search strategies for networks under different models, including basic pursuit-evasion (BPE), combinatorial sweep, monotonic sweep, connected sweep and others.

Course Catalogue

and the maximal prime decomposition of Bayesian networks. State-of-the-art probability propagation algorithms for inference such as LAZY propagation in the HUGIN expert system

CS 890CR 3:3-0
Data Mining

The course involves studying classical approaches to data mining such as rule searching, rough sets, decision trees, neural networks and statistical approaches.

CS 890CS 3:3-0
Time Series Forecasting

The course focuses on a study of methods for the time series forecasting, with applications such as forecasting stock prices and retail prices, Traditional statistical methods and data mining methods will be examined and compared with respect to their efficiency and effectiveness for the time series forecasting. A system will be developed for forecasting retail prices for a product.

CS 890CU 3:3-0
DVD Design and Implementation

This course explores the technical and aesthetic skills requires to design and implement a DVD. Topics include criteria for evaluating DVDs, digital editing techniques, encoding audio and video, scripting DVDs, creation of interface components, testing techniques for navigational capabilities, and evaluation of a DVD.

CS 890CV 3:3-0
Automated Update of Databases

Automating the update and retrieval process for databases. Uses for automation. Wrappers and other techniques of automation. Limits of wrapper design. Implementation and analysis of wrapper design techniques.

CS 890CW 3:3-0
Information Visualization

Theoretic models of information visualization. Techniques, algorithms, and systems. Visual representation of complex information space and high-dimensional data sets.

CS 890CX 3:3-0
Rough Set Theory Adv Topics

The course involves studying advanced approaches based on rough set theory, including variable precision rough set model, bayesian rough set model and applications. This is a research-oriented course requiring the student to study a number of research papers on the subject of the class.

CS 890CY 3:3-0
Text Classification Algorithms

Survey of Text Classification Algorithms. Use of Ontologies in text Classification. Evaluation of wordnet as an ontology in text classification. Detailed comparison of recent text classification methods. Implementation and experimental evaluation of text classification algorithms using benchmark datasets.

CS 890CZ 3:3-0
Text Classification Algorithms

It extends the fundamental material related to data mining, machine learning, Bayesian networks and rough set graduate courses towards dealing with more complex knowledge representation models, encoding knowledge in various, possibly graphical forms dedicated to the application domain needs. Algorithmic approaches to learning such models from real-life data are extensively studied.

CS 890DA 3:3-0
Topics on Grid Computing

Research topics in grid computing: grid architecture; networking; security; resource management.

CS 890DB 3:3-0
Text Classification Algorithms

The course will explore methods used in computer vision and recognition (classification) of images.

CS 890DC 3:3-0
Implementing Probabilistic Expert Systems

This course examines the effects on computational efficiency in practice by implementing various techniques for constructing probability distributions in

probabilistic expert systems. Topics include Bayesian networks, join tree propagation, and direct computation techniques.

CS 890DD 3:3-0
Information Theory and Applications

This course covers the fundamentals of information theory and its application in content distribution over the Internet. Topics covered include: information theory, channel codes, content distribution network, and peer-to-peer network coding.

CS 890DE 3:3-0
Advanced Topics in Robotics

Motion planning, configuration space, cell decomposition methods (exact vs approximate), roadmap methods (visibility graphs, Voronoi graph), potential field-based methods, planning with uncertainty, robot control using vision, multiple robots, nonholonomic robots, computational issues in planning, control, and sensing.

CS 890DF 3:3-0
Advanced Intrusion Detection

Investigating intrusion detection systems, particularly on Support Vector Machine and Rough Set. Developing a novel hybrid model combining SUM and Rough Set in order to improve the speed and accuracy. Apply the new model on different data sets.

CS 890DG 3:3-0
Agent-Oriented Distributed Systems

This course will explore distributed systems using agent technology.

CS 890DH 3:3-0
Topics on Communications

Communication network modeling, Multicast problem, Steiner tree problem, Network coding, Rateless codes, P2P file sharing systems, performance evaluation.

CS 890DI 3:3-0
Topics in Programming Languages

Topics in programming paradigms, language design, semantics, and static analysis.

CS 890DJ 3:3-0
Assessing Roles of Variables

The objective is to investigate the body of knowledge available on the role of variables in programs. The project will focus on the role of variables in programs written by IPSCO information specialists.

CS 890DK 3:3-0
Advanced Topics in Interface Personalization

Advanced topics in computer software user interface personalization will deal with one or more of areas such as: user preference modelling, temporal demand models. Filtering, interface cost models, evaluative indices, decision analysis, navigational pattern analysis, and content semantics.

CS 890DL 3:3-0
Special Topics in Computer Vision

Image feature extraction, segmentation, and 3D object recognition techniques.

CS 890DM 3:3-0
Topics in Performance Evaluation

This course covers various topics on performance evaluation of computation and communication systems. Examples include system security, privacy and communication efficiency.

CS 890DN 3:3-0
Web Engineering

Design and implementation of web software systems and also web service based applications. Study of web architectures, design patterns and frameworks using the UML

CS 890DO 0-3:3-0
Topics in Compiler Design

Design and implementation of compilers. Topics include lexical analysis, parsing, context-sensitive analysis, intermediate representation, optimization, and code generation.

CS 890DP 3:3-0

Service Oriented Architecture

A study of service oriented architecture (SOA) concepts and their advantages. XML (eXtensive Markup Language) and its associated family of standards will be discussed and used in student projects.

CS 890DQ 3:3-0

Granular Computing

This course covers a new research field called granular computing (GrC). Topics include fundamentals of GrC and its applications in different research fields, such as rough set and formal concept analysis, current research and development, and future directions of GrC.

CS 890DR 3:3-0

Pattern Classification

Decision Theory, Discriminant Functions, Maximum Likelihood, Parametric and Non-Parametric Methods, Gaussian Mixture Models, Stochastic Methods, Machine Learning and Clustering.

CS 890DS 3:3-0

Visual Analytics

Visual analytics is a multi-disciplinary field that facilitates analytical reasoning through interactive visual interfaces. Topics of study will include aspects of visualization, human factors, and data analysis in aid of conducting an analysis of available data.

CS 890DT 3:3-0

End User Computing for Interaction

End user computing can be applied to a broad spectrum of approaches, with which the student will be acquainted. In particular, this class will examine and explore the means by which end-user computing can empower users and support their efforts when dealing with new situations, allowing new means of interaction with existing applications.

CS 890DU 3:3-0

Web Based Learning Support Systems

This course will provide a comprehensive coverage of various topics in Web mining, including Web usage mining, Web content mining, Web structure mining, Web data management, and Web personalization. The primary focus of this course is on Web usage mining and its applications to e-learning and web intelligence. Specifically, this course will consider techniques from machine learning, data mining, statistics, information retrieval, and databases to extract useful knowledge from Web data which could be used for e-learning, personalization, and user profiling.

CS 890DV 3:3-0

Wireless Mobile Applications

Development and deployment of software for wireless mobile applications; use of state-of-the-art development tools and integrated development environments; development strategies for performance and reliability; methods for testing and debugging; methods for experimental evaluation; use of hardware simulators.

CS 890DW 3:3-0

The Internet and Social Participation

The internet has the potential to enliven social participation even as traditional social structures may be in retreat. Powerful new technologies can support this potential, but only so far as they serve the people who would use them. This class will consider the growing variety of online communities, what technology supports them, and what opportunities exist.

CS 890DX 3:3-0

Matchmaking Services for Auctions

Matchmaking Algorithm Design; Interest-based Matchmaking; Multi-Attribute Auctions; Reverse Auctions; Purchasing Computers with Several Attributes; Data Clustering; Interest Model Simulation; Interest Learning. 8

CS 890DY 3:3-0

Special Topics in Image Processing

Selected topics in one or more areas from image/video segmentation, analysis, quality measurement, transformation, encoding, compression, and other emerging areas. Reading materials include 3 to 5 book chapters and 10 to 15 recent journal/conference proceeding articles. A term project is required.

CS 890DZ 3:3-0

Implementing Probabilistic Expert Systems

This course examines the effects on computational efficiency in practice by implementing various techniques for constructing probability distributions in

probabilistic expert systems. Topics include Bayesian networks, join tree propagation and direct computation techniques.

CS 890EA 3:3-0

Run Time Monitoring of Online Auctions

The objective is to monitor skills in online auctions. The student has to identify skills for reverse auctions. He will develop an architecture for monitoring skills at run-time. Performance and security are major concerns to take into account. He will develop an aggregation algorithm based on the Dempster-Shafer.

CS 890EB 3:3-0

Topics in Computer Animation

In this course a student makes a detailed independent study of topics in Computer Animation under the supervision of a faculty member. The student and supervisor must present a detailed outline of the proposed study to the head of the department for approval before registration.

CS 890EC 1-3:3-0

Computational Learning Theory

Selected topics in computational learning theory and applications, e.g., models of interactive machine learning, privacy-preserving learning, statistical learning, recursion-theoretic models of learning, complexity analysis of learning algorithms. Reading materials include 2 book chapters and 10-15 research articles. A term project is required.

CS 890ED 1-3:3-0

Logic Programming for Artificial Intelligence

This course considers the use of logic programming in Artificial Intelligence. Topics include using logic programming for traditional tasks such as search, learning and game playing. A major component of the course will be the creation of a logic program to solve a nontrivial artificial intelligence task.

CS 890EE 3:3-0

Advanced Topics in Granular Computing

Granular computing and soft computing have begun to play important roles in bioinformatics, e-business, security, machine learning, and data mining. This course will focus on theory and applications of granular computing.

CS 890EF 3:3-0

Advanced Topics in Data Mining

Data Mining uses machine learning, statistical and visualization techniques to discover and present knowledge in a form which is easily comprehensible to humans. This course will focus on the theory and applications of Data Mining particularly on email systems

CS 890EG 1-3:3-0

Topics in Mobile Computing

The student will undertake an individual research project related to Mobile Computing under the direction of a faculty member.

CS 890EH 3:3-2

Interactive Hardware for Computing Applications

Embedded and mobile hardware design for physical computing; wireless sensor networks, electronic circuit theory; circuit board design and fabrication and in-circuit programming; robotics, computer vision, audio, sensing and interaction; Software systems such as Processing and OpenFrameworks; hardware systems such as ARM and AVR (Arduino).

CS 890EI 1-3:3-3

Topics in Interactive Entertainment Software

This course provides an intensive study of one or more topics related to Interactive Entertainment Software. Potential topics include game architectures, virtual worlds, virtual characters, game physics, game artificial intelligence and game audio.

CS 890EJ 1-3:3-0

Topics in Intelligent Tutoring Systems

This course considers the development and application of Intelligent Tutoring Systems. It explores the relationship between intelligent tutoring, cognitive learning theories, and design. It also reviews the evolution from Computer-Assisted instruction to Intelligent Computer Assisted Instruction to modern Intelligent Tutoring Systems.

CS 890EK 1-3:3-0

Topics in Software Engineering

Course Catalogue

This course will focus on two widely used agile software development methodologies: Extreme Programming (XP) and Scrum. XP describes a process which is used to create software in an agile and productive way. It provides guidelines for managing the development process, but its primary focus is on engineering practices for a team approach to groupware style development that have been shown to lead quality software.

CS 890EL 1-3:3-0

Topics in Software Development

This course provides an intensive study of one or more topics related to Software Development. Potential topics include project planning, requirements analysis, software architecture, programming methodologies, implementation and testing, metrics and cost estimation, software reuse, computer-aided software engineering, configuration management, and current research.

CS 890EM 3:3-0

Topics in Algorithm Analysis

This course provides an intensive study of one or more topics related to Algorithmic Analysis. Potential topics include formal algorithmic languages, measures of complexity, type of analysis, bounds of algorithms, classes of problems, and parallel computational models and algorithms.

CS 890EN 3:3-0

Topics in Machine Learning

This course provides an intensive study of one or more topics related to Machine Learning. Potential topics include inductive inference; concept learning; statistical learning; learning from time series; grammatical inference; knowledge acquisition.

CS 890EO 1-3:3-0

Topics in Virtual Reality

This course provides an intensive study of one or more topics related to Virtual Reality (VR). Possible topics are VR hardware, VR software, perception quality, interaction, performance, applications, and health and safety issues.

CS 890EP 3:0-0

Topics in Internet of Things & Wireless Sensor Networks

Main concepts and features of the IoT paradigm, architectures, standards, and regulation. Trust, security, and privacy in IoT environments. Overview of theoretical, practical and mathematical concepts related to WSN. Examine applications for WSNs. Overview of RFID radio signals, communication modes and applications. Implementation and coding of WSN and RFID systems.

CS 890EQ 3:3-0

Topics in Geographic Information Systems (GIS): Spatial Analysis and Geoprocessing

An introduction to GIS and spatial analysis, including spatial data models, data visualization and mapping, remote sensing data, geodatabases, raster and vector analysis. GIS automation and programming, including model building, Python fundamentals, and geoprocessing using Python: datasets, geometries, rasters, scripting, building / sharing script tools, introduction to Web GIS.

CS 890ES 3:3-0

Data Science Fundamentals

Introduction to Data Science provides a broad overview of the data science process lifecycle which includes data discovery, data preparation, model planning, machine learning model implementation and evaluation, visualization, and delivery. The course provides hands-on data science experience via a real-world project.

CS 890ET 3:3-0

User Interface Evaluation Methods

Methods for evaluating user interfaces with human subjects. Topics include research ethics, research methods, experimental design, data collection, and data analysis.

CS 890EU 3:3-0

Foundations of Modern Networking

Architectures, algorithmic solutions, and protocols for modern networking technologies such as Software-Defined Networking (SDN), Network Virtualization, Network Functions Virtualization (NFV), 4G and 5G Mobile Networks, Cloud and Data Center Networks, Optical Networks, and Internet of Things (IoT).

CS 890EV 3:3-0

Knowledge Representation and Reasoning

The course examines some of the techniques used to represent knowledge in artificial intelligence, and the associated methods of automated reasoning. The emphasis will be on the compromises involved in providing a useful but tractable representation and reasoning service to a knowledge-based system.

CS 890EW 3:3-0

Reasoning about Rational Agents

Selected topics in reasoning about rational agents. The focus is on various advanced topics in knowledge representation and reasoning and multi-agent systems including but not limited to formalization of actions, knowledge, other mental states and their dynamics in various logics, rational agent programming languages, root cause analysis, abstraction mechanisms etc.

CS 890EX 3:3-0

Recent Developments in Three-way Clustering

Understanding differences of various machine learning techniques such as classification and clustering. Familiarization with hard clustering and soft clustering approaches. Review recent developments of three-way clustering. Summarize and classify different types of three-way clustering techniques.

CS 900 0:1-0

Computer Science Graduate Seminar

CS Graduate students must complete two semesters of CS 900, with the exception of MSc Course Route students, who must complete one semester of CS 900. When enrolled in CS 900, a student must make one presentation and attend all presentations. In the first semester of CS 900, the student will choose a Computer Science topic within their research area. In the second semester of CS 900 (if required), the student will choose a topic within their own research.

CS 901 3-15:1-0

Research

Thesis research.

CS 902 3-6:6-0

Project Research

A supervisor approved project requiring an in-depth student investigation of a CS problem.

EAHR	Adult Education and Human Resources
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EAHR 801 0-3:3-0

Foundations of Adult Education

An analysis of adult education in relation to societal, organizational and institutional contexts. Theories and practices of adult education, including adult learning and the role of adult educators, will be explored from historical, philosophical, psychological, socio-cultural, critical, and post-modern perspectives.

EAHR 802 0-3:3-0

Foundations of HRD Development: The Theory and Practice of Human Resource Development

An examination of the historical, sociological, political, and philosophical forces and traditions that serve to shape HRD in organizations. Theories of, and approaches to, human resource development in organizations, communities and societies will be explored from historical, cultural, socio-political, ideological, and critical perspectives.

EAHR 803 0-3:3-0

Special Topics in Training and Development

In a seminar format, participants will explore contemporary issues emerging in organizations and shaping the fields of adult education and human resource development.

EAHR 804 0-3:3-0

Teaching and Learning in Post-Secondary Education

This course explores the theories and practices of teaching and learning in higher education by focusing on learning theory, reflective practice, research, community engagement, and the scholarship of teaching.

EAHR 810 0-3:3-0

Course Catalogue

Program Design and Planning

Learners will explore theories of and approaches to program planning and design in institutions, organizations, and workplace settings. Topics explored will include the role of planner and stakeholders in the planning process, ethical and philosophical issues in planning, the politics of planning, recruitment and retention issues, program marketing and promotion as well as program financing and administration.

EAHR 811 0-3:3-0 Program Evaluation

An analysis of the theories of, and approaches to, program evaluation, and their application to evaluation practice in organizations, institutions and workplace settings. Topics explored will include the origins and current trends in program evaluation, ethical and philosophical issues in evaluation, the politics of evaluation, planning to conduct an evaluation, developing evaluation criteria, data collection, analysis and interpretation, as well as strategies for reporting and communicating evaluation results.

EAHR 812 0-3:3-0 Trends and Issues in Indigenous Adult Education

Explores research theory and practice of trends, issues, and perspectives in Indigenous learning through an examination of the historical, cultural, social, and political experiences of Indigenous peoples. Topics include: colonization, indigenization, reconciliation, intergenerational learning, culture and oral history, and transformative approaches to adult education. *Additional Fee: \$100.*

EAHR 821 0-3:3-0 Leadership in Organizations

A study of the theories of, and approaches to, leadership and their application to organizations and post-secondary education institutions. Topics will include strategic leadership, ethical, spiritual and authentic leadership, gender, diversity and cross-cultural leadership, leading change, leadership styles and behaviours, leadership and social responsibility as well as leadership and creativity and innovation.

EAHR 822 3:3-0 Admin of Adult Education

An examination of administrative processes (sub-systems) relevant to adult education in formal and non-formal settings: professional personnel, learners, programs, instruction, resources, and public relations.

EAHR 823 0-3:3-0 Trends in Developing Human Resources

An analysis of the trends and issues shaping human resources and the models and strategies used in developing the knowledge, skills, abilities and competencies of human resource professionals in organizations, institutions and workplace settings.

EAHR 824 0-3:3-0 Consulting Principles and Practices

Various consulting models and approaches will be explored to introduce the processes, principles, skills and practices of internal and external consulting.

EAHR 825 0-3:3-0 Participatory Approaches to Facilitation, Research and Community Engagement

Knowledge generation and practice regarding participatory approaches to facilitation, research, and community engagement. Students learn theories and practices linked to facilitating participatory learning, designing participatory methodologies, exercising inclusive community practices; developing original participatory methodologies for diverse contexts; and demonstrating links between participation, social inclusion, and societal transformation.

Additional Fee: \$50.

EAHR 826 3:3-0 Lifelong Learning and Sustainable Development

The course critically examines how adult learning and education is structured and performed in global contexts using a human-rights and climate justice approach. It is framed around an exploration of lifelong learning and education in relation to the global Education 2030 agenda and its alignment to the Sustainable Development Goals.

Note: Students may only receive credit for one of EAHR 826 or EAHR 870AA.

EAHR 850 3:3-0

Research in Adult Education

An introduction to current research trends in the field of Education through the analysis of formal studies representing empirical-analytic, interpretive and critical research orientations.

EAHR 870 3:3-0 MAED and MHRD Experimental Courses

Courses developed by instructors for eventual inclusion as regular courses in Adult Education and Human Resource Development Subject Area

EAHR 870AC 3:3-0 Emerging and Critical Theory, Pedagogy, and Praxis

This course will consider critical theory as a foundation for transformative pedagogies and practice toward democratic citizenship. Pedagogies that developed out of understanding and challenging critical theory will also be discussed. Students will be encouraged to critically reflect upon their own experiences.

EAHR 870AD 3:3-0 Strategic Human Resource Development in Organizations

This course will explore the role of strategic human resource development in organizations. The theories, philosophies, models, and characteristics of strategic human resource development as well as the critical role of learning and development interventions in the strategy making process in organizations will be examined.

EAHR 870AF 3:3-0 Adult Literacy

This introduction to adult literacy will cover philosophical, theoretical, and practical approaches to working with adults with low literacy skills. Course will include non-western ways of knowing, family literacy, and application of workplace essential skills.

EAHR 870AG 3:3-0 Community Engagement & Service Learning: Bridging Theory & Practice

Community engagement is an interactive process of relationship building between groups, organizations and (diverse) communities. This course elaborates on the theoretical requirements of community engagement and service learning. It builds on principles of effective and reciprocal citizen engagement with organizations and communities through hands-on experience.

EAHR 890 3:3-0 MAED and MHRD Directed Reading Courses

Courses developed by instructors as directed reading courses in the Adult Education and Human Resource Development Subject Area

EAHR 890AA 3:3-0 Adult Learning and Higher Education: Critical and Global Perspectives

An examination of the critical history and global relationships between adult learning and higher education. Through critical and analytical examination of sociological, philosophical and historical forces that underpin adult and higher education, in theory and practice, learners will explore adult and higher education and its relationship to global and social well-being.

EAHR 890AB 3:3-0 Community Based Research and Adult Education

Community-based research (CBR) begins with a problem from a community/organization and involves conducting research on that issue to develop knowledge and action for social change. The approach involves the participation of community members. This unique course is structured around the CBR institute offered in August at UR.

EAHR 890AC 3:3-0 Critical Disability and Adult Learning: Theory and Practice

This course explores the theory and practice of critical disability theory as it relates to adult learning experiences. An autoethnographic approach will be used.

EAHR 930 0-3:3-0 Learning and the Workplace

An examination of the theories and approaches to learning in the workplace. The topics explored will include transformational learning, experiential learning, situated learning, systems thinking as well as organizational learning, and their application to learning in the workplace. Issues of race, gender, class, sexual orientation, age, etc. and the implications for learning in the workplace will be examined.

EAHR 931 **0-3:3-0**
The Relationship Between Adult Education and Society
 The course examines relationships between adult education and society. Through critical and analytical examination of sociological and historical forces as well as philosophical traditions that underpin adult education research, theory and practice, learners will explore adult learning in the context of local and global organizations and communities.

EC&I	Curriculum & Instruction
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EC&I 804 **3:3-0**
Curriculum Development
 This course considers key concepts and forces involved in shaping curriculum decision making, theories of curriculum and practical aspects of planning, implementation, evaluation and research.

EC&I 808 **3:3-0**
Instruct Theory & Practice
 EC&I 808 explores instruction as socially constructed practice shaped by teacher biography, social contexts and best practices. Students engage in inquiry and critique to better understand and improve their instructional practices.

EC&I 809 **3:3-0**
Program Evaluation
 The course is directed to individuals charged with designing and/or conducting evaluation activities, those who commission and use the results of evaluation studies, and those who are the subject of evaluations and wish to better understand the evaluation issues and activities in which they are involved.

EC&I 811 **3:3-0**
Issues & Research in ECE
 A critical examination of theories, research and literature related to current issues in Early Childhood Education will involve students in collecting and analyzing data and formulating hypotheses.

EC&I 812 **3:3-0**
Assess Experiential Learning
 This is an action research course designed to enable educators to become more effective in planning developmentally appropriate experience for learners through nonstandard and alternate assessment. Assessment format(s) data analysis and practical application of information will be the focus.

EC&I 813 **3:3-0**
Play & Learning
 An examination of play as children's natural way of learning and its contribution to all areas of development and relationship to current curriculum theory.

EC&I 814 **3:3-0**
Crit Perspec Preschool Ed
 Considers the child, the adult, the preschool environment and the broader socio-cultural contexts of preschool programs. Emphasizes critical analysis of current research, opportunities to synthesize research findings and discuss implications for best practices in preschool settings, and consideration of socioeconomic and cultural factors.

EC&I 820 **3:3-0**
Multicult & Anti-Racist Curric
 Multicultural and race relations practices at all levels of the education system are constructed out of controlling social and political discourses. This course engages students in the examination of the issues arising for teachers as they attempt to construct curricula and teaching/learning practices.

EC&I 821 **3:3-0**
The Impacts of Cultural Concepts on the Design of Aboriginal Education Programs
 This course will explore perspectives of various Aboriginal peoples in Canada. Topics will include traditional gender relations, spiritual interpretation, Aboriginal science and the impact of colonialism. The cultural concepts deduced from the discussions of the topics and from Aboriginal curricula will be explored as the basis for Aboriginal education programs.

EC&I 822 **3:3-0**

Anti-oppressive Education and Teacher Activism
 A history of school and community activism ranges from words of non-cooperation to political organizing. This course examines the politics of protest and activism that accompany theories of justice for social change with respect to race, class, gender and sexual orientation. Students will examine their own knowledge and commitment to social justice for the community and workplace.

EC&I 823 **3:3-0**
Culturally relevant pedagogy: Effective teaching practice for Aboriginal students
 This course examines culturally relevant pedagogy for Aboriginal students in relation to theories of decolonization. Participants engage in activities and discussions of readings to analyze effective teaching practices and to reflect on their own professional beliefs and actions to advance the theory and practice of Aboriginal education.

EC&I 830 **3:3-0**
Contemporary Issues in Educational Technology
 This course examines current and emerging trends, issues, and developments in educational technology, including issues related to doing research in this field. The course provides an opportunity for students to engage in critical discussions around educational technology as it relates to classroom practice provincial, national, and global contexts.

EC&I 831 **3:3-0**
Social Media & Open Education
 This course provides an immersive experience where students gain understanding of social media for teaching, learning, and professional development; examine the foundations of the open educational movement and connections to networked learning; and explore collaborative tools for resource sharing, communication, and development of a digital identity and personal learning network.

EC&I 832 **3:3-1**
Digital Citizenship and Media Literacies
 This course examines the complex nature of identity and citizenship in our digital world. Students will interrogate the interconnected areas of media literacy, online identity, and responsible participation in local and global networks as they relate to educational contexts and society at large.

EC&I 833 **3:3-1**
Foundations of Educational Technology: History, Theory, and Practice
 This course introduces students to the field of educational technology and is intended as the foundational course for students particularly interested in educational technology. The course examines the historical context of educational technology as well as current and emerging theories and practices.

EC&I 834 **3:3-1**
Designing for Online and Blended Learning
 This course examines trends, issues, affordances, and challenges in the design and development of online and blended courses. Learning theories related to digital pedagogy will be explored as they apply to course/learning environment design.

EC&I 840 **3:3-0**
Seminar Topics in Science and Environmental Education
 Topics may include research, curriculum development, and in-service practice in science and environmental education, and will be examined in a seminar setting.

EC&I 841 **3:3-0**
Critical Reviews of Selected Research Literature in Science & Environmental Ed
 Current research and developmental studies in science and environmental education will be critically reviewed in a seminar setting.

EC&I 842 **3:3-0**
Curriculum Development and Research in Science and Environmental Education
 Critical analysis and review of current research in science and environmental education curriculum, instruction, and assessment; including how aspects of philosophical, political, societal, and cultural perspectives affect these curricula.

EC&I 846 **3:3-0**
Res Reading Theory & Pedagogy

Course Catalogue

Study of theories and aspects of reading processes and general principles of literacy learning. A review of research regarding materials and practices in reading instruction will be presented.

EC&I 847 3:3-0

Observ & Assessment Reading

Techniques and theories of observation, testing, analysis, and assessment will be studied in order to gain an understanding of developmental literacy problems and their underlying factors through appropriate research methods.

EC&I 848 3:3-0

Reading Difficulties

The acquisition and development of literacy in children who have reading difficulties will be investigated through the provision of supervised practice. Students will use a range of assessment and instructional techniques will collect, analyze and interpret data resulting from the use of these techniques.

EC&I 850 3:3-0

SST Curr Research Survey

A survey of research in social studies curriculum and the conduct of instruction, including studies relating to goals, inputs and outcomes of methodologies.

EC&I 851 3:3-0

Instr Theories SST Education

Discussion and analysis of methodology in the social sciences, the inquiry process, decision making value analysis and the handling of controversial public issues.

EC&I 852 3:3-0

Eval Social Studies Education

Evaluation of program, curriculum, teaching effectiveness and student achievement in social studies. Guided practice in these areas.

EC&I 854 3:3-0

Social & Political Issues in Second Language Education

An examination of social identity, first language maintenance, and power relations, and their impact on the nature of second language teaching. Students gain knowledge about major arguments on these topics and also explore how various theories and perspectives can be incorporated in their own research and practice.

EC&I 855 3:3-0

Theories of Teaching Lit

Literature curriculum and pedagogy (like all curricula and pedagogy) can be seen as cultural constructs originating in ideology. This course will explore the philosophies, theories and beliefs which form the bases for different approaches to the teaching of literature.

EC&I 856 3:0-0

Language & Learning

The study of language and its role in learning. The course examines teacher/student interactions, small group discussions, linguistic organization and knowledge, and the construction of knowledge through language.

EC&I 857 3:3-3

Writing Process and Pedagogy: The Saskatchewan Writing Project

This course focuses on research and theory on literacy development, the writing process and methods of teaching writing. Students use their own writing as a means towards understanding the writing process and the teaching of writing.

EC&I 858 3:3-0

Theories and Research in Second Language Acquisition, Bilingualism & Multilingualism

This course examines current theories and research in second language acquisition, bilingualism and multilingualism and makes connections between this research and the teaching and learning of additional languages. The primary focus of the course is oral language development. Research methodology for studying language acquisition will also be examined.

EC&I 859 3:3-0

Sec Lang Acquis Written

An examination of current theory and research in reading and writing acquisition which informs curricula and pedagogy. Research methodology used to study reading and writing will also be examined.

EC&I 860 3:3-0

Writing Acquis & Pedagogy

An examination of current research and theory which inform curricula and pedagogy. The course will concentrate on emergent writing, pre- and adolescent writing, and writing pedagogy/evaluation. Three research perspectives will also be studied: quantitative, qualitative and linguistic.

EC&I 864 3:3-0

Theories & Research in Pedagogical Grammar

This course examines theories and research in pedagogical grammar, a research domain concerned with how grammar can be taught to second language learners. Topics include linguistic description, teaching methods, designing lessons, choosing materials and understanding learner errors. There will be a focus on integrating grammar into communicative language instructional approaches.

Note: Students may receive credit for one of EC&I 864 or EC&I 871AG.

EC&I 865 3:3-0

Curriculum and Instruction in Second Language Education

Drawing on current theories of second language learning, this course examines second language education in language and content lessons. Topics include the history of second language teaching; issues in pedagogical practice; assessment; curriculum innovation and the design of learning activities and assessment in a variety of settings and programs.

Note: Students may receive credit for one of EC&I 865 or EC&I 871AH.

EC&I 866 3:3-0

Teaching, Learning, and Inquiring in Mathematics Classrooms

Explores the history, current trends, and issues pertaining to the teaching and learning of mathematics in school (elementary and secondary), including the theory and practice of teacher-led inquiry in mathematics classrooms.

EC&I 867 3:3-0

Curriculum Dev Research Math

Critical analysis and review of current research in mathematics curriculum, instruction, and assessment. How philosophical, political, societal, and cultural perspectives shape the key content/big ideas of mathematics curriculum.

EC&I 868 3:3-0

Topics in Mathematics for Teachers

Focus on key concepts and topics encountered in K-12 school mathematics, with emphasis on deep understanding of the mathematics taught in classrooms and implications for curriculum and research in mathematics education. Research, discuss, and design approaches to professional development for mathematics teachers.

EC&I 870 3:3-0

Admin of Arts Education Prog

management and supervision directed towards the improvement of learning in the comprehensive arts education program. Topics include: public relations; trends and issues; democratic leadership, budgets, equipment and space requirements for an arts education program.

EC&I 871 3:3-0

Curriculum and Instruction Experimental Courses

Courses developed by instructors for eventual inclusion as regular courses in the Curriculum and Instruction Subject Area.

EC&I 871AA 3:3-0

Curriculum II - Perspectives, Paradigms and Praxis

This course will connect the experiences of teachers with the lived experience of curriculum. Students will critically examine curriculum from epistemological, political, economic, ideological, technical, personal, ethical and historic standpoints to address the two fundamental questions in curriculum studies: what/who determines content, and how should that content be taught?

EC&I 871AB 3:3-0

Interdisciplinary Curriculum Studies in Outdoor Education

The course combines interdisciplinary curriculum objectives in outdoor education with a qualitative research theory and practice approach. The course provides for interactive, experiential learning opportunities that take

Course Catalogue

advantage of varied curriculum sites. The course engages learners in lived experiences that link to personal and professional development.

Additional Fee: \$250.

EC&I 871AC 3:3-0
Sustaining Well-Being Through Health, Outdoor and Physical Education (HOPE)

The course is designed to address sustainability of well-being as it impacts teaching and learning. Students will learn to consider the various unique and appropriate educative environments that reinforce and heighten awareness of the importance of sustaining well-being through experimental, interdisciplinary and multi-sensory knowledge.

EC&I 871AD 3:3-0
Theories of Children's Literature in Education

This course places children's literature in cultural context by framing it with a number of critical theories currently in use in education. The course engages students in researching uses of children's literature in community settings, and in exploring ways in which children's literature can contribute to education for social justice.

EC&I 871AF 3:3-0
Acquisition des langues premières et secondes et développement langagier

Une introduction à la perspective théorique de l'acquisition de la langue maternelle, de l'acquisition des langues secondes et du bilinguisme. On étudiera de l'acquisition de la phonologie, de la morphologie, du lexique, de la syntaxe et de la sémantique du point de vue du développement des aspects formels de la langue.

EC&I 871AI 3:3-0
Researching Issues in Education through Current Literature

A range of appropriate research literature will be reviewed and applied in the examination of issues in education organizations. The issues can be identified in classroom settings, school organization, school division administration, or other (post-secondary) educational institutions.

EC&I 871AJ 3:3-0
Critical Theory, Curriculum, Pedagogy, and Praxis

This course will consider critical theory as a foundation for transformative pedagogies and practice toward democratic citizenship. Pedagogies that developed out of understanding and challenging critical theory will also be discussed. Students will be encouraged to critically reflect upon their own experiences.

EC&I 871AK 3:3-0
Science Education in Aboriginal Contexts

This course will explore research and related literature concerning issues and best practices in science education and instruction, a leadership focus in science education, and current trends to incorporate Aboriginal ways of knowing in science curricula with particular emphasis on Canada and Saskatchewan and informed international practices where appropriate.

EC&I 871AM 3:3-0
Narrative Inquiry as Pedagogy

This course makes visible practical, theoretical, and methodological roots of narrative inquiry in education. Participants will explore opportunities to draw parallels between their own pedagogies and the foundational underpinnings of narrative inquiry. Participants will write and share their own narratives of teaching and learning.

EC&I 871AN 3:3-0
Sustainability & Mobility: Strategies, Methods, & Engaged Practices

This interdisciplinary course is designed for graduate students interested in K-12 arts education and/or for students interested in theories and ideas for engaging as activists in public art events addressing social/environmental concerns.

EC&I 871AO 3:3-0
Perspectives on Faith-based Education

This course combines methodological, philosophical and experiential approaches to learning from the perspective of various faith traditions. Intended for teachers, administrators and others who work in a diverse, pluralistic context, it seeks to enhance an understanding of these traditions and their respective approaches to teaching and learning.

EC&I 871AP 3:3-0
Curriculum in the Anthropocene

This is an interdisciplinary course designed for graduate students interested in contemporary encounters and theories addressing ecological concerns and activist response through art events and everyday creative practice using Mother Earth as instructive co-designer.

EC&I 871AQ 3:3-0
Land-Based Education and Language Pedagogy

This course will explore how land-based education can inform language pedagogy. This is a language immersion camp which will foster embodied knowing and the holistic aspect of language. Students will work with Elders and Indigenous knowledge keepers to deepen their understanding of language pedagogy and to increase their language fluency.

EC&I 871AR 3:3-0
Approaches to Indigenous Language Revitalization

This course will explore approaches to Indigenous language revitalization. Language learning methodologies and approaches for Indigenous language revitalization will be reviewed and applied to Indigenous community contexts. Through readings and interaction with Indigenous Elders and Indigenous language keepers, students will develop resource materials to support community language needs.

EC&I 871AS 3:3-0
Concepts of Indigenous Spirituality in Education

This course covers indigenous understandings of spirituality in education by exploring the meaning of spirituality from an indigenous world view through language, story, art and relationship to land.

Note: A portion of this course will be on the land and will involve ceremony. Travel will be required.

EC&I 871AT 3:3-0
Trauma Informed Teaching

Examination of how trauma affects the lives of children in schools. Provides teachers and administrators with insights and methods for understanding trauma and helping children resolve trauma experience. Explore ways to make schools trauma informed environments for the benefit of all children to remove obstacles to development and learning.

EC&I 871AU 3:3-0
Contemporary Curriculum Issues in Health Education

This course examines critical and socio-cultural approaches to health education curriculum in the K-12 system. It provides an action oriented framework engaging in alternative ways of thinking about and teaching health education curriculum with a view to challenge oppression and work towards a more just society.

EC&I 871AV 3:3-0
Embodied Performative Curriculum Design

This course will explore methods, in embodied performative curriculum design through experimental investigations, and performance, especially applicable to pedagogical contexts. Students will engage in a series of performances and exhibitions which will emerge from spontaneously constructed narratives and objects as provocations.

EC&I 871AW 3:3-0
Innovating Online Instruction: A Constructivist/Connectivist/Holistic Lens

This course will explore innovations in online education before and during the massive shift to online learning during the Covid-19 pandemic. It will focus on online instruction that expand beyond traditional approaches towards active, experiential, and holistic learning and interrogate the relevance of online / offline education divides.

EC&I 871AX 3:3-0
Creating School Climates of Gender Justice

Recognizing that sexism, heterosexism and cissexism negatively impact and limit all members of school communities, this course explores the work of changing school climates to create greater inclusion and welcome. While individual accommodations continue to matter, the focuses on the systemic changes needed to impact the overall school climate.

EC&I 871BF 3:3-0
Grandes problématiques de recherche en contextes langagiers minoritaires (CLM)

Ce cours explore les grandes problématiques de recherche dans l'enseignement en contextes langagiers minoritaires (CLM). L'étudiante se familiarisera avec trois des problématiques touchant au rôle de la langue dans l'enseignement matières à contenu, à la construction identitaire chez

Course Catalogue

les élèves, et à l'inclusion des minorités. This course explores some of the critical educational research areas in language minority contexts (French immersion schools and Francophone education). Students will depend their understanding of the role of the language in content area teaching, the construction of student identity and the inclusion of ethnic minority students.

EC&I 871CF 3:3-0

Pédagogies inclusives

Ce cours constitue une introduction aux perspectives de l'éducation inclusive ainsi qu'aux problématiques d'inclusion scolaire. On se familiarisera avec des discours des populations scolaires marginalisées, des politiques scolaires et des plans d'études et comment ces derniers pourraient servir à renforcer des discours dominants mais aussi comment ils pourraient faciliter l'inclusion. This course introduces students to a variety of perspectives of inclusive education as well as key issues in inclusive education. Students will explore discourses of oft-marginalized school populations and how curricula can create and reinforce dominant discourses and/or facilitate inclusion.

EC&I 871EF 3:3-0

Enjeux actuels de la didactique du français en milieu plurilingue et minoritaire

Ce cours vise l'exploration des enjeux qui sous-tendent l'enseignement du français en contextes minoritaires, où plusieurs langues se côtoient. Arrimant la psychologie cognitive, la sociolinguistique et la didactique, il amènera l'étudiant à se familiariser avec les travaux de chercheurs en sociodidactique du français.

EC&I 871FF 3:3-0

Exploration critique de la didactique des arts en contexte plurilingue

Ce cours entreprend une exploration critique de la didactique des arts en contexte plurilingue, avec une emphase sur l'art dramatique en contexte minoritaire francophone. Les étudiants examineront les théories qui guident la didactique des arts au Canada, les enjeux en contexte minoritaire et les possibilités et les tensions entre ceux-ci.

EC&I 871GF 3:3-0

La pédagogie du lieu

Ce cours interdisciplinaire en éducation sera axé sur l'apprentissage expérientielle afin de favoriser les réflexions sur nos relations avec le lieu et l'environnement. À travers l'étude de la pédagogie du lieu ainsi que les philosophies autochtones, nous nous intéressons à la prise en compte de l'importance du lieu et comment vivre en harmonie avec tous les êtres humains et plus-que humains.

EC&I 872 3:3-0

Aesthetics of Music Education

Theoretical components of musical aesthetics and their relationship to music education. Topics include comparisons of aesthetics theories, aesthetic values in music education, levels of musical understanding; and teaching suggestions on values, judgements, perception.

EC&I 873 3:3-0

Hist & Phil of Music Educ

History of music education from the 18th century to the present including traditions, trends, innovations, and changes in the field. Philosophical aspects include a basic rationale, study of values and assumptions, and criteria for evaluation.

EC&I 874 1-15:0-0

Arts & Music Education

Individual study projects related to music education, arts education, curriculum, and performance standards in relation to arts education and community attitudes toward the arts.

EC&I 874AA 3:3-0

Contemporary Ideas in Arts Education

The course will focus on contemporary issues and ideas in Arts Education and will enable students to focus on their specific arts discipline and how it relates to both the aesthetic experience, as well as education and teaching.

EC&I 874AB 3:3-0

The Impact of Artists' Communities on Arts Education

This individual study project will focus on historically important communities of artists that have shaped the consciousness of society at large, and their impact on arts education.

EC&I 874AC 1-15:0-0

Embodied Inquiry: The body as "site of research"

This course explores the critical discourse on "body as site of research" and the implications in the context of contemporary curriculum inquiry. We will actively interrogate the various ways the body has been inscribed by political, social, and cultural factors through examples of arts practices both historical and current.

EC&I 880 3:3-0

Enjeux relatifs à la réussite des élèves autochtones en SLM

Ce cours se donne en ligne et vise à sensibiliser à l'enseignement et à l'usage d'approches pédagogiques intégrant d'autres types de savoirs, savoir-faire, savoir-être et savoir-devenir du patrimoine canadien. Son objectif ultime est de répondre à l'appel à l'action de la Commission sur la vérité et réconciliation (CVR).

Note: Students may receive credit for one of EC&I 880 or EC&I 871DF.

EC&I 890 3:3-0

Curriculum & Instruction Directed Reading Courses

Courses developed by instructors as directed reading courses in the Curriculum and Instruction Subject Area

EC&I 890AA 3:3-0

Language, Literacy, Race, and Power in Elementary Classrooms

Most White students in Saskatchewan have a social and educational advantage: they speak a variety of English valued by schools. Many First Nations children are disadvantaged: they speak a different variety of English. This course examines the nature of linguistic diversity, its implications for literacy, and its social consequences

EC&I 890AB 3:3-0

Discourses of Teaching: An Archaeology/Genealogy of Instruction

This course is an in-depth study of past/present discourses of teaching/instruction with a focus on creating an archaeology/genealogy of instruction. Students will survey and analyze scholarly literature on a) instruction, b) reconceptualist theories, and c) theory and practice to reconceptualise instruction.

EC&I 890AC 3:3-0

Aboriginal Word View and Education

This course will focus on the development of aboriginal education in Canada and provide an understanding of aboriginal world view to critique the development of aboriginal education, particularly in Saskatchewan. The course will provide students with historical and cultural understanding to enable more meaningful education experiences for aboriginal students.

EC&I 890AD 3:3-0

Understanding Anti-oppressive Health Education

This course examines the literature that focuses on ways in which anti-oppressive health education manifests in middle and high school settings. There will be a specific focus on the problems, promise and power of inclusive health education curriculum to engage students in identity building and social connectiveness.

EC&I 890AE 3:3-0

Menarche: the Information Transmission System

The purpose of this course is to examine the ways in which information regarding women's experiences with menstruation is constructed and transmitted. Using a feminist lens, issues related to women's access to reproductive knowledge will be explored.

EC&I 890AF 3:3-0

In the Spirit of the Studio with Open Studio in Education

This course researches the Reggio Emilia Approach (REA) to Early Childhood Education and the Open Studio Approach to Art Therapy to look at how these two concepts /ways of working with the creative arts and creative process are complementary, or at odds, in a preschool setting.

EC&I 890AG 3:3-0

Critically Examining Ethical Issues in Education

This course will analyze the concept of ethics and examine ethical principles in an educational setting. Emphasis will be placed on the ways ethics affect thinking, decision making, and professional conduct. The student will analyze various situations within an ethical context.

EC&I 890AH 3:3-0

Re/Acting to Arts Education Process through Practice

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How does the Saskatchewan curriculum view process? This course will examine the Arts Education components of Creative/Productive; Cultural/Historical and Critical/Responsive through an art-making project. Students will develop a collaborative online process to incorporate responses to the art as it is created, and to reflect upon practice.

EC&I 890AI 3:3-0
Critical Literacies and Teaching English as an Additional Language
Teaching English as an additional language (EAL) can prepare adult newcomers for full and active citizenship. This course provides readings in critical applied linguistics, and in literacy education as part of community development. It will emphasize pedagogies for teaching literacies and multi-literacies that are critical, participatory, arts-based, and transformative.

EC&I 890AJ 3:3-0
Theory and Research in Contemporary Social Studies
This course examines current theory and research in contemporary social studies education. The course will consider how students are produced in, and through, social studies curriculum and teaching. Critical race theory, post-colonial theory, and post-structural theories of subjectivity will be considered as they inform thinking about social education.

EC&I 890AK 3:3-0
Curriculum Implementation of Aboriginal Knowledge through Work with Elders
This course will examine how teachers can work with Elders in the implementation of Aboriginal knowledge in their classrooms. Through readings and focused conversations with selected teachers, students will document and analyze effective practices of the inclusion of Elders and their knowledge in school programming.

EC&I 890AL 3:3-0
Survey of Research in Arts and Music Education
This course will provide an overview of research in the field of Arts Education, particularly as it relates to the teaching of elementary and secondary music in Saskatchewan schools.

EC&I 890AM 3:3-0
Experiential Learning: A Historical Perspective
This course will create a historical framework of experiential learning. Major theories and research landmarks will be identified and explored. Although the course will focus on a time line of theoretical development, explanations of experiential learning theory will be covered.

EC&I 890AN 3:3-0
Exploring Educational Pathways to Well-Being
This course will explore learning that reflects the current and possible future needs related to sustaining well-being by considering contemporary education curriculum theories as a basis of study.

EC&I 890AO 3:3-0
Art-based Enquiry
This course explores the perspectives, methodologies, examples, and issues of Art-based Enquiry.

EC&I 890AP 3:3-0
Differentiated Instruction
This course will examine the current research, literature, and practice in the area of Differentiated Instruction.

EC&I 890AQ 3:3-0
Teacher Wellness and Opportunities to Enhance Pedagogical Success
A literature review and application of research related to "teacher wellness" as it relates to a strategic planning process of education reform as a means of assisting in the transformation and revitalization of both the school system and individual teachers.

EC&I 890AR 3:3-0
Research Methodologies in Dance and the Body
A critical examination of research methodologies in dance performance and creation. In particular, the use of dance to explore knowledge and meaning of the body and dance.

EC&I 890AS 3:3-0
Understanding Wellbeing through Practice: Living an Integral Approach
This course will provide an opportunity to put into practice theories of wellbeing. This experience will draw from research by Otto Scharmer, Ken

Wilber, Peter Senge. The experiences will put theory into practice and through a reflective journal explore the processes involved in living an integral approach to life.

EC&I 890AT 3:3-0
Multiple perspectives & layered practices: illuminate "lived experience" in Dance
This course focuses on related readings and methodologies for dance research that start with human experience (phenomenology, autobiography, autoethnography, and humanistic sociology) as the generative ground of meaning making.

EC&I 890AU 3:3-0
Research Seminar in Current Curriculum Issues
This seminar will bring together graduate students who are individually and collectively inquiring into practical curriculum issues. Students will engage in inquiry into their practices, supported through examination of theory and practice related to their particular focus area.

EC&I 890AV 3:3-0
The History of Dance for the Disabled Body
A review of the history of theatrical and educational dance for the disabled body. In particular, a review of the issues related to the body and the acceptance and rejection of the 'other'. Who dances? How and when has the disabled dancer been involved in performances?

EC&I 890AW 3:3-0
Narrative Identity of Children and Youth
This course explores the stories of children and youth in and out of conflict with self, others, and societal forms. This course investigates notions of resilience, racism, violence, social justice, safe schools, and family through the narratives of children and youth.

EC&I 890AX 3:3-0
Differentiated Instruction as Applied to the Secondary School
Differentiated instruction is a philosophy of teaching in which the teacher recognizes the diversity in students and is responsive to their varying levels of readiness, unique interests, and distinct learning styles. The course will focus on methods to introduce and develop differentiated instruction practices in teacher education based on the Thomlinson model (2003) and apply these practices at the secondary level.

EC&I 890AY 3:3-0
Pedagogical Issues in Public School
In examining the role of dance as a valid area of learning in public school education, one that is recognized as academic and not just as personal or public recreation, how does the teacher assist in the development of a critical pedagogy of difference?

EC&I 890AZ 3:3-0
School Readiness: What's the Story?
This course will explore literature, practice and perceptions of the notion of "school readiness". Through a survey of current literature, curricular documents and teaching praxis: the student will come to a deeper understanding of the changing perceptions of school readiness and the effect on child development and learning.

EC&I 890BA 3:3-0
Documentation: Process vs Product in Early Childhood Education
This course will explore literature, practice and perceptions of the notion of Documentation as performed through the Reggio Emilia Approach to ECE; it will also provide the student the opportunity to implement and explore the documentation process and the relationship with assessment and emergent curriculum.

EC&I 890BB 3:3-0
Generalist Teachers of Dance Living in the In-between
This course will explore how French Immersion teachers deal with the revised arts education curriculum by considering the pedagogical, artistic, and linguistic spaces they are required to negotiate. Content will be framed around Aoki's musing about the in-between spaces teachers necessarily inhabit in curriculum as lived and curriculum as planned.

EC&I 890BC 3:3-0
Activism for School Leaders
In spite of the overwhelming evidence of hierarchies of social inequality in schools, there is little direct instruction provided for school leaders to address these issues. This course investigates the potential for school

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leaders to plan for and address the moral challenges of equity within institutions of schooling.

EC&I 890BD 3:3-0

Creative Dance Pedagogy: Theory and Practice

As physical movements are external representations of internal events, this course will focus on the significance of creative dance, its intellectual and emotional impact. The course will also examine the theoretical and practical justifications for the inclusion of creative dance in the experiences for students in the education system.

EC&I 890BE 3:3-0

The Socialization of Physical Education Teachers: An exploration of pre-service teacher education...

Discussion of issues and research surrounding various Physical Education Teacher Education programs, PE teacher induction into the school systems, and PE teacher socialization with regard to teaching pedagogy, philosophy and implementation of program.

EC&I 890BF 3:3-0

The Artist Within: Fine Arts Alternatives for Students with Developmental Disorders

This course will examine fine arts curriculum in context of students with pervasive developmental disorders and other cognitive disabilities. Through the theoretical lens of disability studies in Education (DSE) students will learn how the arts may be implicated and expressed in standard fine arts curricula and beyond the usual curricula.

EC&I 890BG 3:3-0

Exploring Feminism and Gender Politics through Narrative Inquiry in Curr. Devel

This course explores feminist perspectives on gender/sexual difference in curriculum development. Students enquire into the political context in which gender and feminism have become fused, seek connections for narrative enquiry regarding postmodern voices, and challenge the notion that the gender systems frame alone addresses feminist issues in curriculum development.

EC&I 890BH 3:3-0

Exploration and Critique of Blended Learning in K-12 and Post-Secondary

This class will explore the history and evolution of Blended Learning, the advantages and disadvantages of a blended learning approach, and best practices in Blended Learning.

EC&I 890BI 3:3-0

Researching Family Literacy Programs and Their Impacts

In this course students will explore the research on Family Literacy. Students will look at the impact of these programs on families. Students will look at the challenges to implement Family Literacy programs and generate potential solutions.

EC&I 890BJ 3:3-0

A Review and Analysis of Critical Theory: Understanding Food Choice in Iqaluit

The objective of this course is to explore critical theory and apply these concepts to a critique of the Food Choice Process Model and Critical Population Health Framework in Iqaluit.

EC&I 890BK 3:3-0

Cultural Studies and Education

Inquiry into the interdisciplinary study of contemporary culture including theories of cultural production, representation, reception, the effects on identities, and the implications for teaching and learning.

EC&I 890BL 3:3-0

Islamic schools in Western societies: Why students choose faith-based schooling

Issues related to Islamic and faith-based private and publically funded schools in North America will be explored in the professional literature. The focus will be motivations of students, parents and school officials for sustaining such schools.

EC&I 890BM 3:3-0

Play and Autism: The Unexplored Relationship

This course will explore the dominant discourse of autism in early childhood settings and interrogate the notions of play within that discourse.

EC&I 890BN 3:3-0

The research and critical review of dance curricula for private and public settings

The course will focus on the dance curricula available to students in both private and public settings with particular reference to appropriate content and focus for those curricula. A critical review of available curricula will be included with recommendations for amendments and/or change.

EC&I 890BO 3:3-0

Assessment & Evaluation of Resources for Sask K-12 Physical Education Curriculum

The course will focus on a review of the literature related to the assessment and evaluation of learning resources created for Saskatchewan K - 12 Physical Education curriculum. The course will also cover creation of selection criteria and template design, and will explore and further the learner's understanding of copyright issues.

EC&I 890BP 3:3-0

Creating Success for Gifted & Talented Students in the Regular Classroom

This course will examine curricular interventions for students identified as gifted and talented, and will focus on teaching practices centered on current research models in this field.

EC&I 890BQ 3:0-0

Physical Education Pedagogy: Exploring Possibilities

This Directed Reading course will explore the literature associated with the mentoring process, more specifically in the Physical Education context. This search will allow for gaps to be identified and provide a foundation and framework for understanding mentoring and its possibilities for further study in a practical teaching situation.

EC&I 890BR 3:3-0

Anishinabe Ways of Knowing (Epistemology)

This course will explore the Anishinabe worldview in the context of First Nations epistemological writings. Student(s) will examine, describe, and compare/contrast Anishinabe ways of knowing and understanding with Western ways of knowing and understanding.

EC&I 890BS 3:3-0

Development of Curriculum

This course considers key concepts in curriculum design, theories of curriculum and practical aspects of planning, implementation, evaluation and research.

EC&I 890BT 3:3-0

Methodological Approaches to Visual Art and Indigenous Pedagogical Practices

This course examines the use of Indigenous pedagogical practices and epistemologies in regards to contemporary visual art processes at the secondary level of education. The student will investigate Qualitative and Indigenous pedagogical approaches to visual art and present/propose a suitable project to implement at a First Nations school.

EC&I 890BU 3:3-0

Applications of Discourse Analysis in Environmental Education Research

This course examines applications of discourse analysis in environmental education research grounded in feminist poststructuralist socio-ecological and critical perspectives as world view.

EC&I 890BV 3:3-0

Short History of Curriculum Theory and Development

This course will introduce the student to Curriculum Theory and Development within a historical framework from the late 19th century to the beginning of the 21st century.

EC&I 890BW 3:3-0

Neuroplasticity and Learning

This course will look at current issues in neuroplasticity and learning, specifically in the areas of childhood, adolescence, and rehabilitation.

EC&I 890BX 3:3-0

Treaties, Treaty Education, and Critical Theory

Currently in Saskatchewan all courses in K-12 public education include Treaty Education. Although there are several possible pedagogical approaches, Treaty Education in this course is viewed through an

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emancipator lens. Therefore this course will explore Critical Theory, the history of treaties, and contemporary research in this area.

EC&I 890BY 3:3-0
Indigenizing Outdoor Education: Introduction to Indigenous knowledge and "the land"

Indigenous education practices can be enhanced by the use of experiential, outdoor learning in the context of treaty lands or in First Nations communities. This course is designed to explore the ideas of decolonizing and indigenizing outdoor education. Models specific to learners in Canada will be explored.

EC&I 890BZ 3:3-0
Special Topics in Communication: Media Education

This course will look at current issues in media and education, specifically in the areas of children and the media, educating the public, and media literacy.

EC&I 890CA 3:3-0
Critical Review of Anti-bully Research and Curriculum in Elementary Schools

The primary purpose of this course is to critically evaluate research and theory on bullying and victimization in elementary students. This course will also examine evidence-based intervention strategies, particularly those anti-bully programs related to school health and Arts Education curriculum.

EC&I 890CB 3:3-0
The Implications of Creating Communities and Curriculum Making

This course will allow students to enquire into literature that has begun to reconceptualise discourses around curriculum. In particular, students will think deeply about in-school spaces, out-of-school spaces, school curriculum making, familial curriculum making, and the bumping places between these spaces.

EC&I 890CC 3:3-0
Readings in Modern Education Theories and Practices

This course will examine recent academic currents in Education. Specific theoretical positions will be reviewed to forge connections with classroom practices.

EC&I 890CD 1-3:3-0
Indigenous Student Narratives for Teaching

Based on a consideration of related research, curriculum materials to support the teaching of Indigenous content imbedded in the "Teaching Treaties in the Classroom" resources will be developed for alternate delivery. The culturally responsive pedagogy and research that supports the Te Kotahitanga project will guide material development.

EC&I 890CE 1-3:3-0
New Materialism and Education

This course will explore the ideas of New Materialism and its relevancy within educational research and practice.

EC&I 890CF 1-3:3-0
Technology and Student Engagement: Personalizing the Learning of Students

This course will explore the concept of student engagement and its relationship to technology in the literature and in practice. In particular, the content will deal with personal learning environments/networks, how students develop them, and implications for student learning.

EC&I 890CG 3:3-0
Literacies for Social Justice: Critical Multicultural Literacy Education
This course will focus on surveying and critically analysing the scholarly literature in language and literacy education for students from marginalized and minoritized communities.

EC&I 890CH 3:3-0
Contemporary Participation and Perspectives in Teacher Ed Practicum
A review of current participatory, interdisciplinary, practices, perspectives, and methodologies in teacher education practicum (pre-service teacher education and internships).

EC&I 890CI 3:3-0
Theories of Writing Assessment

This course focuses on current theories, research, and practice in the assessment of writing. Topics include writing constructs, task design, and scoring procedures.

EC&I 890CJ 3:3-0
Investigating Current Technology Integration in Science Teaching and Learning

This course will investigate appropriate technology integration of current tools and resources applied to teaching and learning science in a secondary science classroom.

EC&I 890CK 3:3-0
Culturally Responsive Literacy Education
This course focuses on developing, understanding, and practicing culturally responsive literacy education with minoritized students.

EC&I 890CL 3:3-0
Critical Theory and the Problems of Curriculum
An exploration of critical theories and their relevance to the understanding of current curricular issues.

EC&I 890CM 3:3-0
Theoretical Foundations of Language and Literacy
This course focuses on the theoretical underpinnings and research methodology of language and literacy education using postcolonial and feminist theory.

EC&I 890CN 3:3-0
Interpersonal Connectedness: A Means to Increase Mental Health and Wellness in Adolescence

This course will explore literature that centers on interpersonal connectedness, the power of storytelling and vulnerability. More specifically the connection between interpersonal connectedness and an adolescent's ability to improve functioning and a sense of belonging in schools.

EC&I 890CO 3:3-0
Experiential Learning Out-of-Doors: Influencing Student Wellness
This course will explore Outdoor Education literature that centres on the physical, mental, spiritual, and social dimensions of learning. More specifically the connection between nature and the renewal of self through out-of-door experiential learning will be a focus.

EC&I 890CP 3:3-0
Investigating Integration of Culture in a Science Classroom
The course will investigate the importance of culture in the classroom and look at ways to transform ones teaching practices to become culturally inclusive.

EC&I 890CQ 3:3-0
Connecting with Educational Leaders through Social Media
This course will explore the current uses of social media by educational administrators and leaders, and examine the issues facing education today.

EC&I 890CR 3:3-0
Identification, participation et sens d'appartenance des immigrants en SLM
Ce cours a pour but d'explorer les recherches actuelles de participation, identification et sens d'appartenance en milieu communautaire au sens en general mais aussi avec un accent particulier sur les immigrants et les citoyens de longue date des communautés linguistiques minoritaires.

EC&I 890CS 3:3-0
Theories in Embodied Performative Curriculum Design
This course will explore theories in embodied performative curriculum design through readings, discussions, and critical responses to performances and exhibitions. The focal points for the course will be to explore phenomenology and "thing theory". This work will result in a series of concrete recommendations and suggested applications for pedagogical contexts.

EC&I 890CT 3:3-0
Studio Investigations in Embodied Performative Curriculum Design
This course will explore methods in embodied performative curriculum design through studio investigations and performance. Through spontaneously constructed narratives and the integration of objects as triggers, this work will result in a series of performances and exhibitions.

EC&I 890CU 3:3-0

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Knowledge Needed to Teach and Learn Mathematics

This course considers the question "What kinds of knowledge are needed to both teach and learn mathematics?" Students will explore theory and research about the kinds of knowledge that have been identified as essential for both teachers and learners of mathematics. International as well as national research will be emphasized.

EC&I 890CV 3:3-0

Theories of Instructional Design and Technology

This course will examine theories relating to the fields of instructional design and technology, including learning theories, historical timelines, current issues, and possible future directions. An emphasis on social change and anti-oppressive education will be included.

EC&I 890CW 3:3-0

Programmation Inclusive

Students will explore a variety of readings on both theoretical approaches which can inform development of K-12 units of study as well as on practical strategies for inclusive unit planning. Students will demonstrate understanding of how to develop and adapt to a diversity of student needs and ways of being.

EC&I 890CX 3:3-0

Perspectives sociologiques et politiques sur l'immersion française

Ce cours donne un aperçu de l'immersion française dans des contextes sociaux et politiques où le français est une langue minoritaire. Supplémentaires, les cours offrent la possibilité d'identifier de manière critique les pratiques fondées sur des données probantes qui contribuent à renforcer l'affect et la compétence en français.

EC&I 890CY 3:3-0

Understanding Mental Health and Anxiety in Middle Schools

This course focuses on how Comprehensive School Health provides a framework to guide teachers as they support middle years students experiencing mental health issues, particularly anxiety.

EC&I 890CZ 3:3-0

Advanced Orff-Schulwerk Pedagogy

Advanced study of Orff-Schulwerk Pedagogy. Students will research the history of the pedagogy and explore its application within the context of today's music education classrooms.

EC&I 890DA 3:3-0

Theory & Practice of Online Facilitation & Instruction

Common and emerging instruction practices related to the facilitation of online courses. Uses a socio-historical perspective to examine innovations in distance learning from correspondence schools to Massive Open Online Courses (MOOCs).

EC&I 890DC 3:3-0

Understanding the Discourse Historical Approach in Mental Health

This course focuses on how the Discourse Historical Approach (DHA) contributes to the analysis of mental health discourse where specific texts are produced, including intratextual, intertextual, situational, and socio-political contexts.

EC&I 890DD 3:3-0

Integrating Technology into Classroom and other Educational Contexts

This course will explore the current uses of educational technology. Students will be required to identify and describe a particular subject area (e.g. social studies, ELA, physical education) and context (e.g. high school, middle years, team teaching) and then examine the tools, apps, and resources that can be meaningfully integrated.

EC&I 890DE 3:3-0

Curriculum and Practice of Worldliness: Travels between the Subjective and the Social

This course is designed for the study of ways for providing passage to the solitude of cultivating identity while attending to one's social engagement in the world. Image-based research and creative practices will be used to investigate the self that emerges in the stories, images and documents one creates.

EC&I 890DG 3:3-0

Indigenizing Language Teaching

This course will explore Indigenous methodology and theories related to language pedagogy.

EC&I 890DH 3:3-0

Academic Writing in English as a Foreign Language

This directed reading course will offer an overview of concepts, theories and approaches of writing instruction to English as a foreign language students at the tertiary level. Theories of identity and writing will inform methods and strategies for planning, implementing, and assessing writing. Special emphasis will be put on ensuring academic writing success for English language learners (ELs) in China.

EC&I 890DI 3:3-0

Women in Educational Leadership

The course focuses on the literature of Motherhood studies in the context of women's career trajectory and leadership in the field of Education. The readings include feminist theory and women's narratives, which will be examined in relation to the course topics.

EC&I 890DJ 3:3-0

Differentiated Instruction in the Elementary French Immersion Classroom

This course focuses on the three major types of differentiation based on retention, readiness or motivation. Students will investigate preparation, high impact differentiation strategies and materials. Students will be required to research in the areas of ELA instruction, special needs, heritage language and mainstream student populations.

EC&I 890DK 3:0-0

L'identité en contexte minoritaire

The goal of this class is to allow the student to deepen and update his understanding of the concept of linguistic identity. The student will learn more about the identity definition, develop a literature review of its role related to second language (French) acquisition in a Saskatchewan minority context.

EC&I 890DL 3:0-0

Natural Playscapes: Possibilities for (Re)creating School Curriculum

The directed reading course will explore how Natural Playscapes can enrich the teaching/learning process associated with curriculum. More specifically, the course looks at how the design of Playscapes can inform the "Big" ideas related to Goals of Outdoor Education namely; experiential learning, interdisciplinary, multisensory and unique teaching/learning environments.

EC&I 890DM 3:0-0

Integrating Technology into Core French Education

Examine ways of incorporating technology into Core French education by using a variety of digital tools, apps and resources. Does technology in these settings benefit teachers and students? Is there a benefit to incorporating technology in this setting? Does technology assist in the development of learning a second language?

EC&I 890DN 3:0-0

Effective Teaching of Mathematics in the K-12 System

This course will investigate different approaches to the teaching and learning of mathematics. Included in this exploration will be consideration of the benefits of the approaches and the work required of the teacher to implement them.

EC&I 890DO 3:0-0

Advanced Orff-Schulwerk Pedagogy

Advanced study of Orff-Schulwerk Pedagogy. Students will research the history of the pedagogy and explore its application within the context of today's music education classrooms.

EC&I 890DP 3:0-0

Curriculum Development Texts, Politics and Ideologies

Working within the Canadian context and beyond, both past and present, this course explores the content and ideology of school curriculum and related discourses, analysing the impact of political and economic influences.

EC&I 890DQ 3:0-0

English Language Education in China's Higher Education

This course provides a comprehensive examination of current issues in English language education in China's higher education. A guided research project will be conducted. The focus will be on emerging research questions and implications for theory, practice, and policy.

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EC&I 890DR 3:0-0
Theory and Practice of Global Citizenship Education
Global Citizenship Education is a response to the interconnected challenges of global inequality, poverty and human rights abuses, seeking to connect students with more global understandings of how and what they might do to live as global citizens. This course will explore both theoretical articulations of global citizenship education.

EC&I 890DU 3:0-0
Theoretical Perspectives on Family Engagement in Elementary Schooling
This course explores the intersections between theory and practice in scholarship on the topic of family engagement in elementary schooling. The topic will be from various theoretical perspectives such as sociocultural theory, social theory, critical pedagogy, ecological systems theory, and new materialisms.

EC&I 890DV 3:0-0
Multiliteracies and Multimodalities in the 21st Century
Rapid advances in technology have impacted the possibilities and limitations of representation and communication and the competencies required to make and interpret meaning. This course investigates the theoretical and pedagogical implications of this digital turn, inquiring into the literacies and modalities for education in the 21st century.

EC&I 890DW 3:0-0
Indigenous Educational Resource Evaluation
This course will examine and evaluate the instructional resources used for Indigenous Education. It is an in-depth review of the principles, practices, and content used for the development and implementation of Indigenous Education school resources.

EC&I 890DX 3:0-0
Exploring the Educational Relevance of Digital Tools in Middle Years
This course will review and critically analyze if and how educational technology resources (software, apps, etc.) can be integrated meaningfully into a Sask. grade 5/6 classroom. The course will involve both an extensive literature review and hands-on experimentation/application.

EC&I 890DY 3:0-0
Outdoor 'Place-based' Education (Re)creating School Curriculum
This directed reading course explores how Outdoor 'Place-based' Education can enrich the teaching/learning process. More specifically, the course explores traditional ways of knowing and First Nations ways of knowing and their influence on teaching and learning that transcends the boundaries of traditional classroom walls and enriches curriculum 'experiences?.

EC&I 890DZ 3:0-0
Learning Technology and Ability in the Mathematics Classroom
This course explores theory and practice related to the intersections between technology, ability and the learning and teaching of mathematics.

EC&I 890EA 3:0-0
Digital Game-Based Learning
Digital-games have the potential to support student learning in the 21st century. This course investigates digital game-based learning as a pedagogical approach, inquiring into the theoretical and practical underpinnings of using digital games for learning, examining the scholarship on play, games, and game cultures.

EC&I 890EB 3:0-0
Accompagnement des gestionnaires du changement en contexte francophone pluriel
This course will engage the student in an exploration of how to support educational leaders engaging others in a change process focussed on wellness and educational success for all within the specific context of Francophone Canada, both in Quebec and in official language minority contexts, in all its diversity.

EC&I 890EC 3:0-0
Using Art and Culture in Indigenous Language Revitalization and Acquisition
This class explores the intersection of art, culture and language in Indigenous language acquisition and revitalization and how each is reflective of one another and deeply interconnected. It will demonstrate how art, culture and language can be used to foster and promote language learning.

EC&I 890ED 3:0-0
L'accompagnement et le leadership des femmes en éducation
This course will engage the student in an exploration of 1) strategies educational leaders can use to accompany in a socio constructive manner those who they supervise; and 2) models and styles of leadership, used principally by women in education, with a particular focus on women principals

EC&I 890EE 3:0-0
Object/Body/Story: Integrating Movement and Sculpture
This course is a directed study investigating the relationship between object, body and story in three-dimensional art practice. The student will research ways in which embodied movement and performance can inform and/or enhance a sculpture-based practice through directed readings, reflective writing and improvisational exercises.

EC&I 890EF 3:0-0
Islamophobia and the Experience of Muslim Students in Schools
Understanding Islamophobia, particularly as it is enacted in schools through curriculum/pedagogy, is necessary to working against it in order to positively impact the lives Muslim students. This course will explore theoretical articulations of Islamophobia in schools, as well as engaging with a wide representation of the experiences of Muslim students.

EC&I 890EG 3:0-0
Exploring Professional Teacher Development and Culturally Relevant Teaching
This course will contribute to the student's understanding of professional teacher's development, including the topics of: teacher education, teacher agency, culturally responsive and culturally relevant pedagogies, critical pedagogies, and professional learning communities.

EC&I 890EH 3:0-0
Explorations of Objects as Metaphors Towards the Investigations of Educative Relations
This course will help the student to develop as an attentive embodied teacher and to support the student as they carry out practice-oriented inquiry. The student will engage in activities, readings, discussions and dialogues related to teaching through inquiry and to enable the student to become better at noticing and interpreting meaningful moments and patterns within and across embodied inquiry activities in relation to objects.

EC&I 890EI 3:0-0
Curriculum Design Through Transmediated and Artful Modalities
This course will explore the literature and key people who are working within transmediated and artful modalities with curriculum design and with a particular focus on interdisciplinarity.

EC&I 890EJ 3:0-0
Towards A Critical Pedagogy Of Place In Higher Education
An overview of the implications of a critical pedagogy of place for leaders in higher education.

EC&I 890EK 3:0-0
Understanding Social and Emotional Learning in Elementary Contexts
This course considers key concepts involved in theorizing about social and emotional learning (SEL) and the forces shaping social and emotional curriculum design and current implementation trends in elementary classrooms.

EC&I 890EL 3:0-0
Decentering and Decolonizing Educational Administration in Higher Education
The focus of this graduate level three-credit independent reading course will revolve around theory and practice as it relates to the development of educational administration and management in higher education contexts with a specific focus on how it has been shaped, and structured by its colonial history.

Note: Students may receive credit for one of EC&I 890EL or ED 890GS.

EC&I 890EM 3:0-0
Critical Reviews of Selected Technology Integration Models
This course introduces students to a variety of technology integration models including SAMR, TPCK, LOTI, TIM & Triple E. The course examines the method of integration at various stages of K-12 education and offers critique on the philosophical and pedagogical foundations.

Course Catalogue

EC&I 890EN **3:0-0**
Critical and Post-structural Theories in Health Education
 This course will compare a critical socioecological perspective (Fitzpatrick) with a Deleuzian and Guardian approach which theorizes health as emerging and decentred. Using the concept of assemblage (Deleuze and Guattari), there will be an analysis of the connections and forces that produce realities and subjectivities related to health education.

EC&I 890EO **3:0-0**
Blackness as Presence: Toward a Critical Pedagogy of Centering Black Students in Early Childhood Ed
 This directed study course will overview a number of theoretical and methodological perspectives that centre young Black students in education. It will provide opportunities to question, unpack, and interrogate existing Eurocentric structures that perpetuate the marginalization of young Black students, families, and cultures in education.

EC&I 890EP **3:3-0**
Land-Based Pedagogies for Forest Schools: Indigenous & Black Perspectives
 This directed study course will explore ways kindergarten forest schools can learn from Indigenous and Black nature-based approaches in ways that attend to and honour difference. It will provide opportunities to explore how kindergarten forest schools might incorporate, embed, and be reshaped by educational perspectives from Indigenous and Black scholars and worldviews.

EC&I 890EQ **3:3-0**
Advanced Studies in Classroom-Based Assessment
 This course examines and explores research and practice around contemporary approaches to classroom-based assessment. Students will be provided the opportunity to explore issues relevant to their area of research/research interests.

EC&I 890ES **3:0-0**
Research About and Researching In STEM Education
 This course focuses on the quickly broadening field of STEM education. It consists of a survey of the existing literature of STEM education, researching of the learning frameworks used in the literature, and critiquing the research methodologies and methods employed in this field.

EC&I 924 **3:3-0**
Issues in Curriculum Theory
 This course will consider issues central to the understanding of curriculum as it relates to current educational settings.

ECON	Economics
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ECON 700 **0:15-0**
Mathematics for Economics and Basics of Data Management
 This non-credit course is a primer for the theory and econometrics courses. Intensive Mathematical Economics review starts in the first week of September. The Basics of Data Management workshops are held throughout the semester and focus on applying a structured approach to data analysis using case studies. Marked as pass/fail.

ECON 801 **3:3-0**
Microeconomic Theory for Public Policy
 The microeconomic tools needed for public policy analysis. Students are introduced to the economic approach to the study of human behaviour. Special emphasis will be placed on the study of the circumstances under which markets achieve, or fail to achieve, an efficient allocation of the economy's resources.

ECON 802 **3:3-0**
Macroeconomic Theory for Public Policy
 This course introduces the major policy questions of macroeconomics and presents macroeconomic models to assist policy development. An emphasis will be placed on current policy issues including monetary policy, fiscal policy, currency regimes, productivity and growth, demographic patterns and fiscal sustainability.

ECON 824 **3:3-0**
Econometrics and Data Analysis
 Students will perform applied econometric analysis and use various econometric methods. During the course of the semester, the student will deal with various estimation techniques suited to different economic models and types of data.

ECON 830 **3:3-0**
Policy Analysis and Evaluation
 Through extensive use of examples from various policy fields, the study of the art and science of applying economic principles and quantitative techniques in the provision of policy evaluation and advice. The course combined with ECON 824 serves as the gateway to the student's research project in ECON 900.

ECON 832 **3:3-0**
Tax Policy and Fiscal Federalism
 An economic approach is applied to topics such as the structure and economic impact of personal, corporate, sales, and property taxes, natural resource royalties, the division and coordination of tax bases between levels of government, tax competition, equalization and other intergovernmental transfers, the Social Union Framework Agreement, and international (inter-jurisdictional) tax issues.

ECON 835 **3:3-0**
Economics of Public Safety
 Students will learn analytical methods in economics and apply these methods to problems related to crime and criminal justice system. Major topics include measuring the costs of crime and economic evaluation of crime and crime prevention policies. The emphasis will be placed on the review of empirical studies and policy applications.

ECON 880 **3:3-0**
Research and Writing in Economics for Public Policy
 Students will focus on a public policy issue and make this the focus of a number of research and writing assignments including public presentations, ministerial briefing notes, research and grant proposals and a research paper. This will serve as a stepping stone for their research project.

ECON 890 **3:3-0**
Special Topics
 This course will allow students and faculty to work together to develop a course of readings and/or other work to allow the student to develop specialized knowledge in an area not currently offered as a standard course.

ECON 895 **3:3-0**
Directed Readings
 This course will allow students and faculty to work together to develop a course of readings to allow the student to develop specialized knowledge in an area not currently offered as a standard course.

ECON 895AG **3:0-0**
Economics of Cannabis
 This course will cover the economic determinants of cannabis demand and/or supply. Topics covered may include behaviour around the consumption of cannabis, substitutability between legal and illicit cannabis, optimal pricing strategies given taxation policies and externalities, and the impact of regulation on supply.

ECON 900 **1-9:3-0**
Research Project in Applied Economics
 The student will conduct a faculty-supervised research project, typically involving empirical work or critical analysis of an applied economic problem. The student will be required to present preliminary work and the final project at department seminars. The project will be presented and evaluated according to Faculty of Graduate Studies procedures.

ECON 901 **3:15:0-0**
Thesis Research
 Thesis research.

ED	Education
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ED 800 **3:3-0**
Intro to Education Research
 Introduction to educational research with an emphasis on reading research and understanding the research process. Topics include the nature of research, current issues in educational research, a variety of basic types of research and research designs, the literature review, critical reading of and interpreting of various types of research.

ED 801 **3:3-0**
Educ Stats & Research Design

Course Catalogue

An introduction to experimental design and to the statistical analysis of data in educational research and experiments. Topics include a review of common research designs and their underlying assumptions, hypothesis testing, parametric and non-parametric tests of significance, the analysis of variance and methods of correlation. Also a brief introduction to the use of the computer in data analysis.

ED 810 3:3-0

Qual Approaches Ed Research

This course provides a survey of current qualitative methodologies as they are used in research in educational contexts. The focus of the course is on methodologies related to situational/contextual approaches and critical/action research approaches.

ED 815 3:3-0

Action Res: Theory & Practice

Action research is the study of educational practice in order to improve and understand that practice better. This course will introduce action research from various theoretical perspectives, including critical theory, hermeneutics, and postmodernism. Students will develop action research projects in the contexts of their own educational experiences.

ED 816 3:3-0

Narrative Inquiry in Ed. Res.

This course examines the roots of narrative inquiry in education, explores various approaches to narrative inquiry, and presents its theoretical and practical constructs and contexts. Critiques of narrative research in education will be discussed. Participants will write and share their own narratives of teaching and learning.

ED 817 3:3-0

Research Methods with Indigenous Peoples

This course, through readings and discussion, will examine issues and research methods particular to research with Indigenous peoples including ethical considerations and protocols. Students will examine the developing paradigm in Indigenous research and explore research methodologies proposed by Indigenous researchers.

ED 870 3:3-0

Selected Topics

ED 870AE 3:3-0

Multimedia and Curriculum

Experimental course: This course will explore an Multimedia technology and how it can be effectively and appropriately integrated into the Saskatchewan curriculum.

ED 870AG 3:3-3

Leadership and Administration of Instructional Technology within Education

The course will examine planning and administration for technology based learning and teaching. Emphasis will be on planning, organizational and social issues rather than technical implementation. * Note: Web delivered class sections may be subject to an additional \$50.00 material fee *

ED 870AK 3:3-0

Leadership of Community Schools

The course would provide an overview of community education, its principles and best practices, issues and challenges with specific emphasis on leadership issues in a Saskatchewan educational, social and cultural context.

ED 870AL 3:3-0

Sustaining Well-being Through Health, Outdoor and Physical Education (HOPE)

The course is designed to address sustainability of well-being as it impacts teaching and learning. Students will learn to consider the various unique and appropriate educative environments that reinforce and heighten awareness of the importance of sustaining well-being through experiential, interdisciplinary and multi-sensory knowledge.

ED 870AM 3:3-0

Teaching and Learning in Higher Education

This graduate course is for Masters and PhD students in any discipline who are thinking of pursuing a career in academia. This course explores the theories and practices of teaching and learning in higher education by focussing on learning theory, reflective practice, action research and the

scholarship of teaching. Principles of adult learning and assessment of prior learning will be applied.

ED 870AN 3:3-0

Creativity and the Learning Process

This course will examine the nature of creativity; concepts of creative thinking and creative behaviours; problems, cultural differences, identification, special topics, and educating for creative production.

ED 870AO 3:3-0

Social Justice/Globalisation

Explores the research and classroom practice of themes within International Development including health and nutrition, basic education, child protection, gender equality, infrastructure services, human rights, democracy and good governance, citizenship, private sector development, and environment; considers the implications of integrating these themes into the mainstream curriculum.

ED 870AQ 3:3-0

Neuropsychological Foundations

The course will survey topics in human neuropsychology. Classes will focus on introductory issues such as Physiology of the brain, brain-behaviour relations and classes of psychotropic medications. In the latter part of the course, student presentations will focus on current issues in the field.

ED 870AR 3:3-0

Culturally relevant pedagogy: Effective teaching practice for Aboriginal students

This course examines culturally relevant pedagogy for Aboriginal students in relation to theories of decolonization. Participants engage in activities and discussions of readings to analyse effective teaching practices and to reflect on their own professional beliefs and actions in order to advance the theory and practice of Aboriginal education.

ED 870AS 3:3-0

Community, Sustainability and Education

This course outlines a curricular process of identifying an issue of sustainability and developing a proposal for taking action within a community to address the issue. Sustainability includes the economic, social, environmental and political aspects of community life. Systemic barriers to creating sustainable communities will also be investigated.

ED 870AT 3:3-0

An Introduction to Human Resource Management in Education

Provides a theoretical overview of Human Resource Management (HRM) issues increasingly faced by educational administrators. The course will focus upon strategic HRM practices within the PreK-12 educational system, their impact upon the workplace and school environment, and will consider the implications of societal modernization and change.

ED 870AU 3:3-0

Integration of Indigenous Knowledge into School Curricula and Educational

Through readings, interaction with cultural experts, and discussion students will examine oral and written forms of Indigenous knowledge. Students will apply learnings of Indigenous knowledge systems to the integration of Aboriginal content and perspectives into school curricula and educational practice.

ED 870AV 3:3-0

Indigenous Epistemology: Traditional Knowledge Systems

This course takes place in a cultural camp setting where students will interact with Elders and cultural experts to explore different forms and systems of Indigenous knowledge. Students will practice Indigenous ways of being, learning, and teaching, and compare their learning with the research.

ED 870AY 3:3-0

Pedagogy and Catholic Schools

For teachers/administrators or those preparing for these vocations in Catholic Schools, this course is about pedagogy as developed in the teaching and tradition of the Catholic Church and about the role of the Catholic educator's spirituality and philosophy in developing curriculum and Catholic culture.

ED 870AZ 3:3-0

Indigenous Qualitative Research Methodologies

Course Catalogue

This course offers a new research paradigm of qualitative Indigenous methodologies that includes examining current issues in educational research, research design, data collection, and qualitative analysis. Topics include research ethics, community-based, participatory and Indigenous research approaches and instruction in engaging in research that is relevant, respectful, reciprocal and responsible.

ED 870BA 3:3-0

Indigenous Statistics

This course introduces students to statistical research design, data collection, and analysis using new paradigms of Indigenous quantitative methods. Topics include Indigenous quantitative research designs, ethics, hypothesis testing, tests of significance, analysis of variance, and correlation. Examples of how to navigate between quantitative rigour and community-based partnerships are provided.

ED 870BB 3:3-0

Art Practice-based Research: A/r/tography

This course situates a/r/tography within other arts-based educational research approaches. It offers an intensive study in practice-based research focusing on continuities between embodied practices of teaching and learning. This is an approach to research that is attentive to the sensory, tactile and unsaid aspects of artist-teacher lives.

ED 870FM 3:3-0

Exploring the role of visual and critical literacy in reading comprehension

This course explores the role of visual literacy as a component of reading comprehension where visual literacy is seen to be an aspect of both critical and multiliteracies. Visual, critical and multiliteracies will be explored from both theoretical and empirical perspectives.

ED 880 3:3-0

Grad Institute Seminar

A lecture/seminar for the presentation and discussion of theories, practices, and issues in education. Each seminar will highlight a current area of interest in Education.

ED 890 1-3:3-0

Directed Readings

ED 890AE 3:3-0

Theories Class Manage & Dis

An in-depth examination of various management and disciplinary theory and how they directly related to and fit with educational curriculum

ED 890AM 3:3-0

Issues in Music Educ

Research Techniques - Administration and delivery of music programs from other provinces, curriculum designs, comprehensive musicianship.

ED 890AV 3:3-0

Readings: Exper & Environ

This course is intended to provide a comprehensive and critical analysis of the research literature in the fields of experimental and environmental education.

ED 890BR 3:3-0

Science Educ: Indigenous

Review literature which examines science education in indigenous contexts in K-12 classrooms. Examination of examples of indigenous science education literature.

ED 890CP 3:3-0

Issues in Aboriginal Schooling

Develop a clearer understanding of issues facing schools and school systems serving Aboriginal populations.

ED 890CZ 3:3-0

What is a Man: The Social Construction of Masculinity

Focus in the field of gender studies, and focus on comparing and contrasting the essentialist and constructivist views of "manhood" and masculinity as it is experienced, as it is "performed" and as it has been historically understood.

ED 890DE 3:0-0

Story-Telling Research Method

This course will trace the historical path of phenomenology, and how story-telling came to be accepted as a research method, including an exploration of oral and Indigenous story-telling.

ED 890DJ 3:3-0

Crit Lit & Crit Pedagogy

This course will provide an introduction to critical educational theory, through selected readings in critical pedagogy & critical literacy. It will focus on studies in critical literacy teaching.

ED 890DK 3:3-0

Resilience

A conceptual and critical analysis of resilience and its place in day to day classroom life. Particular attention will be paid to how current research re-structures pedagogical and community practice, theory/practice connections are emphasized.

ED 890DL 3:3-0

Zero & Conc. Development

Historical perspectives on the development of the concept zero; its role in mathematics; how students perceive zero; how teachers develop the concept of zero; resource approaches to the concept of zero.

ED 890DM 3:3-0

Canadian and International Lit

A critical review of Canadian and International literature and research as it relates to assessment of the literacy and programming needs of the intellectually disabled adult population in the Regina area.

ED 890DN 3:3-0

Instruc Design Online Courses

Online courses provide opportunities for new approaches to instructional design of teaching/learning environments. During this course, social systems and complexity theories provides the framework for these new approaches that can be described as 'non-linear', interactive, minimalist and constructivist.

ED 890DO 3:3-0

Tech in Curriculum Contexts

The purpose of the class is to explore a variety of technologies (ex: Smart Board) to determine the functionality and viability of these technologies in curriculum contexts in school classrooms. Different technologies will be explored, research articles will be read & discussed.

ED 890DP 3:3-0

Hermeneutics in Educ Res

This course is intended to provide a comprehensive and critical analysis of the research literature in the field of hermeneutics as applied to education research. Broad based initial exploration will be followed by focused readings on theoretical and methodological issues that underlie this field.

ED 890DQ 3:3-0

Res School Policies

This course is a detailed examination of how Canadian educational law impacts dormitory policies and procedures in residential schools. The research will include a review of relevant literature (theory) and an analysis of the current accommodation policies used by the administration at several dormitory schools (practice).

ED 890DR 3:3-0

Educational Leadership

The primary focus of this course will be an examination of different styles of leadership, with particular emphasis on the importance of nurturing and building of relationships with colleagues, support staff and students to achieve positive, successful results in schools.

ED 890DS 3:3-0

Inter-Institutional Collab

This class will focus on inter-institutional collaboration, that is the nature of collaboration that exists and/or is possible between the post secondary institutions in Saskatchewan. The student will explore philosophical underpinnings of collaboration and consider and critique theoretical frameworks that enable productive collaboration.

ED 890DT 3:3-0

Mentoring on Teach Retention

The growing concern of new teachers leaving the profession has resulted in many school divisions implementing mentoring programs. This class will

Course Catalogue

examine the effectiveness of mentoring programs, as they relate to teacher retention, and offer suggestions for improvement.

ED 890DU 3:3-0

Self-Study in Educ

This course serves as an in-depth review of literature and an application of techniques within the self-study genre of qualitative inquiry.

ED 890DV 3:3-0

Music on Intel & Behaviour

Gardner's Theory of Multiple Intelligences, Using music with students with behavioural issues (e.g. students diagnosed with ADHD, Music and its relationship to IQ.

ED 890DW 3:3-0

Drama, Culture and Language: An Exploration of Current Theory and Thought

This independent study course will enable the student to explore recent and classic theoretical and practical readings in the field of drama education that relate practice to cultural issues and language learning.

ED 890DX 3:3-0

Advantage of Using Digital Whiteboards in the Classroom

Study will focus on the pedagogical advantage of using Digital Whiteboard technology in the classroom. Learning theories that embrace the use of this technology will be explored, as will teaching approaches or strategies that best facilitate using this technology in pedagogically appropriate ways.

ED 890DY 3:3-0

Power, Discourse and Identity

As a prolegomenon to research into how teachers might problematize subjectifying power relations and discursive structures rather than simply submitting to them, the course will explore inter-related notions of power relations and discursive construction of teacher identity.

ED 890DZ 3:3-0

The Administration of Education on a Hutterite Colony

A study of educational administration on a Hutterite colony, the student's experiences teaching/administering there. Sharing this with other educators in a tour setting.

ED 890EA 3:3-0

The Pedagogical Implications of Concept of Beauty: Theory and Practice

This reading course will focus upon an examination of prominent philosophers, educators and aestheticians in their articulation of beauty. Major themes drawn from this review will be used to consider the impact of an understanding of beauty on the process and practice of teaching and learning.

ED 890EC 3:3-0

Understanding the Importance of Student Leadership in Developing Wellness

Explore student leadership as a vital component within existing physical activity and wellness programs. Determine other aspects of existing wellness programs that ensure their success. This exploration will include provincial curricula. Provide recommendations for future programs geared toward changing the behaviors of youth to be more physically active and wellness centered.

ED 890ED 3:3-0

Critical Race Theories and Formation of the Racial Subject

Using theories of critical and post structural analysis, the course examines historical, biological, sociological, and ideological constructions of the concept of race. Attention will be paid to the effects of colonization, patriarchy, and class division on the making of the racial subject.

ED 890EE 3:3-0

Educational Change in Public Schools

An examination of various approaches to educational planning in public schools.

ED 890EF 3:3-0

Provoking Feminist Ethics

A conceptual review of feminist ethics and its role in interpersonal and intrapersonal realms of everyday life in the school. Particular attention will be paid toward current research and scholarly writing restructure

pedagogical and administration practices. Theory/practice connections are emphasized.

ED 890EG 3:3-0

History of Ideas in Education

Educational practices in Ancient Greece and the Middle Ages.

ED 890EH 3:3-0

Counselling with Children and Adolescents

This course focuses on counselling children and adolescents using a strengths based perspective within a school context. Theory/practice linkages will be emphasized.

ED 890EI 3:3-0

Mathematics Curriculum Theory and/into Practice

This course studies mathematics educational theory and/into practice issues. The course consists of reading and critiquing research literature in mathematics education, primarily within postmodern and socio-cultural theoretical frameworks. Students then translate this theory into the practice of designing modules for the teaching and learning of selected mathematics curriculum topics.

ED 890EJ 3:3-0

Four Approaches to Research in Literacy Education

This course focuses on theory and example studies from four popular approaches to research in literacy education: narrative, critical discourse analysis, autobiography and ethnography. Theories of truth and knowledge inherent each approach will be compared and contrasted. Two example studies from each category will also be subjected to comparative analysis.

ED 890EK 3:3-0

Education and Social Justice for Gay and Lesbian Youth

Students will explore issues on understanding homophobia and becoming an ally to gay and lesbian youth in the classroom, in the school, and in the institutions of education.

ED 890EL 3:3-0

Religion, Public Education and the Charter

This course examines the relationship between religion, education and the Canadian Charter of Rights and Freedoms. The two aims of the class are: To review Supreme Court of Canada cases and to analyze/synthesize the pedagogical and philosophical implications of such decisions.

ED 890EM 3:3-3

Impact and Origins of Standardized Tests in Canada

Exploration of research into the influences of standardized testing on students' lives and the ethical, socio-political forces at play.

ED 890EN 3:3-0

Theory & Practice of Gender Issues in a Crosscultural Context

This course will be taught from a critical and post-structural approach, which examines intersections of gendered identity production, including race, class, educational standing, and sexual orientation. This is a survey course, examining classical feminist texts as well as more recent issues in feminist philosophy practice.

ED 890EO 3:3-0

Teaching for Social Justice in the Primary Classroom

This course centers on the work of teachers who are creating transformative curricula and instructional methods for use in their K to 3 classrooms; and includes guidelines for constructing interdisciplinary critical literacy units with encourage children to use reading and writing to influence the world around them.

ED 890EP 3:3-0

The Evolution Of Complexity Theory In Education

This directed study is an exploration of the nature of cognition, its biological roots in the work of Humberto Maturana and Francisco Varela, the evolution of this foundation in the work of enactivism (Varela, Thompson and Roch), and recent extension of this work in the nature of cognition and complexity in Education (Brent Davis and Denis Sumara). Throughout this directed reading course we will be asking the questions, "What is learning?" "What is knowledge?" "What does it mean to know something?" taking into consideration the course readings.

ED 890EQ 3:3-0

History of Educational Philosophy

Ideas in Education: Judaism, Plato, Russell, Heidegger, Sartre

Course Catalogue

ED 890ER 3:3-0
A perspective of Reality
Review concepts and ideas related to perception of images based on direct experience with an art product. Berger's Ways of Seeing, Marcum's After the Information Age, Maurer and Hillman's Reading Images, Viewing Texts and Messaris and Humphreys' Transformations in Human Communication will form the basis of the research paper and discussion.

ED 890ES 3:3-0
Arts Educ Issues & Ideas
This course is designed as an examination of narrative approaches to research in education as they relate to arts education practice in the high school setting.

ED 890ET 3:3-0
Viewing Women and Girls Through a Poststructural Frame
We will investigate the construction of gendered identities of women and girls using a poststructural frame. Particular attention will be paid to the writings of Foucault for an analysis of how power is organized across institutional settings including schools and the workplace.

ED 890EU 3:3-0
Parenting a child with a disability: The impact on parents and families
This course will involve a review of the pertinent literature regarding the parenting of a child with a disability. Further, this course will involve a review of the research methods that are relevant to studies within this topic area.

ED 890EV 3:3-0
Theories of Culture and Education
Modern and postmodern ideas of culture and society form educational theory and practice. This class explores those theories.

ED 890EW 3:3-0
Investigations and implications for seeking meaning in Aboriginal Education Policy
This independent reading class will examine themes associated with First Nations and Metis Education Policy Development. The student will examine historical and contemporary literature in this regard. The purpose of this class is uncover meaning making in regard to "Aboriginal Education" and the implications for this meaning on policy development in an urban educational environment. The student will consider systemic barriers to institutional change; and will utilize feminist, anti-oppressive and/or indigenous critique to pose a model for organizational change.

ED 890EX 3:3-0
Women and Abuse in the Workplace
This course will examine the abuse, both physical and emotional, of women in the workplace from several contrasting theoretical perspectives (liberal humanist, critical Marxist, and feminist poststructuralist among them). Assignments will pay special attention to the phenomenon of women abusing women, in a variety of workplace settings.

ED 890EY 3:3-0
Examination of Chaos/Complexity Theory, Policy Archeology and Discourse Analysis
The student will investigate three disparate epistemological and methodological approaches: Chaos/Complexity Theory, Policy Archeology, and Discourse Analysis. By the end of the term the student will have a better understanding of the relationship between these areas of study and his own research into interinstitutional collaboration.

ED 890EZ 3:3-0
Study of Issues in Human Development in a Global Environment
Stage-based examination of the current issues discussed in the research literature impacting on human development in an age of globalization. This is a pilot of a general course at the masterate level of Educational Psychology being offered to individuals in all sub-disciplines.

ED 890FA 3:3-0
Solo and Solitude in Outdoor Education: An Exploration of the Review of Literature
Review of Outdoor Education with a focus on: a) What are the research thrusts/interests in the area of wilderness experiences, solo and solitude? B) What studies exist in this area?, c) What research methodologies have been employed in these studies?, d) other questions that may arise

ED 890FB 3:3-0
Counselling with Children and Youth
This course focuses on counselling children and adolescents using a strengths based perspective within a school context. Theory/practice linkages will be emphasized.

ED 890FC 3:3-0
Barriers: Impact the Quality of Life for Adults with Intellectual Disabilities
The intent of this project is to link the Quality of Life research with the socio-ecological conceptualizations as they relate to adults with intellectual disabilities. Also include perspective gained from experience: the inclusive post secondary education (IPSE) students in the Campus For All pilot at the U of R.

ED 890FD 3:3-0
Reading and Writing Across the Curriculum
Focus on both theoretical and practical components of literacy acquisition and teaching in the content area. The student will evaluate, design, and implement literacy instructional strategies that demonstrate sound principles of current theories of language and literacy teaching and learning.

ED 890FE 3:3-0
A Review of Structures and Key Policy Issues in the PreK-12 Educ System
The reading course will focus on two major topics within the PreK-12 educational system: a review of key aspects of administrative and policy structures, and a consideration of emerging policy issues. Particular emphasis will be given to the impact of the recent provincial restructuring initiative, and the future implications of these changes.

ED 890FF 3:3-0
A Community Based Curriculum Development Based on Cree Identity
The purpose of this study is to identify what parents and guardians in a Cree community determine as core teachings to support Cree identity

ED 890FG 3:3-0
Teaching in First Nations Settings: Contexts & Theories
An exploration of cultural/historical contexts and epistemological/pedagogical theories pertaining to First Nations' schools, communities and cultural settings. Particularly as they pertain to the various questions/issues regarding non-First Nations educators working in First Nations educational systems.

ED 890FH 3:3-0
Sociology and Education
The course traces historical foundations of Sociology as a discipline. Particular attention will be paid to the thinking of Bourdieu and Corrigan and their articulation of sociology's connection with schooling. The course will lay a foundation for understanding the usefulness/applicability of Historical Sociology to research in Education.

ED 890FI 3:3-0
Activist Environmental Ethics
This course considers the intersection of the pedagogy of activism with a focus on environmental ethics. It will engage with theoretical perspectives including post-structuralism, ethics, and eco/feminism. The process of the course reflects a critical and activist approach in the context of an international learning community.

ED 890FJ 3:3-0
Relationships Between Urban School Size and Related Social Context Variables
The course focuses on the effects of school size and related social context variables on student success and community sustainability.

ED 890FK 3:3-0
Exploring Integrated Programs
Explore the theory and practice behind integrated outdoor programs in three Saskatchewan schools.

ED 890FL 3:3-0
Minority Faith Issues
The course will explore the constitutional provisions related to minority faith education, with specific focus on the Saskatchewan context. It would then address the implications of these constitutional guarantees for educational governance in this province.

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ED 890FM 3:3-0
Integral Education
The course will cover critical theoretical study of integral theory in education focusing on ontology, epistemology, and methodology. Praxis of integral theory will be reviewed in a reflectionpaper of Integral Education Seminar.

ED 890FN 3:3-0
Qualitative Research Methods for Postmodern Times
Qualitative research methods have been the subject of discussion and debate over the past 20 years as scholars who work with poststructural theories of language, subjectivity, and knowledge have undertaken qualitative research projects. This course will explore literature which addresses research interviewing, feminist research, and issues of writing as representation.

ED 890FO 3:3-0
Exploring the role of visual and critical literacy in reading comprehension
This course explores the role of visual literacy as a component of reading comprehension where visual literacy is seen to be an aspect of both critical and multiliteracies. Visual, critical and multiliteracies will be explored from both theoretical and empirical perspectives

ED 890FP 3:3-0
Organizational Horizontal Management and Integrated Leadership Frames
The class will explore organizational concepts related to differentiation and integration as they relate to the organization and management of a large urban school division.

ED 890FQ 3:3-0
Theories of Anti-oppressive Education and First Nations Students
This directed reading class will examine anti-oppressive theories in education and their implications on how we understand racism and its effects on First nations children. The student will examine historical and contemporary literature in this regard. The purpose of the class is to uncover meaning in regard to race, identity, and systemic inequity in schooling.

ED 890FR 3:3-0
Body Epistemology
An examination of the relationships between knowledge and the body with an emphasis on indigenous understandings and education. How and what is a body-that-knows? What is the relationship between knowing and being? What does this mean in deconstructing persistent Western dichotomies of body/mind, nature/culture, thinking/feeling?

ED 890FS 3:3-0
A Critical Analysis in Reading Assessment
This course will focus on the theoretical foundation of the reading process and its relation to reading assessment. An engagement in critical analyses of reading assessment instruments will be required for this course.

ED 890FT 3:3-3
Professional Development for Principals/Adminstrators
Professional Development for administrators: An analysis of the Sask. School Based Administrators' Modules

ED 890FU 3:3-0
Narrative Inquiry and Autobiography
Understanding how narrative inquiry can be used to frame a teacher's story and experiences. Using autobiography as a lens for research, inquiry and insight into teaching and curriculum development.

ED 890FV 3:3-0
Alternative Assessment in Early Childhood Education
This course explores a variety of non-standard assessment theories and practices in early childhood settings. Through readings and practicing of "alternative assessment" the student will explore assessment and evaluation through personal professional experience.

ED 890FW 3:3-0
Examining critical pedagogy, indigenous knowledge and empowerment
This course will examine Freirian notions of critical pedagogy as well as conceptulaizations of local and indigeous knowledge constructions and ownership vis-a-vis dominant western, "whitestream" power structures.

ED 890FX 3:3-0
Advanced Studies In Inclusive Ed: Delivery Alternatives for Exceptional Students
The course is a study of models for providing instruction and support for students with exceptionalities in inclusive classrooms and schools. It will focus on surveying/analyzing scholarly literature on the use of, and alternatives to, paraprofessional instruction and support.

ED 890FY 3:3-0
An Integral Education Approach to Curriculum Studies
This course will investigate the extent to which ecological perspectives of education, as well as Eastern and Aboriginal traditions, may be compatible with and even extend the theory of integral education. This course will also explore what possibilities exist for an integral methodological approach to research.

ED 890FZ 3:3-0
he Relationship between Ed Investment & Student Learning Outcomes
This course will explore the research concerning the relationship between educational investment within the Pre K - 12 system and student educational outcomes. This course will review the research and literature on the subject to establish a clearer policy picture.

ED 890GA 3:3-0
Health Literacy Content and Instruction in the Elementary Class
This course will provide an introductory framework for understanding the influence of health literacy within the elementary classroom (professional practice of teachers and instruction to students) as illustrated through development of resource materials to improve particular health problems of children and strategies for the improvement of health literacy of children.

ED 890GB 3:3-0
Literacy for Students 'at-risk'
This course focuses on both theoretical and empirical research that has investigated approaches to literacy with students identified as being 'at-risk' of educational failure.

ED 890GC 3:3-0
Research Issues in Drama Education: An Exploration of Current Trends
This course will engage the student in a review of current research trends and methodologies in drama education. Specific paper topics will address the student's focus question.

ED 890GD 3:3-0
A Review of One School Division and Administrative Internship Program
A review of the policies and procedures regarding an administrative internship program. Discussion with two administrative interns and and analysis of their experiences.

ED 890GE 3:3-0
Change and Transformation in Early Childhood Settings
This course is designed to make learners familiar with the literature related to educational change and to support their understanding of the process of transformation specific to early childhood education. Learners will analyze relevant theoretical frameworks, use documentation and construct a case study that synthesizes theory and practice.

ED 890GF 3:3-0
Mental Health Care for Mental Health Professionals
This course will review the pertinent literature regarding resilience among mental health care professionals as they are confronted with large caseloads, difficult clients, high-risk situations, vicarious exposure to stress, and varied organizational structures. This course will review the research methods relevant to studies within this topic area.

ED 890GG 3:3-0
Theory and Philosophy of Aesthetics in Arts Education
The student will survey theories and philosophies of aesthetics, the ways in which they inform art making in both arts education and arts-based inquiry, with a focus on institutional processes.

ED 890GH 3:3-0
Narrative Circle: Examining Living Memory and Knowledge Systems within the Ethos
Sakaw Cree people use the narrative circle to examine their world and construct meaning. This course will examine various dialogic processes and

Course Catalogue

protocols associated with learning spaces within which sacred text/context are carried forward.

ED 890GI 3:3-0

Theories of gender in post-colonial discourses

Set in theories of post-structural and post-colonial feminism, this course examines the positioning of Indigenous women as subjects of discourse in colonial power relations. Post-colonial relations situate women historically and in the present day through various subjectivities with respect to race, class and gender.

ED 890GJ 3:3-0

Care and Prevention of Dance Injury

To research the relevant literature in the care and prevention of dance injury to identify the common injuries sustained by dancers.

ED 890GK 3:3-0

The Pedagogy of Gender and Sexual Diversity

Understanding theoretical and actual constructs of gender and sexuality always takes place in a context. One such context is the university classroom. This course will provide an opportunity for action research, self-reflection, and immersion in a classroom experience to research issues of minority sexuality and gender variance.

ED 890GL 3:3-0

Advanced Topics in Moral Education

Course will explore advanced topics in moral education. It will focus on "world views" and the implications of moral theories for society. The specific topics chosen will be oriented to student's interests.

ED 890GN 3:3-0

Building Connections in Qualitative Research using Auto-ethnography

This course facilitates an examination of Auto-ethnography as a methodology in qualitative research including an exploration of relevant research, authors and educational issues related to auto-ethnography.

ED 890GO 1-3:3-0

L'immersion française au Canada: Contexte historique et enjeux actuels

Etude du phénomène de l'immersion française au Canada selon une perspective historique et politique. Ce cours permettra d'approfondir les connaissances liées à l'apprentissage du français dans le contexte d'une langue seconde et d'en étudier son évolution depuis son commencement jusqu'à nos jours.

ED 890GP 3:3-0

Post-structuralist Theories of Discourse and Subjectivity

Participants engage basic theories of language, subjectivity, and knowledge from post-structuralist frames. Contemporary cultural phenomena will be considered from a range of distinct historical and political moments including gender, race, class, and sexual orientation. Questions posed will pertain to students' research interests.

ED 890GQ 1-3:3-0

Action Research and an Ecological Approach

Advanced action-educational research with an emphasis on understanding and developing the research process. Topics include: Understanding action research in education, research design, data collection methods, alignment to research question and limitations of action research, as well as using and developing an ecological frame for data analysis.

ED 890GR 1-3:3-0

Race, Critical Race Theory, and Aboriginal Education

Race continues to structure our social world and schools are important sites for producing and interrupting racialized knowledge and subjects. This course explores theories of the production of race/racialization, examines Critical Race Theory and its application to education, and situates CRT within the context of Aboriginal Education.

ED 890GS 1-3:3-0

Theory and Practice of Decolonizing Education

Decolonizing education is one response to the colonial history/present of schools especially regarding Aboriginal education and the experiences of FNIM youth. This course will explore both theoretical articulations of decolonization, as well as a range of educational practices that might be considered decolonizing.

ED 890GT 3:3-0

L'identité et la motivation pour aux débutants de français langue seconde

Un étude de l'importance et de la relation de l'identité et la motivation pour aux débutants de français langue seconde.

ED 890GU 3:3-0

Social Media and Activism in Iran

This course focuses on the role of social media in Iran and its impacts on ordinary Iranians. It aims to help understand Iran's cyber citizens and how they have helped change Iran's political structure. It will utilize a socio-historical examination of social evolution in the country.

ED 890GV 3:0-0

Art as a Language Pedagogy: Language Revitalization through the Visual Arts

This course will explore the impact of the art-making process on Indigenous language instruction, retention, and revitalization. The student will explore how the various steps involved in creating artwork from an Indigenous cultural perspective can be used as an effective conduit for revitalization of Indigenous languages.

ED 890GW 3:0-0

Learning Across Cultures: Social Experiences of International Students

This directed study course will overview a number of theoretical and methodological perspectives that centre on the social experiences of international students. It will provide opportunities to unpack and interrogate existing sociocultural and sociolinguistic theories and phenomenological studies on these experiences.

ED 900 6:0-0

Project

Project hours are individual study under the direction of a faculty member. Registration can be repeated; a maximum of 6.0 credit hours will be counted in the program.

ED 901 3-15:0-0

Thesis

Thesis research. (Please refer to General Regulation no. 9 on page 31.)

ED 902 3-15:400-0

Practicum

A field-based study under the direction of a professional associate (field) and a faculty member. Completion of an integrative report or theory-related paper. Registration can be repeated. Maximum of 15 credit hours will be counted.

ED 910 3:3-0

Advanced Studies in Ed Res'rch

This course will provide students with advanced knowledge and understanding of the philosophical backgrounds and methods common to many types of educational research. Students will engage in critical appraisal of methods of inquiry, participate in focused discussions of theoretical and methodological research issues and construct a small scale research project.

ED 920 3:3-0

Doctoral Seminar

This course is intended to prepare doctoral students for their comprehensive examinations by broadening understanding of issues related to the changing contexts of education. It also provides an opportunity for students to explore issues that relate to their areas of research interest.

ED 925 3:3-0

Epistemology in Education

Many issues addressed by educators today require an increasingly careful analysis and grounding in foundational perspectives. This class explores such perspectives with particular emphasis on epistemological and cultural-historical themes that will enable students to understand and deal with educational situations and decisions more effectively.

ED 926 3:3-0

Ethics in Educational Study

This course will provide opportunity for doctoral students to study ethics through various educational philosophies and theories. It will address challenges to modernist conceptions of ethics and make connections to students' own and others' situated understandings.

EDL	Educational Leadership
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ED 950 **1:0-0**
Indigenous Dissertation in Practice Thesis Hour
 These credit hours are assigned for the Indigenous Dissertation in Practice. Credit hours will be allocated for the development of the supervisor and Elder/Old one relationship, in depth literature review, action-in-practice, final dissertation in practice paper and defense.

ED 951 **3:3-0**
Indigenous Epistemology in Education
 This course will explore Indigenous epistemology and the centrality of spirituality to Indigenous methods of knowing. It emphasizes advanced concepts regarding the origins of indigenous knowledge and the cyclical nature of knowledge exchange. Students will discuss concepts that encourage reclaiming a place and voice in academia.

ED 952 **3:3-0**
Indigenous Pedagogies and Curriculum Theory
 This course focuses on advanced understandings of Indigenous pedagogies and provides students with theoretical and experiential frameworks to help them comprehend curriculum principles. It will assist students in critically reflecting on their own practice, engaging in pedagogies from an Indigenous worldview, and creating places for advocacy and resistance in education.

ED 953 **3:3-0**
Advanced Indigenous Research Methods
 This course provides students with an in-depth understanding of the philosophical foundations and procedures common to numerous types of educational research, contrasting Indigenous methodologies with dominant research approaches. Students will participate in decolonizing approaches with an emphasis on Indigenous research paradigms.

ED 954 **3:3-0**
Understanding Community Engaged Scholarship
 This seminar-style course employs storytelling and Indigenous community-based research methodologies to examine, produce, and perform community-engaged scholarship centered on Indigenous language, culture, and history. In this seminar, students will explore modern education issues in collaboration with a variety of community members using a community-based research paradigm.

ED 955 **3:3-0**
Leading for Equity and Justice in Education
 This advanced course focuses on decolonizing education by highlighting the voices of Indigenous scholars who advocate for justice and equity for Indigenous people. Students will mobilize these causes for change by exploring cultural genocide and the ongoing legacy of colonization: decolonizing dominant ideology, voice, pedagogy, and leadership structures.

ED 956 **3:3-0**
Indigenous Perspectives on Issues and Challenges in Current Educational Practices
 This seminar style course provides students with a framework for identifying and analyzing an educational practice-related concern. Students will integrate Indigenous theory, a variety of academic literature, and relevant experiences to investigate the core causes and systemic difficulties that have an impact on everyday educational practices.

ED 957 **3:3-0**
Land-based Education: Nistowiak Indigenous Teaching, Learning and Leadership
 This advanced course weaves Indigenous theoretical and experiential approaches to teaching, learning and leadership with a focus on Nistowiak ? where the three come together ? on the land through land-based education. Students will have an opportunity to reconceptualize education that honors Indigenous knowing through the land.

ED 958 **3:3-0**
Social and Political Issues in Métis Education
 This course examines historical and present Metis social and political challenges in education, with special emphasis on Metis culture, language, and identity. Through the study of geographical and historical affiliations and alliances that effect contemporary Metis culture, students gain an in-depth comprehension of the dynamics that influence Metis education and the political structure.

EDL 811 **3:0-0**
Supervision in Education
 The study and application of supervision theory involving professional personnel including an analysis of the role of the supervisor, formal and informal structures and processes, supervision in effective schools, adult development and learning, various supervision models, and personnel evaluation.

EDL 812 **3:0-0**
Leading the Educational Program
 An examination of trends and issues in school organization, of program development, pupil personnel policies, utilization of resources, program assessment and public support.

EDL 814 **3:0-0**
School Leadership and the Law
 An examination of the legal context and its impact on school actors including in-school leaders, teachers, students, and parents. Particular emphasis will be placed on rights, responsibilities, and relationships.

EDL 815 **3:0-0**
Economics of Educational Finance
 A study of educational finance including: funding structures, the role of strategic plans in financial budgeting, analysis of revenues and expenditures, and an examination of issues impacting the educational funding policies including the accountability movement and changes in school board governance models over time.

EDL 816 **3:0-0**
Education Planning
 An examination of various approaches to planning in modern organizations with particular emphasis on public education. Theoretical models, field projects, and practical considerations, will all be emphasized.

EDL 817 **3:0-0**
The Politics of Education
 This course examines the politics of education at the federal, provincial and local community levels. Emphasis will be given to both formal and informal decision-making processes, and the relationships among interest groups, school boards, local communities, the media, and provincial and federal political institutions.

EDL 818 **3:0-0**
Ethics in Educational Leadership
 This course will involve a thorough study of ethical schools of thought and the application of these theories to educational leadership concepts and applied contexts.

EDL 819 **3:0-0**
Organizational Theory in Education
 An analysis of the role of school leaders with reference to general systems theory, organization theory, cultural-social institutions, role theory, formal organizations, bureaucracy, goals and effectiveness, organizational control, conflict in organizations, stability, change, innovation, and growth.

EDL 820 **3:0-0**
Leadership of Instructional Technology Within Education
 The course will examine principles of leadership and planning for technology based learning and teaching. Emphasis will be on planning, organizational and social issues rather than technical implementation.

EDL 821 **3:0-0**
Leadership of Community Schools
 The course will provide an overview of community education, its principles and best practices issues and challenges with specific emphasis on leadership issues in a Saskatchewan educational, social and cultural context.

EDL 822 **3:0-0**
Introduction to Human Resource Administration in Education
 Provides a theoretical overview to Human Resource Administration (HRA) issues increasingly faced by educational leaders. The course will focus upon strategic HR practices within the PreK-12 educational system, their impact upon the workplace and school environment, and will consider the implications of societal modernization and change.

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EDL 823 3:0-0
Labour Relations and Labour Law in Education
 This course provides school leaders with an understanding of theoretical and legislative issues related to labour relations in public ally funded education. Students explore the differences in dealing with teaching and non-teaching employees, and their representative groups; understand employee relations; and develop negotiation, conflict resolution, and collective agreement skills.

EDL 824 3:0-0
The Employee Life Cycle in Education
 The course will focus on the employee life cycle within the K-12 educational setting. Topics: human resource and labour market planning, job analysis, recruitment and retention, training and development, compensation models, succession and retirement planning, work-life balance, and coaching and mentoring designed to provide skills to positively support staff.

EDL 825 3:0-0
Learning and Assessment Leadership
 Leadership for learning and assessment will be explored, deepening understandings of basic concepts such as "learning" and "achievement" and how they are measured. Students will consider research that connects leadership to student learning and explore how leaders can work with colleagues to assess and improve student learning.

EDL 826 3:0-0
Leadership Development in Education
 This course will focus on applied research in educational leadership. Based upon a review of related literature, students will conduct research relevant to educational leadership in K-12 education. Topics will include educational leadership, self awareness and leadership, the role of leadership in schools, and the application of current leadership development models to the Saskatchewan school system.

EDL 827 3:0-0
Selected Issues in Educational Leadership
 This seminar course will focus on applied research in educational leadership. Topics will include educational leadership, the role of leadership in schools, the application of current leadership development models to Saskatchewan school divisions and other contemporary leadership issues.

EDL 828 3:0-0
Leadership for Inclusive Education
 This course focuses on principal leadership for inclusive education. Course content includes examination of dominant discourses of disability; fundamental principles and essential elements of inclusion; overview of outcomes of inclusive education; relevant legislation and policy direction; and applied research on administrative approaches to implement, support, and sustain inclusion.

EDL 829 3:3-0
Supporting Indigenous Student Success
 This course will focus on Indigenous leadership, research, and practice that supports Indigenous student success. Successful examples of relevant Indigenous educational practice will be emphasized, with a specific focus on local/regional content. An Indigenous (Nehinuw) model of effective teaching will be highlighted.

EDL 870 3:0-0
Educational Leadership Experimental Courses
 Courses developed by instructors for eventual inclusion as regular courses in the Educational Leadership Subject Area.

EDL 870AA 3:3-0
Public Sector Financial Management: Applications in K-12 Education
 A survey of public sector budgeting and financial management in Canada, with consideration of impacts on the K-12 education system as a publicly funded institution. Topics include: role of financial considerations in policy, government financial planning cycles, elements of sound financial planning and management in public sector enterprise.

EDL 870AC 3:0-0
Leadership for Healthy Schools
 This course uses a critical approach to address challenges school leaders face in the 21st century, particularly in relationship to school health. Focusing on servant leadership and culturally responsive practices, students are supported to work towards more equitable, diverse and inclusive solutions for vexing school health challenges.

EDL 870AD 3:0-0
Diversities and Educational Leadership
 This course explores the complexity of diversities in educational leadership, exploring topics such as gender, religion, race, sexuality, and abilities in educational relations, structure, and policy. Students will apply theoretical and applied research in interrogating leadership frameworks and practices that reify and disrupt oppression and injustice in educational contexts.

EDL 870AF 3:0-0
Leadership en milieu scolaire en contexte francophone minoritaire
 Ce cours examine les perspectives theoriques et les pratiques de leadership dans les milieux scolaires et plus particulierement en education en francais. Les etudiants decouvriront et analyseront la complexite des roles que sont amenes a jouer les leaders dans ces milieux et se situeront eux-memes par rapport a ces roles.

EDL 890 3:0-0
Educational Leadership Directed Reading Courses
 Courses developed by instructors as directed reading courses in the Educational Leadership Subject Area.

EDL 890AL 3:0-0
Teacher Leadership: Past, Present, Future
 This course explores the evolution of teacher leadership from its inception as a top-down title bestowed upon a particular few by formal school leaders, through to more recent understandings as an identity that can be embodied by all teachers through their own informal leadership experiences.

EDL 890AM 3:0-0
Teacher Activism: Past, Present, and Future
 This class utilizes participatory action research to explore the notion of teaching as an activist profession. Topics include discourses of teacher professionalism, the link between educational policy, politics, and teacher activism, teacher unions as sites for teacher activism, and the proliferation of grassroots social movements within the teaching profession.

EDL 890AN 3:0-0
Explorations in Indigenous Leadership
 This directed reading course will explore traditional and contemporary conceptions of leadership, with a particular focus on Indigenous leadership and its potential application, both personally and organizationally, and within schools and classrooms.

EDL 940 3:0-0
Leadership Theory, Analysis and Practice
 This course will explore contemporary theory and practice of educational leadership with an emphasis on the relationship between theory and practice in the of educational institutions.

EFDN	Educational Foundations
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EFDN 800 3:3-0
Philosophical Discussions of Education
 Critical study of education, knowledge and value. Analysis of autonomy, critical thinking, open-mindedness, moral character as aims for justification. Feminist and postmodern challenges.

EFDN 801 3:3-0
Sociological Perspectives of Education Change
 Nature and sources of educational change and evaluation of the change at the individual, organizational, and cultural levels. Educational implications of change are emphasized.

EFDN 802 3:3-0
Comparative and International Education
 This course is a cross-disciplinary study of current international education issues and trends with an emphasis on the development of students' abilities to make historical and international comparisons of educational issues, curriculum, and pedagogy.

EFDN 803 3:3-0
Social Justice and Globalization from an Educational Perspective
 Explores the research and classroom practice of themes including activist teachers, health, basic education, HIV/AIDS, child protection, gender equality, diversity, multiculturalism, First Nations, infrastructure services, human rights, citizenship, democracy, good governance, private sector

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development, environment, sustainability, making a difference; and the implications of integrating these themes into the mainstream curriculum.

EFDN 804 3:3-0
Integration of Indigenous Knowledge in to School Curricula and Educational Practices

Through readings, interaction with cultural experts, and discussion students will examine oral and written forms of Indigenous knowledge. Students will apply learnings of Indigenous knowledge systems to the integration of Aboriginal content and perspectives into school curricula and educational practice.

Corequisite: EFDN 805

EFDN 805 3:3-0
Indigenous Epistemology: Traditional Knowledge Systems

This course takes place in a cultural camp setting where students will interact with Elders and cultural experts to explore different forms and systems of Indigenous knowledge. Students will practice Indigenous ways of being, learning, and teaching, and compare their learning with the research.

Corequisite: EFDN 804

EFDN 806 3:3-0
Introduction to Post-colonial Theories and Representations

This course examines power relations, marginality, hybridity and voice through a post-colonial frame, and traces the effects of colonial histories played out globally and in this geographic location. Under examination are claims of representation and knowledge as they are lived and contested through Indigenous, settler-colonial, and diasporic societies.

EFDN 807 3:3-0
Community Development and Leadership

This course will examine and explore theoretical perspectives and practice issues of community development in a number of diverse community settings. Students will discover the practice of working with communities to find solutions to local issues as well as focus on leadership skills that are essential to supporting community growth.

Additional Fee: \$50.

EFDN 899 3:3-0
Capstone Synthesis Seminar: An Integration of Theory and Practice

The capstone seminar provides a culminating experience for students enrolled in the course only route. This course provides an opportunity for the students to integrate and act-on multiple learning experiences, including reading and analyzing research, as a way to bring deeper meaning to their graduate experiences as a whole.

Prerequisite: Must have completed 24 credit hours of 800 level courses before registering.

EMBA	Executive MBA
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EMBA 800 3:3-0
Management as a System

Management as a system provides students with an introduction to the elements and processes that contribute to overall organizational effectiveness. With an emphasis on building practical knowledge of organizational systems, the course provides students with a foundation for future classes in the Levene Executive MBA Program.

EMBA 805 3:3-0
Perspectives on Leadership

This course examines different perspectives on leadership and the implications for leaders in a variety of organizational settings. Topics include: transformational leadership, charismatic leadership, ethical leadership, destructive leadership, strategy and leadership, and indigenous leadership.

EMBA 810 2:2-0
Mgmt & Org. Behaviour

This is an overview course that introduces students to the theories explaining individual and group behaviors in organizations and how they affect overall organizational effectiveness. The course takes an evidence-based approach and introduces students to research by demonstrating how research outcomes translate into effective organizational practices.

EMBA 815 2:2-0
Quant Tech for Decision Making

This course includes an examination of statistical and quantitative techniques useful for managerial decision-making. Topics include multivariate regression analysis, forecasting, and models of qualitative choice. Applications will focus both on evaluating existing research, and on conducting original research.

EMBA 816 2:2-0
Production & Operations Mgmt

This course deals with the principles of designing, controlling, managing and improving the operations of an organization. Potential issues include process analysis and improvement for manufacturing and service organizations, supply chain management, lean operations, and quality management.

EMBA 820 2:2-0
Negtn & Conflict Resolution

This course will introduce students to the theory and practice of negotiation and conflict resolution within and between organizations in domestic and global settings. The techniques learned will be applicable to many different situations and students will have the opportunity to demonstrate such skills in the course.

EMBA 821 2:2-0
International Business

This course focuses upon opportunities and problems that arise when business operations cross national boundaries. The international business environment is examined, and the tasks of management are integrated into this multinational framework. Students will gain familiarity with various international institutions and practices that impact upon business firms, and students will learn and apply specific models and techniques to aid decision-making in a multinational context.

EMBA 825 2:2-0
Change Management

In this course students will expand their understanding of how organizations are managing change. The course will provide perspectives of change strategists, change implementers, and change recipients. The objective is to learn about theory, foundations, and models for change management, and provide students with skills to plan and implement change.

EMBA 830 2:2-0
Strategic Human Resource Management

Students will learn how Human Resources can be leveraged to gain a competitive advantage through integration with an organization's overall strategy. Special topics include human resource issues in mergers and acquisitions, the role of Unions, HR processes and the role they play in the everyday operations of organizations.

EMBA 835 2:2-0
Marketing for Managers

Students will explore and apply marketing management practices and theories and evaluate marketing strategies leading to an understanding of the complexities of marketing. The course will focus on strategies and tactics related to the marketing mix, market segmentation, positioning, consumer analysis, pricing, promotion, distribution, global markets, technology, and current trends.

EMBA 840 2:2-0
Accounting for Managers

Students examine accounting's role in an organization focusing on accounting information for decision-making and performance measurement. Students are introduced to the fundamental concepts of management and financial accounting with a concentration on the use rather than the preparation of accounting information.

EMBA 845 2:2-0
Finance for Managers

This course will focus on the theory and practice of financial decision making, including financial performance measurement, capital budgeting, risk analysis, cost of capital, and valuation.

EMBA 850 2:2-0
Management and Information Systems

Taking an information systems view (systems comprised of the interaction between information technology (IT), processes, people and structure) this course provides comprehensive coverage of existing and emerging IS related management and organizational issues and opportunities.

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EMBA 855 **2:2-0**
Business Research Methods
 This course prepares students for the EMBA 900 Research Paper by introducing them to research methods commonly used in business. It includes an overview of secondary research and qualitative research methods (e.g., focus groups and interviews). Quantitative methods will also be discussed, including the use of data analysis software.

EMBA 860 **2:2-0**
Business, Government & Society
 This course focuses on the complex ecosystem within which firms operate, including stakeholder relationships and the societal, political and legal arrangements and expectations that condition firm behaviour. Cases deal with governmental bodies, activists and interest groups, and other constituencies of the firm across a wide spectrum of issues and public policy.

EMBA 865 **2:2-0**
Strategy
 This course focuses on the general management perspective in the development, evaluation, and implementation of organizational strategy. Lectures and discussion on topical strategic issues will be augmented by the analysis of comprehensive cases which serve to integrate concepts and insights from other courses.

EMBA 870 **3:3-0**
International Study Course - an AA-ZZ series
 This course intends to expose students to global business practices through a visit to a foreign country. During the one-week trip abroad, students will attend lectures, tour business facilities and meet with business leaders, in order to expand their appreciation for international business strategies and opportunities.

EMBA 900 **6:6-0**
Research Paper
 Under the guidance of an advisor, a student analyzes a significant organizational problem using an evidence-based approach. It is a project guided by scholarly research but grounded in practice intended to generate better informed organizational decisions.

ENEL	Electronic Systems Engineering
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ENEL 742 **3:3-3**
Digital Communications
 Error rates, optimum decision levels, statistical decision theory, matched filters, narrowband noise, system performance, optimum binary transmission, M-ary orthogonal signals, Shannon capacity expression, coding for error detection and correction, repeater systems. Students should have background knowledge in the above areas.
 Note: Students may receive credit for one of ENEL 742, ENEL 442, or ENEL 393.

ENEL 752 **3:3-3**
Embedded and Real-Time Software Systems
 Software design for resource-constrained targets. Design and implementation of an embedded system involving feedback control, signal processing, or communications. Topics: Real-time architectures, RTOS, software design, interfacing and communications, speed/memory/power tradeoffs, testing, dependability. Prior knowledge: C/C++, algorithms, data structures, microcontroller peripheral interfacing, interrupt handling.
 Note: Students may receive credit for one of ENEL 752, ENEL 452, or ENEL 487.

ENEL 762 **3:3-3**
Control Systems
 This course extends student knowledge of continuous-time control systems. Topics include: a detailed examination of system response to various inputs, mechanisms to limit disturbance effects, use of root locus plotting to determine system gains for stability, system design to limit transient response, state-space representation of systems, multi-input/ multi-output system analysis, state-space based design.
 Note: Students may receive credit for one of ENEL 762, ENEL 462, or ENEL 389.

ENEL 772 **3:3-3**
Power Systems Fundamentals
 Single and three phase machines, induction machine starting and protection circuits, transformer characteristics, fault current determination,

per unit system and symmetrical components, industrial and utility protective devices, and introduction to load flow. Students should have background knowledge in the above areas
 Note: Students may receive credit for one of ENEL 772 or ENEL 472.

ENEL 782 **3:3-3**
Power Systems Design
 Application of concepts to power delivery and industrial use. Topics include power system stability/power quality, power system specification, and analysis/design. Course involves at least one design Project.

ENEL 784 **3:3-3**
Digital Control System Design
 Sampled data control theory and quantization effects. Modeling, analysis and design of digital control systems. Design using transform and state space methods. Application to industrial systems, interfacing to transducers and creation of feedback systems. Students learn the use of specialized techniques and design tools in laboratory, culminating in a design and implementation of a digital control system. . Prerequisite: Background in ; This course is normally scheduled even years, winter semester.

ENEL 789 **3:3-3**
Application Specific Integrated Circuit Design
 Introduction to ASIC chips: circuit design, fabrication, testing and cost analysis. Advanced synchronous digital design techniques such as pipelining, parallelism, and caching. Application to sorting, encoding, decryption, and digital filters. Students do a design using a high-level design language (VHDL) and test it on a RAM based FPGA. Prerequisite: Background in ; This course is normally taught every year, winter semester

ENEL 792 **3:3-3**
Telecommunications and Computer Networks
 Layered network models. Classification of Networks. Design Issues. Transmission Media. Wireless Transmission. Public Switched Telephone Network. Data Link Layer. Network Layer. Transport Layer. Overview of Local Area Networks. .Prerequisite: Background in This course is normally taught odd years, fall semester

ENEL 794 **3:3-3**
Telecommunication Systems Engineering Design
 Approaches to the design of telecommunication systems based on specifications and constraints. Terrestrial and satellite communications. Audio, video, and telephone systems. Noise and receiver fundamentals.

ENEL 795 **3:3-3**
Digital Signal Processing Design
 Applications of digital signal analysis. The use of Z transforms and discrete Fourier transforms in the design, analysis, and testing of systems. IIR and FIR filter design and analysis, DSP hardware and applications. Students learn the use of specialized equipment and design tools in laboratory, culminating in a design and implementation. Prerequisite: Background equivalent to ; This course is normally taught every year, fall semester

ENEL 811 **3:3-0**
Local Networks
 Analysis and design of local computer networks. Network structures, network architectures, local area networks, wide area networks, routing and flow control, inter-networking protocol hierarchies, network standards, network performance applications to communications network and to process control, network security.

ENEL 821 **3:3-0**
RF and Microwave Engineering
 Fundamentals of radio frequency and microwave circuit analysis, design and measurements. Topics include review of transmission line analysis and Maxwell's equations, waveguide theory, microwave network analysis and scattering parameters; coupler and power divider design; resonator and filter design and computer aided design of RF circuits.

ENEL 822 **3:3-0**
RF Amplifier and Systems Design
 Single and multi-stage amplifier design, noise and non-linear distortion, active microwave devices, S-parameters and X-parameters, transistor stabilization, matching network design, oscillator design, system level consideration of microwave transmission lines, resonators, distributed elements, lumped elements and filters.

ENEL 823 **3:3-0**

Wireless Sensor Networks: Architectures and Protocols

This course provides an introduction to WSNs, applications and challenges; WSNs scenarios, energy efficiency, reliability and scalability; WSNs design principles, service interfaces and gateways; WSNs physical layer, MAC protocols, link layer protocols; Addressing in WSNs; WSNs synchronization; WSNs positioning and topology control; WSNs routing protocols, transport layer protocols and QoS.

Note: Students may receive credit for one of ENEL 823 or ENEL 890AN.

ENEL 834 3:3-0

Smart Grid: Architecture, Design and Analysis

The following topics are covered: Smart grid characteristics, components, distributed intelligence and automated control. Smart grid challenges. Smart meters technologies, architecture and design. Integration of renewable energy, distributed generation and energy storage. Smart grid reliability analysis. Two-way communication, privacy and security. Smart grid data management architecture and data analytics.

ENEL 835 3:3-0

Power Systems Advanced Protection and Control

This course addresses advanced topics in power systems protection and control, including topics in digital relaying algorithms, protection and control integration, Intelligent Electronic Devices (IED) communications capabilities, transmission systems protection, substation protection and control, and station automation.

ENEL 836 3:3-0

Advanced Topics in Power Systems Engineering

This course addresses advanced topics in power systems engineering, including topics in electric power generation, transmission, and distribution. It covers communications, protection and control systems and their application in a utility environment. It addresses topics in equipment modeling, load flow, fault analysis, reliability standards, smart grid and operational cyber security.

Note: Students may receive credit for one of ENEL 836 or ENEL 890AD.

ENEL 837 3:3-0

Optimization for Power System Applications

The course introduces basic optimization concepts, models, and algorithms, blending with applications in power systems, such as unit commitment, optimal power flow, energy storage operation, and EV charging. Topics include linear/quadratic/mixed integer programming, stochastic optimization, and duality theory. State-of-art solvers and packages for optimization models will be learned.

Note: Students may receive credit for one of ENEL 837 or ENEL 890AS.

ENEL 838 3:3-0

Power Electronics-System Applications

This course covers Structure of Power Electronic Devices. Application topologies such as buck-boost converters. System level applications, including inverters, AC motor drives, and utility level DC-AC interface. Instrumentation of voltage and current through numerical (digital) devices. Comprehensive application of course topics through a hardware based project is required.

Notes: Students may receive credit for one of ENEL 838 or ENEL 890AR.

ENEL 857 3:3-1.5

Digital Signal Processing

Introductory treatment of the theory and principles of digital signal processing. Topics include: digital signals, classification and mathematical modelling, linearity, shift-invariance, causality, stability, pulse response, frequency response, Z-transform, continuous-time system analysis, Fourier analysis and sampled-data signals, discrete-time system analysis, spectral analysis, IIR and FIR filters.

ENEL 862 3:3-0

Advanced Topics in Image Processing

Introduction to Image Processing and Image Analysis. Image Enhancement is the Spatial Domain including Histogram and Modification and Spatial Filtering. Image Enhancement is the Frequency Domain including Two-dimensional Frequency Representation of Images and Frequency Domain Filtering of Images. Finally material will be presented about: Image Restoration, Noise, Adaptive Filters and Inverse Filtering. This course is normally taught in winter semester in even years.

ENEL 863 3:3-0

System Design and Testing using JTAG Boundary Scan

Introduction to JTAG boundary scan: IEEE 1149.x Standard; design for boundary-scan testability(DFT); connection and functional testing using on-board JTAG devices such as CPU, CPLD, FPGA; testing of non-JTAG devices such as passive devices, logic devices and memory; debugging using boundary-scan. Other test methods are also covered.

ENEL 864 3:3-0

Field Programmable Gates Arrays (FPGA) Design Applications

This class explains Engineering Applications of FPGA-based digital design, including chaotic systems, artificial neural networks, random number generators and secure communication systems, provide the students with an understanding of high-level synthesis design methodologies using ZedBoard and Xilinx Vivado design tool.

ENEL 865 3:3-0

Applied Machine Learning

Topics include regression (linear regression with multiple features, nearest neighbors and kernel regression, ridge regression and lasso), classification (linear classifiers, logistic regression, decision trees, boosting), clustering, dimensionality reduction, overfitting & regularization, feature selection, and performance evaluation. Implementation of these concepts in practical applications is the primary focus of this course.

ENEL 866 3:3-0

Applied Computer Vision

Topics include image fundamentals (formation, geometrical transformation, convolution/filtering, edge detection), image features (gradients, HoG, corners, SIFT), image registration, image classification, object detection, segmentation and clustering, motion estimation, image synthesis (GANS and Diffusion Models). The primary focus is practical applications with Python using OpenCV and deep learning libraries (Keras, Tensorflow, PyTorch). *Note: Students may receive credit for one of ENEL 866 or ENEL 890AQ.*

ENEL 867 3:3-0

Dynamical Systems Analysis for Spiking Neural Models

This course presents the relationship of electrophysiology, nonlinear dynamics, and the computational properties of neurons. The students will learn to model neuronal behaviour and interpret the results of modelling studies using methods of nonlinear dynamics. This class offers an introduction to nonlinear dynamical systems theory for brain research applications.

Note: Students may receive credit for one of ENEL 890AP or ENEL 867.

ENEL 868 3:3-0

Computational Methods in Electrical Engineering

This course introduces recent advances in computational methods for electrical engineering applications, including linear/nonlinear regression, linear programming, and convex optimization. How to formulate/model a problem to be a standard form and use existing tools to solve it will be discussed. This course also introduces some canonic algorithms.

Note: Students may receive credit for one of ENEL 868 or ENEL 890AO.

ENEL 869 3:3-3

Advanced Topics in Embedded Systems

Students enrolled in this course will undertake directed studies in embedded/real-time systems in one or more of these: feedback control, signal processing, software/hardware codesign, communications, monitoring.

Note: Students cannot get credit for both ENEL 869 and ENEL 890AM.

ENEL 885 1-6:6-0

Selected Topics

Advanced topics in electrical engineering, including surveys of current literature. May be repeated for credit if area of study is different.

ENEL 885AT 3:3-0

Wireless Communications System

This course is designed to introduce the newcomer to wireless communication systems, with particular focus on the new and exciting developments that are occurring in this field today.

ENEL 890 3:3-3

Special Topics in Electrical Engineering

Experimental or one-time only courses in advanced topics in electrical engineering.

ENEL 890AF 0-3:3-3

Introduction to LTE

This course will provide a systems level overview of the LTE and LTE-advanced technologies for telecommunications. The course will look at the differences between LTE and the previous generations of communications protocols. Issues to be studied include: efficiency of bandwidth use, upload and download speeds, interference and channel noise.

ENEL 890AI 3:3-0

Advance Topics in Big Data and Internet of Things

- 1) Big Data Platforms for the Internet of Things
- 2) On RFID false Authentication
- 3) Spatial Dimensions of Big Data
- 4) Fog Computing Analysis
- 5) Big Data in Smart Grids
- 6) Enhanced Building Automation Systems
- 7) Intelligent Transportation Systems
- 8) Emerging Technologies in Health Information Systems

ENEL 890AT 3:3-0

Analysis and Modelling of Phased Arrays

Briefly introduce the concept of beamforming and its significance in wireless communication. Definition of the simulation parameters, such as the environment size, number of antennas, carrier frequency, and user positions. Implement beamforming using MATLAB. Calculation of the steering vector based on angle of arrival information. Calculation of computational costs at each stage.

ENEL 895 3:3-0

Directed Readings in Electrical Engineering

Reading courses in advanced topics in electrical engineering.

ENEL 895AH 3:3-0

Advanced Topics in Wireless Communication

This course will cover the following topics: overview of the 3GPP LTE standard with emphasis on spectral efficiency, routing in mobile ad hoc networks, photonic networks (radio over fiber technology overview and its applications), multiple access techniques for wireless communication, and security in wireless networks.

ENEL 895AI 3:3-0

Advanced Topics in Microwave Filter Design

The course covers advanced topics in microwave filter design including filter functions, filter synthesis, filter optimization, coupling matrix, electromagnetic software simulations, and microwave resonators.

ENEL 895AJ 3:0-0

Power Systems Operation and Control

The course includes select aspects of operating and controlling electric power systems at grid level. A series of independent study modules cover topics in: power systems interconnection, control areas, reliability standards applicable to grid operations, SCADA systems supporting grid operations, control centres.

ENEL 895AK 3:0-0

Advanced Topics in Network Security

Cryptography overview. Classical Encryption Techniques. Block Ciphers and the Data Encryption Standard. Public-Key Cryptography and RSA. Cryptographic Hash Functions. Message Authentication Codes. Message Authentication Codes. Digital Signatures. Key Management and Distribution. Transport-Level Security. Wireless Network Security. IP Security.

ENEL 895AL 3:2-0

Multi Criteria Optimization

This course will cover basics/overview of Multi-Criteria Decision Analysis (MCDA), outranking methods (including but not limited to ELimination and Choice Expressing REality (ELECTRE) and Preference Ranking Organization Method for Enrichment Evaluations (PROMETHEE)), Pair-wise comparison approach, MCDA & sustainable development, and MCDA support software.

ENEL 895AM 3:1-0

Ambient Intelligence for IOT Swarms

Introduction to swarm intelligence and ambient intelligence. Applications and algorithms. Bio-inspired swarm intelligence. Artificial bee colony (ABC), Ant colony optimization (ACO). Particle Swarm for Fuzzy Models Identification. Deep CNN by swarm optimization. Deep reinforcement learning for swarm systems.

ENEL 895AN 3:0-0

Multisource Information Fusion

This course deals with multi-sensor and multi-source information fusion. Topics include data/image, feature, decision, and multilevel fusion; common data representation formats; spatial and temporal alignment; multi-look temporal fusion; multiresolution analysis, parameter estimation; Bayesian decision analysis; fusion architectures; deep learning for sensor fusion; application of information fusion in agriculture

ENEL 895AO 3:0-0

Optimization for Energy Systems

The course introduces basic concepts, models, and algorithms in convex optimization, mixed integer optimization, stochastic optimization and distributed optimization. Techniques to cast engineering problems into optimization models will be taught, and state-of-art solvers and packages for optimization models will be learned. This course blends optimization with applications in energy systems.

ENEL 895AP 3:0-0

Machine Learning for Precision Agriculture

The primary focus of this course is on practical applications of machine learning in precision agriculture. The course topics include classification, object detection and segmentation (semantic and instance) of field images, and quantitative and qualitative soil data analysis. The course also includes multi-source data fusion, one and few-shot learning, and programming for multiple GPUs.

ENEL 901 3:15:15-0

Research

Thesis research.

ENEL 902 3:0-0

Engineering Project

A supervisor-approved project requiring an in-depth study and investigation of an electronic systems engineering problem. An examining committee consisting of the supervisor, and one or more internal member(s) will provide a written evaluation of the project report. If the project report is deemed satisfactory, an oral presentation open to the entire University community will be made.

ENEL 917 3:3-0

ESE M.Eng. Project

A two-semester, supervisor-approved project, restricted to the M.Eng. program in ESE. The project may be the development and testing of a functional device or system incorporating both hardware and software, or it may be a major study of a technological issue. A formal written report and oral presentation are required.

ENEV	Environmental Systems Engineering
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ENEV 801 3:3-0

Environmental Systems Engg

Systems engineering and mathematical modelling concepts. Application of systems approach to ecological systems (aquatics), natural transport systems (aquatic), water resources systems, terrestrial systems and engineering planning including environmental impact assessment. Surface water pollution by toxic substances.

ENEV 802 3:3-0

Hydrological Engineering

Measurement and statistical analysis of hydrologic data, deterministic and stochastic runoff models, hydrologic design.

ENEV 803 3:3-0

Water Resources Management

Simulation and optimization of water resources management. Management of water projects and floodplains, Markov chain and Monte Carlo application to water resources.

ENEV 804 3:3-0

Prairie Water Quality, Treatment Design and Quantity

This course investigates the uniqueness of Prairie water quality challenges in treatment design and allocation, as well as threats to water quantity and application. Includes discussion of dissolved nutrients, pesticides, PPCPs, and other water quality and treatment challenges. Discussion of impacts of economic growth, climate change, water allocation law are included around water quantity threats and opportunities. Planning and management

Course Catalogue

through source water protection, agricultural evaluations, and others from the Prairie perspective.

ENEV 821 3:3-0

Geotechnical Properties of Soils

Principles of effective stress, pore pressure parameters, strength of geotechnical materials, theories of consolidation and compressibility, swelling soils, anisotropy in soils, seepage and flow nets. Related laboratory measurements.

ENEV 831 3:3-0

Phy Chem Water & Waste Treat

The various physical and chemical processes used in water and wastewater treatment, including coagulation, flocculation, sedimentation, Activated Sludge clarification, depth/surface/membrane filtrations, disinfection, ozone, UV, advanced oxidation, adsorption, softening, ion exchange, chemical precipitation, flotation and DAF system, gas transfer and stripping, and sludge treatment and disposal.

ENEV 832 3:3-0

Bio Proc Wastewater Treatment

Biological processes involved in the treatment of sanitary and industrial wastewaters. Wastewater characteristics, kinetics of biological growth, aeration, aerobic biological processes, lagoons, anaerobic processes, biological nutrient removal, sludge digestion and disposal.

ENEV 834 3:3-0

Solid Waste Disposal & Mgmt

Magnitude of the problem. Quantity and composition of municipal solid waste. Collection Systems. Selection of disposal methods. Sanitary landfills. Incineration including on-site incineration. Composting. Miscellaneous methods of disposal. Management considerations. Hazardous wastes - problems, impacts and disposal options.

ENEV 836 3:3-0

Mine Waste Management

Geoenvironmental aspects of mine waste generation and disposal including: critical evaluation of engineering properties of processed earthen materials; segregation, sedimentation, and consolidation in tailings ponds; acid drainage and metal leaching in waste rock dumps; and geotechnical design of disposal facilities using emerging waste management technologies such as thickening and co-mixing.

ENEV 841 3:3-0

Urban & Regional Trans Plan

Context and definition of transportation planning, transportation in an urban setting, planning and decision making, data management and diagnosis, demand analysis, supply analysis, study of a selected software package for transportation planning, reviewing of regional transportation studies.

ENEV 842 3:3-0

Econ & Eval Trans Systems

Transportation cost models; technical concepts underlying economic evaluation methods; comparative assessment methods, cost-effectiveness and effectiveness index methods; example application to highway and transit system.

ENEV 843 3:3-3

Urban Traffic Management

Traffic components and characteristics, traffic stream characteristics, traffic flow theory, data collection and traffic monitoring, fundamental concepts for uninterrupted flow facilities, freeway capacity and level of service, traffic control devices, fundamental concepts for interrupted flow facilities, principles of intersection signalization, analysis of signalized intersections, pedestrian and bicycle facilities.

ENEV 851 3:3-0

Groundwater Modelling

Finite difference and finite element simulation of groundwater flow and solute transport. Alternative methods; method of characteristics and random-walk method.

ENEV 852 3:3-0

Environment Fluid Mechanics

Turbulent flow, Reynolds equations; pollutant conservation equations; jet and plumes; mixing, dilution and dispersion of pollutants discharge into rivers, lakes and oceans; hydraulics of effluent discharges into water bodies; and design of outfalls.

ENEV 854 3:3-0

Cold Region Hydraulic and Engineering

This course will examine advanced topics in Cold Region Hydraulic Engineering, including ice jamming, ice flooding, impacts of ice on hydraulic structures. The students will be expected to gain greater understanding in cold region science and technology.

ENEV 862 3:3-0

Environmental Decision Making

Optimization modelling for environmental management systems. Linear programming, separable and integer programming, transportation models, dynamic programming, and their application to a variety of environmental engineering problems.

ENEV 863 3:3-0

Air Quality Management

Advanced topics in air pollution impact assessment, mechanisms related to air pollution problems, mitigation and adaptation of air pollution effects through a number of engineering measures, design of air pollution control facilities, air quality management and pollution control planning, and air quality prediction techniques.

ENEV 864 3:3-0

Petroleum Waste Management

Generation of petroleum wastes and their impacts, treatment and disposal of petroleum wastes in exploration, production, and processing processes, remediation of petroleum contaminated sites, regulation related to petroleum wastes, and modeling for petroleum waste management systems.

ENEV 865 3:3-0

Hazardous Waste Management and Site Remediation

Principles of hazardous waste management. Subsurface contamination and contaminant migration. Risk-based site investigation and assessment. Discussion on different types of in-situ and ex-situ remediation technologies, including pump and treat, soil vapor extraction, air sparging, bioremediation, permeable reactive barriers, and other innovative technologies.

ENEV 866 0-3:3-6

Industrial Wastewater Treatment and Reuse

Current and novel industrial wastewater management strategies; treatment process design theory and approaches; and industrial water/wastewater quantity and quality requirement.

ENEV 886 1-6:6-0

Selected Topics in Civil Engg

Advanced topics in civil engineering. May be repeated for credit if the topic is different.

ENEV 886AG 1-6:6-0

Water Qual Simulation & Mgmt

Selected topics in Civil Engineering.

ENEV 886AM 1-6:6-0

Computational Fluid Mechanics

Advanced topics in civil engineering.

ENEV 886BA 3:3-0

Engineering Project Management

Fundamentals of Project Management in an engineering environment. Support functions of time management and conflict resolution. Performance management, project planning, scheduling and cost control. Contracts, warranties and liabilities. Special Topics.

ENEV 886BD 3:3-0

Advanced Highway Traffic Anal

Concepts and procedures for monitoring and analysis of highway traffic demand, design hour volume concepts, highway traffic flow, highway capacity and level of service, intelligent transportation systems.

ENEV 886BH 3:3-0

Assessment of Enviro. Impacts

An introduction to assessment of environmental impacts from human development activities, with special reference to those relevant to engineering works and to the regulations and procedures associated with such assessment.

Course Catalogue

ENEV 886BJ Industrial Environmental Management and Policies This course will respond to environmental challenges with the aim of creating sustainable production and consumption systems. The concept of Industrial Ecology, Life Cycle Assessment, Design for Environment will be explored. At the completion of the course, students will also possess knowledge of environmental management and policies in the companies.	3:3-0	ENEV 886CE Irrigation Engineering, Management and Policy An overview of irrigation literature focusing on engineering design and options in the Prairies; management of agricultural water resources.	3:3-0
ENEV 886BL Membrane Technologies and Applications in CO2 Separation and Absorption This course will include theoretical principles of membrane processes, material selection, manufacture, characterization, and membrane applications in CO2 separation and absorption.	3:3-0	ENEV 886CF Carbon Management This course reviews strategies, policies and technologies that can be used to decarbonise fossil energy use. It covers carbon credit, carbon capture and storage, and low carbon emission renewable biomass processes.	1-6:6-0
ENEV 886BR Nature and Behaviour of Expansive Soils This course focuses on describing the nature and behaviour of expansive soils. The main topics include introduction to clay mineralogy and physico-chemical interactions, use of index properties for volume change estimation, advanced test procedures for the direct determination of shrinkage-swelling, consolidation-rebound, and mechanical and chemical modification methods for improved engineering behaviour of expansive soils.	1-3:3-0	ENEV 886CG Microbiologically Influenced Engineering Practices Class will include selected engineering topics significantly influenced by microbiologically driven events. These will include, but not be limited to, defined microbial events influencing water, gas or oil well production either through corrosion or plugging events. Students will select an acceptable topic with the final essay in conference presentation format.	3:3-0
ENEV 886BS Greywater Reclamation The greywater reclamation course will be focused on: 1) literature review on biological wastewater treatment, membrane filtration and greywater treatment technologies, 2) literature review on reuse of treated greywater, 3) literature review on regulations and guidelines for the reuse of treated greywater. Based on the above literature review, several options for greywater reclamation will be proposed and assessed. The proposal of laboratory and pilot testing of greywater reclamation and reuse for toilet flushing will be developed.	3:3-0	ENEV 886CH Pryolysis and Gasification The course will provide an advanced understanding of the gasification and pryolysis processes through discussion, the critical review of key literature and the preparation of papers/informal presentations. The study will include both the utilisation of fossil fuels and biomass with an output stream for energy production.	3:3-0
ENEV 886BW Design for Sustainable Urban Development This course will investigate the design requirements for implementing sustainable renewable energy construction in urban and public spaces. Factors to be considered include risk management, human factors, materials optimization, health and safety, consideration of vandalism and educational requirements, and others.	3:3-0	ENEV 886CI Urban Stormwater Management The intent of this course is to build a good understanding of stormwater management in urban areas. Topics covered include urban hydrology and hydraulics, stormwater drainage structures, analysis and control of urban stormwater quality, low-impact development technologies, instrumentation, and modeling approaches to stormwater management.	3:3-0
ENEV 886BZ Computational Environmental Hydraulics Environmental Fluid hydraulics; Computational techniques including Finite Difference Method, Finite Element Method, Method of Characteristics and Finite Volume Method; Application of Numerical Methods to Open Channel Flow; Modeling subsurface Flow; Modeling Contaminant Transport; and Integration of Surface and Subsurface Models.	3:3-0	ENEV 886CJ Life Cycle Assessment The course will provide an understanding of the application of Life Cycle Assessment to the energy production sector in Canada. The course will include a review of LCA methodologies and their application to a "cradle to grave" review of the benefits of carbon utilisation/storage in the fossil fuel sector.	0-3:3-0
ENEV 886CA Sustainable Management of Civil Infrastructure Systems: Tools and Techniques This course will introduce principles of sustainable infrastructure management, with emphasis on core municipal and transportation infrastructure. It will discuss infrastructure management issues, practices, tools, provide students with an opportunity to apply infrastructure management, emerging technologies to support operational and strategic infrastructure management, and optimize the decision-making throughout the infrastructure lifecycle.	3:0-0	ENEV 886CK Wastewater Treatment and Reuse The course will be focused on the technologies available for wastewater treatment and reuse. A number of lectures will be given to students to conduct extensive literature review, design of different wastewater treatment process trains, conduct cost estimates, and write a proposal and final report for the assigned project.	3:3-0
ENEV 886CB Industrial Wastewater Management This course will examine various aspects of industrial wastewater management such as waste minimization strategies, neutralization, equalization, pretreatment requirements for discharge to municipal sewer systems, joint treatment of municipal and industrial wastewater, and complete treatment of industrial wastewaters.	3:3-0	ENEV 886CL Advanced Soil Mechanics Based on an in-depth student background of soil mechanics, this course will focus on applying advanced soil mechanics principles to specialized research projects. Students will use theoretical concepts of critical state, elasto-visco-plasticity, colloid-liquid interactions, and unsaturated soils to address the pertinent issues in their independent research projects.	1-6:6-0
ENEV 886CD Methods for Highway Traffic Research Review of statistical fundamentals using traffic volume data; probability distribution models for discrete and continuous random variables; confidence intervals, parametric and non-parametric tests of hypotheses for traffic volume estimates; development and testing of standard and specialized regression models for traffic volume and accident studies.	0-3:3-0	ENEV 886CM Essentials of Organizational GHG Accounting Overview of organizational GHG accounting and provincial GHG regulatory framework. It is based on the ISO 14064-Part1 standard and the WRI/WBCSD GHG Protocol. Students will learn GHG accounting/reporting principles, how to set organizational/operational boundaries & base year/GHG reduction targets, prepare GHG inventory report, and establish data collection/management system.	1-6:6-0
		ENEV 886CN GHG Regulatory Review and Critical Analysis Investigation, review and critical analysis of the status of greenhouse gas regulations in North America, focusing on applications and engineering technology impacts and outcomes.	1-6:6-0
		ENEV 886CO Traditional Knowledge in Environmental Assessment	1-6:6-0

Course Catalogue

A rigorous investigation of the use of Traditional Knowledge in the EA process, this course delves into how, what, and which information can be accessed, applied, and evaluated in environmental assessment processes, policies and protocols in Canada.

ENEV 886CP 1-6:6-0

Advanced topic in Solid Waste Management

The course aims to address the recent advancements on solid waste management. Current literature on waste generation, collection and transport, processing and recycling, treatment and disposal will be identified and students will be asked to conduct independent study, to prepare report and to present results orally.

ENEV 886CQ 1-6:6-0

Inexact stepwise factorial design for hydrodynamic systems

To provide exposure to technologies of inexact systems analysis, stepwise cluster analysis, and factorial design that are related to the simulation and assessment of hydrodynamic systems. Approaches for integrating these technologies within a general management framework will also be introduced.

ENEV 886CR 1-6:6-0

Water & Wastewater Management

Drinking water, wastewater and sludge management; legislation and regulation; safe drinking water strategy, case studies and municipal water and wastewater systems in Saskatchewan and Canada; managing water quality in the distribution; risk assessment and management; operational issues, performance, maintenance and management of treatment systems in western Canada; P3 concepts.

ENEV 886CS 1-6:6-0

Environmental Engineering & Systems in Clean Energy

Critical analysis of clean energy technologies, focusing on those related to fossil fuels, and the environmental engineering and systems impacts, research needs, and gaps in knowledge around cumulative impacts, cumulative assessment and monitoring needs, and lifecycle assessment applications in the context of both clean and green energy production.

ENEV 886CU 3:3-0

Industrial Wastewater Treatment and Reuse

This course will introduce students to various technologies used for the treatment and reuse of industrial wastewater. A final report will be submitted for evaluation, based on a comprehensive literature review, case study, or site visitation pertaining to a particular industry.

ENEV 886CV 3:3-0

Environmental Engineering Approaches to Wildfire and Climate Change

Increasing incidents of wildfires associated with changing climate conditions and intra-annual variations in climate requires examination and problem solving approaches in environmental engineering to reduce impacts on communities, infrastructure, and environment.

ENEV 886CW 3:0-0

Multivariate Analysis for Climate Change and Environment

This directed reading course is to provide advanced multivariate analysis techniques regarding dynamic simulations and impact assessments of climate and environment systems. Approaches for analyzing climate change as well as its potential impacts on the environment will also be introduced.

ENEV 886CX 3:0-0

Waste Disposal Site Design and Operation

This is a directed reading course. A landfill-related research topic will be assigned at the beginning of the semester. Comprehensive literature review and analytical/experimental work will be conducted by the student. Student will meet with the instructor regularly throughout the semester and will submit a final report.

ENEV 886CY 3:0-0

Water Resources Engineering

This course will examine advanced topics in water resources engineering, including advanced fluid mechanics, underground water engineering, flood mapping and prediction, and sediment movement. The students will be expected to gain a greater understanding in water resources and prepare manuscripts for journal publication.

ENEV 886CZ 3:0-0

Ensemble Methods for Climate Projections

This directed reading course is to introduce a series of ensemble methods for tackling quantifiable information about uncertainty and predictability in climate projections. Advanced analysis techniques for climate change and related impact assessment will also be in this course.

ENEV 886DB 1-6:6-0

Markov Chain Monte Carlo (MCMC) Analysis for Stochastic Environmental Simulation and Optimization

In this course, Markov Chain Monte Carlo (MCMC) approach and a series of multivariate statistical analysis methods (e.g. factorial design, discriminant analysis, cluster analysis, repeated measure analysis) will be introduced to deal with the simulation and optimization problems in environmental systems.

ENEV 886DC 3:0-0

Multivariate Cluster and Discriminant Analysis for Environmental Planning

A series of cluster analysis (e.g., stepwise cluster analysis) and discriminant analysis (e.g., Bayesian discriminant analysis) methods will be included in this graduated level directed reading course. Combined multivariate cluster and discriminant analysis methods for climate-change adaptation and environmental management planning will be further introduced in this course.

ENEV 886DD 1-3:3-0

Biotechnology for Environmental Systems Engineering

An introduction to microbial structure, physiology, ecology and environmental relationships with emphasis on the application of microbial systems to environmental systems engineering. Includes a survey of microbiological processes that occur within and/or influence the function of engineered and natural systems, stoichiometry, conventional and state-of-the-art microbiological measurements, etc.

ENEV 886DE 3:3-0

Optimization-Based Multicriteria Environmental Decision

General econometrics analysis (e.g., computable general equilibrium model) and environmental system analysis (e.g., nondeterministic optimization programming) methods will be involved in this graduated level directed reading course. The optimization-based computable general equilibrium approach for socio-economic impact analyses under climate change will be introduced in this course.

ENEV 886DF 1-3:3-0

Urban Transportation Networks

Basic concepts in minimization problems; equilibrium analysis of transportation systems; formulations of assignment problems; review of optimization algorithms; solving for user equilibrium; variable travel demand; trip distribution and traffic assignment models.

ENEV 886DG 1-3:3-0

Algae Prevention, Control and Removal

This course will identify the causes of algae growth and provide technologies for algal prevention, control and removal from water and wastewater.

ENEV 886DH 3:3-0

Data driven methods in water quality and quantity

The course will introduce the application of data driven methods in watersheds. It can provide the students with the foundation to apply the methods in real world scenarios.

ENEV 901 3-15:15-0

Research

Thesis research.

ENEV 902 3:0-0

Engineering Project

A supervisor-approved project requiring an in-depth study and investigation of an environmental systems engineering problem. An examining committee consisting of the supervisor and one or more internal member(s) will provide a written evaluation of the project report. If the project report is deemed satisfactory, an oral presentation open to the entire University community will be made.

ENGG	Engineering General
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ENGG 600 3:0-0

Course Catalogue

Engineering Co-op Placement Report

Students enrolled in a work study program will be required to complete a report on their Work Placement.

ENGG 601 4:0-0

Engineering Co-op Placement First Work Term

Students enrolled in a work study semester will be required to register in six credit hours for each of two work semesters in a work placement.

ENGG 602 4:0-0

Engineering Co-op Placement Second Work Term

Students enrolled in a work study semester will be required to register in six credit hours for each of two work semesters in a work placement.

ENGG 701 1:1-0

Engineering Practice and experience in Canada

This course will introduce students to the fundamentals of practicing engineering in Canada.

ENGG 702 1:1-0

Engineering Practice and continuing learning in the workplace

This course will introduce students to the concept of engineering practice and continuing learning in the workplace in Canada.

ENGG 703 1:1-0

Engineering Practice, Professional Development, Communication and Ethical Challenges

This course will introduce students to the principle of engineering practice, professional development, communication and ethical challenges in Canada.

ENGG 789 1:0-6

Technical Writing Laboratory

Introduction of technical writing concepts for graduate students with a specific focus on thesis and report writing. The course is intended to help students improve their general writing skills (grammar and organization), while at the same time learning principles and approaches for producing good quality thesis, report and article manuscripts. Specific topics to be covered include thesis and report writing, improving grammar and organization, literature reviews, and referencing and documentation, including plagiarism and how to avoid plagiarizing.

*** Prerequisite: Completion of 9 credit hours of any ENEL 901, ENEV 901, ENIN 901, ENPE 901, ENPC 901, ENSE 901 (Thesis Research) ***

ENGG 800 3:3-0

Comprehensive Review

In consultation with thesis supervisor, the student will prepare and submit a written report on a topic in Engineering related to his/her field of research. A final oral examination will be conducted by the supervisory committee.

ENGG 804 3:3-0

Engineered Nanocomposites

This course covers nanomaterials and nanocomposites relevant to engineering applications. It focuses on nanoparticles, dispersion and control within polymer matrix, polymer nanocomposites manufacturing approaches and modification of nanoparticles to improve adhesion and dispersion. It also analyses bio-based nanoparticles and composites, nanocolloids, nanofibers, and health & safety of nanocomposites.

Note: Students cannot get credit for both ENGG 880AA and ENGG 804.

ENGG 811 3:3-0

Advanced Process Control

This course is an introduction to Advanced Process Control. The course deals with continuous systems, Discrete-time systems, Frequency domain analysis, Stability and robustness. Advanced multivariable model predictive control, and Process applications.

ENGG 812 3:3-0

Advanced Probability and Stati

This course treats probability and statistics from a formal point of view. Initially the axioms of probability theory are presented. Random variables and random processes are then treated in detail. From this probability formalism, we develop a number of statistical methods for data analysis. Statistical modeling is also introduced. Applications of these concepts to the analysis of engineering problems will be considered.

ENGG 813 3:3-0

Advanced Fluid Mechanics

This course is an introduction to Advanced Fluid Mechanics. It deals with the concept of continuum (partial and total derivatives, Eulerian and Lagrangian viewpoints, Reynolds transport theorem, constitutive equations), Microscopic equation of motion (continuity and momentum equations), NSE (unsteady laminar, flow in recilinear ducts), Creeping flow, inviscid flow, Boundary layer theory, Non-Newtonian flows and an introduction to fluid particle dynamics and porous media.

ENGG 814 3:3-0

Advanced Thermodynamics

Basic concepts and definitions; Laws of TD; General TD equations and relations; Energy analysis; TD equations of state; TD properties; Irreversible TD; Applications of TD to various systems; Gibbs-Duhem equation; Gibbs phase rule, stability theories and general equations of equilibrium; Multiphase and multi-component systems; Transport processes in continuous systems; Irreversible TD of Fluid Flows and Forces (Onsager's Law); Chemical reactive systems and their chemical potentials.

ENGG 815 3:3-0

Modeling, Simulation and Computer-Aided Processes

Simulation, Optimization modeling, integrated simulation optimization and computer-aided tools for engineering systems, their application to a variety of engineering problems. Reinforces the practical issues of developing and using simulation systems. Explores the new and innovative technologies being developed to extend the applicability of simulation in different domains.

ENGG 816 3:3-0

Engineering Systems Analysis

This course explores advanced concepts and techniques employed in operations research and civil engineering systems analysis. System abstraction and models. modeling for system analysis, optimization for system design.

ENGG 817 3:3-0

Applied Artificial Intell

This course introduces artificial intelligence concepts to graduate engineers. Concepts treated include object recognition, computer vision, and robotics. Application of these concepts to engineering problems will be presented. A project that applies artificial intelligence concepts to the solution of an engineering problem will be used to deepen the students understanding of the subject matter.

ENGG 818 3:3-0

Advanced Numerical Methods

Mathematical models, solutions of non algebraic equation, direct methods for solving linear systems, linear algebra iterative methods, Eigen-value problems, system of non-algebraic equations, differences. Interpolation, approximation, differentiation and integration, initial value problem, boundary value problem, PDE finite element and finite volume.

ENGG 819 3:3-0

A Systems Engineering Approach to Project Management

The course covers the fundamentals of project management, nine knowledge areas, five process groups and forty-four processes. It takes a systems approach to managing engineering projects. Students will be exposed to concepts relevant to current industrial practices that adhere to global standards and the PMI project management body of knowledge.

ENGG 820 3:3-0

Economics for Practicing Engineers

This course explores the cost analysis that accompanies large engineering projects. Analysis of the engineering system and value planning is covered. Additional topics include capital and operating cost estimation, discounting, comparative costing, and capital recovery.

ENGG 821 3:3-0

Business Law for Practicing Engineers

Canadian law in the engineering profession is discussed with a focus on legal procurement, contracts, and intellectual property. Case studies explore permitting, licensing, regulatory systems, environmental impact assessment, and liability. The professional Code of Ethics are reviewed and emphasized.

ENGG 822 3:3-0

Risk Assessment and Management

Strategies for minimizing exposure to technical, financial, and geopolitical risk are presented. Recent case studies from industry are discussed.

Course Catalogue

Topics include event tree and fault tree analysis, risk-based decision-making, and decision consideration.

ENGG 823 3:3-0
Multiscale Modeling (MSM) of Materials Design
 The course presents the material structures and their influence on material design in conjunction with various time and length scales. Topics like continuum mechanics, finite element analysis & molecular dynamics will be covered. The students learn the methods for coupling different length scales and develop a comprehensive knowledge of MSM.

ENGG 824 1-6:6-0
Change Management in Engineering
 This course covers the concepts of change management process in systems engineering. This will include the overall process of requesting, determining possibility, planning, implementing, and evaluating of changes to a system in order to shrinking errors, delays, and scrap, increasing product quality, and reducing cost of manufacturing.
 Note: Students may receive credit for one of ENGG 824, ENIN 824, or ENIN 880CE.

ENGG 826 3:3-0
Leadership in Engineering
 This course covers the concepts of leadership in systems engineering. This course will include a balance of theory and practice to cover major topics such as leadership behavior, skills, style, and culture. The theories will be explained through the discussions and in class activities and reflections with the focus on topics such as ethics, sustainability, and diversity in modern leadership.
 Note: ENIN 880CK, ENIN 826 and ENGG 826 are cross-listed. Students can only get credit for one.

ENGG 880 0-6:6-6
Selected Topics in Engineering
 Advanced topics in Systems Engineering. May be repeated for credit if the topic is different.

ENGG 880AB 3:3-6
Nuclear Energy Engineering
 This course will cover a broad range of engineering aspects related to a range of nuclear power plant designs, including: reactor nutronics, reactor operations, radiation protection, criticality safety, thermal hydraulics, nuclear fuel cycle, and radioactive waste management.

ENGG 888 3:3-0
Engineering Safety Systems and Management
 Professional engineering responsibility towards safety include: legislation, regulations and codes; health and safety programs; workplace incident assessments; risk hazard identification; risk management fundamentals; review of best practices and safety management. Content involves engineering design, case analysis, and development and use of various tools.
 Note: Students may receive credit for one of ENGG 888, ENIN 888, or ENIN 880BZ.

ENGG 900 0:1-0
Graduate Seminar in Engineering
 A seminar course devoted to basics of preparing and presenting of research projects. This course will mainly include research seminar presentations by graduate students. Registered students will be required to attend all ENGG 900 seminars and present one seminar.
 Prerequisite: 6 credit hours of ENxx 901

ENGG 903 3:3-0
Research Methodology in Engineering
 This course will develop the research abilities of Ph.D. students in Engineering. It includes various research methods in the fields of the students? Ph.D. reasearch.

ENGL	English
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ENGL 800 3:3-0
Adv Studies Old English Lit

ENGL 801 3:3-0
Adv Studies Middle English Lit

ENGL 801AD 3:3-0

Medieval Materialism
 This grad course will concentrate on the medieval material world and the five senses, including texts that engage with: arms and armour, stained glass, the elements and eco-criticism, fashion, animal lives, and magic as a material force. We?ll read texts in both their original languages and translations.
 Note: Students may receive credit for one of ENGL 801AD or ENGL 405AD.

ENGL 802 3:3-0
Adv Studies 16th Century Lit

ENGL 802AA 3:3-0
Spenser: The Faerie Queene
 This course will read all six books of the Faerie Queene as a struggle with the dangers of idolatry. It also focusses on Spenser's concern for the private and public virtues, especially with the "politics of friendship."
 Note: Students may receive credit for one of ENGL 802AA or ENGL 410AA.

ENGL 802AC 3:3-0
Poststructuralism and Shakespeare
 This course uses select plays by Shakespeare as test cases to examine the challenges presented by five poststructuralist approaches - deconstruction, psychoanalysis, Marxism, feminism, and queer theory. The course explores how poststructuralism aids us in formulating an ethics of the other in Shakespeare's plays.
 Note: Students may receive credit for one of ENGL 802AC or ENGL 410AC.

ENGL 802AE 3:3-0
Shakespeare as Cultural Icon
 This course examines the ways in which Shakespeare has been used as a national and international icon, both to maintain institutionalized power and to serve as a resistance point for underprivileged groups. We trace this fundamental paradox through the cultural reception of four popular, contested plays in the Shakespeare canon.
 Note: Students may receive credit for one of ENGL 802AE or ENGL 410AE.

ENGL 803 3:3-0
Adv Studies Renaissance Lit

ENGL 803AF 3:3-0
The Body in 17th Century Literature
 Using a number of theoretical approaches, we will examine representations of the body and its functions in literary and medical texts from the 17th century. We will consider how these representations reflect cultural values and perpetuate gender, economic, nationalist, and colonialist ideology.
 Note: Students may receive credit for one of ENGL 803AF or ENGL 415AF.

ENGL 803AG 3:3-0
Gender and Shrew-Taming Plays
 We will explore literary depictions of gender relations and other hierarchies of power by focusing on four shrew-taming plays of the late 16th and 17th centuries: The Taming of A Shrew, The Taming of The Shrew, The Woman's Prize, and Sauny the Scot.
 Note: Students may receive credit for one of ENGL 803AG or ENGL 415AG.

ENGL 803AH 3:3-0
Colonialism & Renaissance Lit
 We will explore the influence of the 'discovery' of the New World on early modern literature and culture, considering, for example, reactions to new lands, peoples, products (like tobacco), and diseases. We will focus on English texts from the seventeenth century, including travel writing, religious tracts, poetry, and drama.
 Note: Students may receive credit for one of ENGL 803AH or ENGL 415AH.

ENGL 803AI 3:0-0
Early Modern Emotions
 We will explore understandings of the emotions in the long seventeenth century, paying particular attention to representations of the emotional lives of non-human animals. Readings will include literary works as well as medical, philosophical, proto-psychological, and religious texts.
 Note: Students may receive credit for one of ENGL 415AI or ENGL 803AI.

Course Catalogue

ENGL 804
Adv Stds Rest 18th Cent Lit

3:3-0

ENGL 804AB
She-Tragedy

3:3-0

This course examines the phenomenon of the female scapegoat, who is intended to serve both as a cure and an indictment for society's sexual double standard, in representative male-authored tragic drama of the 17th and 18th centuries.

Note: Students may receive credit for one of ENGL 804AB or ENGL 420AB.

ENGL 804AC
18th Century Women's Fiction

3:3-0

This course will examine a selection of fiction written by women between 1688 and 1798 using several theoretical approaches.

Note: Students may receive credit for one of ENGL 804AC or ENGL 420AC.

ENGL 804AD
Sexual and Textual Transgression in Baroque and Augustan Literature

3:3-0

This course examines the various ways that seventeenth- and eighteenth-century writers transgress social, political and religious conventions. The course will focus especially on the way sexual transgressions act as a metaphor for literary transgression.

Note: Students may receive credit for one of ENGL 804AD or ENGL 420AD.

ENGL 804AF
Melancholy & Madness in the 18th-Century

3:3-0

This course explores the under-belly of the so-called "Age of Reason" by examining a range of literary and medical representations of melancholy and madness. We will supplement our investigations with a series of critical texts, and topics of discussion will center around the relationship between eighteenth-century mental illness and gender, genius, culture, and creativity.

Note: Students may receive credit for one of ENGL 804AF or ENGL 420AF.

ENGL 804AG
The Golden Age of Piracy and its Contexts

3:3-0

The literary image of the pirate-including dress, speech, and demeanour-stems from a very specific historical period, namely, the years from 1715 to 1730, generally known as the final phase of the Golden Age of Piracy (roughly 1680 to 1730). During this period, the British government undertook to eradicate pirate activity in the Caribbean, installing Woodes Rogers as governor of The Bahamas, and charging him with waging a "war on piracy" that successfully drove piracy out of North America by 1726. This course will consider the literature about pirates that emerged during this period.

Note: Students may receive credit for one of ENGL 804AG or ENGL 420AQ.

ENGL 805
Adv Studies Romantic Lit

3:3-0

ENGL 805AE
Knowing Feeling: Romantic Affects

3:0-0

Romanticism is typically/almost stereotypically/concerned with feeling. What did the Romantics think about the role of feeling? Why and how did feeling become so important? To explore these questions we will read literary, scientific, and philosophical texts in the context of contemporary affect theory. Assessment: seminar, precis, essay, exam.

Note: Students may receive credit for one of ENGL 805AE or ENGL 425AE.

ENGL 805AF
Representations of Judaism from Romanticism to Modernity

3:3-0

Beginning with literary contexts from the Bible, Jewish mythology, and Shakespeare, this course ultimately focuses on British representations of Judaism from the mid 18th to the late 19th century. The aim is to investigate how Judaism, as imagined by various artists, complicates narratives of historical and national identity in England.

Note: Students may receive credit for one of ENGL 805AF or ENGL 425AF.

ENGL 805AG

3:3-0

Shelley's Monsters: Mary Shelley's Life and Art

This course focuses on the topic of monstrosity in several of Mary Shelley's novels, some of her short stories and essays, and her editing work. We will read these texts in biographical context and alongside shorter contributions by Percy Shelley and Lord Byron.

Note: Students may receive credit for one of ENGL 805AG or ENGL 425AG.

ENGL 805AH
Labor and Longing in British Romantic Poetry

3:0-0

How does Romantic poetry capture what it means to work, labour or serve; to be productive or creative; to work for oneself or for others? Whether the choice to work is made freely or under coercion, including threats of suffering, imprisonment or death, work was both transforming, historically, and transformative.

Note: Students may receive credit for one of ENGL 805AH or ENGL 425AH.

ENGL 806
Adv Studies Victorian Lit

3:3-0

ENGL 806AH
Victorian Literature: Liberalism and Social Justice Novel

3:3-0

This course treats liberal political philosophy as a key but occluded context for Victorian social-justice novels. Topics include public and private space, and their right relationship; political rights and the juridical person; women, class, and suffrage; parliamentary and social reform; and the role of education in bringing rights into being.

Note: Students may receive credit for one of ENGL 806AH or ENGL 430AH.

ENGL 806AI
Inventing England: Myths of Nationhood and Nationalism in the Long 19th Century

3:3-0

Beginning with Benedict Anderson's touchstone Imagined Communities this course examines modern thinking about the meaning of nations and nationalism in texts and cultural expressions ranging from Nelson's column to Tennyson's Idylls of the King.

ENGL 806AJ
Studies in the Nineteenth Century: Crimes and Misdemeanours

3:3-0

This course examines ideas of Victorian social order through their opposite or underside, disorder, with particular reference to the ideas of crime and sin, and to theories of criminality, punishment, and rehabilitation, in high realist texts as well as sensation and detective fiction.

Note: Students may receive credit for one of ENGL 806AJ or ENGL 430AJ.

ENGL 806AL
Studies in 19th C.: Faith & Doubt

3:3-0

This course examines literature of faith and doubt, from poems of Tennyson, Matthew Arnold, and Browning to novels of Dickens, Eliot, and Gaskell from the perspective of new scholarship on Victorian religion, inviting critics to take seriously, as the Victorians did, their own thinking about religion and the spiritual life.

Note: Students may receive credit for one of ENGL 806AL or ENGL 430AL.

ENGL 806AN
19th Century Print Culture

3:3-0

This course traces the rapid transformation of the textual environment of 19th century Britain as a consequence of new technologies of printing and dramatic increases in literacy rates, through periodicals, newspapers, and printed ephemera, as well as the ways these forms of print culture transformed established literary genres.

ENGL 806AO
Advanced Studies in Victorian Literature: George Eliot

3:3-0

This is an advanced study in the life and work of the Victorian realist author, George Eliot (Mary Ann / Marian Evans), with a balance between major novels (Middlemarch, The Mill on the Floss) and smaller works, such as the fairy-tale like novella, Silas Marner, and the early Scenes of Clerical Life. Required reading will include Nancy Henry's recent biography of Eliot and a range of critical and recent scholarship on Eliot. See attached list.

ENGL 807
Adv Studies 20th C Literature

3:3-0

Course Catalogue

- ENGL 807AK** 3:3-0
T. S. Eliot
An overview of the career and development of T. S. Eliot, one of the most influential poets and critics of the twentieth century, this course will examine the collected verse, as well as selected plays and critical work.
Note: Students may receive credit for one of ENGL 807AK or ENGL 435AK.
- ENGL 807AL** 3:3-0
Advanced Holocaust Literature
This is a course on the study of Holocaust Literature written in English. We will study a range of genres, including memoir, novel, short fiction, poetry, drama, and other media to seek to understand the complexity of Holocaust representation in literature.
Note: Students may receive credit for one of ENGL 807AL or ENGL 435AL.
- ENGL 807AM** 3:0-0
Evelyn Waugh
Literary iconoclast/cultural conservative, ruthless satirist/devout Catholic: Evelyn Waugh seems a contradiction. Yet he is widely hailed, even by those unsympathetic to his values, as one of the great stylists of his century. This course offers a comprehensive measure of Waugh's diverse achievements over 37 years as a writer.
Note: Students may receive credit for one of ENGL 807AM or ENGL 435AM.
- ENGL 807AN** 3:3-0
Modernism & Problem of History
This course examines how the acceleration of contemporary life brought about by new technologies posed for modernists a problem of representation they met with formal innovation, and how history's morally troubling character spurred the forging of new myths to account for the repeated return of past strife and oppressions.
Note: Students may receive credit for one of ENGL 807AN or ENGL 435AN.
- ENGL 807AP** 3:0-0
Security and Surveillance: The Making of "Bad" Subjects
This course will use Foucault's mid-1970s lectures on security and surveillance as a starting point to discuss how bodies and behaviours are policed. We will discuss how some cultural texts play a role in producing "good" citizens, while others challenge the boundaries that delimit what it is to be human.
- ENGL 808** 3:3-0
Adv Studies Canadian Lit
- ENGL 808AD** 3:3-0
Canadian Poetry Since 1970
This course will focus on a reading of key poetic works of the last thirty or so years. Major movements, significant shifts, and work of widely read poets will be examined. We will explore the roles of small presses and literary magazines in the dissemination of contemporary writing in Canada.
Note: Students may receive credit for one of ENGL 808AD or ENGL 440AD.
- ENGL 808AI** 3:3-0
Canadian Literature: Atwood
For Margaret Atwood, literature is a powerful complex of self-fashioning, imagining and eyewitnessing, which is never stable or morally neutral. This course examines Atwood's national, environmental, humanitarian and feminist concerns, as well as her postmodern aesthetics and her experimentation with genre.
Note: Students may receive credit for one of ENGL 808AI or ENGL 440AI.
- ENGL 808AK** 3:3-0
Mourning and Memorial in Canadian Literature
A Study of mourning and memorial in Canadian literature with a focus on poetry and prose post 1950; includes theoretical grounding in mourning, memorial, and culture.
Note: Students may receive credit for one of ENGL 808AK or ENGL 440AJ.
- ENGL 808AL** 3:3-0
Testimony, Witness, and Indigenous Literatures
This course draws upon Indigenous and Western theories of trauma, testimony, and witness to examine and query contemporary Indigenous literatures' engagement with telling the trauma story through fiction for pedagogical, therapeutic, and activist purposes.
Note: Students may receive credit for one of ENGL 808AL or ENGL 440AK.
- ENGL 808AM** 3:0-0
Indigenous Feminism and Women's Writings
During this seminar class, students will engage in critical discussions involving justice and power for/by Indigenous women, gendered violence, Indigenous feminism, intergenerational trauma, women's residential school narratives and literary writings as restorative justice. Through lectures, readings, and screenings, students will develop critical and interdisciplinary tools for analyzing Indigenous literary discourses.
- ENGL 808AN** 3:0-0
"Wriggling through the universe as beams of light": Eden Robinson and the Decolonial Gothic
This seminar-style course examines the work of Haisla/Heiltsuk author, Eden Robinson, including short stories and a novella in *Traplines* (1996), her first novel, *Monkey Beach* (2000), and her recent *Trickster Trilogy*: *Son of a Trickster* (2017), *Trickster Drift* (2018), and *Return of the Trickster* (2021). *Intended for Graduate Students in English*
- ENGL 808AO** 3:3-0
Saskatchewan Indigenous Literatures
This course explores some of the richest and oldest stories in the lands now called Saskatchewan, including voices from Cree, Saulteaux, Dakota, Lakota, Nakoda, Dene, and Metis nations. Materials will include oral traditions, early writings, historical letters, speeches by chiefs and elders, and life writings, in addition to contemporary literary works in all genres.
Note: Students may receive credit for one of ENGL 808AO or ENGL 440AO.
- ENGL 808AP** 3:3-0
Contemporary Indigenous Literatures of Turtle Island
This course explores a range of contemporary First Nations, Metis, and Inuit literature and creative expression, which may include fiction, memoir, poetry, graphic novels, and visual and performance arts.
Note: Students may receive credit for one of ENGL 808AP or ENGL 440AP.
- ENGL 809** 3:3-0
Adv Studies American Lit
- ENGL 809AJ** 3:3-0
Cormac McCarthy
An intensive study of an extraordinary novelist and stylist, tracing his development through five decades and several genres. Beginning with his gothic explorations of the American South, we follow him to the Southwest, and backwards and forwards in time, as he reworks the Western, the thriller, and apocalyptic dystopia.
Note: Students may receive credit for one of ENGL 809AJ or ENGL 445AJ.
- ENGL 811** 3:3-0
Adv Studies Prose Fiction
- ENGL 812** 3:3-0
Advanced Studies in Drama
- ENGL 812DA** 3:3-0
Dramaturging & Devising Inclusive Theatre
The student will contribute a theoretical context and dramaturgical framework for THEA 315AB, a course that offers UG students the opportunity to explore inclusive theatre practices in public performances. It is aimed at those who are interested in collaborative/ devised theatre practice especially those who self-declare as otherwise-abled or are interested in exploring such possibilities.
Note: Students may receive credit for one of ENGL 812DA or THEA 315AB.
- ENGL 813** 3:3-0
Advanced Studies in Poetry
- ENGL 813AD** 3:3-0
Writing Fixed Form Poetry
This advanced poetry course involves the study of ways in which contemporary poets innovate, subvert, or reject inherited fixed forms.

Course Catalogue

Students will develop a conference-style paper on formalism for presentation to the class and will workshop a comprehensive research paper.

Note: Students may receive credit for one of ENGL 813AD, ENGL 465AA, ENGL 465CA, or ENGL 813CA.

ENGL 813AE 3:3-0
Writing the Lyric Self

This course is an intensive workshop in the craft and practice of creative writing with detailed instruction in genre-based criticism. Students are invited to consider the contemporary lyric poetic voice in relation to poles of literary impersonality and confession, and in relation to various strategies of music, prose and drama.

Note: Students may receive credit for one of ENGL 813AE or ENGL 465AB.

ENGL 813CA 3:0-0
CW: Writing Fixed-Form Poetry

In this advanced creative writing course, experienced student poets will experiment with traditional poetic forms and study ways in which contemporary poets innovate, subvert or reject fixed form. The course aims to develop students' reflective relationship to formalism in their personal poetics, even if they choose to write free verse.

Note: Students may receive credit for one of ENGL 813CA or ENGL 465CA.

ENGL 815 3:3-0
Advanced Studies in Genre

ENGL 815AF 3:3-0
Utopian Literature

Study of a number of works significant in the utopian tradition, with attention to historical and cultural context; themes such as politics, education, the arts, and gender roles; literary features of the genre; and related issues such as the intentional community and city planning.

Note: Students may receive credit for one of ENGL 815AF or ENGL 475AF.

ENGL 815AI 3:3-0
Science Fiction Adaptation

The class examines science fiction novel-to-film adaptations in the light of recent adaptation theory. It begins with classic scientific romances by H.G. Wells and then moves to recent adaptations including 2001: A Space Odyssey (Clarke/Kubrick), Solaris (Lem/Tarkovsky), and Blade Runner (Dick/Scott).

Note: Students may receive credit for one of ENGL 815AI or ENGL 475AI.

ENGL 815AN 3:3-0
Special Studies in Genre: Screening the Text: Modes of Fidelity in Film Adaptation+

This is a genre course focusing on the film adaptations of a variety of source texts. It will review contemporary adaptation theory, note its links to the classic problems of literary interpretation, and pursue a critical discourse based on modes of fidelity and infidelity in the text.

Note: Students may receive credit for one of ENGL 815AN or ENGL 475AN.

ENGL 815AO 3:3-0
Indigenous Science Fiction and Speculative Storytelling

This course examines Indigenous science fiction and speculative storytelling as an emerging genre. Beginning with its origins in oral traditions and ending with contemporary short fiction and film, this course asks what makes Indigenous science fiction distinct from Western science fiction, as well as historical fiction about Indigenous peoples.

Note: Students may receive credit for one of ENGL 815AO or ENGL 475AV.

ENGL 815AP 3:3-0
Experimental Memoir

This course introduces students to the creative non-fiction memoir and personal, lyric essay. It is a hybrid course; both academic and creative writing students can enroll. There is no workshop component. Students must submit a formal academic essay.

Note: Students may receive credit for one of ENGL 815AP, ENGL 475AL, ENGL 475CL, or ENGL 815CP.

ENGL 815AQ 3:0-0
Women's Memoir: Theory and Practice

This seminar examines the genre of women's memoir through both a critical and creative lens. We analyze several contemporary women's memoirs while gaining practice in the craft of memoir writing. Feminist and gender theory enables us to understand as well as trouble categories such as woman, identity, memory, and narration.

ENGL 815AZ 3:3-0
The Making of Modern Fantasy: 1700 - 1950

This course studies the shifts in fantasy literature as both genre and mode from the 18th century, when it emerges as a recognizable genre, to *The Lord of the Rings*, the keystone text of modern fantasy. It takes up, also, the shifts and changes in the theory of fantasy, from 19th century considerations of the novel and the romance to Todorov, Shippey, Clute, Mendelsohn, and Attebery.

Note: Students may receive credit for one of ENGL 815AZ or ENGL 475AZ.

ENGL 815BA 3:3-0
Mourning and Memorial in North American Literature

Focusing primarily on the period post-1950, this course examines how the literary culture of North America responds to literary traditions of mourning and memorializing in a period that poses serious challenges to the efficacy of remembrance. Theoretical and literary works form the focus of the readings.

Note: Students may receive credit for one of ENGL 815BA or ENGL 475BA.

ENGL 815CP 3:3-0
Creative Writing: Experimental Memoir

This course introduces students to the creative non-fiction memoir and personal, lyric essay. It is a hybrid course; both academic and creative writing students can enroll. There is no workshop component. Creative writing students must submit a personal, lyric essay.

Note: Students may receive credit for one of ENGL 815CP, ENGL 815AP, ENGL 475AL, or ENGL 475CL.

ENGL 815CQ 3:0-0
CW: Women's Memoir: Theory and Practice

This seminar examines the genre of women's memoir through both a critical and creative lens. We analyze several contemporary women's memoirs while practicing and workshoping the craft of memoir writing. Feminist and gender theory enables us to understand as well as trouble categories such as woman, identity, memory, and narration.

ENGL 817 3:3-0
Adv Stds Lit Criticism Theory

ENGL 817AD 3:3-0
After Theory: Politics & Theory

Theory and practice often become the opposition between theory and politics where theory is reproached for not being sufficiently political. This course looks at the political relevance or efficacy of theory. It examines the reasons for theoretical resistance, and studies the emergence of Cultural Studies.

Note: Students may receive credit for one of ENGL 817AD or ENGL 480AD.

ENGL 817AF 3:3-0
"The Age of Poets": Philosophy and Poetry in the Twentieth Century

This course examines Heidegger's proposition that "The thinker says Being. The poet names the holy." Our focus is on Heidegger and Holderlin, then turns to Jacques Derrida and Paul Celan. We will conclude with Alain Badiou's pronouncement that the "Age of Poets," Heidegger's "suture" of philosophy to poetry, is over.

ENGL 817AG 3:3-0
Literary Theory: Ethics and Zombies

Embodying contemporary anxieties of apocalyptic disaster, zombies summon fundamental ethical questions. This course examines the zombie in literature, film, the graphic novel, and the TV series *The Walking Dead* through the lens of bio-ethical theory and philosophers such as Kant, Nietzsche, Jonas, Arendt, and Levinas.

Note: Students may receive credit for one of ENGL 817AG or ENGL 417AG.

ENGL 817AH 3:3-0
Rhetoric of Apology in Canada

Course Catalogue

This course examines the rhetoric of government apologies in Canada as national mythologies or narratives of forgiving and forgetting government policies that defined, ?who belongs and who does not belong to the nation.? We will examine ideological underpinnings of apologies and attempts at reconciliation through Canadian tragedies.

Note: Students may receive credit for one of ENGL 817AH or ENGL 480AH.

ENGL 817AI **3:0-0**
Literary & Environmental Ethics: Ecocriticism, Ecology, Ecotechnics
This course examines two Canadian novels and three philosophers to ask, What is an environmental ethics? How does nature relate to the concept of environment, world, or creation? We investigate the concept of nature, guided by economic, technological, scientific, or religious thinking, to rethink humanity's dominion over plants and animals.
Note: Students may receive credit for one of ENGL 480AI or ENGL 817AI.

ENGL 817AJ **3:3-0**
Literary Theory and the Cartographic Imagination
This course explores the relationship between literature and maps. We examine works that feature actual maps, but with reference to theories of narrative space, literary cartography and geography, we address related questions such as how text is itself a form of mapping and how reader-produced maps function as analytical tools.
Note: Students may receive credit for one of ENGL 817AJ or ENGL 480AJ.

ENGL 817AK **3:3-0**
Another World is Possible: Alternative Realities
From philosophical allegories to imagined utopias and the spread of misinformation, this course will examine how, why, and with what effects authors and strategists deploy ?alternative realities.? Emphasis will be on the analytic and tactical space established by their creation.
Note: Students may receive credit for one of ENGL 817AK or ENGL 480AK.

ENGL 820 **3:3-0**
Adv Special Studies Literature

ENGL 820AB **3:0-0**
Postcolonial Literature/Theory
An examination of writing in English from former British colonies in the Pacific, Africa, Caribbean, South Asia, and Canada. We will study such current debates as universality and difference, representation and resistance, nationalism, hybridity, feminism, and language. Students will lead the discussion by presenting seminars on a variety of topics.

ENGL 820AD **3:3-0**
American First Nation Fiction
A study of key narratives of N. Scott Momday, James Welch and Leslie Silko, three of the most accomplished and influential contemporary First Nations writers in the USA.

ENGL 820AP **3:3-0**
Eighteenth Century Sexualities
This seminar will explore issues of gender and sexuality in Eighteenth Century culture, including literature, artwork, music, and fashion.
Note: Students may receive credit for one of ENGL 820AP or ENGL 420AP.

ENGL 820AT **3:3-0**
Canadian Aboriginal Literature
This course examines what makes Indigenous literature distinct within the context of Canadian culture and history by exploring a variety of Canadian Indigenous story telling forms: oral traditions, fiction, drama, and film on a range of topics including post colonialism, relations to land, spiritual traditions, popular culture, identity, and empowerment.
*Note: Students may receive credit for one of ENGL 820AT or ENGL 445AT.

ENGL 820AU **3:3-0**
Fantasy Literature
This seminar will examine the development of fantasy literature, from its early medieval roots to the work of contemporary writers such as Guy Gavriel Kay. Students will trace connections between the chivalric tradition and contemporary fantasy, while reading critical materials on the genre.
Note: Students may receive credit for one of ENGL 820AU or ENGL 475AU.

ENGL 820AV **3:0-0**
You Are Here: The Power of Place in Creative Writing
This seminar explores the significance of place and world-building in creative writing. Whether you're describing a fantastic city, or simply one's own room, the imaginative language of place is vital. Through a series of workshops on both fiction and creative non-fiction, this class will converse about the landscape of writing.
Note: Students may receive credit for one of ENGL 820AV or ENGL 485AV.

ENGL 820AW **3:3-0**
Ekphrasis: Theory & Practice
This class discusses the theory of ekphrasis, examines a series of ekphrastic texts, and gives students practice in ekphrastic writing. The bulk of the class is devoted to student workshops in which their ekphrastic writing - poetry, fiction, creative non-fiction, or scholarly analysis - will be analyzed by the class.
Note: Students may receive credit for one of ENGL 820AW or ENGL 485AW.

ENGL 820AY **3:3-0**
Histories of Childhood
This course examines childhood as a historical concept, a literary representation, and a media phenomenon. We'll look at experiences of Medieval children, examine Shakespeare's treatment of adolescence (along with queer/non-traditional adaptations), the development of children's literature during the 19C, & a variety of children's/YA texts that engage with ecology and dystopia.
Note: Students may receive credit for one of ENGL 820AY or ENGL 475AY.

ENGL 820AZ **3:3-0**
Literature and the Anthropocene
Numerous scientists, philosophers and artists believe that humans have recently entered a new geological epoch, the Anthropocene, an epoch that is defined by the ways that human civilization has fundamentally altered the Earth.
This class is a hybrid class, meaning that it can be taken for academic or creative writing credit.

ENGL 820BA **3:0-0**
CW: Writing Genre
This graduate-level creative writing seminar will focus on popular genres, including fantasy/science-fiction, detective fiction, horror, YA literatures, and digital genres. Students will workshop their own creative texts while also reading criticism on genre studies and the craft of writing.

ENGL 820CA **3:0-0**
Creative Writing Workshop: Long and Short Fiction
This graduate level Creative Writing Workshop will focus on short and long fiction in several genres. Students will workshop their own creative texts while also reading criticism on fiction and the craft of writing.
Note: Students may receive credit for one of ENGL 820CA or ENGL 485CA.

ENGL 820CU **3:3-0**
Creative Writing: Writing Fantasy
This course will focus on writing fantasy in a number of forms. We'll tackle the epic to the postmodern, and discuss the inner workings of the genre-fiction industry. Along the way, we'll read works of literary/popular fantasy across historical periods. Students will submit a final portfolio with a critical introduction.
Note: Students may receive credit for one of ENGL 820CU or ENGL 475CU.

ENGL 820CW **3:3-0**
CW: Ekphrasis: Theory & Practice
Creative Writing Section This class discusses the theory of ekphrasis, examines a series of ekphrastic texts, and gives students practice in ekphrastic writing. The bulk of the class is devoted to student workshops in which their ekphrastic writing - poetry, fiction, creative non-fiction, or scholarly analysis - will be analyzed by the class.
Note: Students may receive credit for one of ENGL 820CW, ENGL 820AW, ENGL 475AZ, or ENGL 475CZ.

ENGL 820CZ **3:0-0**
CW: Literature and the Anthropocene

Course Catalogue

Numerous scientists, philosophers and artists believe that humans have recently entered a new geological epoch, the Anthropocene, an epoch that is defined by the ways that human civilization has fundamentally altered the Earth. This class is a hybrid class, meaning that it can be taken for academic or creative writing credit. This is the creative writing section.

ENGL 830 3:3-0
Adv Bibliog Methods Research

ENGL 840 1-3:3-0
Directed Readings

ENGL 840CU 3:0-0
Creative Writing Directed Reading Study
Directed study on creative writing with focus on genre fiction.

ENGL 901 1-15:15-0
Research
Permission of the Department Head is required for registration in this course.

ENGL 902 3-9:0-0
Project Research
This course requires students to conduct research for a designated project in the first semester and then to write the project in a subsequent semester. Students are required to give a public presentation upon completion of the project.
Permission of the Department Head is required for registration in this course.

ENIN	Industrial Systems Engineering
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ENIN 800 3:3-0
Mech Behaviour of Materials
Elastic, anelastic and plastic properties of single crystals and polycrystalline aggregates. Relationship between deformation in single crystals and polycrystals. Theories of work hardening, strengthening mechanisms, dislocation theory. Microscopic aspects of ductile and brittle fracture.

ENIN 804 3:3-0
Foundation of Solid Mechanics
Three dimensional stresses and strains; stress and strain tensors; equilibrium and compatibility relations; constitutive equations; applications to elastic, plastic, and viscoelastic materials; finite strains; plane stress applications; stress concentration and implications to fracture.

ENIN 805 3:3-0
Materials Engineering
Basic principles of materials science; control of strength and ductility in metals; atomic and crystal structure and microstructural control; crystal defects and mechanical behaviour; diffusion, phase diagrams and heat treatment; ceramics-structure, properties and applications; composites; other phenomena of interest.

ENIN 811 3:3-0
System Analysis & Synthesis
Methods of analysing interrelated system components and synthesizing the components into a functional composite system. Defining and diagramming the system. Logical and mathematical modelling. Obtaining solutions of component and overall system requirements, system behaviour and system optimization.

ENIN 812 3:3-0
FEM of Engineering Systems
The finite element method - direct, variational and weighted residual methods; generalized approach; sub-, iso-, and superparametric elements; Equilibrium, propagation, eigen- value, transient and steady-state analysis as applied to solid mechanics, fluid mechanics, heat transfer, ground water and electromechanical systems.

ENIN 813 3:3-3
Multi-Criteria Decision Analysis
Students learn to integrate personal judgment and intuition in realistic industrial and business situations with the most widely applicable methodologies of decision and risk analysis, probability and statistics, competitive analysis, and management science.
Note: Students may receive credit for one of ENIN 813 or ENIN 880AZ.

ENIN 814 3:3-3

Operations Management
This course introduces engineering managers to operations management. This course focuses on these topics: outsourcing, off-shoring, six sigma improvement projects, enterprise resource planning, lean management, process, value planning, and supply chain management.
Note: Students may receive credit for one of ENIN 814 or ENIN 880BK.

ENIN 815 3:3-3
Advanced Operations Research
This course includes principles and practice of Operations Research and its role in decision making. In particular, it focuses on mathematical programming techniques such as linear and nonlinear programming, dynamic programming, and network optimization. It also includes quantitative modeling and decision analysis techniques utilized in planning and optimizing complex systems.
Note: Students may receive credit for one of ENIN 815 or ENIN 880BF.

ENIN 821 3:3-0
Robotics
A comprehensive coverage of the field emphasizing design philosophy and development methodology. Designing, planning and applying robotic technology with regard to mechanics, dynamics and control, load capacity and repeatability. Basic concepts associated with sensors, actuators, sensory feedback, programming and vision.

ENIN 822 3:3-0
Stochastic Systems Simulation
Classification of systems; techniques for modelling systems; fundamentals of simulation; selection of probability distributions; generating system behaviour; performance analysis of systems; model validation; experimental design and optimization; elements of waiting line models; simulation languages, especially SIMAN.

ENIN 824 1-6:6-0
Change Management in Engineering
This course covers the concepts of change management process in systems engineering. This will include the overall process of requesting, determining possibility, planning, implementing, and evaluating of changes to a system in order to shrinking errors, delays, and scrap, increasing product quality, and reducing cost of manufacturing.
Note: Students may receive credit for one of ENIN 824, ENGG 824, or ENIN 880CE.

ENIN 826 3:3-0
Leadership in Engineering
This course covers the concepts of leadership in systems engineering. This course will include a balance of theory and practice to cover major topics such as leadership behavior, skills, style, and culture. The theories will be explained through the discussions and in class activities and reflections with the focus on topics such as ethics, sustainability, and diversity in modern leadership.
Note: ENIN 880CK, ENIN 826 and ENGG 826 are cross-listed. Students can only get credit for one.

ENIN 830 3:3-0
Fluid Dynamics
Analysis of momentum transfer for Newtonian fluids in rectangular, cylindrical and spherical coordinates in laminar flow; shell balances, macroscopic balances; introduction to non-Newtonian fluids; boundary layer theory.

ENIN 831 3:3-1.5
Industrial Gas Processing
Design and operation criteria encountered in industrial gas processing industry. Topics include physical and chemical properties and overall phase equilibrium of light hydrocarbons, field treatment of natural gas, gas transportation, gas hydrates, sour gas treating, dewpoint control, fractionation, gas separation processes, NGL production, sulphur recovery, environmental control and economic consideration.
*Cross listed with ENPC 831

ENIN 833 3:3-1.5
Computer Aided Process Engg
Modelling of industrial processes including chemical processing, petrochemical manufacturing, and environmental processing. Computer simulation using ASPEN and other computer-aided process engineering software. Optimization techniques for process engineering problems. Industrial process case studies are discussed.

ENIN 834 **3:0-3**
Introduction to Intelligent Systems
 Fuzzy Sets, Fuzzy Rules and Fuzzy Reasoning, Fuzzy Inference Systems, Adaptive Artificial Neural Networks, Supervised Learning Neural Networks, Adaptive Neuro-Fuzzy Inference Systems, Coactive Neuro-Fuzzy Modeling.

ENIN 877 **3:6-0**
World Class Manufacturing Practises
 World Class Manufacturing (WCM) is a continuous-improvement system that drives success. The operating methodology focuses on trimming waste, boosting productivity and improving quality and safety. Work place pillars are defined. Monitoring and assessment tools are applied to production and processing, implementation, management and administration.

ENIN 878 **3:3-0**
Additive Manufacturing Technologies
 Additive manufacturing (AM) technologies, Extrusion, Vat photopolymerization, Powder bed fusion, Material jetting, Binder jetting, Directed energy deposition, Laminated object manufacturing, Process physics, Raw materials of AM processes, AM processing parameters and their effects, Properties and qualifications of AM parts, Applications and future opportunities of AM processes.
 Note: Students may credit for one of ENIN 878 and ENIN 880CH.

ENIN 880 **1-6:6-6**
Selected Topics
 Advanced topics in Industrial Systems Engineering. May be repeated for credit if the topic is different.

ENIN 880AE **1-6:6-0**
Mass Transfer w/ Chem.Reaction
 Advanced topics in Industrial Systems Engineering.

ENIN 880AH **1-6:6-0**
Rxn Kinetics & Reactor Design
 Advanced topics in Industrial Systems Engineering

ENIN 880AL **3:3-0**
Intelligent Robotics
 The main purpose of this course is to fully explore and thoroughly examine many of the (theoretical, and practical) aspects of Intelligent Robotic Systmes focusing on suitable Frameworks and Paradigms.

ENIN 880AN **3:3-0**
Wind Turbine Technology
 Reading, research, discussion and writing on advanced topics in wind engineering. These may include aerodynamics: Two-dimensional aerodynamics and three-dimensional effects; windatlas; wind assessment; atmospheric layer and turbulence; control of wind turbine; grid connections; wind turbine simulation.

ENIN 880AU **1-3:3-0**
Engineering Risk Management
 This course provides the student with knowledge and tools necessary to perform hazards analysis, reliability assessment, consequence analysis, event tree and fault tree analysis, maintenance management, and risk-based decision-making for engineering components.

ENIN 880AV **3:3-0**
Engineering Acoustics
 Acoustical wave equations; waveguides; sound transmission, reflection and diffraction; sound measurements and acoustic data analysis; concepts in engineering noise control; sound fields and noise sources; sound effects on human behaviour and safety; nonlinear oscillations and waves; coupling of acousitcal systems.

ENIN 880AX **3:3-0**
Acid Gases Capture and Storage
 Reading, research, discussion and writing on advanced topics in acid gas capture and storage. These may include solubility in chemical and physical solvents; kinetics in aqueous alkanolamines; Ab Intitio studies; mass transfer with chemical reactions; corrosion, degradation; membranes; calorimetry; acid gas storage in reservoirs and aquifers; plant simulation and optimization; carbon dioxide enhanced oil recovery; economics.

ENIN 880BA **3:3-0**

Column Internals for Mass Transfer Equipment
 This course serves as a comprehensive review of the mass transfer equipment used in absorption applications. An emphasis will be placed on structured packing.

ENIN 880BB **3:3-0**
Gasification Technologies
 This course offers in-debth study of gasification principles, including gasification vs combustion, coal gasification, biomass gasification, pyrolysis principles and aplications, and hydrodynamics of CFB. Economics principles and perspectives will also be covered in the course. This class is a directed reading course in nature and is based on individual study.

ENIN 880BC **3:3-0**
Membrane Technologies
 This course covers the use of membrane technologies for separation processes and engineering applications. Topics include traditional gas separation membranes, micro- and ultra-filtration, reverse osmosis, facilitated transport and absorption membranes. The manufacture of polymeric membranes, membrane fouling, wettability, and scale-up are also discussed.

ENIN 880BD **3:3-0**
Innovative Design and Prototype Research, Development and Evaluation
 Topics relate to designing innovative devices. Topics include modeling, material selection, manufacturing and assembly, design methodologies, prototype development and related test and evaluation protocol. The course will focus on a specific device with students submitting a project involving prototype developed and reports on related testing and evaluation.

ENIN 880BG **3:3-0**
Biodiesel Production Technology
 General concepts of biodiesel production technology; Advanced topics in biodiesel production including reaction mechanism and kinetics of esterification and transesterification, mass-transfer and design of staged/continuous reactor for biodiesel reaction, catalyst recovery technology, corrosion derived from the use of catalyst, and energy model and simulation for alcohol recovery process.

ENIN 880BH **3:3-0**
Nonlinear Dynamics in Engineering Systems
 Linear and nonlinear vibrations in engineering systems; piecewise linear/constant systems, oscillatory motion; transient vibration; multidegree discrete systems; properties of dynamic systems; continuous and discontinuous systems; Lagrange's equation; approximate and numerical methods; mode summation procedures; nonlinear vibration measurements; and energy principles.

ENIN 880BJ **3:3-3**
Composite Manufacturing and Analysis
 Comprehensive review of composite manufacturing including value added processing of waste streams. Characterization and modeling of material and mechanical properties of composites using ASTM standards. Property assessments includes density, tensile, compression, flexural, acoustic absorptivity, FITR spectroscopy, and others. Composite product design involving process flow mapping of material and energy.

ENIN 880BL **3:3-0**
Energy Technology for Greenhouse Gas Mitigation
 This course deals with energy technologies that minimize generation and emissions of greenhouse gases from combustion of both renewable and non-renewable fuels. Examples of technologies are biodiesel production, carbon capture and natural gas purification.

ENIN 880BM **3:3-0**
Modeling of Lean Manufacturing Systems
 This course discusses the modern Lean Manufacturing systems from an analytical point of view. Various modeling techniques will be explored to capture the different dynamics of lean manufacturing systems. In addition, modeling specific lean tools and lean performance metrics will be discussed.

ENIN 880BN **1-6:6-0**
Process Modeling for Sk Agricultural Value-added Industry
 Systems engineering applied to process modeling of value-added Sk Agriculture manufacturing ventures. Modeling tools include simulation,

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design of experiment, value stream mapping, flow chart and lean methodologies.

ENIN 880BO 1-6:6-0
Advanced Human Factors Engineering
Human interface related to products, processes, systems and work environment designs; includes aspects of human anatomy, physiology, and psychology in the work environment and work standards, safety, and scheduling. Focus on improving ease of use and system performance, while reducing operational errors, operator stress, fatigue, training requirement, and product liability.

ENIN 880BP 1-6:6-0
Gas Treating with Membranes
This course is a directed reading course for students that wish to study gas treating with membranes. By the end of the course the student will have a broad understanding of the field and be able to identify their own research interests.

ENIN 880BQ 3:3-0
Advanced Catalyst and Adsorbent Technology
A successful application of the principles of catalysis and adsorption to any given process requires a good knowledge of chemistry and engineering, together with considerable state-of-the-art 'know-how'. The purpose of the course will be to apply knowledge from both chemistry and engineering to the interdisciplinary area of catalysis and adsorption.

ENIN 880BR 3:1-1
Advanced Mechatronics
This course covers some selected topics in advanced mechatronics. Examples are: Robotic systems, electromechanical design of robots, optomechanics, machine vision, MEMS, advanced control with applications in robotics.

ENIN 880BS 3:3-0
Nonlinear Dynamics in Engineering
Fundamental concepts of analysis and modeling on nonlinear systems in engineering. Diagnosis and characterization of nonlinear behavior of dynamic systems in engineering field. Physical and mathematical modeling and numerical simulations of nonlinear systems together with evaluation and verifications of the modeling and numerical simulations.

ENIN 880BU 1-6:6-0
Advanced Topics in System Optimization for Petroleum Production Management
The class will cover the current issues as well as the advanced topics related to system optimization for petroleum production management. Recent progress and new developments of the subject will be described and applications in petroleum industry will also be discussed.

ENIN 880BV 3:0-0
Acoustic Engineering in Industrial Noise Control
Application of acoustics in engineering with focus on concepts of sound and noise, sound generation, vibration, sources and generation of industrial noise, techniques of noise and vibration control, sound and noise measurement and analysis and acoustics related to engineering design.

ENIN 880BW 3:6-0
Nuclear Reactors: Engineering and Safety
Understanding of the design and safety aspects of a nuclear power plant, with emphasis on Candu reactors.

ENIN 880BX 3:6-0
Nondestructive Testing
This course covers the basics, design, and use of nondestructive testing (NDT) techniques; namely those employing ultrasonics, acoustic emission, magnetic flux leakage, eddy current, radiography and microwaves. For each technique, the five elements of NDT (Source, Modification, Detection, Indication and Interpretation) are discussed.

ENIN 880BY 3:3-0
Advanced topics in Manufacturing Systems Analysis and Design
This is an advanced course in manufacturing systems analysis and design. Topics related to lean/agile manufacturing, cellular manufacturing systems, material handling systems, flexible manufacturing systems, and reconfigurable manufacturing systems will be taught in this course.

ENIN 880CA 1-3:3-0

Advanced Artificial Neural Networks
Artificial Neural networks; Multi-layer perceptron, Deep (Believe) Neural networks; recurrent neural networks and Extended Back propagation; Convolutional neural networks; Genetic Algorithms; reinforcement learning; Supervised, semi-supervised; unsupervised.

ENIN 880CB 1-3:3-0
Extractive Distillation for Biofuels
The purpose of this course is to create and thoroughly discuss all existing technologies for bioethanol production and purification in terms of advantages, limitations and potential for improvements. A technical and business case will then need to be made to recommend the most viable technique for ethanol production.

ENIN 880CC 1-6:6-0
Engineering Asset Management
Course topics include but are not limited to introduction to asset management, performance indicators, level of service, engineering asset deterioration mechanisms and condition evaluation, asset database management and GIS tool, risk-based decision support tools, lifecycle cost and benefit analysis, resource allocation, and integrated asset management.

ENIN 880CD 1-6:6-0
Deep Learning for Computer Vision
Deep Learning for Computer Vision has found its way to new research frontiers such as self driving cars. This course starts with an introduction to computer vision, and then turns to modern deep learning models. Object recognition/classification, and embedded computer vision using Deep Learning are among the applications covered.
Note: Students may receive credit for one of ENIN 880CD or ENSE 812.

ENIN 880CF 1-6:6-0
Adv Simulations Studies in ISE
Reading, research, discussion and writing on advanced topics in industrial engineering. These topics will include effectiveness of manufacturing system, lean manufacturing, and modeling with intelligence tools and techniques.

ENIN 880CG 1-3:0-0
Vibrations in Engineering Systems
Oscillatory motion; free vibration; harmonically excited vibration; transient vibration; multidegree discrete systems; properties of vibrating systems; continuous systems; Lagrange's equation; approximate methods; mode summation procedures; nonlinear vibrations; stability and control, and energy principles.

ENIN 880CI 1-3:3-0
Optimization in Industrial Systems
Offers topics of interest for increasing operational efficiency and resource utilization, performance improvement of process and service industries applying noble and stochastic network optimization, maintenance optimization, capacity optimization, constraint optimization, and revenue optimization techniques.

ENIN 880CJ 1-3:3-6
Natural Language Processing (NLP)
This course provides the foundation and also advanced skills on NLP. Algorithms to use for understanding and manipulating human language using machines will be studied. In particular, the students will learn about: Hidden Markov Model, Transformers, attention models, machine translation, word embeddings, and vector space models. They will apply these algorithms on real-world problems.

ENIN 880CL 1-3:3-0
Microfabrication Technologies
Micro-electro-mechanical systems; Microfluidics; Photolithography; Etching; Laser ablation; Focused ion beam etching, E-beam lithography; Dry etching, Chemical vapor deposition, Physical vapor deposition; Functional polymers and composites for microfabrication; Soft lithography techniques such as micro-contact printing, replica molding, micro-molding, etc. Packaging of MEMS devices. Cleanroom technologies.

ENIN 880CM 1-3:3-0
Renewable Energy Technology
Introduction of renewable energy technologies for energy-production. Course topics include basic fossil-fuel-based technology, biomass

Course Catalogue

technology, solar-based technology, hydro technology, geothermal technology, wind and tidal-based technology.

Note: Students may receive credit for one of ENIN 880CM or ENPC 880AU.

ENIN 880CN 1-3:3-0 Supply Chain Management

This course provides student with knowledge and tools necessary to develop, implement, and sustain strategies for managing supply chain issues. Topics includes supply chain drivers and metrics, supply chain coordination, sourcing, distribution network design, transportation models, warehousing, sustainable supply chain, and role of technology in supporting supply chain operations.

ENIN 880CO 1-6:6-0 Simulation of Membranes For Produced Water Treatment

Students will review research related to the functionalization of Polymeric and Ceramic membranes used in the treatment of produced and sulfated waters. They will work on modeling the membranes using both ANN and CFD methods.

ENIN 880CP 1-3:3-0 Machine Vision with Engineering Applications

The following topics will be covered: getting images into a computer, basics of image processing, spatial operations for filtering image information, image feature extraction, the geometry of image formation, camera project models, camera calibration, vision and motion, computer vision in robotics, computer vision for industrial automation.

ENIN 880CQ 3:3-3 Hydraulics and Pump Operation

Main components of a micro hydro power plant will be studied. They include: water conveyance, pump, generator, and the regulator. However, the main focus will be on the hydraulics and pump operation for maximum-efficiency power generation. Different turbine types, such as impulse (e.e., Pelton, and Jack Rabbit) and reaction turbines (e.g., vortex-type) will be studied.

ENIN 888 3:3-0 Engineering Safety Systems and Management

Professional engineering responsibility towards safety include: legislation, regulations and codes; health and safety programs; workplace incident assessments; risk hazard identification; risk management fundamentals; review of best practices and safety management. Content involves engineering design, case analysis, and development and use of various tools.

Note: Students may receive credit for one of ENIN 888, ENGG 888, or ENIN 880BZ.

ENIN 901 3-15:15-0 Research

Thesis research.

ENIN 902 3:3-0 Engineering Project

A supervisor-approved project requiring an in-depth study and investigation of an industrial systems engineering problem. An examining committee consisting of the supervisor, and one or more internal member(s) will provide a written evaluation of the project report. If the project report is deemed satisfactory, an oral presentation open to the entire University community will be made.

ENIN 903 3:3-3 Advanced Manufacturing Project

An in-depth study and investigation of an industrial systems engineering advanced manufacturing project as approved and supervised by the ISE Manufacturing Stream. The project will include a report and oral presentation reviewed by at least two faculty members from the ISE program.

ENPC	Process Systems Engineering
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ENPC 821 3:3-0 Advanced Reaction Engineering

Evaluation of types, mechanisms, rates and reactors required for various chemical and biochemical reactions; interpretation of reactor data for batch and flow reactors; selection of appropriate reactor for various reactions; flow patterns in industrial flow reactors; heterogeneous reaction systems; reactor

design and modeling; heterogeneous catalysis; introduction to biochemical reaction systems.

ENPC 831 3:3-0 Industrial Gas Processing

Design and operation criteria encountered in industrial gas processing industry. Topics include physical and chemical properties and overall phase equilibrium of light hydro- carbons, field treatment of natural gas, gas transportation, gas hydrates, sour gas treating, dewpoint control, fractionation, gas separation processes, NGL production, sulphur recovery, environmental control and economic considerations.

*Cross listed with ENIN 831

ENPC 833 3:3-0 Advanced Mass Transfer

This course addresses advanced topics in physical mass-transfer and mass-transfer with chemical reaction as well as their applications. It covers the principles of mass-transfer with chemical reaction, diffusion & mass-transfer coefficients, multi-component mass-transfer processes, steady state & unsteady state mass-transfer, mass-transfer models & simulation, simultaneous heat & mass-transfer, and design of staged / continuous process equipment for mass-transfer.

ENPC 845 3:3-0 Advanced Transport Phenomena

General concepts of momentum, heat and mass transfer, General balances: continuity, species continuity, energy, and linear momentum equations. Rate expressions: Newton's law of viscosity, Fourier's law of conduction, and Fick's law of diffusion. Applications to multi-dimensional problems, convective transport, transport in turbulent flow, interphase transport, boundary layer theory.

ENPC 857 3:3-0 Membrane Separation Technologies

This course covers the use of membrane technologies for separation processes and engineering applications. Topics include membrane process theory, traditional gas separation membranes, micro- and ultra-filtration, reverse osmosis, facilitated transport and absorption membranes. The manufacture of polymeric membranes, membrane fouling, wettability, and scale-up are also discussed.

ENPC 863 3:3-0 Air Quality Mangement

Advanced topics in air pollution impact assessment, mechanisms related to air pollution problems, mitigation and adaptation of air pollution effects through a number of engineering measures, design of air pollution control facilities, air quality management and pollution control planning, and air quality prediction techniques.

ENPC 864 3:0-0 Petroleum Waste Management

Generation of petroleum wastes and their impacts, treatment and disposal of petroleum wastes in exploration, production, and processing processes, remediation of petroleum contaminated sites, regulations related to petroleum wastes, and modeling for petroleum waste management systems.

ENPC 869 3:3-0 Advanced Heat Transfer

Conservation of energy concepts and modes of heat transfer; advanced concepts of conduction heat transfer including steady and unsteady, multi-dimensional, different coordinate systems and applications; solution methods for conduction heat transfer governing equations including analytical and numerical approaches; advanced concepts of convection heat transfer; advanced concepts of radiation heat transfer

ENPC 870 3:3-3 Advanced Topics in CO2 Capture & Separation Using Reactive Solvents

The class will cover the fundamental issues as well as the advanced topics in carbon capture and separation using reactive solvents. Recent progress and new developments of the subject will be described and its industrial applications will also be discussed.

ENPC 880 3:3-0 Selected Topics in Process Systems Engineering

Advanced topics in Process Systems Engineering.

Course Catalogue

ENPC 880AA Advanced Catalyst and Adsorbent Technology A successful application of the principles of catalysis and adsorption to any given process requires a good knowledge of chemistry and engineering, together with considerable state-of-the-art 'know-how'. The purpose of the course will be to apply knowledge from both chemistry and engineering to the interdisciplinary area of catalysis and adsorption.	3:3-0	Corrosion Inhibitors: Theory and Applications This course introduces fundamentals and industrial applications of corrosion inhibitors. It covers types of corrosion inhibitors, corrosion inhibition mechanism, electrochemical principles, quantum chemistry principles, test methods for inhibition performance, and applications of corrosion inhibitors for industrial processes.	
ENPC 880AC Advanced Topics in Carbon Capture, Utilization and Storage (CCUS) Advanced topics in carbon capture, utilization and storage (CCUS), including recent progress and new developments related to CCUS technologies with applications in the petroleum industry.	3:3-0	ENPC 880AM Sensitivity Analysis and Optimization of Blended Amine CO2 Capture Systems This course will cover advanced topics in carbon capture with particular emphasis on simulation, sensitivity analysis and optimization of a postcombustion CO2 capture using blended amines. The simulation will be validated with pilot plant data published in literature. The effect of process parameters on the efficiency of the process will be reviewed. Also, a high level economic assessment will be conducted for the optimized process.	3:3-0
ENPC 880AE Catalyzed Gasification Technologies for Heavy Oil Applications This course will cover the fundamentals as well as advanced topics in conventional and hydrothermal gasification for a variety of feedstocks with particular focus on heavy oil and coal. Recent developments and new frontiers of the subject will be described and its economics and industrial applications will also be studied.	3:3-0	ENPC 880AN Greenhouse Gas Techno-Policy and Accounting To provide fundamental knowledge of greenhouse gas (GHG) industrial accounting principles. GHG regulatory framework and techno-policy issues will be described and their implications to Saskatchewan and Canada will be discussed.	3:0-0
ENPC 880AF Ionic Liquids for Biodiesel Production: Opportunities, Costs, Challenges, and R&D Needs This course will cover advanced topics in biodiesel production with particular emphasis on biodiesel production from ethanol and waste oil using ionic liquids. Recent developments, new frontiers, economics, opportunities, challenges, and research and development needs will be evaluated and discussed. The industrial applicability and expected benefits will also be studied.	3:3-0	ENPC 880AO Carbon Capture for Industrial Sources The class will cover the fundamental issues as well as advanced topics in carbon capture and separation technologies for industrial sources. Recent progress and new developments of the subject will be described and large-scale applications will also be discussed.	3:0-0
ENPC 880AG Advanced Topics in Design & Optimization of CO2 Capture Systems The class will cover the advanced topics on design and process optimization issues of industrial CO2 capture systems. Recent progress and new developments of the subject will be described and its industrial applications will also be discussed. Two case studies related to power utility industry and natural gas processing will be examined in details.	3:0-0	ENPC 880AP Advanced Topics in CO2 Utilization The class will cover the fundamental issues as well as recent topics of CO2 utilization. Recent progress and its applications in the process industry, such as (but not limited to) CO2 for enhanced oil recovery, CO2 as a fluid fracturing, CO2 in cement manufacturing and CO2 for supercritical extraction, will be discussed.	3:0-0
ENPC 880AH Current Trends in Thermal Processes for Heavy Oil Recovery This course will cover advanced topics in heavy oil and bitumen production using thermal recovery methods with particular emphasis on steam assisted gravity drainage (SAGD) and cyclic steam stimulation (CSS). Recent developments, new frontiers, economics, opportunities, challenges, and research and development needs will be evaluated and discussed. The industrial applicability and expected benefits will also be studied.	3:0-0	ENPC 880AS Advanced Topics in Carbon Finance This course will explore the economic and environmental impacts of using carbon-based energy resources. The financial tools and techniques that can be applied to combat climate change will be investigated. The class will also discuss venture capital to develop low emissions technologies and project finance to build clean energy projects.	3:3-0
ENPC 880AI Petroleum Refinery Processes This course will cover advanced topics in petroleum refinery processes starting from the crude oil properties and characteristics. Content will include material related to oil refinery products, all the refinery processes such as atmospheric and vacuum distillation, hydrotreating processes, gasoline improvements processes, cracking processes, lube oil production, asphalt and wax production, and experimental tests for different products. The course also includes topics related to the study of auxiliary processes available in modern refineries, recent developments, and challenges encountered. Calculations related to material balance, economics, design, and research and development needs will be discussed.	3:3-0	ENPC 880AT Catalyst Deactivation in Fixed Bed Reactors Study catalyst deactivation theory and industrial issues; such as catalyst fouling, poisoning, activity, experimental methods for the impact of catalyst deactivation in FBRs; quantitative models for catalyst coverage & catalyst activity; reactor modeling for catalyst performance under deactivation; contemporary industrial solutions and current state-of-the-art in the prevention of catalyst deactivation.	3:0-0
ENPC 880AJ Advanced Topics on Mass Transfer in Process Systems Engineering The students will be exposed to mass transfer processes in Process systems Engineering as it relates to CO2 capture using amines. It will involve its use for the design of absorption and regeneration columns.	3:3-0	ENPC 880AU Renewable Energy Technology Introduction of renewable energy technologies for energy-production. Course topics include basic fossil-fuel-based technology, biomass technology, solar-based technology, hydro technology, geothermal technology, wind and tidal-based technology. *Note: Students may receive credit for one of ENPC 880AU or ENIN 880CM.*	3:3-0
ENPC 880AK Advanced Topics on Reaction Kinetics for Process Systems Engineering The students will be exposed to Reaction Kinetics in Process systems Engineering. This will also relate to CO2 capture using amines and other rate processes. It will involve its use for sizing of vessels for absorption and desorption.	3:3-0	ENPC 880AV Advanced Heat Pump Technology for Clean Energy Applications Course topics include the design and operation of heat-pump technology using various process configurations and different refrigerants. A series of technologies for renewable energy utilization and storage will be integrated into the heat-pump systems. Performance of the integrated heat-pump system will be assessed using real case for clean energy applications.	3:3-0
ENPC 880AL	3:0-0	ENPC 901 Thesis Research Thesis Research	3-15:15-0
		ENPC 902	3:3-0

Process Systems Engineering Project

A supervisor-approved project requiring an in-depth study and investigation of a Process Systems Engineering problem. An examining committee consisting of the supervisor and one or more internal member(s) will provide a written evaluation of the project report. If the project report is deemed satisfactory, an oral presentation open to the entire University community will be made.

ENPE	Petroleum Systems Engineering
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ENPE 801 **3:3-0**
Surface Thermodynamics
 Basic Postulations in thermodynamics, Euler equation and Gibbs-Duhem relation, Legendre transformation, thermodynamic potentials, systems in potential, systems in electric and magnetic fields will be studied. Also, Bulk, interfacial and linear phases, surface thermodynamics and mechanics of interfaces, excess energy at interfaces, and Gibbs adsorption will be covered.

ENPE 802 **3:3-0**
Advanced Reservoir Fluid Analysis
 This course covers laboratory PVT and fluid property measurement for black oil, heavy oil and gas condensate; multi-phase equilibrium analysis and modeling; flow assurance studies of asphaltene, wax and hydrate; live reservoir fluid sampling; downhole fluid analysis; enhanced oil recovery related experiments.

ENPE 803 **3:3-0**
Petroleum Geomechanics
 Basics of vector and tensor algebra, Stress and strain tensors, Rock elasticity, Failure mechanics, Rock properties from laboratory experiments and field data, In-situ stress estimation. Special attention is given to the following topics: Wellbore stability analysis, Hydraulic fracturing, Sand production, Compaction and subsidence, Caprock integrity, Fault reactivation and induced seismicity.

ENPE 811 **3:3-0**
Advanced Reservoir Engineering
 Rock and fluid interfacial properties and capillary curve, advanced material balance for oil reserves, Buckley-Leverett equation for two phase immiscible displacement and fractional flow will be covered in detail. Also, reservoir performance by use of decline curves, pressure maintenance, oil trapping, and capillary number correlation are studied.

ENPE 821 **3:3-0**
Advanced Reservoir Simulation
 Development of reservoir simulation theory to the level required for the construction of a 3-phase, 3-dimensional reservoir simulator. Development of equations for multicomponent, multiphase flow between grid blocks comprising a petroleum reservoir. Various techniques for developing black-oil, compositional, thermal and dual-porosity models will be covered in this course.

ENPE 824 **3:3-3**
Surface Facilities and Energy Conversion
 Geothermal power plants require high-temperature hydrothermal resources that come from dry steam or hot water wells. Thus this course covers the surface facilities required for producing and utilizing hydrothermal resources. Moreover, geothermal energy should be converted to other forms of energy to do useful work, and hence an understanding of the energy conversion, process, and storage is necessary.

ENPE 825 **3:3-3**
Geothermal Simulation and Plant Design
 Introduction to pressure, temperature, and flow models in geothermal reservoirs, as well as analysis. Basic equipment and design for dry steam, single/double flash, and binary cycle geothermal power plants. Rankine/Kalina cycles are used to analyze and improve plant thermodynamic efficiency. Environmental, economic, and social effects of plants.

ENPE 827 **3:3-3**
Fundamentals of Geothermal Engineering
 This course covers fundamental and advanced aspects of geothermal engineering on various topics, including coupling of fluid flow and thermal process in porous medium, geothermal reservoir modeling, software application, geothermal technology using closed-loop and enhanced

geothermal system (EGS), and systematic usage of geothermal energy and its relationship with other renewable energy.

ENPE 828 **3:3-3**
Drilling and Production for Geothermal Engineering
 This course is designed to foster participants knowledge in the area of design, characteristics, and application of drilling fluids and their rheology, circulation system, casing and liner, cementing, vertical and directional drilling, bottomhole assembly and completion, zone isolation, etc. in high-temperature and high-pressure (HPHT)/deep formations. Production from geothermal resources and high temperature zones and corresponding bottomhole infrastructures will be explained. Production analysis, optimization, and challenges related to both drilling and production from HPHT zones will be included. Pressure drop calculations during both drilling and production as well as decline analysis and lifting systems are included.

ENPE 829 **3:3-0**
Advanced Drilling and Subsurface Operations
 Drilling in regular, deep, and challenging fields, Casing designs for multiple zones and directional/horizontal wells, design of tubings in production wells, recent advancements in work/over operations, production challenges from high pressure, and/or challenging fields.
 Note: Students cannot get credit for both ENPE 880AK and ENPE 829.

ENPE 831 **3:3-0**
Advanced Enhanced Oil Recovery
 Microscopic and macroscopic displacement of fluids in a reservoir, mobility control processes, miscible displacement processes, chemical flooding, and thermal recovery processes will be covered in this course. Mathematical representations and physical descriptions will be developed. Carbon dioxide flooding and steam assisted gravity draining will be covered in more depth.

ENPE 841 **3:3-0**
Advanced Well Testing
 Fundamentals of steady state and transient pressure analysis multi-rate and well interface test, analytical and numerical Laplace and Stehfest Inverse Laplas transform, analysis of welltest data by Green's function method, commingled layered reservoirs, dual porosity reservoirs, multi phase flow reservoirs, and horizontal well pressure behaviour analysis will be studied.

ENPE 842 **3:3-0**
Geostatistics

ENPE 851 **3:3-0**
Mathematical Analysis of Multi Phase Flow in Reservoirs
 The principal objective of this course is to develop techniques for the solution of wide variety of multi phase flow problems in porous media for compressible and incompressible flow. Selected mathematical techniques will be developed for specific problems, and analytical and numerical solutions will be compared.

ENPE 860 **3:3-0**
Secondary Oil Recovery
 This course provides students with a thorough understanding of immiscible fluid displacement phenomenon in porous media. Immiscible displacement processes widely employed in the industry will be discussed. These will be mainly waterflooding and, to a less extent, gas flooding. Coverage of these processes will include design and evaluation.

ENPE 861 **3:3-0**
Fluid Flow in Porous Media
 Microscopic aspects of fluid flow in porous media: pore structure, capillarity, wettability, single phase flow, immiscible displacement, miscible displacement and dispersion. Critical examination of interactions among transport phenomena, interfacial effects and pore structures. Discussions of relative permeability, heterogeneity and viscous fingering and film flow in three-phase systems.

ENPE 870 **3:3-0**
Advanced Production Engineering
 This course provides a detailed study of advanced topics in well completion design and techniques. Other topics include inflow performance, well stimulation, sand control and surface facilities. Issues related to horizontal wells will also be discussed.

ENPE 880 **3:3-0**
Selected Topics in Petroleum

Course Catalogue

Advanced topics in Petroleum Systems Engineering. May be repeated for credit if topic is different.

ENPE 880AA 3:3-0
Interfacial Phenomena
 Capillary phenomena and equation of capillarity; Young and Laplace equation, Surface/interfacial tension and contact angle measurements, Electrokinetic transport phenomena, van der Waals (vdW) interaction and electrical double layer (EDL) interaction between two surfaces, Emulsions and Foams, Deposition of colloidal particles.

ENPE 880AI 3:3-0
Advanced Topics on Heavy Oil Recovery
 Heavy oil cold production with/without sands; steam flooding, Cyclic Steam Stimulation, Steam Assisted Gravity Drainage, In-Situ Combustion, Solvent Vapor Extraction, Reservoir simulation on those processes.

ENPE 880AJ 3:3-0
Advanced Topics on Formation Evaluation
 Recent developments on formation evaluation and well interpretation for tight formations, shale gas and oil reservoirs, as well as naturally fractured reservoirs. Reservoir description and characterization.

ENPE 880AM 3:3-0
Numerical and Analytical Solution of Porous Media Flow Problems
 Course develops techniques for the solution of a wide variety of single phase flow problems in porous media for compressible/incompressible flow. Two dimensional flow will be considered for the greater part. Selected mathematical techniques, analytical/numerical, will be developed for specific problems. Some cases, analytical and numerical solutions will be compared.

ENPE 880AN 3:0-0
Theory and Application of Gas Injection Process
 This course covers mathematical description of the various mechanisms of gas injection processes for enhanced oil recovery. It includes the development of general conservative equations, concept of the composition paths, two to four and multi-components gas/oil displacements, numerical approaches to estimate MMP and MME, the impact of numerical dispersion on the compositional simulation.

ENPE 880AO 3:0-0
Process Design of Utility Systems
 This course is designed for graduate students interested in working in various industries (e.g., petroleum, process, etc) and provides students a thorough understanding of the design aspects and procedures of various utility systems such as: water treatment, compressed gases (e.g. air, nitrogen, etc), hot oil (thermal fluid), cooling water supply, steam supply, and waste water systems.

ENPE 880AP 3:3-0
Unconventional oil and gas development
 This course covers the description and analysis of unconventional oil and gas (heavy oil/bitumen, shale oil/gas, coal bed methane, etc. Reservoir characteristics and recovery methods. It includes the fundamental theories and detailed investigation of unconventional oil and gas production mechanisms, development strategies, recovery process design, forecasting methods, as well as environmental and economic impacts.

ENPE 880AQ 3:3-0
Advanced Phase Behaviour
 The course covers advanced topics pertaining to PVT studies for hydrocarbon fluids, heptanes-plus characterization, gas-liquid equilibria, and equation of state (EOS). Students are required to code EOS programs to quantify phase behaviour for a wide range of gas-oil systems and project work is mandatory.

ENPE 881 3:3-0
Advanced Gas Reservoir Engineering
 Review of natural gas properties; reserve estimation techniques and advanced treatment of water influx in gas reservoirs; steady and transient single-phase gas flow in porous media; non-Darcy flow; deliverability tests; transient gas well testing and single and multiphase flow in circular conduits.

ENPE 886 3:3-0
Hydraulic Fracturing

Introduction to rock mechanics, hydraulic fracturing operations, fracture treatment design, treatment analysis and post-treatment evaluation.

ENPE 901 3-15:15-0
Thesis Research
 Thesis research.

ENPE 902 3:3-0
Engineering Project
 A supervisor-approved project requiring an in-depth study and investigation of an petroleum systems engineering problem. An examining committee consisting of the supervisor, and one or more internal member(s) will provide a written evaluation of the project report. If the project report is deemed satisfactory, an oral presentation open to the entire University community will be made.

ENSE	Software Systems Engineering
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ENSE 805 0-3:3-3
Researching & Engineering Community-Centred Software
 Researching topics in/and engineering user experiences for community-centred software applications (e.g. apps supporting collaboration, communities of practice, data, information, and knowledge management, education and learning).
 Prerequisite: To take this course the student must be a Software Systems Engineering graduate student or have permission from the instructor.
 Note: Students may receive credit for one of ENSE 885AS or ENSE 871.

ENSE 811 0-3:3-3
Practical Deep Learning
 This course is an elementary introduction to a machine learning technique called deep learning (also called deep neural nets), as well as its applications to a variety of domains, including image classification, speech recognition, and natural language processing. Students will be expected to undertake a course project and several programming assignments to implement the concepts learnt in class.
 Note: Students may receive credit for one of ENSE 885AU or ENSE 811.

ENSE 812 1-6:6-6
Application of Deep Learning in Computer Vision
 This course explores the application of deep learning techniques in the field of Computer Vision, especially in the areas of object recognition, structured predictions and unsupervised deep learning. This course includes the fundamentals of computer vision such as image formation, feature detection, motion estimation, tracking, image classification and scene understanding.
 Note: Students may receive credit for one of ENSE 812, ENSE 885AY, or ENIN 880CD.

ENSE 817 3:3-0
Applied Artificial Intelligence
 Concepts treated include object recognition, computer vision, and robotics. Applications of these concepts to engineering problems will be presented. A project, applying artificial intelligence concepts, will be performed by the student.

ENSE 818 3:3-0
Ontology and Software Engineering
 This course focuses on development and use of ontologies in software engineering. It explores the development of ontologies in different application domains and how they can support and enhance the software engineering and data analysis processes.

ENSE 819 3:0-0
Development of Application Software on Mobile Devices
 The course objective is to study how to create mobile applications utilizing various methodologies, techniques and technologies. The course will introduce students to topics such as user-interface design, multi-modal development, integration of mobile device sensor data within applications, integration with back-end online services and APIs.

ENSE 821 0-3:3-6
Advanced Topics in Digital Security
 Topics like cryptography are covered in general terms. Course leaves freedom to cover issues of relevance to the latest threats discovered. Students are expected to extend their knowledge through comprehensive survey on defined topics and to present on advanced topics following their

Course Catalogue

independent research. Student are expected to have strong programming skills as they try to solve real problems and offer alternative solutions.

ENSE 828 3:0-0
Software Development in Creative Technology Arts and Performances
This courses focuses on the software engineering process for building applications in creative technology arts and performances. Tools that support this development process will be studied and applied.

ENSE 865 3:3-0
Applied Machine Learning
Topics in this course include regression (linear regression with multiple features, nearest neighbors & kernel regression, ridge regression), classification (linear classifiers, logistic regression, decision trees, boosting), clustering, and dimensionality reduction. The concepts of overfitting & regularization, feature selection, and performance evaluation are also included. Students will apply these concepts in implementation of practical machine learning applications

ENSE 871 0-3:3-3
Usability Research & Engineering
Researching topics in/and engineering quality (i.e. useful, usable, and delightful) technology-based user interfaces.
Prerequisite: To take this course the student must be a Software Systems Engineering graduate student or have permission from the instructor.
Note: Students may receive credit for one of ENSE 885AW, ENSE 871, or CS 828.

ENSE 872 3:3-0
Network Computing
This course is designed for a detailed analysis of network computing systems for BigData, Artificial Intelligence, Cloud Computing and Internet of Things. The course will also discuss issues and technologies of middleware, network and distributed systems. The course includes a substantial term project.

ENSE 873 3:3-0
Software Systems Data Analytics
In this course, we will study state-of-the-art methods for software system data analytics including surveys of current literature. This includes exploratory data analysis, confirmatory data analysis, qualitative data analysis, machine learning and data visualization.

ENSE 880 3:3-0
Advanced Topics in Digital Networks
Lectures are focused on advanced digital networks that illustrate characteristics of modern networks. Topics like ubiquitous and ad-hoc networks, vehicular communications, and safety applications may be covered. Students are expected to extend their knowledge through comprehensive survey on defined topics. This course prepares students for research on areas relevant to networking and mobile computing.

ENSE 883 0-6:6-6
Software Systems Architecture
This course focuses on back-end software systems architecture including design concepts, database concepts, and back-end software systems. Distributed software services of system architectures ranging from enterprise to industrial applications.

ENSE 883AC 3:3-0
Social and economic impacts of Artificial Intelligence
The course aims to investigate social and economic impacts of Artificial Intelligence and advanced Information Technology on various sectors of society and on the human.

ENSE 885 1-6:6-6
Selected Topics in Software Systems Engineering
Advanced topics in Software Systems Engineering, including surveys of current literature. May be repeated for credit if area of study is different.

ENSE 885AG 3:3-0
Digital Security
Focus on the design techniques relevant to digital security and public key infrastructure. The course covers cryptography then moves to intensive application of secure systems..

ENSE 885AH 3:3-0

Introduction to Mobile Agents
Advanced topics in software engineering, including surveys of current literature.

ENSE 885AI 3:3-0
Software Measures and Metrics
Advanced topics in software engineering measurements, including surveys of current literature.

ENSE 885AM 3:3-0
Advanced Topics in Digital Networking
Lectures are focused on advanced digital networks that illustrate characteristics of modern networks. Topics like ubiquitous and ad-hoc networks, vehicular communications, and safety applications are expected to be covered. Students are expected to extend their knowledge through comprehensive survey on defined topics. This course prepares students for research on areas relevant to networking and mobile computing.

ENSE 885AN 3:0-0
Voice Interoperability Techniques
Course is focused on voice coding and interchangeability of voice coders through VoIP and the use of SIP. Course will utilize the use of Land Mobile Radios (LMR) and Longterm Evolution (LTE) as a way to connect voice. The course also studies P25 and VOLTE and examine the best ways to connect LMR voice.

ENSE 885AO 3:0-0
Readings in Cloud Computing for Intelligent Systems
This course will cover detailed aspects of cyber-physical systems such as architecture, protocols, and services. Topics include cloud computing, software as a service, Internet of Things. Example applications of interest will include transportation as a service.

ENSE 885AP 3:0-0
Public Safety Secure Interoperability Platforms
Course is focused on technologies relevant to the FirstNet development and the creation of secure platform. The intended platform includes modern technologies of containerization, lock-box and encrypted storage. Topics like key exchange and storage will be investigated.

ENSE 885AQ 3:0-0
Selected Topics in Deep Learning
Advanced topics in AI, machine learning, neural networks and deep learning including surveys of current literature.

ENSE 885AR 3:0-0
Readings in Cloud Computing for Intelligent Systems
This course will cover detailed aspects of cyber-physical systems such as architecture, protocols, and services. Topics include cloud computing, software as a service, Internet of Thing. Example applications of interest will include transportation as a service.

ENSE 885AT 3:0-0
Special Topics in Human-Centred Design
Students will explore and present on special topics in Human-Centred Design (HCD). Reading materials will include a number of textbooks and journal/conference proceedings in HCD.

ENSE 885AV 3:3-0
Cloud Data Ecosystem
Novel development in the Internet architecture results in generating very large amounts of data. Processing these data requires specialized software systems that would be deployed on different Cloud computing infrastructures. This course will discuss requirement and design issues related to such architectures, systems, and infrastructures. Students will work on a BigData Cloud computing system analysis and design.

ENSE 885AZ 3:3-0
Responsive Software Design and Development
Research and exploration towards designing and developing responsive software applications

ENSE 885BA 1-3:3-0
Selected Topics in Intrusion Detection
Directed studies into Intrusion Detection Systems with a focus on detection by deception and the use of honeypots.

ENSE 885BB 1-3:3-0

Embedded Systems and Co-Design

Students enrolled in this course will undertake directed studies in embedded/real-time systems in one or more of these: feedback control, signal processing, software/hardware codesign, communications, monitoring.

Note: Students may receive credit for one of ENSE 885BB, ENEL 890AM, or ENSE 481.

ENSE 885BC 3:3-0 Artificial Intelligence and Society

This course focuses on the social and ethical implications of the Artificial Intelligence technology. It explores different artificial intelligence or information technology applications and their social, economic and ethical impacts on society.

ENSE 885BD 1-3:3-3 Cloud Computing & Applications

This course covers the concepts, technologies and platforms to develop foundations for cloud computing. The course will introduce the students to topics, such as Cloud resource management, Serverless applications, Cloud storage & databases, Big data analytics, Cloud security, Cloud application monitoring and benchmarking and Cloud for industry, healthcare and education.

ENSE 885BE 1-3:0-0 AI in CyberSecurity

Investigation of AI technologies and methodologies for automating detection of cybersecurity threats.

ENSE 901 3-15:0-0 Research

Thesis Research.

ENSE 902 3:0-0 Engineering Project

A supervisor approved project requiring an in-depth study and investigation of a software systems engineering problem. An examining committee consisting of the supervisor, and one or more internal member(s) will provide a written evaluation of the project report. If the report is deemed satisfactory, an oral presentation open to the entire University community will be made.

EPSY	Educational Psychology
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EPSY 820 3:3-0 Theories of Counselling

A study of the current theories of counselling. Critical examination of these theories, in terms of their historic significance, their relevance to school counselling and techniques that are appropriate for each.

EPSY 821 3:3-0 Aptitude & Achieve Analysis

The use of standardized tests, anecdotal records, case studies, cumulative records and other similar guidance tools designed to help in the analysis of aptitudes, interests, abilities, and limitations of students.

EPSY 822 3:3-0 Ed & Vocational Guidance

Topics include: learning problems and problems of adjustment in adolescence, academic and vocational decision-making, sources of vocational information and a study of post-high school educational and training programs.

EPSY 823 3:3-0 Cognitive Assessment I

Theoretical background necessary for the administration and interpretation of the Wechsler Scales and revised Stanford Binet and other clinical tests of cognitive ability. Development of the scales, their rationale and related research with an emphasis in cross-cultural assessment issues.

Additional Fee: \$50.

EPSY 824 3:3-0 Group Counselling Theo & Prac

This course will acquaint the student with the theory and practice of group counselling as practiced in a variety of settings. Opportunities to experience group dynamics directly will be arranged.

EPSY 826 3:3-0

Psychology of Learning

Current theory and research in human learning with particular reference to its cognitive, symbolic and motor aspects. Emphasis upon classroom behavior and application of theoretical principles to teaching and counselling.

EPSY 827 3:3-0 Cognitive Assessment II

Practical experience in the administration and interpretation of clinical tests of cognitive ability.

Prerequisite: EPSY 823.

Additional Fee: \$100.

EPSY 828 3:3-0 Bldg Communities Ed & Psych

A systematic examination of the helping professions' role in community issues through the prevention/crisis intervention continuum. Current theory is linked to effective practice.

EPSY 829 3:3-0 Ethics & Professional Practice

Ethics and professional practice: This course provides for the examination of the philosophical, legal, and ethical issues that affect the practicing counsellor.

EPSY 830 3:3-0 Counselling: Girls and Women

An overview of the unique concerns of girls and women as they relate to the helping professions, especially counselling. Current theory and practice are used to examine the roll of personal experience and social context in developing a nonstereotypic framework for counselling.

EPSY 831 3:3-0 Counselling with Children and Youth

This course focuses on counselling children and adolescents using a strengths based perspective within a school context. Theory/practice linkages will be emphasized.

EPSY 832 3:3-0 Deconstructing Counselling Skills

Supervised individual practical experience, this course is designed to teach students the foundational skills and processes involved in counselling relationships using decolonizing and social justice frameworks.

EPSY 833 3:3-0 Special Topics:Ed/Couns Psych

This is a faculty-student seminar designed to discuss current issues in Educational Psychology. It may also include a practicum component depending on professional goal(s) of the course.

EPSY 834 3:3-0 Resilience: Re-Conceptualizing Praxis

A conceptual and critical analysis of resilience and its place in day to day classroom life. Particular attention will be paid to how current research re-structures pedagogical and community practice, theory/practice connections are emphasized.

EPSY 835 3:3-0 Practicing Disability: Telling Tales in Education and Psychology

Different models of disability will be explored, including those articulated by persons with disabilities themselves. Links will be made to research methodologies and ameliorative practices throughout the helping professions. Assignments will include applied project in current radical disabling praxis, involving Universal Design Principles and the Quality of Life (QoL) Model.

EPSY 836 3:3-0 Neuropsychological Foundations

The course will survey topics in human neuropsychology. Classes will focus on introductory issues such as Physiology of the brain, brain-behaviour relations and classes of psychotropic medications. In the latter part of the course, student presentations will focus on current issues in the field.

EPSY 837 3:3-0 Creativity and the Learning Process

Analysis of the nature of creativity; concepts of creative thinking and creative behaviours; problems, cultural differences, identification, evaluation and evaluation measures in educating for creative production; as well as other areas that focus on creativity, innovation, ingenuity, and/or discovery.

EPSY 838 Multiple Ways of Healing This course blends theory and practice to support multiple ways of healing with an emphasis on Indigenous perspectives. Students learn to disrupt the socially constituted separation between human and more-than human beings and move towards an ecological consciousness that identifies animals, plants, and land as key partners in the healing process. *Note: Students may receive credit for one of EPSY 838 or EPSY 870AC.*	3:3-0	the targeted internal change that is the focus of rehabilitative efforts across theoretical bases.
EPSY 839 Indigenous Family Therapies The Cultural Responsiveness Framework will guide the delivery of therapeutic services to Indigenous individuals, families, and communities. Students will develop an understanding of Indigenous family systems and their multigenerational issues. This course improves practitioners' therapeutic skills and knowledge of First Nations, Metis, and Indigenous people in Indigenous and Western contexts. *Note: Students may receive credit for one of EPSY 839 or EPSY 870AB.*	3:3-0	EPSY 890AF Effective Pedagogical Models for Youth at Risk This course will examine the notions, research, and literature about youth at risk, and effective pedagogical models for youth at risk.
EPSY 840 The Social Bases of Behavior: Psychological Perspectives This course is designed to promote a broader and deeper understanding of the social bases of behavior from a psychological perspective, with a special emphasis on linking social psychological research findings to the field of educational psychology. *Note: Students may receive credit for one of EPSY 840 or EPSY 870AE.*	3:3-0	EPSY 890AG The Artist Within: Fine Arts Alternatives for Students with Developmental Disorders This course will examine fine arts and students with pervasive developmental disorders and other cognitive disabilities. Through the theoretical lens of disability studies in education students will learn how the arts may be implicated and expressed in a very diverse population of students with developmental disorders.
EPSY 841 Advanced Child and Adolescent Psychopathology This graduate course addresses broad issues related to child/adolescent psychopathology that are pertinent to educational psychologists, along with specific coverage of the prevalence, etiology, diagnostic criteria, comorbidity and differential diagnoses of mental health problems primarily relevant to children/adolescents (using the current Diagnostic and Statistical Manual of Mental Disorders). *Note: Students may receive credit for one of EPSY 841 or EPSY 870AA.*	3:3-0	EPSY 890AH Sustainable/Resilience of Eastern and Western Counselling Methodology A comparative study of traditional, current Western counselling techniques and techniques based on Eastern Buddhist psychology as it relates to sustaining well-being. An examination will be made of the sustainable/resilient value of the Eastern-based practice to the Western-based practice in modern life.
EPSY 870 Educational Psychology Experimental Courses Courses developed by instructors for eventual inclusion as regular courses in the Educational Psychology Subject Area	3:3-0	EPSY 890AI Creating Respect for Disability as Difference in the Elementary Classroom This course will examine diversities in the elementary classrooms with emphasis upon students with disabilities. We will consider how to effectively set up classroom where inclusion of all students is effectively practiced. In doing so, this course will take up critical conceptions of disablement.
EPSY 890 Educational Psychology Directed Reading Courses Courses developed by instructors as directed reading courses in the Educational Psychology Subject Area.	3:3-0	EPSY 890AJ Mindfulness and its Implications for Sustainability The analysis of Mindfulness Theory and current psychological interpretations linked to sustainability.
EPSY 890AA Fostering Classroom Relationships: Differentiating Instruction This class explores both theory and practice around differentiated instruction. Focus is on understanding basic principles and the rationale behind differentiated instruction while implementing these within a staff development context.	3:3-0	EPSY 890AK Approaching Counselling Through the Visual Arts and Dance Focus is on the visual arts and dance as therapeutic interventions in a counselling context. Particular emphasis is placed on merging theory and practice and using experiential learning.
EPSY 890AB Possibilities for Grounded Theory Research for Studying Abusive Relationships This course will explore the possibilities of Grounded Theory as a research methodology to study the experiences of women who are actively transitioning away from their abusive situations.	3:3-0	EPSY 890AL Holistic Education: Paths to Learning This course focuses on the nature, place, theory, and practice of holism in an educational context. Using philosophical, psychological, and social lens, the course emphasizes theory/practice links along with personal growth and change as integral to teaching and learning.
EPSY 890AC Counselling with Children and Youth This course focuses on counselling children and adolescents using a strengths based perspective within a school context. Theory/practice linkages will be emphasized.	3:3-0	EPSY 890AM Implications of Meditation Practice and Sustaining Well-being and Life Style Choice. This class reviews research specific to the implications of meditative forms and the values of those forms in maintaining and enhancing mental well-being. The class examines current research related to the implications of meditation on sustaining mental well-being.
EPSY 890AD Construction: Self-construct A literature review and critical analysis examining the issue of identity and the transformative learning/change required in a professional or life change.	3:3-0	EPSY 890AN Early School Leavers: Examining Predictors, Prevention, and Persistence Surveys and analyzes the scholarly literature on (a) individual, social, and school factors that may be predictors of high school drop-out for students considered to be "at risk"; (b) interventions aimed at keeping students in school; and (c) outcomes of prevention and intervention programs and supports.
EPSY 890AE Societal Responses to Facilitation of Desistance From Crime Current Canadian perspective on criminal behavior, punishment and rehabilitation, and the congruent/incongruent features with those of other developed nations. Explores the effect of criminality on the individual and	3:3-0	EPSY 890AO Aboriginal Family Therapies This course will explore models of best practices in the delivery of healing services to Aboriginal individuals, families, and communities. Students will develop an understanding of Aboriginal family systems and their multigenerational issues. This course will enhance a practitioner's therapeutic skills and understanding in working with Aboriginal peoples.
		EPSY 890AP 3:3-0

Autism Spectrum Disorder

This course will focus on surveying and analyzing the scholarly literature on the characteristics of Autism Spectrum Disorder (ASD), implications for instruction, and evidence-based instructional practices in academic areas for young children (K to Grade 3) with ASD with particular attention to video self-modelling.

EPSY 890AQ 1-3:3-0 Video Modelling as an Intervention for Students with Autism Spectrum Disorder

This course will focus on surveying and analyzing the scholarly literature on the application of video modelling as an instructional strategy across areas of development for students with autism spectrum disorder.

EPSY 890AR 3:3-0 Autism and Identity Construction

An overview of first person narratives, counter-cultural constructions, neuro-diversity frameworks, and disability studies on Autism Spectrum Disorder.

EPSY 890AS 3:3-0 Inclusive Post-secondary Education

This course will focus on post-secondary education for students with intellectual and developmental disabilities.

EPSY 890AT 3:3-0 Exploring Perspectives of Psychopathology: Conceptualizing Mental Illness

Course content, readings and assignments are focused on the conceptualization of psychopathology. This will be completed through an in-depth literature review and analysis of perspectives of mental illness. Perspectives to be explored include: the medical model (Diagnostic and Statistical Manual of Mental Disorders; DSM); the biological perspective; the psychological perspective with focus on recent cognitive research; the social perspective; and integrative (biopsychosocial model and diathesis stress model).

EPSY 890AU 3:3-0 Theoretical Conceptualizations of the Stigma of Mental Illness

Course content, readings and assignments are focused on the fundamental concepts associated with the stigma of mental illness. This will be completed through an in-depth literature analysis of theoretical conceptualizations (i.e. the social psychological and social cognitive perspectives), the psychological stigma process (i.e., prejudice, stereotypes and discrimination), types of stigma, social psychological theories on attitude formation and factors associated in the development of stigmatizing attitudes.

EPSY 890AV 3:3-0 Understanding Cognitive Ability and Professional Issues of Psychological Testing

Explores the concept of cognitive ability and how cognitive abilities are assessed in Canadian schools. Emphasis is on the examination of the professional issues, ethics and challenges of working with children, professionals and parents in schools and clinical settings. Opportunities to explore common standardized tests will be provided.

EPSY 890AW 3:3-0 Advanced Understanding of Cognitive Testing, Scoring, and Interpretation

The course is designed to teach the advanced skills necessary for administration, scoring, interpretation, and reporting of standardized cognitive tests. Competency will be assessed based on technical expertise in test administration, ease of test administration, accurate scoring, evidence-based interpretation of results, and the ability to write accessible and legally-defensible reports.

EPSY 890AX 3:3-0 Underpinnings of UDL and DI

This course looks at the research underpinnings of key educational concepts in inclusive education, including Universal Design for Learning and Differentiated Instruction. It will uncover the cognitive and psychological reasons that form the base of UDL and DI, and how these connect to larger questions of community involvement in schools.

EPSY 890AZ 3:3-0 School Readiness: What's the Story?

This course will explore literature, practice and perceptions of the notion of "school readiness". Through a survey of current literature, curricular

documents and teaching praxis: the student will come to a deeper understanding of the changing perceptions of school readiness and the effect on child development and learning.

EPSY 890BA 3:0-0 Selected Topics in the Understanding of Anxiety

In this course, students will read a variety of articles in preparation for the development of a scoping/systematic review (whichever the student prefer) on the role anxiety plays in disrupting underpinnings of learning.

EPSY 890BB 3:0-0 Solution Focused Strategies to Address Trauma

This course will provide the current information on the biopsychosocial phenomenon of trauma. Identify how to assess and respond ethically and appropriately to adult clients. Examine the effects of and the responses to working with traumatized individuals. Develop trauma-informed approaches to work that enhance personal and professional resilience.

EPSY 890BC 3:0-0 Gifted Education: Misunderstood and Often Neglected in K to 12 Schools

This course includes:
 ? The nature and needs of gifted learners
 ? The nurturing of gifts/talents in the early years and beyond
 ? Understanding and supporting ?Twice Exceptional? learners
 ? Differentiating to meet the learning, creative, and social-emotional needs of gifted students in inclusive classrooms
 ? Planning and implementing gifted programs: models and approaches

EPSY 890BD 3:0-0 Student Mental Health Needs and Supports in Saskatchewan Schools

A contextual scan of the mental health needs of youth in Canada broadly, and Saskatchewan specifically. A scan and review of School Based Mental Health (SBMH) initiatives in Canada, and globally. A scoping review of SBMH initiatives in Saskatchewan including barriers and facilitators, and suggestions for improvements and advancements.

EPSY 950 3:3-0 Advanced Studies: Development

An overview of the theories of development, current issues, critique of theories of human development and an investigation of current research in human development. This is a general course from Educational Psychology being offered to individuals in the Ph.D. program, in all sub-disciplines.

FILM	Film
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FILM 804 3:3-0 Critical Investigations in film

This course focuses on theoretical approaches to cinema and new media from aesthetic, cultural, anthropological, psychological and sociological viewpoints. It provides an understanding of the interrelationship between film/film-making and reality, other media arts, and the audience. Topics include Post-Colonialism, Orientalism, Art/Film Installation, Expanded Cinema, Narrative Theory, Arab/ African Cinema, Censorship, Propaganda /Surveillance, Psychoanalysis.

FILM 810 3-6:6-0 Topics in Film Studies

Seminar course examining selected topics in Film Studies

FILM 810AB 3-6:6-0 Traditions in Film Narrative

This course will examine a wide range of narrative styles in film. Drawing on close readings of narrative and aesthetic strategies, the course will focus on how narrative structure of films create meaning.

FILM 810AH 3-6:6-0 Cultural Identities

This course will investigate how cultural identities are constructed in national media. A variety of media forms and texts will be investigated including film, television and new media.

FILM 810AN 3-6:0-6 Identities in a Global Context

This course will investigate questions of personal identity and subjectivity in a global context, drawing on contemporary readings in identity formation as it relates to the diaspora, hybridity, flaneurie, space, heterotopia, and dialogism.

Course Catalogue

FILM 810AS Canadian Cultural Identities This course will investigate contemporary Canadian cultural identities. It will use paradigms from Canadian Studies and Cultural Studies to focus on questions of race, gender, post colonialism, regionalism and immigration in Canadian popular culture.	3-6:6-0	FILM 820AG Multi-Media Design The course will encompass multi-channel audio soundscape and interactive design. The student will expand both knowledge and skills in multi-channel audio soundscape creation and explore software which can be purposed in facilitating human interaction within a digital media environment.	3-6:6-0
FILM 810AT Investigations in New Media This course will situate, analyze and investigate new media in the context of contemporary theoretical and methodological debates. Areas of focus will examine new media aesthetics and technologies through socio-cultural, historical and political concepts, such as race, gender, postmodernism and postcolonialism.	3-6:6-0	FILM 820AJ Production Management The course will develop the student's understanding of the logistical requirements of a dramatic feature film production, including the development of a detailed production schedule and budget.	3-6:6-0
FILM 810AX (Self) Censorship and Artistic Creativity This course examines the paradoxical relationship between self and officially-imposed censorship and artistic creativity. Close analyses of contemporary and historical artefacts from aesthetic, ideological and cultural point of view will reveal the complex and multi-layered nature of the (self) censorship phenomenon and its impact on artistic creativity.	3-6:6-0	FILM 820AP The Foundation of Screenplay The course explores the practical application of screenwriting theory. Focusing on plot, character, ideology and dialogue as a means of artistic expression, the course will focus on the writing of a feature-length screenplay and a comparative analysis of key screenwriting theorists.	3-6:6-0
FILM 810AZ Curating the Moving Image This course will explore curating, programming and working with artists? moving images as well as the broader practice of curating artists? film and video in the contexts of the cinema, festival, gallery and museum.	3-6:6-0	FILM 820AU Animation This course is to engage in the creation of a diverse range of animation techniques. Traditional and computer-based approaches will be viewed and workshopped. Critical discourse of animation will also be discussed. Projects are structured to develop experience and appreciation for the range and history of animation.	3-6:6-0
FILM 810BA Orientalism in Film This course examines historical, theoretical and aesthetic dimensions of orientalism in film and television, that is, Western representations of the East. The Asian city of Singapore provides a case study for reflections by authors such as Edward Said and Homay King on topics like self-orientalism and techno-orientalism.	3-6:6-0	FILM 820AW Advanced Documentary Development This course will supervise the research and development phases of a documentary film. The course will focus on the practical aspects of documentary research, development and production as well as the theoretical and historical aspects of the documentary.	3-6:6-0
FILM 810BC Propaganda and Censorship This graduate course examines the complex - even paradoxical -- relationship between film/media arts, and propaganda, surveillance, (self) censorship and conspiracy theories through the conceptual grid, provided by J. Ellul, M. Foucault, G. Jowett, D.R. Carter, S. Zizek, Z. Bauman and other major media scholars.	3-6:6-0	FILM 820BC Film Production Students will produce a short film on any genre. Assignments are based on their work through the stages of scriptwriting, production and post-production to completion of film.	3-6:6-0
FILM 810BD Sci-Fi Orientalism This seminar will examine the extent to which the science fiction film genre may be considered an allegorical form of orientalism. The critical concept of techno-orientalism and the category of the alien will merit special attention in assessing the SF genre's exploration of identity.	3-6:6-0	FILM 820BD Analog Filmmaking Students will explore emulsion-based filmmaking in multiple film gauges and will investigate orthodox and unorthodox methods of film development and presentation. Early traditions in emulsion creation will be discussed and demonstrated.	3-6:6-0
FILM 810BE Jung/Psy-analysis/Shakespeare-Advanced This advanced seminar course offers unique opportunities to explore archetype, myth, dreams and in-depth aspects of the psyche on the basis of four Shakespearean plays, and in light of the analytical psychology of C.G. Jung and his neo-Jungian followers. The class group discussion entails downloadable readings, photography, and websites.	3:3-0	FILM 820BF Media and Mixed Abilities This course incorporates aspects of media studies and production to guide investigation into issues of disability, accessibility, and their representation in various forms of media.	3:3-0
FILM 810BF Polytheistic Motifs in World Cinema of Horror and Mysticism The reading graduate course offers an in-depth study of polytheistic motifs in world cinema in light of Jungian and post-Jungian approaches, and on the basis of studies in comparative mythology, anthropology and religion.	3-6:6-0	FILM 820BG Film, Methodologies, Theory Tailored to graduate studies or production thesis goals, this course integrates scholarly readings, writing, film analysis, film production, methodologies and/or theory for course content and assignments.	3-6:6-0
FILM 810BG Cinema of War: A critical, aesthetic, & cultural study of dramatic war films from 1900 to present A study of war film throughout history with a focus on the tropes of war and how they have changed since 1900. A collection of current and historical dramatic methodologies, and cultural contexts.	3:6-0	FILM 830 Production Studio These courses bring together all students in the MFA Film Production program to work independently and collaboratively on creative aspects of film production.	3:6-0
FILM 820 Topics in Film Production Seminar course or project examining selected topics in Film Production.	3-6:6-0	FILM 831 Production Studio These courses bring together all students in the MFA Film Production program to work independently and collaboratively on creative aspects of film production.	3:6-0
		FILM 890 Directed Reading in Film Directed reading in Film under the supervision of a faculty member.	3-6:6-0
		FILM 890AB Contemporary Film Semiology	3-6:6-0

Course Catalogue

This course will survey the various theoretical approaches developed by film semiologists since the publication of Christian Metz "Langage et cinema" in 1971, and also to explore film semiology beyond what is included in the undergraduate course on film theory.

FILM 890AL 3-6:6-0
Jungian Archetypes in Film and Media

This graduate course focuses on aspects of C.G. Jung's analytical psychology, with an emphasis on his theory of archetypes and their applicability to contemporary film and media.

FILM 890AT 3-6:6-0
Writing for Film

The course focuses on the processes of creative writing for film.

FILM 890AW 3:3-0
Expanded Cinema in the Field

This course enables hands-on examination of lens-based installation work at leading international museums, archives and sites in the field. Possible venues include ZKM Media Centre (Germany), Hamburger Bahnhof Museum (Germany), Eye Amsterdam (Holland), Walker Museum (Minneapolis), TIFF Bell Lightbox, among others.

FILM 890AX 3:3-0
Indigenous Mysticism in Film

In light of Jungian and post-Jungian approaches, and on the basis of studies in comparative mythology and religion, this graduate course examines the indigenous roots of cinematic tropes of horror and mysticism.

FILM 890AY 3:6-0
Female Body Horror

In light of Freudian, Lacanian, and (post) Jungian approaches, and on the basis of their application to literary and cinematic artifacts, this graduate course examines the phenomenology of female body horror.

FILM 890AZ 3:6-0
Between the Frames

A study of the relationships between cinema, graphic arts, photography, animation, and photo-cinema.

FILM 890BA 3-6:6-0
Psycho-Somatic Approaches to Film Bodies and Psyches

This seminar graduate course focuses on various aspects of (post) Freudian and (post) Jungian scholarship, more particularly on studies of haptic visuality and (psycho) somatic cinematic experiences, involving the female body and its senses.

FILM 890BB 3-6:6-0
Narratives and Narrativity

This directed studies courses examines and explores narrative structures, traditions and techniques, and their relevance for new approaches to filmmaking.

FILM 890BC 3-6:6-0
Traditions in Animation

This seminar course introduces important aesthetic, thematic and theoretical developments in the history of animation cinema, and its modes of production, focusing on four major traditions: Disney, the Japanese anime, Canadian NFB, and the Eastern Europeans. The highlight of the course are ZOOM lectures by prominent experts in the field.

FILM 890BD 3-6:6-0
Personal Cinema

The course focuses on explorations in personal cinema.

FILM 890BE 3-6:0-0
Transnational Screens

This course will investigate transnational methodologies in the expression and safeguarding of living cultural heritage through screen media practices and propose reflections on current debates around identity politics in globalizing cultures, political and cultural sovereignty, control of representation in image production, and modes of resistance to colonialism.

FILM 890BF 3-6:6-0
Deconstructing the Psychological Science Fiction Thriller Film

An in-depth exploration of the Psychological Science Fiction Thriller genre in film.

FILM 901 1-15:15-0

Thesis Research

Research supporting film studies resulting in the writing and defense of a graduating thesis of 60-100 pages.

FILM 902 3-12:12-0
Research Project

Research supporting film production resulting in the writing of the comprehensive critical engagement paper of 25-30 pages, preparation and public presentation of graduating film production project.

FRN	French
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FRN 800 0:0-0

Examen de synthèse/Comprehensive Exam

Ce cours non-credite est obligatoire pour les etudiants qui poursuivent un doctorat a La Cite universitaire francophone. Les etudiant.e.s subissent un examen ecrit et oral dans leur domaine de specialisation sous la direction de leur comite de supervision. Les etudiant.e.s ne peuvent s'y inscrire qu'apres avoir complete leur charge de cours. Evaluation: Admis.e (A) ou refuse.e (R).

FRN 801 3:3-0

Bibliographie et methodologie

Apercu des methodes propres aux disciplines liees aux etudes francophones et interculturelles. Overview of the methods associated with the disciplines linked with francophone and intercultural studies.

FRN 802 3:3-0

Perspectives sur l'etude des communautés francophones

Apercu des approches utilisees dans l'etude des communautés francophones en milieu minoritaire, a partir des perspectives d'une variete de disciplines. Overview of the approaches used in the study of francophone communities in minority settings, based on the perspectives of a variety of disciplines.

FRN 803 6:6-0

Stage en milieu francophone

Un stage de 80 heures au sein d'un organisme lie aux communautés francophones ou en animation culturelle, menant a la preparation d'un rapport d'environ 40 pages (incl. les annexes). // An 80 hour internship in an organization tied to Francophone communities or in cultural programming, leading to the preparation of a report of approximately 40 pages (incl. annexes).

Preamble: au moins 6 cr. de cours FRN de niveau superieur.

Pre-requisite: at least 6 cr. in FRN graduate courses.

FRN 804 3:0-0

Séminaire de recherche doctorale

Discussions, echanges et reflexion sur les problematiques ainsi que sur les enjeux theoriques et methodologiques du projet de these des etudiants.

FRN 805 3:3-0

Sociolinguistique

Ce cours s'interesse a l'etude des concepts, des theories, des orientations actuelles, ainsi qu'aux methodes d'enquete en sociolinguistique. Il reclame egalement un volet pratique, lequel amenera l'etudiant a construire des connaissances sur divers aspects de la discipline : la variation ou le changement linguistique observe au sein d'un groupe linguistique ; le transfert linguistique ; la question de survie et de vitalite des groupes linguistiques minoritaires ; les situations de bi/multilinguisme ; les phenomenes lies aux contacts de langues et aux conflits diglossiques.

Note: L'etudiant ne peut pas recevoir de credits pour FRN 805 et FRN 831AA

FRN 806 3:3-0

Relations interculturelles au Canada

Surviv de l'histoire des relations interculturelles au Canada au vingtieme siecle.

Note: L'etudiant ne peut pas recevoir de credits pour FRN 806 et FRN 840AC.

FRN 830 3:3-0

Études spécialisées en langue et linguistique

Etude des theories linguistiques contemporaines, de la langue specialisee et de la terminologie. Study of contemporary linguistic theories and aspects of specialized language and terminology.

Course Catalogue

FRN 830AB Creativité lexicale Creation et creativite lexicales; ressources et caracteristiques de la formation d'unites lexicales. L'etude visera la langue generale et la langue specialisee. Creation lexicale, intellectualisation et particularisation.	3:0-0	FRN 831AH Introduction à la linguistique appliquée Le cours consiste en un survol des questionnements, des methodes et des theories de la linguistique appliquee. L'accent sera egalement mis sur l'evolution du domaine, ainsi qu'aux apports du langage aux enjeux lies a divers champs d'intervention sociale - acquisition et enseignement des langues secondes et etrangeres, terminologie, analyse du discours, orthophonie, traduction, etc.	3:3-0
FRN 830AC Initiation a la terminologie Fondement, theorie et pratique de la terminologie; conceptualisation et denomination; intellectualisation et particularisation; terminologie et normalisation. *Note: Students may receive credit for one of FRN 830AC or FRN 430AA.*	3:0-0	FRN 840 Études spécialisées des communautés et organisations de la francophonie Etude des modes d'existence et des institutions collectives des populations francophones, du niveau local au niveau mondial. Study of the collective modes of existence and institutions of Francophone populations, from the local to the global level.	3:3-0
FRN 830AD Lexicologie et lexicographie Etude des notions de base ainsi que des reflexions methodologiques en lexicologie et en lexicographie. Initiation aux pratiques dictionnaires.	3:0-0	FRN 840AA Les sixties en français Etude des bouleversements sociaux, politiques, culturels des annees 1960, avec un accent sur le monde francophone. Les etudiants seront invites a effectuer des analyses comparatives pancanadiennes et internationales. Ils devront aussi mener des projets de recherche originaux sur la fransaskoisie. *Note: Students may receive credit for one of FRN 840AA or FRN 440AA.*	3:3-0
FRN 830BB Syntaxe et sémantique Etude approfondie de la structure interne de la phrase et des constituants immediats (co-texte), ainsi que leur interaction sur le sens global du texte en general.	3:0-0	FRN 840AE À la découverte de la Fransaskoisie Exploration de l'histoire de la communaute fransaskoise de la fin du 19e siecle jusqu'a nos jours. Visites sur le terrain, travail archivistique. *Note: Students may receive credit for one of FRN 440AE or FRN 840AE.*	3:3-0
FRN 831 Études spécialisées en sociolinguistique Etude des differentes approches, des pratiques et des recherches recentes en sociolinguistique. Study of various approaches, practices and recent research in sociolinguistics.	3:3-0	FRN 841 Études spécialisées en histoire des francophonies Etude des divers espaces francophones des Ameriques dans une perspective historique. Study of the diverse francophone spaces in the Americas from a historical perspective.	3:3-0
FRN 831AB Bilinguisme, multiculturalisme et interculturelisme Etude des enjeux theoriques et conceptuels du bilinguisme, du multiculturalisme et de l'interculturalisme. L'etudiant.e aura a mener une reflexion critique sur les politiques de bilinguisme et de multiculturalisme canadiens, ainsi que leurs implications sur le vivre-ensemble ? les relations interethniques et la communication interculturelle. *Note: Students may receive credit for one of FRN 831AB or FRN 430AE.*	3:0-0	FRN 841AA Thèmes choisis en histoire de la francophonie canadienne Etude approfondie de themes lies a l'histoire de la francophonie canadienne.	3:0-0
FRN 831AC La Loi sur les langues officielles au Canada Etude des roles et responsabilites des gouvernements federal et provincial dans la mise en ?uvre de la Loi sur les langues officielles, ainsi que des Plans d'action et des enjeux sociolinguistiques relies a la survie et a la vitalite des communautes linguistiques minoritaires. *Note: Students may receive credit for one of FRN 831AC or FRN 430AD.*	3:0-0	FRN 860 Études spécialisées en littératures et en cultures francophones Etude de productions litteraires et culturelles francophones et des cultures auxquelles elles sont reliees. Study of Francophone literary and cultural productions and of the cultures to which they are related.	3:3-0
FRN 831AD Gestion des langues Ce cours examinera les concepts theoriques autour de la gestion des langues (amenagement linguistique), ainsi que les raisons sociopolitiques a l'origine de l'intervention linguistique (officielle ou non officielle). Etude du role de la langue dans le developpement national ou communautaire, des enjeux sociopolitiques de choix de langue et des retombees aux niveaux macro (Etat, institution) et micro (famille, communaute, etc.). Etudes de cas.	3:0-0	FRN 860AA La Narration ou comment raconter une histoire Les participants au cours s'initieront d'abord a la stylistique (analyse de productions litteraires au moyen d'elements de linguistique) puis apprendront comment degager des productions artistiques les elements qui font avancer une histoire puis analyseront des textes divers, incluant des contes oraux autochtones, des textes classiques ainsi que des oeuvres modernes. *Note: Students may receive credit for one of FRN 860AA or FRN 460AG.*	3:3-0
FRN 831AE Politiques linguistiques et transmission du français en Saskatchewan Analyse des politiques ainsi que des pratiques qui visent a promouvoir la transmission intergenerationnelle du francais au sein de la communaute francophone en Saskatchewan.	3:0-0	FRN 860AC Les géants de l'existentialisme Albert Camus! Simone de Beauvoir! Jean-Paul Sartre! Decouvrez les plus celebres ecrivains francais du 20e siecle. La premiere partie du cours sera consacree a l'apprentissage de la stylistique, ce qui permettra d'analyser en profondeur la pensee et l'écriture de ces geants de la litterature. ***Prerequisite: FRN 366 with the completion of six credit hours at the FRN 300 Level or permission of Department Head*** *Note: Students may receive credit for one of FRN 860AC or FRN 460AC.*	3:3-0
FRN 831AF Diversité linguistique et ethnoculturelle Le cours examine les notions de base en ethno-linguistique et en ethnographie ainsi que les differentes perspectives de la diversite linguistique et culturelle. Des echanges autour des avantages et des defis de la diversite dans un monde globalisant seront egalement privilegies, en s'appuyant sur le Canada comme exemple.	3:3-0	FRN 860AF Les Francophone et l'immigration dans l'Ouest canadien: Gabrielle Roy Etude des migrations ainsi que de la vie dans un contexte federal et colonial des francophones en milieu minoritaire dans l'Ouest canadien (par exemple: attachement au passe, distance des lieux d'origine, relations interculturelles). A partir de reportage et romans ainsi que d'etudes en sciences humaines et sociales.	3:0-0
FRN 831AG Langue, pauvreté et développement Le cours explore les rapports entre la langue, la pauvrete et le developpement humain, en adoptant une approche multidisciplinaire. Il sera egalement le lieu d'etude des divers modeles de developpement humain et des implications des politiques linguistiques sur l'acces aux ressources necessaires pour l'epanouissement de l'individu et de la communaute.	3:3-0		

Course Catalogue

FRN 860AH 3:0-0
Littérature franco-canadienne
 Etudes des ?uvres representatives d'auteur(e)s francophones du Quebec et du Canada et en particulier de textes ecrits en contexte minoritaire.
 Note: Students may receive credit for one of FRN 860AH or FRN 460AH.

FRN 860AI 3:3-0
Étude de la poésie et de la chanson d'expression française
 Mise en musique de la poesie par des compositeurs et compositrices des traditions classique et populaire de 1850 a aujourd'hui.
 Note: Students may receive credit for one of FRN 860AI, MU 809AN, or FRN 460AI.

FRN 860AJ 3:3-0
Poésie, société et politique
 Etude d'uvres poetiques qui visent une transformation politique par le biais de l'écriture et de ses effets autant que par les themes choisis, ainsi que des methodes qui permettent de relier la poesie aux autres genres d'écriture et au contexte social. Les ?uvres etudiees pourront varier.

FRN 861 3:3-0
Études spécialisées en théorie littéraire
 Etude de theories pouvant porter sur l'écriture, la creation, la communication, la lecture, la reception et/ou les communautes litteraires. Study of theories related to literary writing, creation, communication, reading, reception, and/or literary communities.

FRN 862 3:3-0
Un auteur et son œuvre
 Etude d'une partie majeure de l'œuvre d'un(e) auteur(e) ?uvrant en francophonie. Study of major portions of an author's work in the context of the Francophonie.

FRN 870 3:3-0
Études spécialisées des idées en francophonie
 Etude de courants de pensee a travers l'histoire de la francophonie, les cultures et les ?uvres majeures les ayant marquees. Study of streams of thought throughout the history of la Francophonie, Francophone cultures, and the major works that influenced them.

FRN 870AA 3:0-0
Penser ce que fait la musique
 Ce cours offrira une etude approfondie des differentes approches de la musique dans la tradition philosophique, surtout d'expression francaise et dans les debats contemporains. A partir d'une perspective axee sur l'experience de la creation et de l'ecoute musicales, la musique apparaitra comme expression, performance ou relation.

FRN 870AB 3:3-0
L'hospitalité : une réponse aux migrations internationales
 Etude des theories developpees en francophonie autour de la notion d'hospitalite comme reponse aux migrations internationales. Approfondissement en seminaire de l'hospitalite en tant que concue en lien aux droits, aux devoirs, aux obligations, et au don, mais aussi comme alternative a l'ordre social et politique global actuel.
 Note: Students may receive credit for one of FRN 870AB or FRN 440AC.

FRN 870AC 3:3-0
Coexister avec les autres
 Etude de theories developpees en francophonie qui cherchent a ameliorer la vie en commun et a repondre aux differends tout en respectant les differences (notamment de genre, culturelles, ou religieuses).
 Note: Students may receive credit for one of FRN 870AC or FRN 440AD.

FRN 870AD 3:3-0
La sociologie phénoménologique
 Survol et exemples des methodologies et methodes propres a la sociologie phenomenologique, et de themes de la phenomenologie sociale. L'accent sera place, de maniere non exclusive, sur les manieres dont ce courant a ete developpe dans les espaces francophones.

FRN 870AE 3:3-0
Études spécialisées du colonialisme au Canada
 Ce cours vise a penser les continuites entre le passe et le present coloniaux, leurs critiques et l'imaginaire des futurites decoloniales, ainsi que les relations entre peuples et cultures, a partir d'un theme donne et d'une approche multi-disciplinaire et collaborative.

FRN 870AF 3:3-0
Études spécialisées du colonialisme dans le monde francophone
 Ce cours vise a penser les continuites entre le passe colonial et le present neo/post-colonial, leurs critiques et l'imaginaire des futurites decoloniales, ainsi que les relations entre peuples et cultures, a partir d'un theme donne et d'une approche multi-disciplinaire.

FRN 890 3:3-0
Travaux dirigés

FRN 890AF 3:0-0
Gestion de la diversité culturelle ou travailler en contexte interculturel
 Dans nos societes de plus en plus diversifiees se posent les questions de la rencontre avec l'autre, celles du vivre ensemble et des dynamiques de reconnaissance des differences. Ce cours vise a examiner les differentes approches de la gestion de la diversite et analyser la construction/deconstruction des stereotypes.

FRN 900 3:0-0
Séminaire

FRN 901 3-15:3-0
Recherche et rédaction de thèse

GBUS	Graduate Business
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GBUS 600 3:0-0
Graduate Business Co-op Placement Report
 Students enrolled in a work study program will be required to complete a report on their Work Placement.

GBUS 601 6:0-0
Graduate Business Co-op Placement First Work Term
 Students enrolled in a work study semester will be required to register in six credit hours for each of two work semesters in a work placement.

GBUS 602 6:0-0
Graduate Business Co-op Placement Second Work Term
 Students enrolled in a work study semester will be required to register in six credit hours for each of two work semesters in a work placement.

GBUS 801 0:3-0
Grad Work Term I
 This work placement is for students who wish to gain work experience in business or management in Canada. Students will be exposed to the skills used by managers at senior levels in business and management and will perform a variety of tasks.

GBUS 802 0:3-0
Grad Work Term II
 This second work placement is for students who wish to gain work experience in business or management in Canada. Students will be exposed to the skills used by managers at senior levels in business and management and will perform a variety of tasks.

GBUS 803 0:0-0
Grad Work Term III
 This third work placement is for students who wish to gain work experience in business or management in Canada. Students will be exposed to the skills used by managers at senior levels in business and management and will perform a variety of tasks.

GBUS 815 3:3-0
Strategic Management
 The course focuses on the identification, evaluation and formulation of organizational strategy in an international context. Special emphasis is placed on inherent tensions faced by global organizations in developing and implementing strategy through the use of lectures, discussion, student analysis, and case studies of various kinds of organizations.
 Prerequisite: Must complete any two courses from the Levene MBA with Specializations program

GBUS 816 3:3-0
Production and Operations Management
 This course introduces the basic concepts, processes, and problems associated with the Production and Operations Management (POM)

Course Catalogue

function, which is primarily concerned with productivity. Techniques for solving POM problems will be addressed.

GBUS 817 3:3-0

Managing People in Organizations

This course is designed to develop students' management skills through an exploration of the theory and practice involved in managing people. The emphasis is on understanding individual, team, and organizational factors and the processes through which they influence behaviour and performance, with a view to improving managerial effectiveness.

GBUS 830 3:3-0

Business, Government and Society

This course examines ethical and social issues relevant to business management. It includes a multidisciplinary application of knowledge and concepts to contemporary issues challenging business executives, and the role of consultation with local communities and governments, sustainable business practices and evolving global standards of corporate social responsibility and ethics.

GBUS 832 3:3-0

Accounting for Managers

This course is designed to facilitate the understanding of accounting information with an emphasis on making decisions. Students will be provided an opportunity to enhance their communication, teamwork and decision making skills.

Note: Levene MBA students cannot receive credit for this course as part of their program requirements.

GBUS 833 3:3-0

Corporate Finance

This course provides a comprehensive study of financial decisions in today's business enterprises. Major emphasis is placed on investment, asset valuation and financial structure policies of a firm. Topics include discounted cash flow, capital budgeting, risk-return trade-off, capital structure and major financial instruments.

GBUS 835 3:3-0

International Business

This course focuses upon opportunities and problems that arise when business operations cross national boundaries. The international business environment is examined, and the tasks of management are integrated into this multinational framework. Students will gain familiarity with various international institutions and practices that impact upon business firms, and students will learn and apply specific models and techniques to aid decision-making in a multinational context.

GBUS 836 3:3-0

InnovEntrepre in a NA Corp

The course explores the concept and practice of entrepreneurship and its relationship to progress. It analyses the determinants of innovation and develops the skills change managers need to stimulate more entrepreneurship, innovation, enterprise, initiative from their employees.

GBUS 838 3:3-0

Research Methods in Management

This course is designed to assist students in conducting research projects in the areas of marketing and management. It introduces a variety of research designs, including survey and experimental designs, quantitative methods as well as data analysis and interpretation. Several multivariate techniques will be covered.

GBUS 840 3:3-0

Strategic Marketing

This course assists the student in developing skills in the creative and systematic use of marketing concepts and strategies. The strategic role of marketing within an organization and its integration with other functional units will be studied. Students are expected to develop a working knowledge of a family of strategic marketing planning processes, concepts, methods, and strategies.

GBUS 841 3:3-0

International Marketing

This course will introduce the student to environmental factors affecting international marketing and the similarities and differences versus domestic marketing; the knowledge and skills in administering the international marketing function; and evaluation of the impact of recent environmental changes on international marketing.

GBUS 843 3:3-0

Strategic Human Resource Management

This course examines human resources functions from a strategic and institutional perspective. The topics include human resource planning, recruitment and selection, performance measurement and assessment, training and development, and the design of reward systems.

GBUS 844 3:3-0

Labour Relations and Collective Bargaining

This course examines the history of union development in Canada, and business reaction to this development. Current structures in the labour movement are assessed, as well as the impact of legislation on the nature of collective bargaining. The course focuses on the character and procedures of arbitration, fact-finding, mediation, and conciliation.

GBUS 845 3:3-0

Selected Topics in Business Administration

This course addresses selected topics in business administration that are of current interest.

GBUS 845AA 3:3-0

International Study Trip - China

The course examines concepts and current practice related to doing business in an international environment. Emphasis is placed on the business, political, and cultural aspects of China as they relate to Canadian organizations. The course includes a nine day field trip to China for which additional costs apply.

GBUS 845AB 3:3-0

Mktg - Public & Nonprofit Org

Course is designed to create an understanding of the role of marketing in public and nonprofit organizations, and how marketing in this context differs from marketing in for-profit organizations. The course presents concepts, strategies, and tactics for effectively managing nonprofit environments such as health, education, public services, and the arts.

GBUS 845AD 3:3-0

Conflict Resolution in Employee-Management Relationships

This course involves understanding the nature, origins and state of conflict commonly found within the employment relationship. It identifies the processes that must be put in place to handle conflict appropriately in both unionized and non-unionized environments. Facilitation and negotiation skills will be emphasized.

GBUS 845AF 3:3-0

Innovation and Entrepreneurship

The course explores the concept and practice of entrepreneurship and its relationship to progress. It analyses the determinants of innovation and develops the skills change managers need to stimulate more entrepreneurship, innovation, enterprise, initiative from their employees.

GBUS 845AG 3:3-0

Social Issues in Business

Examination of one or more selected problems in business management relative to the interest of instructor and students. A multidisciplinary application of knowledge, concepts and analytical tools to contemporary issues challenging business executives.

GBUS 845AI 3:3-0

Mindfulness & Women Leadership

This course will explore the connections between mindfulness, leadership and women's leadership. Through directed readings and written essays, a student will conceptualize and critique the theoretical and practical possibilities and implications of mindfulness for women's leadership.

GBUS 845AJ 3:3-0

Crisis Management

The purpose of this course is to introduce the practice of crisis management. More importantly, it will illustrate how management may incorporate crisis management into better planning practices. It will also identify how organizations may benefit from applying crisis management principles.

GBUS 845AK 3:3-0

Business Analytics

Course Catalogue

This course focuses on teaching students different methods for data driven decision making. Students will learn to apply basic business analytics principles, and effectively use and interpret analytic models to make better business decisions. Topics may include: Descriptive statistical measures, statistical inference, regression analysis, linear and integer optimization, and simulation. Different application areas will be studied through case studies.

GBUS 845AL 3:3-0 **A Contemporary Study of Workplace Engagement**

This directed readings course will examine workplace engagement. It will involve a critical examination of the workplace engagement literature with a particular focus upon the perspective and implications for minority groups in the workplace. Recommendations for workplace engagement strategies that meet the needs of minority groups will also be explored.

GBUS 845AM 3:0-0 **Levene Case Analysis and Competitions**

This course provides students practice in cross-functional case analysis to improve presentation skills, develop strategy, team building and management capabilities, and strengthen student abilities to create deliverables under pressure. Potential to travel and network with other graduate students from national and international schools and interaction with senior business leaders.

GBUS 845AN 3:0-0 **Indigenous Business Venture Development**

This course introduces students to entrepreneurship and economic development and how Indigenous peoples using their lands, financial resources, and benefits, build self-reliance and improve the socio-economic conditions. It explores entrepreneurial opportunities for innovation, growth and development.

GBUS 845AO 3:0-0 **Directed Reading. Case Study Course**

This course exposes the student to the craft of case study writing and requires the student to write a case study on a real organization, real decision maker and real decision based on primary and secondary data. It also requires the student to learn about the components of an effective teaching note and develop a teaching note to accompany the case.

GBUS 845AP 3:0-0 **Understanding Cloud Services**

This course will provide students with an intellectual framework for understanding the strategic significance of cloud services, covering the history and development of cloud computing, the analytics that become possible when individuals are tracked at scale and the social, economic, and geo-political consequences of big data. No technical background required.

GBUS 845AQ 3:3-0 **Directed Readings in Advanced Organizational Research and Data Analysis**

This directed readings course will examine the state of the art in organizational research and data analysis. Topics will cover the areas of methodology such as field research in organizations, multilevel theory, measurement etc., as well as cutting edge statistical approaches in organizational research (e.g., RCM, SEM, big data etc.).

GBUS 845AR 3:3-0 **Directed Readings in Judgment and Decision Making**

This course examines the literature on the role of thinking styles in the human judgment and decision-making literature. Topics will cover management and psychology literature, with a focus on the mechanisms that produce sound judgment. The course centers on reviews of key papers that yield insights on judgment and decision-making.

GBUS 845AS 3:3-0 **Strategic Orientations in Management**

This course explores the concept of strategic orientations including market orientation, entrepreneurial orientation, failure learning orientation, innovation orientation, and alliance orientation. The course covers relevant literature examining strategic orientations' impact on competitiveness and firm performance.

GBUS 846 3:3-0 **Selected Topics in Human Resource Management**

This course addresses selected topics in human resource management.

GBUS 846AB 3:3-0 **Culture and Job Interviewing**

To provide the student with an opportunity to explore the theory and application of culture, perception, and the interview process in employee selection. The focus of the course will be on the impact of culture, self-presentation and perception on Interviewing Techniques in cross-cultural situations.

GBUS 846AF 3:0-0 **Mentorship and Leadership Development**

The course explores the theory and practice of mentorship as a HR function and as an organizational leadership development capacity. Students will learn best practice in establishing an organizational wide mentorship program. The course will also examine leadership development more broadly including evaluation of leadership development initiatives.

GBUS 846AG 3:0-0 **Global Perspectives on Labour Relations**

This course focuses on the global dimension of work, employment conditions, and labour relations in a comparative context. It examines the development of foreign labour markets and the institutional conditions of employee-employer relations through the lens of migration, corporate social responsibility, trade agreements, globalization, and legal frameworks from select countries.

GBUS 846AH 3:3-0 **Program Evaluation**

An analysis of the theories and approaches to program evaluation, and their application in organizations. Topics explored will include the origins and current trends, ethical and philosophical issues in evaluation, politics and planning, evaluation criteria, data collection, analysis, interpretation, and strategies for reporting and communicating evaluation results.

*Note: Students who have completed EAHR 811 will not be eligible to register in GBUS 846AH.

GBUS 846AO 3:0-0 **Creativity and Leadership**

This course focuses upon creative leadership and how that fosters adaptability, change and innovation in people and organizations. It looks at the characteristics of creative leaders as well as problem solving processes that foster creative leadership. Specific practical interventions will also be incorporated to develop creative leadership in students.

GBUS 847 3:3-0 **Selected Topics in General Management and Administration**

This course addresses selected topics in general management & administration.

GBUS 847AA 3:3-0 **Selected Topics in Tobacco Control Policy and Management**

This course will encompass study in the area of tobacco control policy and management, particularly in the areas of tobacco marketing and de-marketing. Students will review the current literature in this area and prepare a major research paper.

GBUS 847AB 3:3-0 **Selected Topics in General Management & Administration**

A strategic decision case and teaching case note will be prepared involving a literature review, research questions, interviews, and analysis of corporate and other published documents.

GBUS 848 3:3-0 **MBA - Travel Study Courses**

** Emphasis is placed on the business, political, and cultural aspects of the specific country as they relate to Canadian organizations. Courses will include an off-campus trip travelling to a specific destination.

GBUS 848AA 3:3-0 **International Business Consulting - Mexico**

Student teams will be assigned a problem-solving situation where a private-sector, or not-for-profit organization is looking for assistance in developing a solution to a specific problem. You will experience an international consulting environment by working on a real project, in real time, for a real client in Mexico City.

GBUS 848AB 3:27-0 **International Study Trip - China**

Course Catalogue

This course examines concepts and current practice related to doing business in an international environment. Emphasis is placed on the business, political, and cultural aspects of China as they relate to Canadian organizations. The course includes a field trip to China for which additional costs apply.

GBUS 848AC 3:3-0
International Study Trip - Finland and Estonia

This course examines concepts and current practice related to doing business in an international environment. Emphasis is placed on the business, political, and cultural aspects of Finland and Estonia as they relate to Canadian organizations. The course includes a field trip to Finland and Estonia for which additional costs apply.

GBUS 848AD 3:3-0
International Study Trip Europe

This course examines concepts and current practice related to doing business in an international environment. Emphasis is placed on the business, political, and cultural aspects of Europe as they relate to Canadian organizations. The course includes a field trip to Europe for which additional costs may apply.

GBUS 850 3:0-0
Advanced Standing for Professional Programs - an AA-ZZ series.
 Advanced standing of up to 9 credit hours may be granted in the M.B.A., M.H.R.M., or M.Admin program for prior completion of the approved professional programs.

GBUS 850AA 3:0-0
Advanced Standing - CA Designation
 That advanced standing of up to 9 credit hours be granted in the MBA or MHRM program for prior completion of the CA program.

GBUS 850AB 3:0-0
Advanced Standing - CA Designation
 That advanced standing of up to 9 credit hours be granted in the MBA or MHRM program for prior completion of the CA program.

GBUS 850AC 3:0-0
Advanced Standing - CA Designation
 That advanced standing of up to 9 credit hours be granted in the MBA or MHRM program for prior completion of the CA program.

GBUS 850AD 3:0-0
Advanced Standing - CMA Designation
 That advanced standing of up to 9 credit hours be granted in the MBA or MHRM program for prior completion of the CMA program.

GBUS 850AE 3:0-0
Advanced Standing - CMA Designation
 That advanced standing of up to 9 credit hours be granted in the MBA or MHRM program for prior completion of the CMA program.

GBUS 850AF 3:0-0
Advanced Standing - CMA Designation
 That advanced standing of up to 9 credit hours be granted in the MBA or MHRM program for prior completion of the CMA program.

GBUS 850AG 3:0-0
Advanced Standing - CGA Designation
 That advanced standing of up to 9 credit hours be granted in the MBA or MHRM program for prior completion of the CGA program.

GBUS 850AH 3:0-0
Advanced Standing - CGA Designation
 That advanced standing of up to 9 credit hours be granted in the MBA or MHRM program for prior completion of the CGA program.

GBUS 850AI 3:0-0
Advanced Standing - CGA Designation
 That advanced standing of up to 9 credit hours be granted in the MBA or MHRM program for prior completion of the CGA program.

GBUS 850AJ 3:0-0
Advanced Standing - Direxion Designation
 That advanced standing of up to 9 credit hours be granted in the MBA or MHRM program for prior completion of the Direxion program.

GBUS 850AK 3:0-0
Advanced Standing - Direxion Designation
 That advanced standing of up to 9 credit hours be granted in the MBA or MHRM program for prior completion of the Direxion program.

GBUS 850AL 3:0-0
Advanced Standing - Direxion Designation
 That advanced standing of up to 9 credit hours be granted in the MBA or MHRM program for prior completion of the Direxion program.

GBUS 850AM 3-9:0-0
Advanced Standing for Previous Relevant Master's Degree
 Advanced standing for up to 9 credit hours may be granted in the M.B.A., M.H.R.M., or M. Admin. Program for prior completion of an approved Master's degree.

GBUS 850AN 3:0-0
Advanced Standing - CFA1
 Advanced standing for up to 9 credit hours may be granted in the M.B.A., M.H.R.M., or M. Admin. Program for prior completion of the CFA program.

GBUS 850AO 3:0-0
Advanced Standing - CFA2
 Advanced standing for up to 9 credit hours may be granted in the M.B.A., M.H.R.M., or M. Admin. Program for prior completion of the CFA program.

GBUS 850AP 3:0-0
Advanced Standing - CFA3
 Advanced standing for up to 9 credit hours may be granted in the M.B.A., M.H.R.M., or M. Admin. Program for prior completion of the CFA program.

GBUS 850AQ 3:0-0
Advanced Standing - CPA 1
 Advanced standing for up to 9 credit hours may be granted in the M.B.A., M.H.R.M., or the M.Admin program for prior completion of the CPA program.

GBUS 850AR 3:0-0
Advanced Standing - CPA 2
 Advanced standing for up to 9 credit hours may be granted in the M.B.A., M.H.R.M., or the M.Admin program for prior completion of the CPA program.

GBUS 850AS 3:0-0
Advanced Standing - CPA 3
 Advanced standing for up to 9 credit hours may be granted in the M.B.A., M.H.R.M., or the M.Admin program for prior completion of the CPA program.

GBUS 851 3:0-0
Selected Topics in Leadership
 This course addresses selected topics in leadership.

GBUS 851AA 3:0-0
Indigenous Business and Leadership
 This course considers historical and contemporary topics relating to Indigenous business and leadership of relevance to both Indigenous and non-Indigenous leaders and organizations. A broad range of topics, issues, and contexts may be considered, such as Indigenous leadership styles, issues, and responsibilities, Indigenous rights, governance, economic development, civic activism, and decolonization.

GBUS 860 3:3-0
Managing Change
 This course seeks to bring about an awareness and understanding of how organizations are managing change. The course will provide perspectives of the change strategists, the change implementors, and the change recipients. The objectives of the course is to develop sensitive and effective change-agent skills in management ranks.

GBUS 861 3:3-0
Organization Theory
 The course concerned with the analysis of organizations from a sociological perspective. It is concerned with such topics as organizational environment, goal formulation, organization structure and design, interorganizational linkages, power, innovation processes, and conflict. It is concerned with the management of the organization as a whole and its subunits.

GBUS 862 3:3-0
Evaluation of Human Resources Practices and Systems

Course Catalogue

This course focuses on methods that can be employed by HR practitioners to assess the effectiveness of HR practices and of overall HRM systems. Students develop skills in identifying and employing valid, evidence-based decision criteria to assess HR practice and enhance their ability to evaluate information and conduct research. *** Prerequisite: GBUS 838 ***

GBUS 863 3:3-0
Staffing Organizations

The course introduces and develops concepts used in the staffing of organizations. The course will cover general staffing models, basic labour markets, laws and regulations affecting staffing, introduction to measurement theory, recruitment techniques, selection techniques and tools, decision making for selection, and formalizing the job offer.

GBUS 864 3:3-0
Compensation

The course introduces and develops concepts used in compensating employees and managers in organizations. The course will cover designing pay structures for strategic purposes, internal consistency and external competitiveness, job evaluation models, variable group and individual pay systems, basic employee benefits, legal issues surrounding compensation (pay equity and discrimination), compensating special groups of employees, compensation and unions, and administration topics.

GBUS 865 3:3-0
Project Management

This course will introduce students to Project Management principles, intended to address the many phases of a project's life cycle. Students will learn to manage projects more effectively using Project Management techniques, through monitoring and maintaining control of scope, time, and costs within a project.

GBUS 866 3:3-0
Managing Information Systems

This course provides an in-depth examination of management and organizational issues surrounding the IS/IT function in organizations. Topics include the evolution of IS/IT functions, acquiring and managing IS/IT resources, strategy, current trends and ethical issues surrounding IS/IT.

GBUS 867 3:3-0
Management Consulting

Introduction to management consulting. The class introduces consulting concepts and the five-phase consulting process and provides practical experience on consulting projects. The focus is both internal and external consultants, roles that provide timely counsel and / or service to organizations with specific issues that require a consulting perspective.

GBUS 868 3:3-0
Occupational Health and Safety

This course focuses on the effective management of occupational health and safety (OHS). Beginning with a survey of the history of OHS and the current legal environment, the course turns to contemporary issues in OHS (e.g., psychological harassment in the workplace). Approaches to developing and improving organizational OHS systems which enhance employee safety and well being are also discussed.

GBUS 870 3:3-0
Leadership: Theory & Practice

This course covers key leadership/management skills such as clarifying personal vision, coaching, goal setting, conflict management, stress management, emotional intelligence crisis management, process and system design and communication skills. Major competency models of leadership and management are covered to familiarize students with the research and practice of leadership development.

GBUS 871 3:3-0
Group Dynamics in Organizations

The course will study roles that exist in organizations and the dynamics of the interactions between these roles. In particular, focus will be on the interplay between the leadership role and decision making, creative problem solving and conflict resolution with group members.

GBUS 872 3:3-0
Managing Activist Employees

This course explores the challenges presented by employees that adopt a cause within an organization and the best management practices for such situations. Both private and public organizations will be considered.

Particular emphasis will be focused on ?whistle-blowing? behaviour in light of legislation in Canada and other countries.

GBUS 873 3:3-0
Negotiation and Conflict Resolution

This course will introduce students to the theory and practice of negotiation and conflict resolution, including alternative dispute resolution.

GBUS 874 3:3-0
Cases in Leadership

This course examines leadership issues in both for-profit and non-profit organizations. A major project for the course will involve researching and writing an original case study that examines leadership issues within a real organization.

GBUS 875 3:3-0
Women in Leadership

This course is designed to enhance understanding of issues relevant to women in leadership and the implications for organizations (e.g., opportunities, exclusion). Topics include leadership styles, women on boards, strategies for change, learning to become a leader, media representation, intra-gender relations between women, cross-cultural considerations, and entrepreneurship. The course will combine both scholarly and practitioner-based considerations and challenge students to surface and unsettle taken for granted assumptions about women in leadership. Guest speakers from industry and academia will be invited to share their views on specific topics to enhance the learning experience.

GBUS 876 3:3-0
Managing Diversity

This course examines the increasing diversity of the work force and the resulting issues faced by organizations such as maintaining fairness and justice, making effective management decisions, allowing flexibility, and managing in a global environment. The course also examines legal frameworks that protect employee and employer rights related to dimensions of diversity.

GBUS 891 3:3-0
International Financial Management

This course provides the student with an understanding of the special issues and problems involved in international financial management. Topics include: the international monetary system, balance of payments, foreign exchange markets, international parity conditions, management of exchange rate risk, sourcing funds, capital budgeting, working capital management, trade financing, international banking and portfolio diversification.

Note: Enrolment in this course is limited to M.B.A. and M.C.I.B. students only.

GBUS 900 1-6:6-0
Research Project in Business Administration

Under the guidance of a supervisor, a student analyzes a significant organizational problem with a view to recommending a feasible solution. Problems may be either specific or general, requiring either a particular disciplinary background or a multidisciplinary approach. Students are required to register in a minimum of 6 credit hours of project research. The course will be graded on a credit/no credit (C/N) basis.

GBUS 901 1-15:0-0
Thesis Research

Thesis research.

GBUS 902 6:6-0
Research Project in Leadership

Under the guidance of a supervisor, the student analyzes a significant leadership problem with a view to recommending a feasible solution. Problems may be either specific or general, requiring either a particular disciplinary background or a multidisciplinary approach. The course will be graded on a credit/no credit (C/N) basis.

GEOG	Geography
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GEOG 802 3:3-0
Applied Geographic Research

A systematic introduction to the methods and applications of current geographic research. Topics include: physical and human data collection, research design, and scholarly writing.

Course Catalogue

<p>GEOG 803 3:0-0 Geography Thesis Proposal Seminars presented by graduate students based on their proposal or ongoing thesis research. This course is a forum for the discussion of thesis research during its initial stages. It is evaluated on a pass/fail basis.</p>	<p>GEOG 890AG 3:3-0 Linkages among Hydroclimate Indices, and Groundwater and Tree-Ring Records This directed reading course will explore the statistical relationships among climate indices, levels in water table observation wells and tree ring-width chronologies. The student will investigate appropriate statistical methods and interpret the results in terms of the climate forcing of the variability of shallow unconfined groundwater levels and tree growth as proxy of groundwater recharge.</p>
<p>GEOG 805 3:3-0 GIS & Spatial Analysis Advanced topics in geographic information systems. Topics include data structures, GIS functions and capabilities, DEM's network analysis, applications in large scale data analysis for problems in environmental monitoring, regional development and land use planning.</p>	<p>GEOG 890AH 3:3-0 Advanced Methods in Population Cartography Techniques and methods of population cartography. Topics may include dasymetric mapping, geovisualization of population distribution, density and other characteristics of spatial pattern of population.</p>
<p>GEOG 811 3:3-0 Field Techniques in Geography Techniques and instrumentation for the acquisition and analysis of field data used in geographical research. This course is based on a 5-7 day field camp held immediately prior to the fall semester. *Additional Fee: \$50.*</p>	<p>GEOG 890AJ 3:3-0 Feminist Geographies This course explores feminist approaches to the study of human geography. Students will address: How do gender relations shape the social construction and production of different spaces and places? How do space, place and environment shape gender relations? How do gender, race, class and sexual orientation intersect to produce differing experiences of space and place?</p>
<p>GEOG 823 3:3-0 Geomorphology Advanced topics in the study of landforms and the processes that create and modify them. Topics may include a particular geomorphic agent (e.g. glaciers), theoretical geomorphology or the relationship between geomorphology and environmental change.</p>	<p>GEOG 890AK 3:3-0 Geography of Housing An examination of the Geography of Housing, how it conditions urban form and structure, and is conditioned by geographies of social change including crime and fear, political economy, institutions, residential location and mobility decisions, and land use changes, including gentrification and gated communities.</p>
<p>GEOG 824 3:3-0 Urban Geography/Planning A detailed examination of selected topics in inter-urban systems analysis, the socio-economic and political geography of the city, urban futures forecasting and urban land use planning.</p>	<p>GEOG 891 3:3-0 Dir Rdgs in Physical Geography Directed Readings in Physical Geography.</p>
<p>GEOG 831 3:0-0 Climate Change Impacts, Adaptation and Vulnerability This course focuses on the impact of climate change on biophysical and social systems, and the adjustments to policies and practices that will be required to minimize the negative impacts. It is intended for advanced undergraduate and graduate students with an interest in this emerging and important field of study.</p>	<p>GEOG 891AH 3:3-0 Global Change & Geomorphology Temporal and spacial aspects of magnitude and frequency characteristics of geomorphological processes in different ecozones and geomorphic responses to environmental or human-induced changes.</p>
<p>GEOG 839 3:0-0 Remote Sensing of the Environment Basic concepts of remote sensing, a review of sensors and their images, emphasis on image interpretation and analysis, and introduction to application areas in geographic studies. Upon successful completion you will be capable of undertaking basic computer-assisted image analysis to extract information from the image data. Prior applied experience with GIS is expected.</p>	<p>GEOG 891AL 3:3-0 Watershed Hydrology This research-oriented course provides an introduction to watershed hydrology and with an overview of hillslope hydrology from a process perspective. The student will prepare, statistically analyze and interpret field data. The main parts of the analysis are rainfall-runoff studies of an individual slope system.</p>
<p>GEOG 849 3:0-0 Advanced Spatial Analysis and Modelling This course builds on your existing geomatics knowledge and explores an array of spatial analysis techniques to investigate different types of geographic problems. Topics covered may include network analysis, point density measurements, spatial autocorrelation, spatial interpolation, and geographically weighted regression.</p>	<p>GEOG 891AM 3:3-0 Landscape Ecology The aim of this course is to understand ecological processes and predicting watershed response to environmental change. After describing the basic concepts of water content, forces holding water in soils we quantify water content, water retention and water movement in soils in combination with climate data.</p>
<p>GEOG 850 3:3-3 Comprehensive Exam The purpose of the comprehensive examination is to assess the doctoral student's breadth and depth of knowledge in their discipline, academic background for the research to follow and ability to conduct original and independent research.</p>	<p>GEOG 891AO 3:2-0 Climate Scenario Development This course explores the development of high resolution climate information using statistical downscaling methods and examines the techniques available for the development of climate change scenarios. The student is expected to have a basic background in statistics and climatology.</p>
<p>GEOG 890 3:3-0 Dir. Rdgs in Human Geography Directed Readings in Human Geography.</p>	<p>GEOG 891AP 3:3-0 Geomorphic Processes This course examines specific geomorphic processes and the change of landscape on the Canadian Prairies. Particular emphasis is placed on geomorphic processes and different technique to date them. We will focus</p>
<p>GEOG 890AA 3:3-0 Integrated Modeling A review of theoretical and applied models for integration of social, economic and environmental data addressing human community sustainability issues, with a particular focus on prairie rural communities. The review will include models of risk, adaptive capacity and vulnerability.</p>	
<p>GEOG 890AB 3:3-0 Directed Readings in Economic Geography</p>	

Course Catalogue

on the influence of the changes in climate and vegetation on geomorphic processes during the Holocene.

GEOG 891AR 3:3-0
Applied Geomorphology
 This course explores the nature and expression environmental variability, and its impact on the geomorphological processes. An understanding of the variability of processes, either directly or indirectly mediated by climatic factors, is central to understanding the sensitivity of landscapes to geomorphological change.

GEOG 891AS 3:3-0
Concepts and Techniques in Geographic Information Systems
 The aim of this course is to enable students to understand what a Geographic Information System (GIS) is, how GIS can be used to address natural resource management and planning problems, and to give you a good grasp of GIS, both conceptually and in practice.

GEOG 891AT 3:3-0
Methods and Applications in Dendroclimatology
 A reading course/independent study in the methods and applications of dendroclimatology. Emphasis on statistical methods for the inferences of streamflow and other climate variables from tree-ring parameters. Students work with tree-ring data collected in western Canada to develop and interpret a reconstruction of climatic or hydrometric variables.

GEOG 891AU 3:3-0
Early and Late Season Tree Growth as Climate Proxies
 Tree rings are a common proxy for climate reconstruction. The annual growth increment is the standard proxy. This course explores the use of seasonal growth: earlywood and latewood. A critical review of the literature will be combined with analysis of some earlywood and latewood data from trees in western Canada.

GEOG 891AV 3:3-0
Fate and Transport of Sediment and Bacteria in Fluvial and Lacustrine Environments
 This course will focus on the physical and hydrological characteristics of fluvial and lacustrine environments, with particular emphasis on the link between the hydrodynamics of fluvial and lacustrine systems and the fate and transport of sediment and bacteria.

GEOG 891AX 3:3-0
Sedimentary Processes in Surface Waters
 This course will help examine sedimentary processes of standing surface water bodies. The degree to which circulation and sedimentary processes within natural lacustrine systems can be analogues for tailing ponds is a key theme. Topics will include, but are not limited to, particulate sedimentation, flocculation, Coriolis, rhythmities, and human modifications.

GEOG 891AY 3:3-0
Physical factors and processes at the delta-lacustrine interface.
 The nature and interplay of fluvial and lacustrine processes that are characteristic of the deltaic environment; including physical factors (density, slope, velocity, mass movement, gravity), physical processes (waves, jets, homo/hyperpycnal flows) and associated models of delta evolution, with the intent to inform interpretation of lacustrine sedimentary sequences.

GEOG 891AZ 3:3-0
MATLAB Programming for the Environmental Sciences
 This course focusses on Matlab Programming for the Environmental Sciences.

GEOG 891BA 3:3-0
Geomatics Field Techniques
 This course explores the theories, methods, and applications of field data collection by and for GIS, remote sensing, GPS, and cartography. Topics include: Objectives and Problems in Geomatics Field Work, Field Sampling Strategies, Finding Locations in the Field, and Collecting Thematic Data in the Field.

GEOG 891BB 3:3-0
Drought Under a Changing Climate
 This directed reading course will examine the link between the causes and characteristics of drought and global climate change. Readings will be assigned that relate to the historical occurrence of drought globally and in western Canada. The other major theme will be anthropogenic climate change and its consequences for western Canada and specifically changes

in the distribution of water over time and space and the potential for water deficits of increasing severity or duration.

GEOG 891BC 3:3-0
Hydroclimatic Variability
 This reading course examines the variability of the climate and hydrology of western Canada in the past, present and future. The literature reviewed includes studies of paleoclimate and the use of models to develop scenarios of future climate. These reconstruction and projections of climate are compared to observations of the present and historical climate and hydrology of the region.

GEOG 891BD 3:3-0
Hydroclimatic Variability
 This reading course examines the variability of the climate and hydrology of western Canada in the past, present and future. The literature reviewed includes studies of paleoclimate and the use of models to develop scenarios of future climate. These reconstruction and projections of climate are compared to observations of the present and historical climate and hydrology of the region.

GEOG 901 1-15:15-0
Research
 Thesis Research.

GEOL	Geology
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GEOL 800 3:3-0
Review of Current Problem
 A review of present knowledge and current research in the thesis topic, followed by a written or oral final examination, or both. Required of all candidates for the MSc degree.

GEOL 800AD 3:3-0
Fluid inclusion studies
 Principles and application of fluid inclusion studies.

GEOL 800AE 3:3-0
Volcanology
 This class will introduce the student to a variety of approaches used in the study of modern and ancient volcanic sequences.

GEOL 800AF 3:3-0
Quaternary Environments
 Review of the history and environments of the Quaternary Period from a global perspective. Particular emphasis on the geological importance of this period and the techniques and methods employed to study it.

GEOL 800AH 3:3-0
Carbonates and Evaporites
 This course addresses recent advances in sedimentology of carbonate and evaporite successions. Topics discussed include basic principles of carbonate and evaporite sedimentology such as compositions, classifications, origin, sedimentary structures and depositional settings.

GEOL 800AI 3:3-0
Carbonate Sedimentology and Diagenesis
 This course is a directed reading in which the student will thoroughly investigate literature on carbonate depositional systems & carbonate diagenesis. Besides an up-to-date bibliographic research on the topic, they will also present and summarize the data collected during their thesis project. The course demands two reports: 1- a summary & discussion on the bibliographic research, and 2- a summary of progress by presenting and discussing data collected so far in his thesis work. 01/06 - 02/06: Summary & discussion on bibliographic research. 03/06 - 04/06: Applicability of bibliographic research to the thesis project.

GEOL 800AK 3:3-0
Mass Wasting Processes
 This course is a directed reading in which the student will thoroughly investigate literature on mass wasting processes. The student will conduct an up-to-date bibliographic research on the topic of mass wasting and more specific information on mass wasting in Saskatchewan. The information obtained will be used in the formulation for his thesis proposal. The course requires two reports: 1- a summary & discussion on the bibliographic research, and 2- development of the thesis proposal.

GEOL 800AL 3:3-0

Course Catalogue

Current Status of the Study of Unconformity-type Uranium Deposits

Current status of research on geology and geochemistry of the unconformity-type uranium deposits, especially in the Athabasca Basin. Various methods that are used in the studies of this type of deposits and the specific problems that they can solve. Application of these methods to your thesis subject.

GEOL 800AM 3:3-0

Tectonic setting and structural-stratigraphic controls of Precambrian gold deposits

Investigation of the geotectonic setting and structural-lithostratigraphic controls of gold deposits, emphasizing Archean and Paleoproterozoic deposits of the Canadian shield.

GEOL 800AN 3:0-0

Geology and Tectonic History of Rae Craton and its Context in Laurentia (and Nuna)

This course will explore the geology & tectonic history of Rae Craton, with focus on the western Rae (Arrowsmith and Thelon-Taltson orogens). It will include study current theories and controversies on the origin of plate tectonics on early earth and how they apply to the Rae (and the assembly of Laurentia).

GEOL 800AO 3:3-0

Tectonic evolution of the western Churchill Province of Laurentia

Overview of the main tectonostratigraphic elements of the western Churchill province (Rae and Hearne cratons) and investigation of related processes of tectonic assembly, including the origin of the Snowbird tectonic zone.

GEOL 801 6:6-0

PHD Comprehensive Exam

This course is required of all students registered in a PhD program and it must be completed within 16 months of beginning the program. The candidate's supervisory committee will examine the student's knowledge in the area(s) of Geology related to the student's research. Students will submit a comprehensive research proposal which will form the basis for the oral examination.

GEOL 811 3:3-0

Advanced Mineralogy

Laboratory aspects of R.I. determination, model analysis, reflectivity, micro-hardness, cathodoluminescence, chemical and X-ray analysis and their application in natural mineral systems and assemblages.

GEOL 840 3:3-0

Topics in Sedimentology

Selected topics in depositional environments, tectonic control, diagenesis, and petrology of clastic and chemical sedimentary deposits. May be repeated for credit if different topics are discussed on the second occasion.

GEOL 840AD 3:3-0

Carbonate Sedimentology

This course is designed to review the current literatures on sedimentology and diagenesis of carbonate reservoirs in the western Canada Sedimentary Basin. The students are required to relate the results of these publications to their assigned study area to identify the gaps for their future research.

GEOL 840AF 3:3-0

Topics in Sedimentology A - Fluvial, estuarine and delta deposits

Sedimentary characteristics of fluvial, estuarine and delta deposits. Sedimentation processes and environmental analysis.

GEOL 840AG 3:3-0

Topics in Sedimentology B-Siliciclastic deposits and sequence stratigraphy

Sequence stratigraphy of shoreface deposits (Embry vs Exxon models) and non-marine deposits (Shanley and McCabe vs Exxon models) and application in the Mannville Group in Saskatchewan.

GEOL 841 3:3-0

Regional Problem Stratigraphy

Stratigraphic sequence, depositional framework, and historical geology of the Western Canada Basin and contiguous areas. Emphasis on application of principles to exploration for petroleum, ground water, and economic mineral deposit.

GEOL 842 3:3-0

Sedimentary Economic Geology

Geology, origin, exploration for and exploitation of fossil fuels and industrial mineral deposits.

GEOL 843 3:3-0

Recent Advances in Petrology

Modern work in pure and applied petrology, including recent developments in research methodology and instrumentation concerning the investigation of crustal inorganic and/or organic matter.

GEOL 850 3:3-0

Topics in Structural Geology

Relationships between internal and external stress and the resultant strain features in rocks, including mathematical analysis and analog computer studies.

GEOL 870 3:3-0

Recent Advances Geochemistry

Modern work in pure and applied geochemistry, including elemental distribution and migration in igneous, sedimentary, and metamorphic rock; organic studies; agricultural and medical aspects.

GEOL 874 3:3-0

Geology of Fluids

Occurrence and movement of fluids in the subsurface; pore geometry and fluid flow applied to ground water, petroleum geology, engineering geology, geothermal energy, and genesis of hydrothermal ore deposits.

GEOL 880 3:3-0

Selected topics in Geology

Selected topics in Geology

GEOL 880AA 3:3-0

Metallogeny of Gold Deposits

Classification and geological and geochemical characteristics of various types of gold deposits, with emphasis on orogenic type. Genetic models including sources, transportation, and deposition mechanisms. Analytical methods including major and trace elements, geochronology, stable isotopes and fluid inclusions.

GEOL 880AC 3:3-0

Glacial and Quaternary Geology

Selecting topics - Advanced study of topics in glacial and quaternary geology

GEOL 880AD 3:3-0

Advanced Geomodelling

This course will cover the advanced use of geomodelling and GIS techniques in geological sciences including advanced material in analysis, geostatistics and modeling. It will provide a practical hand-on approach to spatial database design and spatial data analysis with geomodelling. The focus of the course will be on concepts and strategies rather than on specific software tools. The content will be organized around the following topics (but not limited to): alteration and structural mapping, exploration geochemistry and geophysics, mineral exploration, remote sensing, hydrology and mineral prospectively modeling.

GEOL 880AE 3:2-0

U-Pb geochronology: Theory and Applications

Theory and application of U-Pb geochronology in geology. Strategies for sampling and dating various U-bearing minerals for different purposes (e.g., primary crystallization vs. metamorphic ages). Conventional (ID-TIMS) versus high-spatial resolution (HR-SIMS) techniques.

GEOL 880AF 3:2-0

Structural Geology of Ore Deposits

Review of theoretical and practical concepts of structural geology as applied to the formation of ore deposits. The course will consist of weekly/biweekly meetings, readings and assignments plus a final seminar and/or report on a selected topic.

GEOL 880AG 3:0-0

Readings in Geomicrobiology

The course will cover readings relating to topics in geomicrobiology and related topics of interest to participants (biogeochemistry, organic geochemistry). Students will prepare weekly short presentations and summaries about journal articles on these topics, and a final proposal assignment.

Course Catalogue

GEOL 890 3:3-0
Directed Readings in Geology
 Directed Readings in Geology

departure classes will include lectures, information sessions, and preparation of a research proposal. Students will explore areas related to their research plan, culture and people. A report is to be submitted upon return.

GEOL 890AC 3:0-0
Directed Readings in Earth Systems Evolution
 Advanced readings will focus on how the Earth's surface environments have evolved over time, the advent and acceptance of plate tectonics, and how geological processes underly the biogeochemical cycling of elements. The student will gain a more complete understanding of the Earth system and gain valuable skills in presenting and grant writing.

GRST 994 3-9:0-0
Advanced Standing - an AA-ZZ series.
 This course is designed for students who have received advanced standing for prior completion of approved courses.

GEOL 890AD 3:0-0
Advanced Principles of Groundwater Flow
 The course will cover the principles of groundwater flow, properties of aquifers, geology of groundwater occurrence, and regional groundwater flow with examples from the Western Canadian Sedimentary Basin in parallel to GEOL 476. Advanced readings will focus on issues surrounding more complex groundwater flow problems, contaminant hydrogeology, and the effects of climate change on groundwater systems.

GRST 994AA 3-9:9-0
Advanced Standing - University of Regina
 This course is designed for students who have received advanced standing at University of Regina for prior completion of approved courses.

GEOL 890AE 3:0-0
Precambrian Tectonic Processes
 Overview of Precambrian geology with emphasis on possible differences in tectonic processes in the Archean versus Proterozoic/Phanerozoic, and related discussion of important evolutionary changes in the earth system.

GRST 994AB 3-9:9-0
Advanced Standing - University of Alberta
 This course is designed for students who have received advanced standing at University of Alberta for prior completion of approved courses

GEOL 890AF 3:0-0
Isotope Geochemistry
 The course will introduce the graduate student(s) to the theory, methodology, and application of stable and radiogenic isotopes in the geosciences. There will be a particular emphasis on isotopes in low-temperature geochemistry applications and biogeochemical element cycling. Particular attention will be paid to the use of light and non-traditional stable isotopes.

GRST 994AC 3-9:9-0
Advanced Standing - University of Saskatchewan
 This course is designed for students who have received advanced standing at University of Saskatchewan for prior completion of approved courses

GEOL 890AG 3:1-0
Dating Deformation in Rocks
 Study of low- and high-T isotopic systems/methods employed to date rock deformation. Emphasis will be placed on methods (and related dateable minerals) used to constrain the timing of deformation in both brittle faults and ductile shear zones.

GRST 994AD 3-9:9-0
Advanced Standing - Project Management Institute
 This course is designed for students who have received advanced standing at Project Management Institute for prior completion of approved courses

GEOL 900 1:1-0
Issues and Topics in Geoscience
 Students registered in GEOL 900 should attend all seminars during that semester. Those who are unable to do so should make an arrangement with the instructor. Credit is Pass/Fail based on presenting successfully one seminar and attending all seminars. Each graduate student requires two GEOL 900: the first is at the beginning of the program; the second is prior to a thesis defense.

GRST 994AE 3-9:9-0
Advanced Standing - Wichita State University
 This course is designed for students who have received advanced standing at Wichita State University for prior completion of approved courses.

GEOL 901 1-16:0-0
Research
 Thesis Research.

GRST 994AF 3-9:9-0
Advanced Standing - Carleton University
 This course is designed for students who have received advanced standing at Carleton University for prior completion of approved courses

GRST	Graduate Studies
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GRST 994AG 3-9:0-0
Advanced Standing - Aalto University
 This course is designed for students who have received advanced standing for prior completion of approved courses.

GRST 800 0:0-0
Academic Integrity: Tutorials
 A series of Academic Integrity On-Line Tutorials for graduate students.

GRST 994AH 3-9:9-0
Advanced Standing - Comstats Institute of Information Technology
 This course is designed for students who have received advanced standing for prior completion of approved courses.

GRST 800AA 0:0-0
Grad Thrive Plus
 The Grad THRIVE Plus Course prepares graduate students for success as they transition to and from graduate school. Module learning materials and activities provide a new grad community space to learn about and nurture academic integrity, the Truth and Reconciliation recommendations, inclusive values and essential skills that help students thrive at the University of Regina and beyond. This tutorial is compulsory for incoming graduate students and is to be completed within their first term of enrollment.

GRST 994AI 3-9:9-0
Advanced Standing - University of Waterloo
 This course is designed for students who have received advanced standing for prior completion of approved courses.

GRST 900 3:3-0
Graduate International Study Tour Option
 This course promotes global understanding and experience for graduate students through a guided visit to a foreign country. One week pre-

GRST 994AJ 3-9:9-0
Advanced Standing - Blekinge Institute of Technology
 This course is designed for students who have received advanced standing at Blekinge Institute of Technology for prior completion of approved course.

GRST 994AK 3-9:9-0
Advanced Standing - U of Mumbai
 This course is designed for students who have received advanced standing at the University of Mumbai for prior completion of approved course.

GRST 994AL 3-9:0-0
Advanced Standing - Mehran U
 This course is designed for students who have received advanced standing from Mehran University of Science and Technology for prior completion of approved courses.

GRST 994AM 3-9:0-0
Advanced Standing - U Wollongong
 This course is designed for students who have received advanced standing at University of Wollongong in Dubai for prior completion of approved course.

GRST 994AN 3-9:0-0

Course Catalogue

Advanced Standing - U of Greenwich

This course is designed for students who have received advanced standing from University of Greenwich for prior completion of approved courses.

GRST 994AO 3-9:0-0

Advanced Standing - U of British Columbia

This course is designed for students who have received advanced standing from University of British Columbia for prior completion of approved courses.

GRST 994AP 3-9:0-0

Advanced Standing - U of Bologna

This course is designed for students who have received advanced standing from University of Bologna for prior completion of approved courses.

GRST 994AQ 3-9:0-0

Advanced Standing - Sao Paulo State University

This course is designed for students who have received advanced standing from Sao Paulo State University for prior completion of approved courses.

GRST 995 0:0-0

Residence Maintenance Status

GRST 995AA 0:0-0

Maintenance of Status Full-Time

Graduate Studies Maintenance of Status - Full-Time.

GRST 995AB 0:0-0

Maintenance of Status Part-Time

Graduate Studies Maintenance of Status - Part-Time

GRST 995AC 0:0-0

Maint of Status Exch St 3 Hr

Graduate Studies Maintenance of Status - Part-Time Non-Resident

GRST 995AD 0:0-0

Maint of Status Exch St 6 Hr

Graduate Studies Maintenance of Status for students taking the equivalent of 6 credits at another institution under an agreement such as Western Deans or CUGTA.

GRST 995AE 0:0-0

Maint of Status Exch St 9 Hr

Graduate Studies Maintenance of Status for students taking the equivalent of 9 credits at another institution under an agreement such as Western Deans or CUGTA.

GRST 995AF 0:0-0

Maint of Status Exch St 12 Hr

Graduate Studies Maintenance of Status for students taking the equivalent of 12 credits at another institution under an agreement such as Western Deans or CUGTA.

GRST 995AG 0:0-0

Maintenance of Status for Visiting Research Students

GRST 995AI 0:0-0

Maintenance of Status Visiting

This course is designed for students who are taking courses through Harvard Business School (HBS) Online.

GRST 995AJ 0:0-0

Maintenance of Status COVID-19

Maintenance of Status COVID-19.

GRST 995AY 0:0-0

Maintenance of Status-Thesis Defense Full-Time; FGSR use only

Maintenance of Status-Thesis Defense Full-Time. FGSR use only.

GRST 995AZ 0:0-0

Maintenance of Status-Thesis Defense Part-Time; FGSR use only

Maintenance of Status-Thesis Defense Part-Time. FGSR use only.

GRST 995BA 0:0-0

Thesis Defense - Full Time

Maintenance of Status-Thesis Defense Full-Time. FGSR use only.

GRST 995BB 0:0-0

Thesis Defense - Part Time

GRST 995BC 0:0-0

JSGS Maintenance of Status- Defense Full-Time

JSGS Maintenance of Status-Thesis Defense Full-Time. FGSR use only.

GRST 995BD 0:0-0

JSGS Maintenance of Status-Defense Part-Time

JSGS Maintenance of Status-Thesis Defense Part-Time. FGSR use only.

GRST 996 0:0-0

Extension

Graduate Students who have received approval for an extension must register in this course in each corresponding semester. Graduate students who have additional credit hours must register in outstanding credit hours and this course.

GRST 996AA 0:0-0

Extension Full Time

Graduate Students who have received approval for an extension must register in this course in each corresponding semester. Graduate Students who have additional credit hours must register in outstanding credit hours and this course. Full Time Students only.

GRST 996AB 0:0-0

Extension Part Time

Graduate Students who have received approval for an extension must register in this course in each corresponding semester. Graduate Students who have additional credit hours must register in outstanding credit hours in addition to this course. Part Time students only.

GRST 996AY 0:0-0

Extension-Thesis Defense Full-Time; FGSR use only

Extension-Thesis Defense Full-Time. FGSR use only.

GRST 996AZ 0:0-0

Extension-Thesis Defense Part-Time; FGSR use only

Maintenance of Status-Thesis Defense Part-Time. FGSR use only.

GRST 996BA 0:0-0

Extension Thesis Defense - Full Time

Extension Maintenance of Status-Thesis Defense Full-Time. FGSR use only.

GRST 996BB 0:0-0

Extension Thesis Defense - Part Time

Extension Maintenance of Status-Thesis Defense Part-Time. FGSR use only.

GRST 996BC 0:0-0

JSGS Extension Thesis Defense - Full Time

JSGS Extension Maintenance of Status-Thesis Defense Full-Time. FGSR use only.

GRST 996BD 0:0-0

JSGS Extension Thesis Defense - Part Time

JSGS Extension Maintenance of Status-Thesis Defense Part-Time. FGSR use only.

GRST 998 0:0-0

PHD/MPP Fee Assessment

GRST 999 0:0-0

Non Residence Mtce of Status

HIST	History
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HIST 800 3:3-0

Theories of History

This is a seminar course examining the variety of approaches to the study of history from 1900 to the present. Movements studied include Marxism, the Annales School, Feminist Theory, and Post-Modernism.

HIST 801 3:3-0

Canadian Intellectual History

Studies in the sources, development and impact of ideas that have shaped Canadian society since Confederation. The course examines the lives and works of thinkers who have enlarged and refined our understanding of

Course Catalogue

nationalism, political ideology, social, religion, and more generally, what it must be like to be Canadian.

HIST 802 **0-9:0-0**
Internship

A combination of instruction and supervised historical experience in an applied setting conducted over two academic semesters.

HIST 803 **3:3-0**
Canadian Political History

An analysis of how prime ministers of Canada have envisioned the country, devised and implemented policies, and managed political affairs. Based on a comparative approach, the course is a study in power as it was exercised by such leaders as John Diefenbaker, Lester Pearson, Pierre Trudeau, and Brian Mulroney.

HIST 805 **3:3-0**
Contemporary Quebec

An analysis of the puzzling, specific and distinct history of Quebec. By examining issues such as language, religion, economic development and politics with special attention to recent history, this course will delve into Quebecois uniqueness and its implications.

HIST 806 **3:3-0**
Canada and World War I

On the home-front and battle-front, World War I transformed Canada. Social movements came to a crescendo and national identity was reshaped. The multi-faceted impact of the war is contextualized in the pre- and post-war periods using the analytical categories of ethnicity, class and gender.

HIST 809 **3:3-0**
Canadian Nationalism

This course will examine the theoretical framework of nationalism, study the history of nationalism throughout the world, and investigate the manifestations of nationalism in Canada. Some of the topics to be studied include the origins of nationalism, the uses of nationalism, and modern examples of nationalism.

HIST 815 **3:3-0**
The Writing of History

A study of the evolution of historical writings in terms of major historians, schools of thought, changing frameworks of analysis and contested interpretations of significant events. The course aims to instill a theoretical and methodological understanding of historiography for graduate students.

HIST 820 **3:3-0**
Doing Women's and Gender History

In this graduate course, students learn how to "do" women's and gender history. Emphasis is placed on feminist theories of history, as well as on the role of gender in historiography. In addition, by applying advanced methods and sharing their findings, students in this course become practising historians.

HIST 822 **3:3-0**
From Wife Sales to Princess Di: Popular Culture since 1700

The course covers Britain and North America; theories of popular culture; traditional popular art forms and rituals, including ballads, rough music and wife-sales; the press and the invention of new forms such as cartoons, comic strips and celebrity culture; the history of shopping and consumption; the fragmentation of popular culture.

HIST 832 **3:3-0**
Black Power in U.S. History

Examines the roots of black power and considers its historical evolution in the United States throughout the twentieth century. This course demonstrates how black power, commonly thought to be distinct from the mainstream of civil rights activism, has always been a vital part of African American freedom struggles.

HIST 834 **3:3-0**
American Trials of the Twentieth Century

A consideration of landmark United States court decisions during the twentieth century with emphasis on the changing social context in which trials took place to understand how everyday life and popular ideals affected the law, as well as to appreciate the impact of the courtroom on modern American life.

HIST 835 **3:3-0**
Frontier Hollywood, Myth, & US

This course explores the dynamic relationship between American film and the mythical American frontier. Myth and its cultural significance, Frederick Jackson Turner's Frontier Thesis, the history of American cinema, the role of myth in film, the genesis of the Western, and the nature of Manifest Destiny, will be examined.

HIST 850 **3:3-0**
Modernity in Asia

This seminar introduces students to recent critical theories and explores the meaning of 'modernity' as reflected in the relationship between culture and society in 19th and 20th century Asian history. It does so by associating readings in social theory with academic and literary texts from or about the Asian region. ** Permission of the Department Head is required to register. **

HIST 860 **3:3-0**
Ancient History: Theory and Practice

The main focus is on the use of archaeology in the study of ancient history. Topics addressed include: domestication; human remains; the environment; beliefs; the spread of cultures; the ownership of antiquities; the use of technologies.

HIST 864 **3:3-0**
Roman Social History

Themes in the history of Roman society and social institutions. Topics include methodology, childhood and family structure, health and diet, living conditions, recreation, and social attitudes.

HIST 866 **3:3-0**
The Middle Ages in Film

This course critically examines films set in the Middle Ages in order to explore the issue of the value of cinematic representations of medieval history. Topics addressed include race and ethnicity, gender roles, epic heroism, faith, religion, and holiness, and war in films set in the Middle Ages.

HIST 867 **3:3-0**
Medieval Marriage & Family

This course investigates the history of marriage and the family in medieval Europe. It covers such topics as: the development of Christian attitudes towards marriage; marriage practices; family structures and strategies; children and childhood.

HIST 872 **3:3-0**
From Magic to Science: The Evolution of Early Modern European Thought

Between 1450 and 1700, the mental landscape of Europe changed dramatically. Magic and alchemy flourished in the Renaissance, but were abandoned by the time of the Scientific Revolution. This course will examine the many facets of this evolution and the impact it had on both scholarly and popular culture.

HIST 874 **3:3-0**
War and Culture in Europe WWI

This course examines the controversial idea of the Great War as a watershed in European cultural history and the different ways in which class, gender, nationality, politics and the passage of time have conditioned the experience and memory of the War. Writers', artists', and historians' views are considered.

HIST 878 **3:3-0**
The Berlin Seminar

This course focuses on aspects of Berlin's history during the nineteenth and twentieth centuries. Themes include the effects of industrialization, the transformation of urban life during the Weimar Republic, the Third Reich, the division of the city after World War II, and changes following the collapse of the wall.

HIST 890 **1-3:3-0**
Directed Reading Research

Special topics in which a student may do independent study in history under the supervision of a staff member in the Department.

HIST 890AI **3:3-0**
Nazi Movement in Germany

Course Catalogue

This course will take a critical look at the work of recent historians of the Third Reich. It will pay particular attention to the role interpretations of the Third Reich play in larger discussions of German History.

HIST 890AL 3:3-0

Sask and Canadian Federalism

This course examines the Canadian federalism from the perspective of Saskatchewan's postwar role in shaping national policy. The province's impact on the federation is analyzed through a series of topics in which one of the instructors has been an active participant through most of his political life. ** Permission of the Department Head is required to register. **

HIST 890AM 3:3-0

Gender, Body & Spirit Med Euro

This course will examine the theme of "the body" in late medieval Christianity, through a study of the writings and ideas of selected theologians, saints and mystics.

HIST 890AN 3:3-0

Military Effectiveness: The First and Second World Wars

This course considers the factors which conditioned military effectiveness on the battlefield during the First and Second World Wars. Its particular focus is on the British, French, German, Russian, American and Canadian armed forces.

HIST 890AO 3:3-0

Theory and Practice of Social Welfare in Canada, 1867-1939

The course examines social welfare in Canada from 1867 to 1939. In particular, it analyses poor relief systems from a variety of theoretical perspectives: the inter-relationship between the private and public sectors; professionalization and bureaucratization of social work; and the role of gender, race and class in policy formation.

HIST 890AP 3:3-0

British Literature and History

This course explores the extent to which the literature of the period reflected social and cultural conditions as well as attitudes that can be useful to the historian. It places side by side contemporary works of fiction together with the works of historians and focuses on the intersections between them.

HIST 890AQ 3:3-0

Medieval Revival Styles in European and North American Architecture, 19th and 20th Centuries

This course will explore the development of the medieval revival in architecture in Europe (including Britain) and North America in the nineteenth and twentieth centuries. Both Gothic and Romanesque styles of architecture will be covered, as will the social and cultural contexts of the medieval revival.

HIST 890AR 3:3-0

The British State and Radicalism, 1700-2000

This course examines how the British state responded to and changed as a result of the pressure put on it by radical movements and groups. We look at the parliamentary reform movement, Paines and revolutionaries in the 1790s, Owenism, socialism, radical trade unionism and the British Communist Party.

HIST 890AS 3:3-0

Magic and Superstition in England and Colonial America, 1500-1750

This course is a comparative study of popular belief in early modern England and New England. The focus will be on the transmission of beliefs from the Old to the New World, and the social expression of those beliefs in witch trials and witchcraft panics.

HIST 890AT 3:3-0

Canadian-American Perspectives

A historical analysis of the Canadian-American relationship focusing in depth on the controversial as well as problematic inter-connection of Canada and the United States. Paying important attention to the distinct political, economic, cultural and social evolution of these two countries, this course delves their differences and similarities in historical terms.

HIST 890AU 3:3-0

Writing Early Modern History: Theories and Approaches

This course is an examination of recent historiographical theories and approaches, with particular reference to their application in the research and writing of early modern European history.

HIST 890AV 3:3-0

Media Agenda-Setting and Its History

This course examines literature that explores how and why audiences are influenced by mass media. This includes a consideration of agenda setting theory, the phenomena of framing and priming, as well as an introduction to the history of print journalism in Canada.

HIST 890AW 3:3-0

Canadian Federalism in Comparative Perspective

Examines the development and workings of Canadian Federalism by comparing it with other federations. Explores the relation between the two levels of government over a variety of issues (division of powers and fiscal arrangements). How Canada's linguistic and ethnic diversity has been major determinants of a particularly brand of federalism.

HIST 890AX 3:3-0

Social History in Nineteenth-Century Britain

Examines the Industrial Revolution and its consequences, rural unemployment and poverty, the New Poor Law of 1834, labour disputes and early trade unionism, efforts to reorganize and reform urban space and hygiene, the role of religion in the lives of ordinary people, the beginnings of the women's movement.

HIST 890AY 3:3-0

Martin Luther: His Life, Thought and Influence

Martin Luther (1483-1546) continues to attract the attention of early modern historians. This course will examine recent approaches to and interpretations of Luther and his role in the Reformation. Particular emphasis will be placed on the interplay between his theology and the political context in which he lived and worked.

HIST 890AZ 3:3-0

Hitler in History: An Historiographical Investigation

More than six decades after Hitler's death, academic and popular interest in him is unabated. In this seminar course, students will analyze various interpretations of Hitler and his historical significance offered by various historians. It will also look at the portrayal of Hitler in books, films, television programs and documentaries.

HIST 890BA 3:3-0

Housing and Society in Roman Britain

This course examines the use of housing, by Romans and Romanized Britons, to represent and communicate ideas about social status. It is based primarily on archaeological evidence from Roman Britain, informed by literary and archaeological evidence from elsewhere in the Empire.

HIST 890BC 3:3-0

Topics in Jesuit History

This reading course examines Jesuit history with a particular emphasis on Jesuit education, spirituality and intellectual ministry. It will consider Jesuit formation as well as the short-and long-term impact of Jesuit educational work since the establishment of the first Jesuit schools in the mid 1500s. The link between Ignatian spirituality and Jesuit pedagogy will be a major theme throughout the course.

HIST 890BD 3:3-0

Historiography and the Writing of History

This reading course will involve an examination of theories of history and developments in writing history from the early twentieth century to the present.

HIST 890BE 3:3-0

The History of Military Thought

An examination of military thought from the Renaissance to the 21st Century. Ideas on the use of military force are placed in social, political and cultural context. Particular case studies will be considered to explore the relationship between the theories and practices of modern warfare.

HIST 890BF 3:3-0

Crises and the Expanding American Presidency

The course will explore how a variety of crises have engendered an expansion of presidential authority in the United States since the founding of the republic.

HIST 890BG 3:3-0

Homeland Insecurity: The US and Domestic Security from Reconstruction to the War on Terror

Course Catalogue

This course examines the United States and its responses to issues of domestic security. Starting with the end of Reconstruction, major areas of examination will include both domestic American terrorism and international security risks.

HIST 890BH 3:3-0
The Emergence of the Zapatistas in Historical Context

The course explores the emergence of Mexico's Zapatista movement in the historical context of Latin American revolutions and resistance movements. In rough chronological order it explores revolutions in Mexico, Guatemala, Bolivia, Cuba, El Salvador, Nicaragua, Peru.

HIST 890BI 3:3-0
The Architecture of Imperialism in Latin America

The course examines the structures of imperialism in Latin American history, in particular a consideration of ideologies and behaviour. It considers how the various imperial projects manifested themselves in material culture, language, religion, gender, and governance.

HIST 890BJ 1-3:3-0
Indigenous Response to Postcolonial Western Canada

This course examines the responses of Indigenous peoples to their circumstances in postcolonial western Canada. Emphasis is placed on identifying relevant postcolonial theory and on the formation of organizations to further goals identified by Indigenous peoples during the latter half of the 20th century.

HIST 890BP 3:3-0
Literature and History in Britain, 1700-1850

This course explores the extent to which the literature of the period reflected social and cultural conditions as well as attitudes that can be useful to the historian. It places side by side contemporary works of fiction together with the works of historians and focuses on the intersections between them.

HIST 890BR 3:3-0
The Chinese Immigrant Experience

This advanced directed reading course will explore themes within the history of the Chinese immigrant experience. Specific topics include immigration policy, public attitudes, economic factors and considerations of family, gender and race. While the focus is on western Canada, relevant examples from the global context will also be examined.

HIST 890BS 3:3-0
History of the Jesuits

The course explores the history of the Jesuits, examining their impact on political, religious, sociological and intellectual life worldwide.

HIST 890BT 3:3-0
Gender and US Politics

This course analyzes how ideas about gender shape US politics. We will consider men's and women's participation in both electoral politics and reform activism in an effort to understand how notions of masculinity and femininity shape ideologies that become attached to policy decisions and partisan politics.

HIST 890BU 3:3-0
Treaties and Treaty-Making in Canada

This course will survey the treaties between First Peoples and the Crown in Canada, and the process through which those treaties were negotiated, including colonial treaties, such as the Douglas Treaties, and the Haldimand Proclamation; the numbered treaties negotiated between 1871 and 1930; and contemporary treaty-making.

HIST 890BV 3:3-0
Canadian Treaties and Health: A History

History of treaty making and implementation from colonial times to the twentieth century with emphasis on the impact of those agreements on the health of the Indigenous communities. Course content will consider the epidemiological, environmental, and political context of treaty making and the evolution of health outcomes after their completion.

HIST 890BW 3:3-0
The Historiography of the Holocaust

This course traces our evolving understanding of the Holocaust, moving from early silences to a focus on analysing perpetrators, bystanders and victims; a post-Cold War turn towards Eastern Europe; and more recent

applications of concepts from the fields of gender, spatial, visual, and LGBTQ+ histories, as well as memory studies.

Note: Students may receive credit for one of HIST 490AJ or HIST 890BW.

HIST 890BX 3:3-0
Popular Music, Comics, and Movies in the Twentieth Century II

This course examines themes in popular culture in the trans-Atlantic world, concentrating in the 20c with a few examples from the 18c and 19c. Students get a chance to write the history of a cultural artefact (song, game, film) that has special meaning for them.

HIST 900 3:3-0
Research Methods in History

This course is intended to teach the research methods, writing, and critical and analytical skills necessary for successful research at the M.A. level in History.

This is a compulsory two semester course.

HIST 901 3-15:15-0
Research

Thesis research.

HIST 902 0-15:0-0
Project

Preparation, completion, and submission of a pre-approved internship-based project.

INDG	Indigenous Studies
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INDG 800 3:3-0
Advanced Theory Indig Studies

This course surveys the development of current theories and the various trends in Indigenous/Native/Native American/First Nations/Indian studies. Select theories from the social sciences and humanities will be introduced in relation to the influences upon Indigenous studies as a transdisciplinary area of study.

INDG 801 3:3-0
Critical Issues Indig Studies

This course identifies and examines select critical issues in Indigenous studies and explores methodological approaches consistent with values important to Indigenous/Native/Native American/First Nations/Indian studies.

Prerequisite: INDG 800.

INDG 805 3:3-0
Writing Research Proposals

This course covers the fundamentals of research proposal creation. This course must be taken in a student's first semester in the program.

INDG 890 1-3:3-0
Directed Readings

These courses are designed for individual graduate students.

Permission of the Instructor and Department Head are required to register.

INDG 890AD 1-3:3-0
Cree Identity

This course will explore various aspects of Cree identity through an examination of various genres and critical literature.

INDG 890AE 3:3-0
First Nations and the Media

This course will examine the role of mass media in democratic societies as it relates to coverage of First Nations stories, the impact of globalization, and the responsibility of mainstream media in Canada.

INDG 890AN 3:3-0
Theory & Methods in Oral Hist

This course examines a wide range of oral tradition and oral history research approaches, methods and philosophical concerns from various Indigenous and Western perspective with a focus on memory as primary source material in the reconstruction and analysis of cultural change.

INDG 890AO 3:3-0
Deconstructing Aboriginal Women's Identities

This is a reading course that will examine the construction of Aboriginal women's identities through colonial forces. It will further examine the

Course Catalogue

deconstruction of Aboriginal identities with a focus on recent literature, Aboriginal women's healing journeys, the role of government policy and broader social values and perspectives regarding Aboriginal women.

INDG 890AP 3:3-0

Race, Space, Gender and Identity

This course will explore the relationship in society between race, space, and gender and how they shape our social identities, with emphasis on how these factors affect Aboriginal peoples in western Canadian society.

INDG 890AQ 1-3:3-0

Aboriginal Healing Across the Canadian Plains

This course will explore the ways in which Aboriginal cultures within Western Canada engage in healing practices.

INDG 890AR 1-3:3-0

Impact of Residential School Experience

Through reading, research, discussion and writing, this course explores the impact of the residential school experience with emphasis on the testimonies of the survivors as presented in the Truth and Reconciliation Commission findings.

INDG 890AS 1-3:3-0

Indigenous Language Revitalization

This course explores the importance of language revitalization for the regeneration of Indigenous peoples. Students will discuss the impacts of linguistic assimilation and the efforts to restore intergenerational transmission of Indigenous languages through immersion schools, language nests, learning circles, master apprentice programs, and other initiatives.

INDG 890AT 1-3:3-0

Role of McFaddon Report

This class focuses on the role of the 1956 McFaddon Report and its implications for the ongoing File Hills Colony Claim.

INDG 890AU 3:0-0

Research With Indigenous Communities

This course focuses on community-based health research methods involving Indigenous populations in Canada, examining the dynamics of conducting applied health research in culturally safe ways with attention to ethics, sensitivity and protocols while allowing for exploration of overall applicable health research methodologies and methods for individual project planning. This course focuses on Indigenous health including systemic issues such as bias, positionality, racism, and privilege, particularly as they relate to health. There is also a heavy emphasis on Indigenous ethical protocols and engagement.

INDG 890AZ 3:0-0

Indigenous Spirituality in Modern Contexts

This course examines current issues and applications of Indigenous spirituality.

INDG 890BA 1-3:0-0

Collaborative Investigative Research I

Students will learn investigative journalism research techniques and will collaborate with each other on investigative assignments focused on holding government and industry to account on a national scale.

Permission of the Department is required to register.

INDG 890BB 3:0-0

Theories and Practices in Indigenous Health and Healing

Drawing from Canadian and international Indigenous perspectives, this course examines the meanings and mechanisms of healing and restoration that incorporates traditional knowledge. Topics may include: forms and methods of healing, impact of colonialism on traditional healing practices, decolonizing therapies, restorative justice, knowledge translation, land-based healing and wholistic health concepts.

INDG 890BC 3:0-0

Indigenous versus Non-Indigenous Spiritual Ideologies

Drawing from Canadian and international Indigenous perspectives, this course examines the meanings and mechanisms of healing and restoration that incorporates traditional knowledge. Topics may include: forms and methods of healing, impact of colonialism on traditional healing practices, decolonizing therapies, restorative justice, knowledge translation, land-based healing and holistic health concepts.

INDG 895 3:3-0

Special Topics Seminar

These courses are designed and organized based on a special topic. **Permission of the Instructor and Department Head are required to register.**

INDG 895AC 3:3-0

Aboriginal Spirituality in Modern Contexts

This course expands on the topic of Indigenous religions and philosophy by examining Indigenous spirituality in terms of comparison to broader world belief systems.

INDG 901 3-12:12-0

Research

Thesis research

JRN	Journalism
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JRN 799 0:0-0

Journalism Ethics and Professional Standards Review

This online course tests students' understanding of ethical/legal standards in Canadian journalism. Topics include plagiarism, libel, information rights, publication bans, ethical interviewing, Indigenous protocols, protection of sources, use of images, due diligence, and other foundational standards of practice in a Canadian context.

Note: Successful completion required in first semester of program.

JRN 800 3:3-0

Research Methods in Journalism

This class is designed to explore different research approaches useful for graduate journalism students. Students will get acquainted with qualitative, quantitative and applied journalistic methods, and will work toward developing a project proposal.

JRN 801 3:3-3

Advanced News Writing

This course focuses on in-depth reporting of news and feature writing. Students will also write opinion pieces and pursue topics of interest while monitoring media coverage of current affairs.

Note: Students may receive credit for one of JRN 801 and JRN 401.

JRN 802 3:3-3

Digital Radio News Journalism

Advanced study and practice in digital radio news. Students are expected to bring an analytical approach to the course through preparing research reports and will produce radio shows for CJTR, current affairs long stories, and podcast episodes.

Note: Students may receive credit for one of JRN 802 and JRN 402.

JRN 810 3:3-0

Advanced Journalism History: The Western tradition and Canadian experience

This course investigates the historic evolution and importance of mass communications and journalism in democratic life. It focuses on the Western tradition and Canadian context. Readings and lectures focus on the contradictory historic role of journalism and media institutions as agents of social change and social control.

JRN 811 3:3-3

Documentary Theory and Production

Explore the human condition through telling creative, in-depth and compelling stories as a means for social change. You will produce a substantive documentary experimenting with multiple forms of media, form, content and personal points of view. Your project will be supported by studies in documentary history, ethics and theory.

Note: Students may receive credit for one of JRN 811 and JRN 411.

JRN 812 3:3-0

Photojournalism

A detailed examination of the photojournalist's role in the news gathering process. A focus on communicating through digital imagery and the power of visual storytelling, with an emphasis on practical techniques and ethical image editing.

Note: Students may receive credit for one of JRN 812 and JRN 312.

JRN 813 3:3-0

Magazine and Literary Journalism

Course Catalogue

An intensive writing seminar/workshop with a focus on developing the creative voice and applying literary conventions to journalistic writing while maintaining accuracy and meeting deadlines. A detailed examination of the roots of New Journalism, creative non-fiction, literary journalism, self-directed journalism and the freelance environment.

Note: Students may receive credit for one of JRN 813 and JRN 413.

JRN 815 **3:3-0**

International Media

Graduate students will study the role of media in the processes of globalization and development, with a focus on learning journalistic skills and practices accepted in and by the media of different countries, issues in the media outside of Canada, and communication in an international context.

*Note:

Students may receive credit for one of JRN 815 and JRN 415.*

JRN 818 **3:3-0**

Master's Workshop on Journalism Projects

Students will circulate and present the advanced journalism project proposals they finalized in the fall term. Each weekly workshop will focus on one or two projects and will be conducted under the supervision of the presenting student's faculty supervisor(s). All school faculty and students will be encouraged to attend and participate.

JRN 819 **3:3-0**

Alternative and Community Journalism

An examination of the emergence of independent journalism within the context of global media, with a focus on the connection to social movements and social change. Emphasis on alternative and community media in theory and practice, with hands-on learning experiences provided.

Note: Students may receive credit for one of JRN 819 and JRN 419.

JRN 880 **3:3-0**

Advanced Journalism Theory: Key perspectives in journalism, media and cultural studies

This seminar explores the paradigms, theorists and key concepts that form journalism's philosophical foundations. It examines professional principles and draws from fields such as the sociology of journalism, political economy of media and media-cultural studies to strengthen professional practice and newsroom leadership.

JRN 881 **3:3-0**

Selected Topics AA-ZZ

Courses designed as required for groups of students.

JRN 881AA **3:3-0**

Authenticity, Cultural Appropriation & the Documentary Genre

This course is focused on the practical application of academic research. Students study the intersection of authenticity, cultural appropriation and audience reception; societal ramifications resulting from subjective interpretation; symbols and aesthetic constructs as forms of resistance; and creative applications of camera and editing in illustrating.

JRN 881AB **3:3-0**

Hearing Voices and Carrying Stories: Exploring Narrative in Visual Media

This course will reflect on social and cultural roots of storytelling and explore the transfer of stories and their embedded lessons through film and photography projects, including the use of alternative and unconventional forms of journalistic storytelling. Questions of voice, imagery, plot, character, and story-craft will be examined and work-shopped.

JRN 881AC **3:3-0**

Non-Traditional Documentary Modes: Director Interpretation & Audience Reception

This course is focused on the practical application of academic research through the shifting intersection between traditional and non-traditional documentary modes and the resulting reception; narrative devices, signs and aesthetic constructs within documentaries as forms of resistance; and creative application of camera in illustrating complex narratives.

JRN 881AD **3:3-0**

Digital Journalism and Radio

This graduate-level directed studies course is focused on the practical application of academic research through two key areas of research, investigation and analysis: current affairs in radio news and podcast production.

JRN 882 **3:3-0**

Indigenous People and the Press

This course investigates the fairness, accuracy and inclusion of Indigenous representations in the media. Topics range from under-representation and under-reporting of Indigenous issues, media cultural imperialism, negative stereotypes, and reporting challenges and alternatives.

Note: Students may receive credit for one of JRN 882, JRN 482, or JRN 480AB.

JRN 901 **3-18:0-0**

Thesis

Theses research on journalism studies topics.

JRN 902 **0-9:0-0**

Professional Project

In consultation with a supervisor, students will complete a substantial work of public affairs journalism that will advance journalism practice. Projects are carried out with the intention of publishing, broadcast, or other forms of public dissemination and must adhere to professional standards and ethics.

JS	Justice Studies
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JS 800 **3:3-0**

Research Design in JS

The course critically examines issues and techniques relating to quantitative and qualitative social science research as it is related to police and justice studies. The course uses the case method as well as seminar and lecture formats.

JS 801 **3:3-0**

Theoretical Perspectives

An examination of the nature and foundations of justice in its various renderings, such as justice as retribution, desert, righteousness, equality, procedural fairness, and restoration of harmony and balance. The course draws upon religious thought, philosophy, legal concepts, economic and social theory, and Aboriginal cultures and teachings.

JS 802 **3:3-0**

Interprofessional Collaboration in Community Safety and Justice

In this course students will explore, in an interprofessional context, complex issues related to justice, health and learning. A primary objective will be to engage in opportunities to develop knowledge, skills and attitudes related to collaborative competencies and promote interprofessional learning to foster interprofessional practices among policing and security services (RCMP, municipal police services, CBSA, etc.), health and educational organizations: first responders, fire fighters, social workers, hospitals, etc.

JS 803 **3:3-0**

Public Safety and Community Policing

This course is a theoretical examination of the history and models of contemporary community policing in Canada. The interrelated roles of the community and the police in the development and implementation of community and problem-oriented policing in urban as well as rural settings will be examined.

JS 804 **3:3-0**

Public Safety in a Democratic Society

This course considers the role, organization, and accountability of policing within democratic societies; considers implications of jurisdiction, geography, community, training and operations.

JS 805 **3:3-0**

Graduate Research Seminar

Students will undertake research on topics relating to justice and present the results to fellow students and interested faculty.

Note: Students may receive credit for one of JS 805 or PLST 805.

JS 810 **3:3-0**

Crime and Society

The course examines the social processes involved in the definition and measurement of crime. Students critically examine alternate theoretical explanations of these processes and issues in the conflict of law. The course uses the case method as well as seminar and lecture formats.

Note: Students may receive credit for one of JS 810 or PLST 810.

JS 820 **3:3-0**

Contemporary Issues in Justice and the Law

Course Catalogue

This course will provide students with a brief historical review of justice and an in-depth examination of the major contemporary justice issues.

Note: Students may receive credit for one of JS 820 or PLST 820.

JS 880 3:3-0

Selected Topics in JS

Selected topics in Justice Studies to be offered as required.

JS 880AA 0-3:3-3

Quantitative Methods

National Summer Institute (NSI) for Statistical & GIS Analysis of Crime and Justice Data. Sponsored by SSHRCC and Statistics Canada.

JS 880AD 3:3-0

Contemporary Issues in Policing

This course focuses on issues in contemporary Canadian policing including the internal and external forces that are shaping police practices. A number of theories of police organizations are introduced and they provide a framework to better understand the behaviour of police organizations in the present, as well as how they will impact the futures of policing.

Note: Students may receive credit for one of JS 880AD or PLST 880AD.

JS 880AE 3:3-0

Crime Intelligence Analysis

This course introduces students and professionals to the role of intelligence and analysis in policing. Students and professionals will obtain the knowledge, skills and tools for basic analysis techniques. The course provides insight into the principles of intelligence led policing, critical thinking, and analysis.

Note: Students may receive credit for one of JS 880AE or JS 398AB.

JS 880AF 0-3:3-0

Advanced Seminar in Social Justice

This course will focus on special topics in the area of social justice and human rights. The intent is to offer a special focus on a key issues in the field and allow students to explore that topic in great depth throughout the semester including community-based research practices.

Note: Students may receive credit for one of JS 880AF or JS 498AI.

JS 880AG 3:0-0

Practicum

JS 880AG is an introduction to professional practice in a human service or justice-related organization. The practicum provides students with the opportunity to integrate theory into practice by applying the knowledge, skills, and abilities they gained in academic study in a professional setting.

JS 890 3:3-0

Directed Readings in JS

Directed readings in selected topics.

JS 890AA 1-3:3-0

Penology and Corrections

Critical analysis of the history, social context, and forms of oppression in penology and corrections, and how different theoretical approaches can help explain assumptions and practises in this field. Recent theoretical reformulations and innovative service models, and their potential ideological and practical impacts on the field, will also be examined.

JS 890AC 3:3-0

Law and the Social Sciences

Examines the way that research as well as theoretical models from the social sciences are integrated within the law. Specific attention will be paid to how "social science" impacts the law. The course will be presented through an analysis of relevant US and Canadian case-law.

JS 890AD 3:3-0

Indigenous Perspectives on Law & Justice

Examines Indigenous perspectives on "justice", including criminal, restorative and social justice. Concepts, categories, practices and administration of law in Indigenous cultures are also analyzed, including the degree of congruence and difference of these ideas with those of prevailing Western paradigms. The role of the institutions of law and justice in colonialism and oppression of Indigenous peoples is discussed.

JS 890AI 1-3:3-0

Soc. Science & Policing

This course will focus on an examination of Social Science research, theories & models as they relate to policing. Topics include eye witness, interviewing, interrogation & professionalization.

JS 890AN 3:3-0

Police Attitudes and Practices

This course will examine mainstream and Aboriginal perceptions of police and police conduct. Literature perceptions of police and police conduct. Literature will be reviewed on vicarious and personal experiences of interaction with police. Focus on conflict theory and its application to this issue and an exploration of other relevant theories will be followed by a study of particular research methods applicable to this study.

JS 890AP 3:3-0

Advanced Issues in Corrections

Analyzes forms of intervention, programming models, and professional practices in services for offenders in both institutional and community-based correctional settings. Topics include assessment of offender risk, shaping positive cognitive and social behaviors, overcoming substance abuse, and the protection and promotion of health.

JS 890AR 3:3-0

Juvenile Delinquency & Gangs

This course explores a number of theoretical and practical issues relating to the study of juvenile delinquency and gang formation. Additional emphasis is placed on Aboriginal youth gangs.

JS 890AS 3:3-0

Qualitative Research Methods in Justice Studies

This course focuses on the theory and methods of qualitative research with an emphasis on criminological research. Throughout this course students will critically analyze and apply a number of qualitative research methods (observation, ethnography, case studies, narrative analysis, and individual and group interviewing) in a safe learning environment.

JS 890AV 3:3-0

Restorative Justice: Theory, Application and Evaluation

This course explores the theoretical foundations, the practical applications and program evaluation in the area of restorative justice. Additional emphasis is placed on restorative justice practices in Saskatchewan.

JS 890AX 3:3-0

Aboriginal Justice Issues in Canada

This course examines an array of Aboriginal justice issues in Canada. Topics covered include: the history and impact of the residential school system and the resulting truth and reconciliation commission, the Gladue court rulings, the over-representation of Aboriginal Peoples in the criminal justice system, and restorative justice alternatives.

JS 890BA 3:0-0

Forms of Criminal Behaviour

This course examines the major types of criminal behaviour including violent, property, public order, and organizational offences. Special attention is placed on the sources and patterns of violent offending across time and space. Topics include conceptions and typologies of violent offenders, victim-offender relationships, and efforts to control violent offending.

JS 890BB 3:3-0

Historical Perspectives on Community Corrections in Canada

This course provides a historical analysis of the people, events, and social conditions that gave rise to the development of community corrections in Canada, with an emphasis on Saskatchewan. Student(s) will be introduced to historiography, including the tensions between history and oral history, to gain an understanding of the short- and long-term policy and program developments in community corrections.

JS 890BE 3:3-0

Aboriginal Policing Models and Justice Issues

This course examines policing in the context of Aboriginal communities. It explores the history, issues, and various models employed in Canada. It also examines the relationship between various justice paradigms and Aboriginal worldviews. Finally, it explores methodological considerations concerning conducting research in this area.

JS 890BF 3:3-0

Truth and Reconciliation in Canada

Course Catalogue

The course guides students through a comprehensive examination of colonialism in Canada in relation to the issues examined in the Truth and Reconciliation Commission's work and its 94 Calls to Action. Work includes literature research as well as community work with reconciliation projects within the province.

JS 890BG 3:0-0
Capstone in Justice Studies I

This course focuses on the development of a major independent project or research paper that integrates the student's knowledge from their coursework about a contemporary justice-related problem or challenge (Part 1).

JS 890BH 3:0-0
Capstone in Justice Studies II

This course focuses on the development of a major independent project or research paper that integrates the student's knowledge from their coursework about a contemporary justice-related problem or challenge.

JS 901 3-15:15-0
Research
 Thesis Research.

JSGS	Johnson-Shoyama Graduate Sch
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JSGS 700 3:3-0
Pre-Internship Seminar Series

This course is intended to prepare Interns for their upcoming placements. A series of seminars will address; workplace conduct, expectations, protocols and feedback mechanisms. Students will be expected to produce a research paper on the nature of internships in the public sector.

JSGS 801 3:3-0
Governance and Administration

Analyzes governing institutions and the process of modern government as a means of enhancing student understanding of policy formulation and implementation. Intended to provide a basis for critically assessing political and administrative decision-making and policy outcomes.

JSGS 802 3:3-0
Public Finance

Provides a survey of Canadian public finance. Examines rationales for government intervention in a market economy, the assessment of public policy, how government decisions are made and the impact of government expenditures and taxation on the economy and the well-being of Canadians, in terms of economic efficiency and interpersonal equity.

JSGS 803 3:3-0
Quantitative Methods

Provides students with an understanding of the statistical concepts and techniques used in conducting research and critically evaluating empirical studies. Topics include statistical inference, sampling theory, and data and regression analysis as applied to problems in public policy.

JSGS 804 3:3-0
Seminar in Research and Writing

Introduction to research and writing in public policy including research design, sourcing, evaluation, analysis and presentation. This course is built on the progressive evolution of a major research paper, and will provide critique on both research design and methodology.

JSGS 805 3:3-0
Economic Analysis for Public Policy

Examination of concepts in microeconomics and macroeconomics, focusing on issues relevant to the public sector. This is a pre-requisite for students wishing to take JSGS 820 and 821, but who do not have a 300 level macro or micro economics course.

JSGS 806 3:3-0
Public Policy Analysis

Analysis of the processes whereby public policies arise and are enacted in Canada. Compares theories and models of policy-making and decision-making to illustrate the special requirement of the Canadian environment; examines the roles of various participants in the policy process; legislators, political parties, interest groups, administrators and administrative structures, citizens and the judiciary.

JSGS 807 3:3-0

Statistics for Public Managers

Administrative decision-making and policy development often require the analysis of quantitative data. This course will introduce students to descriptive and inferential statistics often used in policy environments so that they will be effective data users and interpreters. Students will be taught how to use and present descriptive statistics.

JSGS 808 3:3-0
Ethical Leadership and Democracy in Public Service

There is a growing interest in leadership, ethics and democracy within the profession of public administration. This course examines these three key concepts in the making of a professional public servant and connects them to the environment in which decisions are made in government.

JSGS 809 3:3-0
Introduction to Law in Public Administration and Policy

Law and regulation as it affects public administration and policy, including the methods and procedures followed in Canada as a Westminster-style parliamentary democracy, the nature of the law-making process, choice of legal instruments including administrative tribunals, and the legal methods by which administrative instruments are controlled.

JSGS 810 3:0-0
Co-operative and Non-profit Governance and Leadership

This course will introduce students to strategic leadership issues in board-run organizations such as co-operatives and non-profits. The course will focus on governance, executive leadership, interactions with external stakeholders, and the board of directors' roles in strategy formation and implementation.

JSGS 811 3:3-0
Foundations of the Nonprofit Sector

Provides a descriptive and analytical overview of the Canadian voluntary sector. This graduate course focuses on the structure of the voluntary sector, its history and relationship with government. This course challenges students to assess criteria, which determine the enabling policy environment for non-profit organizations.

JSGS 812 3:3-0
Indigenous Health Policy

This course will address key health policy issues facing Indigenous populations. It will reflect on both historical and contemporary contexts and will take a broad and interdisciplinary approach.

JSGS 813 3:3-0
Managing Change

This course seeks to bring about an awareness and understanding of how organizations are managing change. The course will provide perspectives of the change strategists, the change implementors, and the change recipients. The objective of the course is to develop sensitive and effective change-agent skills in management ranks.

JSGS 814 3:3-0
Biostatistics for Public Health

This course offers introduction to statistical concepts and methods that are essential for understanding evidence generated by quantitative studies. Practical application of basic statistical principles will be studied. The focus is on developing foundational knowledge on statistical approaches and the application of appropriate tools and methods.

JSGS 815 3:3-0
Strategic Human Resource Management: Legal and Policy Issues

Examination of human resources functions in public and private organizations from a strategic and institutional perspective. The topics include human resource planning, recruitment and selection, performance measurement and assessment, training and development, and the design of reward systems.

JSGS 816 3:3-0
Tax Pol & Fiscal Federalism

Examination of objectives of tax policy and basic principles of taxation, with special reference to Canada. Various types of Canadian taxes - federal, provincial, municipal - will be analyzed and evaluated, including those on personal income, corporation income, and manufacturers' sales, resource property and other taxes. Emphasis on evaluation of specific taxes and current issues in Canadian tax policies.

Course Catalogue

JSGS 817 Health Policy The course will review the historical development of the Canadian health care system and its supporting principles, governance structures and fiscal arrangements; and examine contemporary structures and relationships. Issues such as benefit coverage, health human resources, user fees, pharmaceuticals, regional health boards, and health reform in a comparative context will be examined.	3:3-0	This course will address health human resource management. Its scope will include the knowledge and skills necessary to working with self-regulating professions and in a highly unionized environment. Essential aspects of collective bargaining, negotiation and professional organization will be covered, as will working with the public/private divide in healthcare provision.
JSGS 818 Program Evaluation Through extensive use of examples from various fields, students will be exposed to the art and science of applying evaluation methodologies and techniques to programs in both the public and non profit sectors. *Note: Students may only receive credit for one of JSGS 818, GSPP 818, ECON 830 or PSCI 843*	3:3-0	JSGS 827 Health Care Organizations and Administration This course will provide students with an understanding of issues involved in the management and organization of health services. Students will examine issues related to managing health in terms of regional health authorities, health ministries and individual health organizations.
JSGS 819 Gender and Public Policy The course will do a compare neo-classical and feminist approaches to the analysis of public policy. Students will examine the labour market and gender-based inequality; the family, with a particular focus on intrahousehold resource allocation; and will consider macro-economic issues and provide gender-based analysis in relation to public policy in Canada	3:3-0	JSGS 828 Project Management An introduction to the many phases of a project's life cycle. Students will gain knowledge and understanding of Project Management principles and learn how to manage them effectively using Project Management techniques by monitoring and maintaining control of scope, time and costs within a project.
JSGS 820 Micro-Economics for Policy Analysis The microeconomic tools needed for public policy analysis. Introduces students to an economic approach to the study of human behaviour, with special emphasis on the study of the circumstances under which markets achieve, or fail to achieve, an efficient allocation of the economy's resources. *** Pre-requisite JSGS 805, ECON 301, or permission. ***	3:3-0	JSGS 829 Decision Making and Leadership in Healthcare Organizations This course will cover leadership theory and practice, with a focus on effective leadership in the public sector and ethical decision-making. It will address decision-making models relevant to the health sector, including emerging philosophies (e.g., LEAN).
JSGS 821 Macro-Economics for Policy Analysis This course introduces the major policy questions of macroeconomics and presents macroeconomic models to assist policy development. An emphasis will be placed on current policy issues including monetary policy, fiscal policy, urrency regimes, productivity and growth, demographic patterns and fiscal sustainability. Pre-requisites: JSGS 805, ECON 302, or permission.	3:3-0	JSGS 830 Residency Each in-person residency will be an intensive three to five day session focusing largely on group exercises including case studies, management simulations, breakouts and presentations. Each residency will have different guiding themes including strategic planning, coaching and communication skills and managing and evaluating quality improvement initiatives.
JSGS 822 Comparative Public Policy Using a comparative perspective, students will analyze how public policy is formulated, how it changes, and why. The role of formal and informal institutions, actors, structures and networks is examined, providing an increased understanding of theories of public policy, and the ability to critically analyze and compare public policy.	3:3-0	JSGS 830AA Master of Health Administration Residency I Each in-person residency will be an intensive three day session focusing largely on group exercises including case studies, management simulations, breakouts and presentations. Each residency will have different guiding themes including strategic planning, coaching and communication skills and managing and evaluating quality improvement initiatives.
JSGS 823 Health Promotion This course is designed to provide an introduction to population health and instill the concepts and principles of population health promotion. Based on the Ottawa Charter of Health Promotion, this course will provide students with an opportunity to develop targeted health promotion strategies in vulnerable populations.	3:3-0	JSGS 830AB Master of Health Administration Residency II Each in-person residency will be an intensive three day session focusing largely on group exercises including case studies, management simulations, breakouts and presentations. Each residency will have different guiding themes including strategic planning, coaching and communication skills and managing and evaluating quality improvement initiatives.
JSGS 824 Health Program Planning and Evaluation This course is designed to provide the key principles of health program planning and evaluation. The areas of focus for this course include program planning models; design of evaluation plans; program theory; mixed-methods data collection; indicators and measures of program outcomes; policy evaluation and evaluation reporting.	3:3-0	JSGS 831 Performance Management The course examines the principles underlying the application of selected aspects of public management and examines ways in which governments apply the principles. The course compares approaches of different governments and examines some specific applications and strives to develop in students the competencies required of public servants.
JSGS 825 Saskatchewan in Canadian Federalism Examines Canadian federalism from the perspective of Saskatchewan's postwar role in shaping national policy. The province's impact on the federation is analyzed through a series of topics.	3:3-0	JSGS 832 Population Based Health Program Management This course will apply the techniques of epidemiology and biostatistics to evaluate population-based health programs. In addition, students will become familiar with principles of public health, prevention, and health care quality management.
JSGS 826 Human Resources Management in Healthcare	3:3-0	JSGS 833 Performance Measurement in Health Care Organizations Focusing on the health care imperative of accountability to the community, this course deals with the measurement of performance in health care organizations. Management control focuses on the implementation of business strategies and the attainment of organizational goals.

Course Catalogue

- JSGS 834** **3:3-0**
Financial Management of Health Care Organizations
This course covers the financial management function in health care organizations including operating and capital budgeting processes along with budgetary and financial controls. There will be extensive use of financial analysis tools for the health care organization and skills needed to develop basic finance and accounting foundations will be reviewed.
- JSGS 835** **3:3-0**
Selected Topics in Public Policy an AA-ZZ series
Examination of one or more selected policy area(s) related to the interests of the instructors and students. An analytical assessment in terms of the economic, political, social, legal, quantitative, and administrative factors. (Was formerly ADMN 822AA-ZZ).
- JSGS 835AJ** **3:3-0**
Environmental Policy
Provides an understanding of the environmental policy process. The course provides an introduction to environmental philosophy, the green ideology and social environmental movements by exploring environmental policy-making process, factors and actors in the process and policy instruments in environmental public policy and examining both international and local environmental protection politics.
- JSGS 835AK** **3:3-0**
Resource Policy
The course will examine recent trends in resource policy focussing on the impact of global markets and international institutions on domestic policy options. It will cover alternative policy instruments, the growing integration of environmental and resource policy, and the development of international policy regimes for mining, forestry and fisheries.
- JSGS 835AL** **3:3-0**
Foreign Aid Policy
The course will examine the reasons for the acute and widespread poverty that still exists in many countries despite the vast amounts of money spent on foreign aid during the last 50 years. Policies enhancing the effectiveness of aid are examined, along with institutions such as the IMF and other governmental responses.
- JSGS 835AM** **3:3-0**
International Trade Policy
This course will be an overview of international trade theory and policy. It is intended that students will gain an understanding of the basic organizational framework within which international trade in goods and services takes place, and methods of protection by importers and exporters.
- JSGS 835AO** **3:3-0**
Global Governance and Regulation
Focuses on interactions among nation states, global and regional organizations, multinational corporations, NGOs and transnational civil society networks. Examines regulation of global policy problems using a critical historical perspective to understand global governance. Using cases, students analyse fundamental institutional and legal aspects of global governance, including global security, economics, immigration.
- JSGS 835AS** **3:3-0**
Canadian Foreign Policy
This course examines the main political, legal and socio-historical facets of Canadian foreign policy (CFP). First, a socio-historical analysis will show key developments in CFP over the past centuries. Second, it will explore diverse theoretical approaches, including Canadian critical perspectives. Finally, current policy issues will be scrutinized.
- JSGS 835AV** **3:3-0**
COVID-19 and Public Policy
COVID-19 affects all parts of our lives. Just as individuals, organizations and businesses struggle to figure out how to plan and react to the pandemic, so do governments. This course examines how governments have approached the challenges presented by COVID-19 analyzes the public policy decisions made by these different governments.
- JSGS 835AW** **3:0-0**
Indigenous Nation Building in Canada
This course will explore critical nation-building issues confronting Indigenous peoples and will examine multi-dimensional settings that confront Indigenous peoples in their pursuit of social, cultural, political, education and economic development.
- JSGS 836** **3:3-0**
Selected Topics in Public Administration an AA-ZZ Series
Examination of one or more selected problems in public sector management relative to the interests of the instructor and students. A multidisciplinary application of knowledge, concepts and analytical tools to contemporary issues challenging government executives. (Was formerly ADMN 824AA-ZZ).
- JSGS 836AF** **3:3-0**
Local Governance and Government
This course will provide students with an understanding of issues involved in the management and organization of local governance and government. Students will examine, reflect on and assess municipal government, associated authorities, institutions and ministries.
- JSGS 837** **3:3-0**
Health Economics
This course is designed to provide students with an introduction to economic concepts and analysis relevant to health, health care and health care systems. Students will examine economic aspects of various elements of the health-care sector, identify relevant policy questions and apply economic concepts and techniques to analyze them.
- JSGS 838** **3:3-0**
Public Sector Financial Management
This course gives an overview of how to budget in the public and non-profit sector. Topics covered will include the budget cycle, from conceptual creation to development of practical options; rules and regulations regarding transfers between programs; issues associated with the audit process; and oversight of third-party budgets.
- JSGS 839** **3:3-0**
Classic and Contemporary Readings in Policy Theory
This course surveys classic and contemporary theories in public policy and public administration. It is intended to provide students with a solid theoretical foundation in decision-making processes, policy learning, policy change, institutionalism and the intellectual developments associated with the policy process.
- JSGS 840** **3:3-0**
Public Policy and Public Opinion
Public opinion in its many forms has become increasingly important for government decision-making and accountability processes. This course examines the underlying assumptions and research methodology used in assessing public opinion as well as government's use of public opinion and its impact on decision-making and accountability practices.
- JSGS 841** **3:0-0**
Health Law and Policy
This course will provide an overview of issues at the intersection of health law and policy. It will include a basic introduction to the foundations of health law followed by examination of topical issues in this domain.
- JSGS 842** **3:3-0**
American Foreign Policy in a New Era
Foreign policy decisions are the product of an historical context (individual and cultural), a complex bureaucratic process, and an intertwined domestic and international political and economic environment. In order to criticize, evaluate, and understand those decisions, this course will examine all these components in relation to emerging doctrines of US foreign policy.
- JSGS 843** **3:0-0**
Data Science for Health Analytics and Decision Support
This course covers the key data literacy and data analysis skills required to investigate complex data sets to answer pressing health care questions and effectively communicate results to peers. Taking a broad-but-shallow approach, the course follows the stages of the cross-industry standard process for data mining (CRISP-DM) data life cycle.
- JSGS 846** **3:0-0**
Cooperatives in the New Economy: Institutions, Policy, and Sustainability
This course examines how societal institutions and policy shape the role played by co-operatives in the economy. The course allows students to develop their knowledge of the actions that both the state and co-operatives have undertaken, and provides students with a conceptual framework within which these actions can be viewed.

Course Catalogue

JSGS 849 **3:3-0**
Foundations in Social Economy and Public Policy
Focus on how non-profit, community-based organizations, and co-operatives interplay with the public policies of different levels of government. Using case studies, students will examine administrative public policy, funding, evaluation and accountability. The course also includes a field trip and researcher and practitioner guest lecturers.

JSGS 850 **0:6-0**
Selected Executive Internships
This internship is for students who have completed at least 50% of their program, including the core program courses, and have little or no experience in the public sector. Students will be exposed to the skills used by managers at senior levels in the public sector and will perform a variety of tasks.

JSGS 850AA **0:6-0**
Executive Internship Provincial
This internship is for students who have completed at least 50% of their program, including the core program courses, and have little or no experience in the public sector. Students will be exposed to the skills used by manager at senior levels in the public sector and will perform a variety of tasks.

JSGS 850AB **0:6-0**
Executive Internship, Federal
This internship is for students who have completed at least 50% of their program, including the core program courses, and have little or no experience in the public sector. Students will be exposed to the skills used by manager at senior levels in the public sector and will perform a variety of tasks.

JSGS 850AC **0:6-0**
Executive Internship Municipal
This internship is for students who have completed at least 50% of their program, including the core program courses, and have little or no experience in the public sector. Students will be exposed to the skills used by manager at senior levels in the public sector and will perform a variety of tasks.

JSGS 850AD **0:0-0**
Executive Internship, Saskatchewan Schoolboard Association
This internship is for students who have completed at least 50% of their program, including the core program courses, and have little or no experience in the public sector. Students will be exposed to the skills used by managers at senior levels in the public sector and will perform a variety of tasks.

JSGS 851 **3:3-0**
Qualitative Methods
This class provides students with advanced skills in qualitative research methods used for policy analysis and programme evaluation. The course surveys validity and reliability measurements, the methodological branches of qualitative research, and a range of applications. Topics include: case studies, interviewing, consultation, focus groups, documentary analysis, Web-research, and content analysis.

JSGS 852 **3:3-0**
Inside Government - Practices and Procedures
Examines the principle underlying aspects of public management with an emphasis on the machinery of government and the ways in which governments apply public administration principles using various instruments. Students will practice some of the competencies expected of public servants through lectures, student presentations, in-class exercises and field trips.

JSGS 853 **3:3-0**
Negotiations and Conflict Resolution
This course addresses Negotiations & Alternative Dispute Resolution (ADR) in the workplace, including theoretical models and applications relevant to managing conflict in employment settings. Students will gain a firm understanding of how to resolve workplace conflict in both unionized and non-unionized environments.

JSGS 854 **3:3-0**
Higher Education Policy
This course examines the broad context in which higher education policy is made and evaluate a variety of policy initiatives launched by governments

around the world. The purpose is to acquaint students with the principal objectives of government in the higher education sector and the major policy challenges they confront.

JSGS 855 **3:9-9-0**
Advanced Standing for Professional Programs
Advanced standing of up to 9 credit hours in the MPA program for prior completion of approved professional programs. Students who receive advance standing for approved programs may be excluded from taking up to 3 electives.

JSGS 855AA **3:9-9-0**
Advanced Standing Direxion Canada Courses
Advanced standing of up to 9 credit hours in the MPA program for prior completion of the Direxion Canada Program. Students who receive advance standing for approved programs may be excluded from taking up to 3 electives.

JSGS 856 **3:0-0**
Health Information Privacy Policy
This course covers legislation, regulation and standards governing access, use, and disclosure of health information, the ethics of information privacy, privacy program management, and privacy by design. Students will examine privacy, compliance, and risk policies and procedures, as well as emergent issues such as medical identity theft and fraud.

JSGS 857 **3:3-0**
Legal Issues in Public Admn
This course will expose MPA students to the legal issues that have practical significance in the management and operations of public sector departments, agencies and initiatives. The course will focus on select aspects of public sector governance, human resources, and Employment. Knowledge gained will apply to situations that arise in a public administration setting.

JSGS 858 **3:0-0**
Enterprise Information Management
An in-depth analysis of health information functions critical to health care operations; enterprise information governance with a focus on information as a strategic asset; and the role of health information professionals in quality improvement, care coordination, and performance and utilization management. Implementing strategic and organizational change will also be covered.

JSGS 859 **3:3-0**
Innovation Policy
This course is designed as a special topic course in the theory and practice of innovation policy. Students will investigate the theory, methodology and applications of innovation policy through primary readings, discourse and writing.

JSGS 860 **3:3-0**
Health Systems Research Methods
This course in research methods as applied to the analysis of health systems will develop students' knowledge and skills in health systems research including the criteria for formulating health system research problems and hypotheses, selecting the appropriate research design, conducting a systematic literature review, methods of data collection and use.

JSGS 861 **3:3-0**
Health, Post-Secondary Ed & Social Programs: Funding, Structure & Reform
Establish the foundations for the current funding of health-care, post-secondary education and Canadian social programs, considering the main elements of a budget. Students will work together to compile a provincial budget and determine how to fund the increasing costs of health-care while maintaining the quality of other programs and services.

JSGS 863 **3:3-0**
Indigenous Peoples and Public Policy
Begins with the historic framework for contemporary public policy established by treaties, reserves and legislation. Then it examines contemporary developments, including constitutional negotiations, influential court case, urbanization, comprehensive claims and self-government.

JSGS 864 **3:3-0**

Social Policy: Interdisciplinary Perspectives

An interdisciplinary course that offers a comparative and historical perspective on social policy development, in Canada and in other advanced industrial countries.

JSGS 865 3:3-0

Decision Making in Organizations

Examines the manner in which decisions are made in organizations, with a particular focus on policy decisions. The course uses a wide variety of behavioral theories to look at phenomena such as policy traps, framing, unwarranted optimism, and group think.

JSGS 866 3:3-0

Public Leadership: Theory and Practice

This course covers key leadership/management skills such as clarifying personal vision, coaching, goal setting, conflict management, stress management, emotional intelligence, crisis management, process & system design and communication skills. Major competency models of leadership and management are covered to familiarize students with the research and practice of leadership development.

JSGS 867 3:3-0

Advanced Policy Analysis

This course will introduce students to applied policy analysis and key policy research methods including interviews, focus groups and surveys. As an applied project class students will work with faculty and representatives from the Saskatchewan Government to conduct a policy analytic review for a provincial ministry.

JSGS 868 3:3-0

Resource and Environmental Policy

An examination of recent trends in resource and environmental policy. The course will focus on policy processes in the context of the growing integration of resource and environmental policies, multi-level governance and civil society engagement.

JSGS 869 3:3-0

Ideas in Public Policy

The objective of this course is to review and discuss major theoretical perspectives that contribute to our understanding of public policy. Featuring extensive class discussions, the course focuses on three related factors: ideas, institutions, and power; and will help research students grasp major theoretical debates in policy analysis, with a special emphasis on sociological, political science, and interdisciplinary perspectives.

JSGS 870 3:3-0

Water Policy in an Age of Uncertainty

Do contemporary water systems embody principles that will allow them to adapt and function in a changing climate, a rapidly evolving economy, a changing settlement system, and new lifestyles? Students will develop a collaborative, interdisciplinary framework for evaluating sustainable water governance.

JSGS 871 3:3-0

Research Methods in International Trade Policy

Is designed to provide the analytical skills required to make sense of the vast literature on international trade, much of which presents data in sophisticated ways, reports the results of the use of often quite sophisticated statistical techniques, and may even be the result of mathematical modeling.

JSGS 872 3:3-0

International Trade and Commercial Policy

Economic analysis of international trade policy. Economic implications of border measures, subsidies, technical standards as barriers to trade, unfair trade practices, sanctions. Dispute settlement and economic penalties. Assessment of international trade institutions and agreements.

JSGS 873 3:3-0

International Trade Theory

Reviews the economic rationale and evidence used to evaluate the effects of freer trade on national economics. We will explore classical theories of trade as well as new models of trade that stress increasing returns and market structure. We will use original data sources to explore essential features of international trade.

JSGS 874 3:3-0

International Monetary Economics

Reviews the factors that determine exchange rates, the benefits and costs of alternative exchange rate regimes, the efficacy of fiscal and monetary policy under different regimes, and the causes and consequences of a currency crisis. We will use original data sources to explore essential features of international monetary flows.

JSGS 875 3:3-0

Politics of International Trade

Will explore the political context of international trade by examining the literature on globalization and by focusing on trade policy decision making in major trading nations as well as in regional and international organizations.

JSGS 876 3:3-0

International Trade Law

Examines international trade laws in goods and services, focusing principally on the World Trade Organization, the General Agreement of Tariffs and Trade, and the North American Free Trade Agreement. This international law specialization includes negotiation and dispute settlement processes and types of rules restraining national restrictions on trade.

JSGS 877 3:3-0

International Sales and Finance Law (International Commercial Transactions)

Introduction to legal concepts and operational principles relevant to transnational commercial transactions. The nature and roles of the various types of private international conventions (law treaties) and the role of national courts in enforcement are outlined.

JSGS 878 3:3-0

International Business Environment

Looks at international trade from the perspective of the private sector practitioner, manager or consultant. Topics include FDI, international cultural, physical, economic, socioeconomic, political, legal and financial environmental forces, competitive intelligence, international marketing challenges, and international financial and human resources management.

JSGS 879 3:3-0

The Management of Technology

To assist students to develop a framework for understanding and analyzing the strategic management of the research, development and commercialization of biotechnology-based products. Students will also learn the role and importance of government (domestic and international regulations), intellectual property regulations and public perception in the business strategy decision making process of firms.

JSGS 880 3:3-0

Advanced Governance Analysis

Governance refers to ?who gets to decide what? in political systems, sectors of the economy, the use of technology, and organizations. This course examines the development of governance systems in response to authority no longer being confined entirely to government, and examines arrangements leading to both desirable and undesirable outcomes.

JSGS 881 3:3-0

Constitutional Law and Public Policy

This course will enable students to develop the critical skills necessary to examine Canada's constitutional framework, including the judicial system, the division of powers, the treatment and rights of Aboriginal Peoples, and the Charter of Rights and Freedoms.

JSGS 882 3:3-0

Strategic Management in the Public Sector

The course focuses on developing practical knowledge and skills public sector managers require to effectively ?get things done? through others. Management skills developed include self-assessment/reflection, goal-setting, teamwork/collaboration, verbal/written communication, influence/persuasion, conflict resolution, stress management, and creative thinking.

JSGS 883 1.5:3-0

Essentials for Public Policy and Administration

This residency pass/fail course will provide students with an introduction to the six MPA competency fields and the JSGS research clusters. It will also provide several refresher sessions on Canadian institutions, public sector processes, basic math skills, and introduce the final MPA portfolio project.

Course Catalogue

JSGS 884 1.5:1.5-0
Professional Planning
 This course requires the submission and presentation of a professional portfolio at the end of the MPA program where students demonstrate evidence that an acceptable level of proficiency in each of the six MPA competency fields has been acquired.
 Prerequisite: JSGS 883

JSGS 886 3:0-0
MHA Placement
 This course is an experiential learning opportunity. Students spend one month embedded within a partner organization such as the Government of Saskatchewan's Ministry of Health, during which time they work on a designated policy project under the supervision of a mentor within the organization, and the course instructor.

JSGS 887 3:0-0
Clinical Terminologies and Classification Systems
 This course introduces the principles of taxonomy and purposes of controlled terminologies and classification systems used in Canada and internationally. It addresses the importance of standards conformance, design of semantically interoperable infrastructures, and the processes, policies and procedures used in the collection, coding, and mapping of health data.

JSGS 888 3:0-0
Health Informatics and Health Information Technology
 An integrative course on information technology used for tactical and strategic decision making in all facets of health care. Focuses on defining information needs, interpreting the capabilities of health information systems, setting forth feasible alternatives, adhering to international and national standards, and guiding the diffusion of information technology.

JSGS 890 3:3-0
Directed Readings
 Directed readings for individual students or groups of students on selected topics. Prerequisite: Permission of Department Head.

JSGS 890AG 3:3-0
Canadian Post-Secondary Education

JSGS 891 3:39-0
Public Policy Professionalism
 This pass/fail course provides students with an introduction to the three MPA competency fields, and the overarching areas of knowledge required of policy professionals. It will also provide introductory classes on Canadian institutions, public sector process, basic policy making skills, public servants' roles and responsibilities.

JSGS 892 3:39-0
Capstone
 This course requires the development, submission, presentation and validation of a capstone report and presentation at the end of the student's MPA program.

JSGS 893 3:39-0
Foundations of Indigenous Governance
 Indigenous peoples' governance frameworks, while diverse, are intrinsically informed by Indigenous worldviews. This course explores settler-colonial Canada's attempts to eradicate Indigenous nationhood and Indigenous peoples' resistance through the continued practice of governance. In particular, Indigenous worldviews will be presupposed to transform colonial inequity in contemporary Indigenous/Canadian governing relationships.

JSGS 894 3:39-0
Indigenous Nation Building in Practice
 This course develops a structure by which the connection between the traditional and contemporary forms of governance can decolonize and mitigate colonial inequity in settler-colonial Canada. Among the questions considered are: How is decision making informed by traditional approaches to Indigenous governance? How can Indigenous self-governance transform settler-colonial inequity?

JSGS 895 0:39-0
Community Residency
 The purpose of this course is to provide a framework for community economic development and community enhancement in Indigenous

communities. Students will be matched with a community governance project before course commencement.

JSGS 896 3:0-0
Indigenous Nation Building in Canada
 This course will explore critical nation-building issues confronting Indigenous peoples in Canada. The course will examine multi-dimensional settings that confront Indigenous peoples in the pursuit of social, cultural, political, educational, and economic development. It will provide in-depth, hands-on exposure to issues related to nation-building.

JSGS 900 3:6:0-0
Research Project
 Under the guidance of a supervisory committee, a student analyzes a significant organizational problem with a view to recommending a feasible solution. Problems may be either specific or general requiring either a particular disciplinary background or a multidisciplinary approach. Students are required to register in a minimum of 6 credit hours of project research. The course will be graded on a credit/no credit (C/N) basis.

JSGS 901 3:15:15-0
Research
 Thesis research.

JSGS 906 3:3-0
PhD Seminar
 This is a seminar class in which Ph.D. candidates will participate with faculty and associate faculty. Their research to date will be critiqued at a number of seminars. Candidates will also be required to review and critique research work being presented by other Ph.D. students and JSGS faculty members participating in the seminar.

JSGS 990 0:15-0
Seminar Series
 Students are required to attend a series of seminars featuring events and discussion on current research and policy issues, as well as skill-building sessions. JSGS students may be required to register in a selected seminar in the PUBP 990AA-ZZ series every term. Credit is based on attendance at up to 25 seminars/events.

JSGS 990AA 0:15-0
WRTC Seminar Series
 Bi-weekly seminars on current topics in Health Services Research lead by decision-makers, researchers and WRTC students. Students will be provided with recommended classic and contemporary health services and policy research readings in the topic area. NOTE: for credit students are required to attend at least 80% of the seminar series.

JSGS 990AB 0:15-0
Public Policy Seminar
 Features reports and discussion on current research and policy issues. All students in the MPA, MPP or PhD program are required to register each semester in which they are registered in other courses. Attendance at least 25 seminars and submission of a written inventory of seminars attended is required by all students during the period of their candidacy and is a condition of graduation.

KHS	Kinesiology & Health Studies
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KHS 800 3:3-0
Graduate Seminar
 This seminar will introduce Kinesiology and Health students to the graduate experience and prepare them for undertaking their own research. It will explore issues related to the research process and provide a forum for students to interact about research philosophy and meaning, and issues related to writing and producing research.

KHS 801 3:3-0
Stats in Kinesiology Research
 This course is designed to enhance the knowledge of statistics and its application to the research problems of Kinesiology and Health Studies. The course contents include the brief overview of fundamentals, concepts of statistical power, ANOVA models (including repeated measures ANOVA) and Regression Models.

KHS 802 3:3-0
Qualitative Research Methods and Experience in Kinesiology and Health

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This course provides an overview of qualitative research methods in kinesiology and health research and application. Students will complete a research project from conception to knowledge translation using tools associated with qualitative methods.

KHS 803 3:3-0
Res. Design in Kin. and Health

This course will explore health research issues and provide an examination of the technical aspects of planning and performing research in kinesiology and applied health sciences. Topics include critical evaluation; success in writing research proposals and grants; research ethics; data collection and management strategies; and communicating and publishing research successfully.

KHS 804 3:0-0
Applied Research: Planning, Collection and Analysis

This is a broad survey type course that introduces the student to fundamental topics required for the planning, implementation, and data/information analysis for research projects designed to answer managerial/organizational questions or in seeking solutions to specialized problems. An important element of the course is focused on using the resulting information to present recommendations and/or possible solutions.

KHS 822 3:3-0
Advanced Qualitative Research Methods in Kinesiology

The purpose of this class is to develop an understanding and appreciation for non-traditional qualitative research methodologies in kinesiology, sport, and recreation studies. Students will learn about epistemology, ontology, and paradigms with respect to qualitative research methods. Students will compare and contrast qualitative research approaches for their chosen topic of study.

Prerequisite: KHS 802 or other graduate-level introductory course in qualitative research methods.

Note: Students may receive credit for one of KHS 822 or KHS 867BE.

KHS 827 3:3-0
Directed Reading in Kinesiology and Health Studies

This course will allow students to study topic areas in a directed reading environment.

KHS 827AA 0-3:3-0
Biomechanics Research

The course will provide the student with the opportunity to engage in theoretical and/or practical research experiences related to a specific topic within the scope of human movement and biomechanics research

KHS 827AK 3:3-0
Attention, Stress, and the Performance of Motor Skills

The purpose of this course is to examine the relationship between stress and human attentional capacity, and determine the impact of this relations on the performance of motor skills.

KHS 827AL 3:3-0
Conditions of Practice

The purpose of this course is to examine the conditions of practice that can be manipulated to optimize motor skill acquisition.

KHS 827AM 3:3-0
Balance and Postural Control

The course will provide the student with the opportunity to engage in theoretical and practical research experiences related to the use of platform and motion capture system to assess balance and postural control in human movement research.

KHS 827AN 3:3-0
Directed Readings in Exercise Physiology and Biomechanics

This Directed Reading course will focus on readings in the field of Exercise Physiology and exercise biomechanics and the inter-relationship between these two disciplines. A specific emphasis is placed on the biological integrative mechanism(s) of muscle fatigue and dysfunction in occupational work.

KHS 827AO 3:3-0
Gait Analysis

This course will provide the student with the opportunity to engage in theoretical and practical research experiences related to the use of gait analysis in human movement research and clinical application.

KHS 827AP 3:3-0
Core Stabilization: Considerations for Strength and Power Training
This course will focus on advanced readings in the biomechanics and clinical literature that related to core stabilization, with an emphasis on: a comprehensive description of the anatomy of the lumbopelvic musculature; critical review of the current theoretical and empirical models describing the mechanistic actions by which these muscles contribute to core stabilization; of the literature on the mechanistic actions and clinical efficacy of specific training strategies at improving core stabilization; and the application and incorporation of core stabilization training strategies into athlete strength and power training programs.

KHS 827AQ 3:3-0
Use of Neurocognitive Testing to Predict and/or Prevent Athletic Injuries
This course will focus on advanced readings in the scientific and clinical literature that relate to the use of neurocognitive testing (eg. Impact test, Neurotracker) in predicting and/or preventing injuries in collegiate athletes.

KHS 827AR 3:0-0
Neurophysiologic Techniques in Human Movement Research
The course is designed to enhance understanding of how various experimental techniques in human neurophysiology research can be applied to study rehabilitation of movement after neurologic damage. The student will receive hands-on training with the use of a variety of techniques (e.g., transcranial magnetic stimulation, electromyography). Advanced readings in the scientific and clinical literature that utilize the techniques will be explored.

KHS 827AS 3:0-0
Fear-Avoidance Model of Pain
This course will focus on the fear-avoidance model of pain, its association with chronic low back pain, and methods used to assess fear-avoidance behaviours in individuals with chronic low back pain.

KHS 837 3:3-0
Directed Readings - Sport Mgmt
Directed Readings in Sport Management.

KHS 837AC 3:3-0
Measuring Performance in Athletes
The purpose of this directed reading is to survey measurement theory as well as literature related to the measurement of performance in a variety of contexts. The student will develop an understanding of how measurement theory and practice might best be applied to the measurement of the athletic performance construct.

KHS 837AD 3:3-0
The Economics of Amateur Sport
The purpose of this independent study is to develop an in-depth understanding of the economics of amateur sport in Canada. In particular, the student will be directed to readings related to the economic impact, financing, and sponsorship of amateur sporting events.

KHS 837AE 3:3-0
Participant Experiences in Organized Sport
The purpose of this course is to develop an advanced understanding of social & organized psychology as well as current research on participant experiences in organized sport.

KHS 837AF 3:3-0
Theory and Current Research related to Program Delivery in Public Sector Organizations
The purpose of this independent study is to survey foundational theory and research in the area of public policy as it relates to programming. The student should develop an understanding of how theory in this area might be applied to the development of services for individuals with disabilities.

KHS 837AG 3:3-0
Organizational Culture & Sport Club
The purpose of this directed reading is twofold. First, it is to develop an in-depth understanding of the organizational culture literature. Second, it is to develop an in-depth understanding of measurement and research applications regarding organizational culture, with a specific focus on qualitative approaches.

KHS 837AH 3:3-0
Performance Measurement

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The purpose of this course is to familiarize the student with the literature related to predictors of performance, which could include sport performance, workplace performance, and other areas where performance is measured.

KHS 837AI **3:0-0**
Data Analytics in Sport

Data-driven decision making is a key feature of successful sporting teams and businesses as data is becoming more readily available through advancements in technology. The course is designed to equip students with the analytical skills and knowledge required to manage and analyze datasets related to high-performance sport, with the aim of providing enhanced insights to coaches, players and other stakeholders.

KHS 838 **3:3-0**
Special Topics in Sport Mgmt
Selected Topics in Sport Management.

KHS 840 **3:0-0**
Advanced Topics in Sport and Recreation
An in-depth analysis of special interest topics. Topics will be of interest to students, faculty, and visiting academics and practitioners. Study in this course will focus on seminars, lectures, and other assignments (e.g., literature reviews, major projects) which explore the topic in greater detail.

KHS 841 **3:0-0**
Advanced Sociology for Sport and Recreation Management
Students will be introduced to advanced sociological theories, such as third-wave feminism, queer theory, and critical race theory. These will be used to explore a range of social topics facing the sport and recreation industry, including gender, gender identity, sexual orientation, ethnicity, immigration, ability, SES, commercialism, environmentalism, and political advocacy. Students will explore how sport and recreation organizations are addressing these topics through practices and policies.

KHS 842 **3:0-0**
Economics and Finance for Sport and Recreation
With a focus on sport and recreation organizations the course will focus on aspects of economic impact, supply and demand principles, labour markets, competitive balance, attendance demand, and pay and performance. Finance will be addressed through topics including: statements and ratios, budgeting, public/private sector funding, and feasibility studies.

KHS 843 **3:3-0**
Well-Being in Later Life
The purpose of the course is to explore and critique current theories, issues, challenges, and opportunities related to well-being in later life. The students will read, discuss, and evaluate social gerontology research and theory with regard to physical, social, and psychological well-being amongst older adults.
Note: Students may receive credit for one of KHS 843 or KHS 847AJ.

KHS 844 **3:0-0**
Foundations in Leisure Recreation
The purpose of this course is to develop an understanding of key topics, theories and perspectives related to leisure research. Students will review foundational literature in the leisure field, specifically exploring social psychological, cultural, and environmental aspects of recreation and leisure.

KHS 846 **3:0-0**
Event and Festival Management
The purpose of this course is to critically assess theoretical and practical tools and knowledge about the planning and management of events and festivals. Students will become familiar with current strategies, theories, plans, and techniques for successful event implementation.

KHS 847 **3:3-0**
Dir Readings In Rec & Leisure
Directed Readings in Recreation & Leisure.

KHS 847AE **3:3-0**
Leisure and Geography
The purpose of this independent study is to review in-depth the literature related to the links between leisure/recreation and geography. This will include literature related to geography and culture as well as a broad range of leisure including sport, outdoor recreation, and tourism.

KHS 847AF **3:3-0**

Directed Readings in Leisure, Chronic Illness and Disability
The student will develop an understanding of the role of leisure in health and well-being for persons living with a chronic illness or disability, review associated literature, be asked to critically evaluate the state of leisure and chronic illness/disability and make suggestions as to future research to advance the field.

KHS 847AG **3:3-0**
Phenomenological Research Methods in Leisure and Health
The student will develop an understanding of phenomenology and how it can be used to understand the lived experience of health, illness, disability, and leisure, learn about phenomenology as a methodology and how to conduct a phenomenological study, critique several phenomenological studies to better understand the method, and develop phenomenological data analysis skills.

KHS 847AH **3:3-0**
Social Perspectives in Dementia
The student will review literature on dementia from a variety of perspectives, including approaches to dementia care, the lived experience of dementia, maintaining quality of life in dementia, and the caring relationship within the context of dementia. The student will critically evaluate the state of our understandings of dementia, will review the literature in a specific area of dementia and will make suggestions as to future research to advance the field.

KHS 847AI **3:3-0**
Emotion and Motivation
There are two primary goals for this course ? one academic and the other practical. Both will be served by an examination of theory and research in the psychological study of emotion and motivation. The academic goal is to identify important theories, research questions, and methods. The practical goal is to inform skills for working with emotion, both personally and in relationships.

KHS 847AK **3:0-0**
Directed Readings in Volunteering and Leisure Studies
This course will develop an understanding of leisure theory, volunteer management, and current issues in volunteer management research. The student will review and critically evaluate the literature and research, addressing theory, history, and current directions and issues.

KHS 847AL **3:3-0**
Equity Informed Recreation
This course will be an introduction to equity-informed practices in recreation, leisure, sport, health, and wellness. Specifically, this course will explore concepts/touchstones of practice that are related to and move towards equitable practice in programming (i.e., trauma informed, cultural relevance, strength based, person coherence, ethics of care, relational ethics, etc.).

KHS 848 **3:3-0**
Special Topics - Rec & Leisure
Selected Topics in Recreation & Leisure.

KHS 848AB **3:0-0**
Sport Fan Consumer Behaviour
This course will examine consumer behaviour in a sport fan context. It will not only introduce the student to concepts of consumer behaviour but to provide and require the student to apply them to a specific population of sport fans (e.g., displaced, highly-identified, male, visible minorities, children, etc.).

KHS 848AC **3:3-0**
Directed Readings in Sport and Recreation Tourism
The purpose of this independent study is to develop a general understanding of sport and recreation tourism. We will explore concepts, theories, and practical issues of sport and recreation tourism. The student will review and critically evaluate the literature and research, addressing theory, history, and current directions and issues.

KHS 850 **3:0-0**
Organizational Theory-Sport and Recreation Management
The course is concerned with organizational-level issues in recreation and sport management. In this course, students are introduced to organizational theory and apply these concepts to complex problems and issues in recreation and sport organizations. The course seeks to provide students

Course Catalogue

with a framework of concepts that facilitate effective and critical analysis of macro organizational situations.

KHS 860 3:3-0

Psychology of Human Movement

To recognize the relationships between various psychological concepts and human movement (for e.g., leisure, exercise, sport and health behaviours). Contemporary issues concerning psychology and human movement will be discussed. The application of various psychological theories with respect to sport/leisure participation and performance, health and exercise promotion, and exercise adherence/compliance will be presented and discussed.

KHS 861 3:3-0

Ethical Ideology in Sport

The student will explore ethical ideology and its impact on leadership styles in sports contexts. With special focus upon Canadian and Japanese contexts.

KHS 866 3:3-0

Ethics-Kinesiology & Health

This course investigates the content, process, and the moderators of ethical decision making in the administrative context of Kinesiology and Health Studies. Students will be exposed to ethical, cultural, and administrative theory as a means to use and develop decision models to resolve administrative dilemmas.

KHS 867 3:3-0

Directed Readings in Social Science

Directed Readings in Social Science

KHS 867AA 3:3-0

Cultural & Social Impact

The purpose of the independent study is to provide survey of current research in the area of tourism theory and research, and for the student to develop a detailed understanding of a particular area of research related to coaching theory.

KHS 867AD 3:3-0

Children & Physical Activity

The course will provide the student with the opportunity to engage in theoretical and/or practical research experiences related to the application of teaching strategies and challenges with regard to the optimal health of children within the elementary school system.

KHS 867AF 3:3-0

Women, Activity & Health

This study will develop an understanding of the prevalent issues in the area of women, physical activity and health. Student will gain insight into women's health and physical activity patterns. Further, the student will explore strategies and challenges regarding optimal health of women within the purview of physical activity.

KHS 867AG 3:3-0

Gender, Sport and Physical Activity - A Sociological Perspective

The purpose of this independent study is to develop an in-depth understanding of sociological perspectives of gender and involvement in sport and physical activity.

KHS 867AH 3:3-0

Gender, Physical Education and Exercise

The purpose of this independent study is to develop an in-depth understanding of issues related to women's motivation to exercise and their impact as role models of healthy active living.

KHS 867AI 3:3-0

Boys, Physical Activity, and Health

The purpose of this study is to develop an in-depth understanding of the prevalent issues in the area of boys (aged 5-12 years), physical activity and health. The student will gain insight into the nature of boy's health within the parameters of current literature.

KHS 867AJ 3:3-0

Post-Colonialism and Aboriginal Health

The purpose of this independent study is to develop and in-depth understanding of Aboriginal Health using a post-colonial perspective.

KHS 867AK 3:3-0

Body Image & Eating Disorders in Women

The purpose of this independent study is to develop and in-depth understanding of women's perspectives of their bodies and their eating habits. As well the student will build an understanding of the relationship between physical activity, body image, and eating disorders.

KHS 867AL 3:3-0

Elementary Physical Education

The purpose of this independent study is to develop an in-depth understanding of the prevalent issues in the area of elementary physical education. The student will gain insight into the nature of children's health within the education system's elementary population.

KHS 867AM 3:3-0

Psychology of Injury

This directed reading is designed to explore, in-depth, the relevant literature in order to discover and understand the psychological factors which predispose athletes to injury.

KHS 867AN 3:3-0

Chinese Bioethics

In this course the student will explore, History and development of Chinese bioethics (from the perspective of Confucianism, Taoism, and Buddhism), classical theories of medical philosophy (to include concepts such as, fate ontology, ethics of life and death, social moral values), and the application of traditional and modern healthcare philosophy to China's health care system.

KHS 867AO 3:3-0

social Psychology of Food Choices

This course is designed to explore, in-depth, the relevant social psychological literature regarding food choices. The student will examine various models and theories exploring the individual and social factors related to eating behaviours.

KHS 867AP 3:3-0

Women & Coaching in Sport

This course will develop an in-depth understanding of the literature related to women and coaching in sport. The student will search for, review, synthesize and analyze peer-reviewed literature related to women and coaching, and gender and coaching. As well the student will examine the concepts in a real-world setting.

KHS 867AQ 3:3-0

Photovoice as a Data Collection Tool and/or Method

The purpose of the independent study is to develop an in-depth understanding of the prevalent issues in the area of photovoice as a data collection tool and/or method.

KHS 867AR 3:3-0

Mental Toughness in Sport

This independent study is designed to investigate the concept of mental toughness in sport. Relevant research will be compiled that examines (for example) definitions, antecedents, and consequences of mental toughness, and related sport psychological concepts (e.g., hardiness).

KHS 867AS 3:3-0

Human Rights in Youth Sport

This independent study is designed to investigate, and explore issues and concerns regarding practices in youth sport that contravene the United Nations Convention on the Rights of the Child (UNCRC).

KHS 867AT 3:3-0

Competition in Sports

This directed reading is designed to investigate the concept of competition in sport. In general, the course will investigate the content, process, and structure of competition within sport teams. The primary outcome of this independent study will be the preparation of a comprehensive review of literature in this area.

KHS 867AU 3:3-0

Biofeedback Applications in Sports

This course is designed to investigate the psychophysiological applications of biofeedback techniques in sport. It will investigate the psychological and physiological content, process, and structure of biofeedback training. Along with discussion of the literature, the primary outcome will be the preparation of a comprehensive review of literature in this area.

KHS 867AV 3:3-0

Factors Motivating Sport Coaching Involvement

This course will investigate factors motivating an individual's long term involvement in coaching. Research will include investigation of the role played by: the desire for achievement; need for affiliation and socialization; desire for sensation and gratification; and desire for a sense of control and power, and continued involvement in coaching.

KHS 867AW 3:3-0

Hardiness: Theory & Practice of Meaningful Work

The purpose of this course is to survey the existing theory, research, and application of the concept of hardiness or existential courage. The course will address the constructs of commitment, control, and challenge and their relevance to the work place awareness and injury rehabilitation.

KHS 867AX 3:3-0

Visual Methods in Qualitative Research

The purpose of this course is to develop an in-depth understanding and appreciation of the use of visual methods in qualitative research as well to examine the concepts in a real-world setting by using two methods to examine a particular social phenomenon.

KHS 867AY 3:0-0

Psychology of Cardiac Rehabilitation

This independent study is designed to investigate psychological aspects of individuals attending cardiac rehabilitation. Relevant research will be compiled that examines various aspects impacting the mental health of individuals subsequent to experiencing a cardiac event, for example, depression, quality of life, health anxiety, etc.

KHS 867AZ 3:3-0

Issues in Sexual Health Education Research

This course will provide the student with an opportunity to become familiar with topics and key issues relevant to research in sexual health education. It will provide an introduction to different contexts, populations and topics typically studied.

KHS 867BA 3:3-0

Abuse of Athletes: A Review of Data Gathering Methods

The student will investigate methods used when studying the negative and/or abusive experiences of athletes. Relevant research that examines abuse of athletes will be compiled, examined, and discussed. Along with an extensive discussion of the literature, the primary outcome will be the preparation of a comprehensive review of methods in this area.

KHS 867BB 3:3-0

Feminist Theories and Sport

The purpose of this readings course is to develop an in-depth understanding of feminist theories, and their application to the domain of sport. This will be accomplished through identifying, reviewing, synthesizing, and applying relevant literature related to feminist theories and sport.

KHS 867BC 3:3-0

Issues in Food Labeling and Consumerism

It will provide an introduction to different contexts, populations and topics typically studied; research designs suitable for exploring questions regarding food labeling; ethical issues to be addressed by researchers working with the consumer population; and the relationship between research, practice and policy involving food labeling.

KHS 867BD 3:3-0

Critical Issues in Health and Disease

This is a reading intensive course investigating emerging issues in health and disease. Readings illustrating the role of gender, race, sexual orientation, and the gap between poverty and wealth among others will be considered in relation to a number of health issues including, HIV/AIDS, tuberculosis, multiple sclerosis and others.

KHS 867BF 3:0-0

Entitlement in Sport

The purpose of this course is to examine relationships between entitlement in sport and various other sport psychological concepts and sporting behaviour. The examination of entitlement in sport and how it relates to sport performance will be undertaken.

KHS 867BG 3:3-0

Passion in Sport

The purpose of this course is to examine relationships between passion in sport and various other sport psychological concepts and sporting behaviour. The examination of passion in sport and how it relates to concepts such as mental toughness and/or hardiness will be undertaken.

KHS 867BH 3:3-0

A Selection of Qualitative Methodologies in Review

The purpose of this course is to conduct a review of various qualitative methodologies. An examination of various qualitative theoretical perspectives and how they best fit in relation to a larger research project and associated research question will be undertaken.

KHS 867BI 3:3-0

Narrative Inquiry as Relational Methodology

This course will introduce the concept of Narrative Inquiry (NI) as both a research method and a phenomenon. NI enables the researcher to become awakened to the complexity of lives as they are influenced by dominant social, cultural, and institutional narratives while creating space to consider and imagine the possibility of competing or counter narratives.

KHS 867BJ 3:3-0

Osteoporosis Health Beliefs in Ethnocultural Communities

This course will focus on advanced readings in osteoporosis health beliefs with regards to its relevance for ethnocultural communities.

KHS 867BK 3:3-0

Psychology of Officiating

The purpose of this course is to review the sport psychology literature with respect to sports officiating. Emphasis will be placed on stress and coping, internal dialogues, attentional focus, and psychological interventions to enhance performance.

KHS 867BL 3:3-0

Psychology of Running

The purpose of this course is to review the sport psychology literature with respect to long distance running. Emphasis will be placed on stress and coping, internal dialogues, attentional focus, and psychological interventions to enhance performance.

KHS 867BM 3:0-0

Directed Readings in Ethics in Later Life

The purpose of this independent study is to explore ethical theory and ethical decision making as they relate to older adults.

KHS 867BN 3:0-0

Executive Functioning of Military Pilots

This independent study is designed to investigate the literature surrounding the executive functioning of military pilots. Relevant research will be compiled that examines (for example) working memory, attention, and perceptual-cognitive processing and their relationship to performance and training of military aviators.

KHS 867BO 3:3-0

Issues in Health Behaviour

This course is designed to investigate issues relating to the psychological aspect of human health behaviours; relevant research will be compiled. Along with an extensive discussion of the literature, the primary outcome of this course will be the preparation of an annotated bibliography and the development of a research proposal.

KHS 867BP 3:3-0

Qualitative Approaches to the Study of Family Life, Mental Health, and Disability

Major traditions in qualitative research and paradigms will be surveyed to consider how methods, tools, techniques, and interpretive practices promote rigor, quality, and trustworthiness. Examination of published studies on family experiences of mental health and disability will be used to develop critical thinking regarding the application of qualitative research methodology.

KHS 867BQ 3:3-0

Rural Development and Community Sport

The purpose of this class is to develop an understanding and appreciation for the role of community sport, recreation, and culture in rural development in Canada.

KHS 871 3:3-0

Introduction to Epidemiology

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The course deals with principles and methods of scientific research and the occurrence and distribution of health and disease. The influence of several types of determinants on disease occurrence and effectiveness of health interventions will also be examined. The emphasis will be on epidemiological approach of health science research.

KHS 872 3:3-0

Population Health

Concerned with the individual's health status as a contributing factor to the health of the population as an aggregate. Examines population health status as a function of social, economic, and physical environment; personal health practices, individual capacity and coping skills; and health services.

KHS 877 3:3-0

Directed Readings in Population Health - an AA-ZZ series.

Directed Readings in Population Health.

KHS 877AC 3:3-0

Aboriginal Health in Canada

This course will provide an opportunity to critically evaluate the issues of health Knowledge Translation in the Canadian Aboriginal community.

KHS 877AD 3:3-0

New Developments and Approaches in Consumer Behaviour

This course is a survey of noteworthy contributions of the behavioural sciences to the understanding and prediction of consumer behaviour.

KHS 877AE 3:3-0

Theory and Issues in Survey Research

The purpose of this independent study is to gain a good understanding of the theory related to the development of social science questionnaires/surveys. The course will also examine issues related to the distribution and collection of survey/questionnaire research using multiple mediums.

KHS 877AF 3:3-0

Advanced Course in ANOVA & MANOVA

The focus of the course will be on design and statistical issues related to analysis of experimental design data. While simple designs will be covered, most of the time will be spent in more complex designs and the important statistical issues related to these sorts of designs.

KHS 877AG 3:3-0

Potential of Ex. Therapy for Improving Health Outcome Measures of Care Providers

This course will focus on readings in the fields of exercise therapy, spirituality, aging and population health with relevance to informal care providers.

KHS 878 3:3-0

Special Topics in Population Health - an AA-ZZ series.

Special Topics in Population Health.

KHS 880 3:3-0

Clinical and Applied Exercise Physiology

This course is comprised mainly of advanced lectures and readings for the student interested in a specialized approach to the study of exercise physiology. Topics include muscle morphology, muscle hypertrophy, bone, genetics, exercise metabolism, the nervous system, cardiovascular kinetics, nutrition and laboratory techniques.

KHS 882 3:0-0

Pathophysiology and Metabolism

This course is comprised of advanced topics in pathophysiology and metabolism. The major goal of this course is for the student to better understand, critically examine and have an advanced understanding of cellular biology, physiology, and metabolism in relation to disease, health and functionality. Major topic areas to be examined include cellular longevity, musculoskeletal and neurobiology, cardiovascular health, pain management, immune system response, chronic disease and healthy aging.

KHS 884 3:0-0

Applied Motor Control and Motor Learning

This course is comprised of advanced topics that will allow the student to critically examine and have an advanced understanding of the processes involved with the control of human movement as it relates to motor learning.

Topics include: current theories related to motor control and motor learning; motor, sensory, and cognitive influences on motor control and motor learning; and the impact of training, aging and, neurological disease on motor control and motor learning.

KHS 885 3:3-0

Biomechanics and Movement Analysis

This course in applied biomechanics will provide necessary basis from which students will be able to conduct laboratory movement analyses for the purpose of research and clinical assessment. It will focus on standard data collection and analysis procedures in the fields of biomechanics and motor control.

KHS 886 3:0-0

Ergonomics

This course will introduce students to the field of occupational biomechanics/ergonomics. It will examine how biomechanical principles can be used to study work-related activities to reduce musculoskeletal injury in the workplace. Various methods to assess work-related tasks such as sitting and lifting will be presented. Other topics will include using an integrated approach to the analysis of physical work capacity, principles for redesigning tasks to reduce the risk of injury (e.g., workspace layout), etiology of low back and upper limb repetitive stress disorders and pre-employment screening and legislative guidelines.

KHS 887 3:3-0

Directed Readings in Exercise Physiology - an AA-ZZ series.

Directed Readings in Exercise Physiology.

KHS 887AF 3:3-0

Directed Readings in Exercise Physiology

This Directed Reading will focus on readings in the field of Exercise Physiology, with specific emphasis on the physiological mechanism(s) of muscle fatigue and dysfunction under different experimental conditions.

KHS 887AG 3:3-0

Monitoring Cellular Metabolism

This course will focus on understanding the use of near infrared spectroscopy for monitoring cellular metabolism, with specific emphasis on the muscle and brain blood flow.

KHS 887AH 3:3-0

Monitoring Cerebral Blood Flow Velocity Using the Transcranial Doppler Ultrasound

This project will provide a practical experience on how to record and monitor cerebral blood flow (cBF) during rest and exercise in a group of varsity hockey players and college students, in preparation for undertaking research on mTBI patients.

KHS 887AI 3:3-0

Sport Nutrition and Exercise Physiology

This course will focus on readings in the fields of Sport Nutrition and Exercise Physiology, with specific emphasis on the mechanistic actions of nutritional interventions and exercise training on musculoskeletal health in the elderly.

KHS 887AJ 3:3-0

Physiological Mechanisms

This Directed Reading will focus on readings in the field of Exercise Physiology, with specific emphasis on the physiological mechanism(s) and changes related to the standards and requirements in policing work.

KHS 887AK 3:3-0

Pathophysiology Mechanisms of Post-Concussion Syndrome

This Directed Reading will focus on readings in the field of Exercise Physiology, with specific emphasis on the pathophysiological mechanism(s) of post-concussion syndrome and its association with a neuroautonomic cardiovascular dysregulation.

KHS 887AL 3:3-0

Potential Therapies for Aging Muscle Biology

This course will focus on readings in the fields muscle physiology and aging muscle biology, with a specific emphasis on the mechanistic consequences of aging muscle loss (i.e. sarcopenia) and the potential therapeutic effects of resistance-exercise training and nutritional interventions.

KHS 887AM 3:3-0

Potential Effect of Nutritional Interventions on Attenuating Central and Peripheral Fatigue

This course will focus on readings in the fields of exercise, neuromuscular physiology, and sport nutrition, with a specific emphasis on the mechanistic actions of exercise and nutrition on central and peripheral fatigue.

KHS 887AN 3:3-0 Potential of Exercise Therapy for Multiple Sclerosis

This course will focus on readings in the fields of epidemiology, neurodegenerative disease, neuromuscular physiology and exercise, with emphasis on multiple sclerosis.

KHS 887AO 3:3-0 Cardiovascular Disease and Cardiac Function

This course will examine the role of physical activity in rehabilitation and therapeutic management of patients with chronic diseases (i.e., cardiovascular disease, coronary artery disease), and the techniques used to monitor cardiac function.

KHS 887AP 3:3-0 Mechanisms of Cardiac Fatigue During Endurance Exercise

This course will focus on readings in the field of cardiovascular physiology and exercise metabolism, with a specific emphasis on the mechanistic actions of exercise - induced cardiac fatigue.

KHS 887AQ 3:3-0 Ballistocardiography

This Directed Reading will focus on Ballistocardiography and its application to cardiac fatigue during exercise.

KHS 887AR 3:3-0 Non-Invasive Blood Pressure Monitoring During Exercise

This Directed Reading will focus on the measurement of blood pressure during exercise. A review of the literature will examine the use of non-invasive methods to measure and record blood pressure during exercise.

KHS 887AS 3:3-0 Whole-Body Vibration: Effects on Muscle Physiology, Performance, and Recovery

This course will focus on advanced readings in the fields of Exercise Physiology and Biology, with specific emphasis on the mechanistic actions of whole-body vibration on muscle performance and cellular recovery following exercise. Target populations will include athletes, the elderly, disease-state, and individuals undergoing rehabilitation from acute injury.

KHS 887AU 3:3-0 Cerebral Blood Flow and Oxygenation in Response to Exercise

This course will focus on cerebrovascular physiology, with specific emphasis on cerebral blood flow and oxygenation to investigate the physiological mechanism(s) of related to cerebral autoregulation during exercise. The practical application of the theory will include data collection; i.e., pilot work related to central and peripheral fatigue using advanced technology.

KHS 887AV 3:3-0 The Impact of Exercise on Cognitive Functioning

This course will focus on reviewing the pertinent literature on the impact of exercise on cognitive function, with application to school aged children

KHS 887AW 3:3-0 Resistance Training Strategies for Improving Aging Muscle Health

This course will focus on advanced readings in the fields of aging muscle biology and exercise physiology, with specific emphasis on the pathophysiology of sarcopenia and the potential beneficial effects of resistance-training strategies.

KHS 887AX 3:3-0 Interaction of Cardiac Autoregulation

This course will focus on readings in the field of exercise physiology as it relates to the effects of intense training and tapering on autonomic nervous system function and control.

KHS 887AY 3:3-0 Effects of Isokinetic Exercise for Pre-habilitation: ACL Reconstruction

This Directed Readings Course will focus on readings in the field of exercise therapy and physiology as it relates to the effects of exercise pre-habilitation and knee surgery. This course is also a practical application of

the theory related to data collection; i.e., pilot research will be conducted on participants prior to knee surgery.

**KHS 887AZ 3:3-0
Mechanistic Actions of Resistance Training on Muscle Biology**
This course will focus on advanced readings in the fields of Exercise Physiology, Metabolism, Strength and Conditioning and Athletic Performance. The main emphasis will be placed on the cellular changes which occur in muscle in response to mechanical stimuli from resistance training. Sub-populations include athletes, the elderly and disease state individuals.

**KHS 887BA 3:3-0
Physiological Mechanisms of External Jugular Compression**
This course will focus on readings in the field of cerebral oxygenation and cerebrovascular physiology as it relates to the effects of external jugular compression. This type of research has implications and applications to sport concussion. This course will also have pilot data collected to monitor cerebral oxygenation, electrocardiography (ECG), and blood pressure (BP) when applying external compression to the jugular veins.

**KHS 887BB 3:3-0
Effects of Cannabinoids on Cardiovascular and Cerebrovascular Physiology**

This course will focus on readings in the area of cannabinoids and their application to mild traumatic brain injury or concussion, and a pilot data collection study to learn the operation of laboratory equipment used for concussion research. The focus of the review paper will provide a background on the potential benefits of cannabinoids for concussion management. This type of research has implications and applications for the therapeutic management for return-to-play in sport.

**KHS 887BC 3:3-0
Pathophysiology and Metabolism**

This course is comprised of advanced topics in pathophysiology and metabolism. The major goal of this course is for the student to better understand, critically examine and have an advanced understanding of cellular biology, physiology, and metabolism in relation to disease, health and functionality. Major topic areas to be examined include cellular longevity, musculoskeletal and neurobiology, cardiovascular health, pain management, immune system response, chronic disease and healthy aging.

**KHS 887BD 3:3-0
Cerebrovascular and Cardiovascular Physiology in Post-Concussion Syndrome**

This course will focus on readings in the field of cerebrovascular physiology and cardiovascular physiology as it relates to post-concussion syndrome. This course will also have pilot data collected and analysis.

**KHS 887BE 3:3-0
Effects of Exercise and Psychological-Induced Stress on Health**
This course will focus on advanced readings in the scientific and clinical literature that related to the influence of both exercise-induced and psychological-induced stress on physical (e.g., food intake regulation, cardiometabolic) and mental (e.g. cognitive performance) health.

**KHS 887BF 3:3-0
Potential Therapeutic Effects of Creatine Supplementation for Metabolic Disease**

This course will focus on advanced readings in the fields of Nutrition, Biology, Metabolism, and Physiology. The main emphasis will be placed on the cellular and metabolic effects that creatine supplementation has on disease parameters and physiology. Specific focus will be placed on diseases involving metabolic syndrome, blood glucose regulation, and fat metabolism.

**KHS 887BG 3:3-0
Cardiovascular Physiology in Acute Concussion**
This course will focus on readings in the field of cardiovascular physiology as it relates to the effects of acute concussion in an athletic population. This course will also have pilot data collected and analysis for submission for publication.

**KHS 887BH 3:3-0
Pharmacology of Cannabinoids and Application to Health and Sport Concussion**

Course Catalogue

This course will focus on readings will focus on readings and an in-depth review in the field of pharmacology of cannabinoids (CBD, THC) in cannabis and hemp based plants with application to exercise and recovery, general health and disease, and application to minor brain injury (sport-related concussion).

KHS 887BI 3:0-0
Directed Readings in Nutrition, Exercise and Physiology

This course will focus on advanced readings in the scientific and clinical literature in nutrition, exercise, and physiology. Topics will be arm's length from the student's research topic.

KHS 887BJ 3:0-0
Relationship between 3D-MOT Performance and Heart Rate Variability

This course will focus on readings and an in-depth review in the fields of perceptual-cognitive processes (i.e., 3-dimensional multiple object tracking; 3D-MOT) and heart rate variability (HRV).

KHS 887BK 3:0-0
Athlete Monitoring: Methods of Measuring Neuromuscular Fatigue Within a Training Progra

This course will focus on advanced readings in the fields of exercise physiology, biomechanics, and strength and conditioning. The main emphasis will be placed on the measurement of neuromuscular fatigue. Specific focus will be placed on determining a method of measuring neuromuscular fatigue, a component of athlete readiness in a competitive sport environment with little impact to the athlete's daily schedule.

KHS 887BL 3:0-0
Special Topics in Acquired Brain Injury

The course is designed to enhance understanding of the physiology of acquired brain injury and implications for rehabilitation. The student's learning will be supported by advanced readings in related literature and interactions with health care providers and other stakeholders in the field.

KHS 887BM 3:0-0
Cardiovascular Physiology in Acute Concussion

This course focuses on readings in the field of cardiovascular physiology as it relates to the effects of concussion in an athletic population, and the application and operation of research equipment that is used to collect physiological data to assess and manage concussion. This course will also focus on how to analyse physiological data for submission for publication.

KHS 888 3:3-0
Special Topics in Exercise Physiology - an AA-ZZ series.
 Special Topics in Exercise Physiology.

KHS 888AD 3:3-0
Bone Mass Density

This special topics course will focus on under-taking a pilot project using specialized equipment that will be used to collect the graduate student's research data.

KHS 890 3:3-0
Seminar in Adapted PA

Social-psychological perspectives of selected topics in adapted physical activity. Underlying processes, environmental factors, theoretical frameworks for evaluation of research, critical issues, constraints and complexities of research in this field.

KHS 892 3:3-0
Physiology of Aging

An advanced study of the alteration in physiological function associated with the normal aging of body systems and the clinical consequences of these changes for maintenance of optimal function, physical activity, health and longevity. *** Prerequisite: 6 Credit Hours (or equivalent) in Human Physiology. ***

KHS 898 3:3-0
Special/Selcted Topics in KHS

Selected/Special topic courses are structured courses for more than one graduate student and should not be mounted when only one or two students will participate. This course is designed to allow students to study topic areas with an adapted physical activity focus in a directed reading environment.

KHS 900 3:3-0
Professional Skills for Kinesiology and Health Research

This seminar will provide practice in professional skills such as leadership, mentoring, collaboration/teamwork, knowledge translation, peer review and writing successful grant applications and manuscripts.

Note: This course must be taken in the first two semesters of the PhD program; students who start in the winter semester may take the second offering in the fall semester with permission.

KHS 901 3-15:15-0

Thesis Research
 Thesis research hours (variable credit 1.0 15.0 hours).

KHS 902 3-6:0-0
Practicum

Students will gain experience in a clinical/applied setting within kinesiology based on their interests and career goals. Each 3 credit hours is equal to 240 hours within the clinical/applied setting. Students must complete 6 credit hours to fulfill program requirements. Course is graded as Pass/Fail.

LING	Linguistics
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LING 810 3:3-0
Topics in Advance Phonology

Reading, research, discussion, and writing on advanced topics in phonology. These may include: phonetic, phonemic, or morphophonemic categories, processes, or systems, in language particular studies, typological or universal studies, or experimental phonetics.

LING 811 3:3-0
Topics in Advanced Morphology

Reading, research, discussion, and writing on advanced topics in morphology. These may include: morphological categories, processes, or systems, in language particular studies, typological or universal studies, applied studies, or theoretical studies.

LING 812 3:3-0
Topics in Advanced Semantics

Reading research, discussion, and writing on advanced topics in semantics; these may include: semantic categories.

LING 813 3:3-0
Topics in Advanced Syntax

Reading, research, discussion and writing on advanced topics in syntax; these may include: syntactic Algonquin obviation, negotiation, immediate constituent analysis, history of syntactic theory.

LING 820 3:3-0
Topics in Adv Diachronic Ling

Reading, research, discussion, and writing on advanced topics in diachronic linguistics. These may include: family tree vs. wave theory, linguistic reconstruction (phonology, morphology, syntax, semantics), dialect continua, substratum languages, comparing proto-languages, processes of sound and meaning change, or reconstruction of culture and homeland through language.

LING 830 3:3-0
Language Universals

An in-depth examination and evaluation of proposed language universals, both substantive and theoretical.

LING 880 3:3-0
Research Design

A study of successful examples of linguistic thesis as well as books, articles, and grant proposals. Both content and form will be practised and critiqued in a series of short papers.

LING 890 3:3-0
Directed Readings Linguistics

Special topics in advanced theoretical and applied linguistics.

LING 890AA 3:3-0
Directed Readings in Semitics Languages

This course will concentrate on the history geographical distribution, and general grammatical features of the Semitic Languages. Will also deal with developments within Arabic, such as the status of Classical Arabic within the Arabic-speaking world, role of poetry and oratory in traditional Arabic language use, and major dialect divisions.

LING 890AB 3:3-0

Directed Readings in Cree Morphology

This is a graduate level course in Morphological structure of the Cree language. Through readings, lectures, seminar discussions, and a major project, a variety of advanced topics in Cree word formation will be explored.

LING 890AC **3:3-0**

Directed Readings in Algonquian Syntax

This course will survey many of the salient features in Algonquian Syntax, and place these features in the context of contemporary Syntactic theory. Emphasis will be placed on a comparison of Cree and Saulteaux syntactic structure.

LING 890AD **3:3-0**

Neurolinguistics and Spirituality

This course will explore the relationship between the brain, language, and spirituality. Students will have a background in Neurolinguistics and from there explore various aspects of spirituality. Brain imaging technology will also be studied as a means to gain insight into this topic.

LING 890AE **3:3-0**

Dene Linguistics

Advanced linguistics concepts (phonology, morphology, syntax, semantics) for the scientific analysis of Dene, with comparison to closely related Athabaskan languages.

LING 890AF **3:3-0**

Directed Readings in Algonquian Linguistics

This course provides a survey of basic and advanced Linguistic structure of the Algonquian family of languages. Emphasis will be placed on a comparison of Cree and Saulteaux syntactic structure. Topics include phonetics and phonology through morphosyntax, semantics and pragmatics.

LING 890AG **3:3-0**

Language and Culture of Upper Tanana

This course explores Upper Athabaskan Tanana grammar with comparison to related languages, and culture with comparison to related groups in the boreal forest and beyond.

LING 890AH **3:0-0**

Siouan Linguistics

A survey of the Siouan language family, with regard to its internal historical-comparative relationships and selected grammatical aspects of individual languages within the family.

LING 890AI **3:0-0**

Advanced Topics in Cree Morphosyntax

This course will allow students to explore selected advanced topics in Cree morphosyntax, including but not limited to derivation, inflection, the direct-inverse system, constituent order (noun phrases, preverbs, verb and arguments, verb and adjuncts), clausal syntax, extra-clausal syntax, and illocution.

LING 890BB **3:3-0**

Cognitive Semantics: Models of Visualization and Bilingualism

Models of visualizing cognitive semantics of language and esp. of bilingualism will be explored including 3D or Multidimensional semantics, connectionism, cognitive frames, cognitive grammar, cultural linguistics, linguistic relativity, and metaphors with epistemic and ontological correspondences. How do these help visualize and understand how translation and bilingualism work.

LING 901 **1-15:1-0**

Research

Thesis research.

MAP	Media, Art, and Performance
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MAP 800 **3:0-0**

Seminar in Theory & Methods

Seminar exploring and questioning the history, theory and aesthetics of Media, Art, and Performance, and the diverse and shifting conceptions of Media, Art, and Performance disciplines in relation to other social and cultural forms.

NOTE: Students may only receive credit for one of FA 800 or MAP 800.

MAP 803 **3:3-0**

Seminar in Theory & Methods

Seminar exploring diverse approaches to research in the Media, Art, and Performance, including studies-based and practice-based methods.

NOTE: Students may only receive credit for one of FA 803 or MAP 803.

MAP 804 **3:0-0**

Studies in Media, ART, and Performance

This seminar course addresses thematic research strengths in the Faculty in order to provide students with a deeper exploration into topics within Media, Art, and Performance. Thematic seminar topics will relate to Popular & Visual Culture; Gender, Sexuality, and Culture; Social and Community Engagement; Indigenous Arts and Culture; or Curatorial Studies and Cultures of Display.

NOTE: Students may only receive credit for one of FA 804 or MAP 804.

MAP 805 **3:0-0**

Doctoral Research Showcase

Students will develop, organize, present and engage in a public forum on their PhD research project.

*NOTE: Students may only receive credit for one of FA 805 or MAP 805.

MAP 810 **3-6:0-0**

Selected Topics in Media, Art, and Performance

Seminar course examining selected topics in Media, Art, and Performance.

MAP 810AC **3-6:6-0**

Site - Specificity: Mobility/Static

An overview of site-specific practice with readings from theoreticians and practitioners in found-space performance/installation art. When one area of investigation is set in motion, its opposite is implicitly mobilized: within site and rootedness is their antithesis-mobility.

* Note: Student can not receive credit for both ART 820AK and MAP 810AC.*

MAP 810AD **3-6:6-0**

Theory and Photo-Based Practices

This seminar uses photography to develop familiarity with foundational social, philosophical, and ideological theories of representation and interpretation that have influenced fine arts practices since 1839. The seminar will inquire in to the distinctive uses of photography as art/not art, highlighting the diversity of image practices with the fine arts.

MAP 810AE **3-6:6-0**

The Art of Writing

Through the examination of writing as complimentary creative and intellectual practices, this course will look at key concepts of writing for graduate students in Fine Arts, such as: writing as creative expression; rhetoric of language; writing to compliment research; writing and research guides; and other key topics.

MAP 810AF **3-6:0-0**

Embodied Action: Indigenous Walking, Social Action & Healing

This course is an interdisciplinary study of Indigenous walking as social action, protest and healing. It will include the origins and growth of collective and individual actions such as the Great Lakes Water Walks led by Josephine Mandamin, and the twenty-five years of Chief Big Foot Memorial rides, walk, and runs. It will also consider the impacts of these actions, including the recent shift towards ?Indigenizing? Pilgrimage Studies.

MAP 810AG **3-6:0-0**

Walking as Art, Performance and Fieldwork

This course will focus on the theory and artistic practice of performative walking through the work of noted walking artist/scholars such as Cathy Turner (Exeter), Paulo Nazareth (Brazil), and Luis Sotelo Castro (Concordia). It will include participatory field research and experimenting with various forms of documentation, reflection, and creative outputs related to the experience of walking.

MAP 810AH **3-6:0-0**

Cultural Heritage in Screen Media

This course focuses on transnational and trans-Indigenous methodologies in the expression and safeguarding of cultural heritage. Drawing on specific examples of cultural heritage, the course will examine identity politics in globalizing cultures, political and cultural sovereignty, and control of representation in image production.

MAP 810AI **3-6:0-0**

Embodied Methodology

Course Catalogue

This core methodology course involves international research with experts in the fields of walking art/walking performance, including participation in seminars in the United Kingdom where performative walking is an established field of creative research/practice. In addition Ken will be meeting walking artists, preparing presentations and engaging in embodied practice.

MAP 810AJ 3:0-0

Indigenous Land/Art Practices

This course will explore Indigenous landbased artistic and curatorial practice from theoretical, critical and experiential perspectives. It will include land and water engagement, gathering and working with Indigenous materials, skill-based workshops, site interventions and performances. The course will include significant time on the land.

MAP 810AK 3:0-0

The Radical Stitch

This seminar explores historical and contemporary stitch-based artistic practice, considering its importance through the lens of contemporary Indigenous and feminist art theory. Indigenous pedagogy and experiential learning will be emphasized. The class will be closely integrated with the exhibition, Radical Stitch, at the MacKenzie Art Gallery.

MAP 810AL 3-6:0-0

Play: Advanced Interactive Media

This studio-based course focuses on advanced interactive new media art and critical play. It includes studio projects involving virtual interaction, interactive installation / performance, and data translation, and readings on critical play and interactive art.

MAP 810AM 3-6:0-0

Decolonizing Media and Artistic Research

Seminar will explore research methods and materials for decolonizing research processes in performance and art-based research.

MAP 870 3:0-0

Special Topics in Practice and Theory

This set of special topics courses explores both practice and theory in Media, Art, and Performance.

MAP 870AA 3:0-0

Explorations in Practice and Theory

An overview of theory surrounding performative walks with a creative application of the readings. When one area of investigation is set in motion, its opposite is implicitly mobilized: within site and rootedness is their antithesis - mobility.

MAP 880 3-6:6-0

Select Topics in Media, Art, and Performance Studio

This series of studio courses is designated selected topics within Media, Art, and Performance.

MAP 890 3-6:6-0

Directed Readings in Media, Art, and Performance

Directed study in Media, Art, and Performance under the supervision of a faculty member.

MAP 890AB 3-6:6-0

Space/Place: Locating Interdisciplinary Theory and Practice

This course investigates multiple theoretical/methodological frameworks focused on ideas of space and place: Bertold Brecht's ideas for revolutionizing his audience will be the beginning, continuing with geographical, sociological, literary engagements with space/place and concepts of narrative, performativity, memory. Site specificity and installation art are central foci of the course.

MAP 890AC 3-6:6-0

Explorations of Indigenous Constructions in Popular Culture

This course examines stereotypical constructions of Indigenous peoples in popular North American culture since contact. The development of such imagery over time has led to constructions that have more to do with mainstream notions of the other than Indigenous images.

MAP 890AD 3-6:6-0

Theoretical Investigations

Students will investigate the theoretical and contextual ideas of their thesis projects through reading, discussion and writing.

MAP 890AE 3-6:6-0

Theorizing Conferences

This course will investigate the notion of the "conference" as a performative action. The student will investigate various conference models, calls for proposals and structures, and will ground this exploration in attendance at several conferences, the history the conference and planning a practical event.

MAP 890AG 3-6:6-0

Cultural Landscapes

This course is an investigation of various forms of space, including but not limited to, landscape representation, urban/city space, the spaces of activism, gendered, classed and post-colonial spaces and representations. *Additional Fee: \$200.*

MAP 890AI 3-6:6-0

Mapping Illness

What does it mean to represent the diseased body? What are the relations between health, illness, Other-ness and deviance in representation? As several interdisciplinary investigations of the body in crisis this course will look at how illness has been represented from the sixteenth century to the present.

MAP 890AJ 3-6:6-0

Queer Theory

This course investigates theories of sexuality in the contemporary period, including key thinkers and texts.

MAP 890AK 3-6:6-0

Contemporary Aboriginal Art and Decolonizing Methodologies

Following the direction of Linda Tuhwai Smith et al. this course explores decolonizing methodologies such as oral narrative applied to research in contemporary Aboriginal art.

MAP 890AL 3-6:6-0

Biopolitics

Major texts on biopolitical theory in the contemporary period.

MAP 890AM 3-6:6-0

Theory and Criticism in Television

In this course we will explore a body of critical theoretical works and apply these theoretical applications to television (specifically content, delivery, technologies, genre, reception, production, representations, narrative, etc.)

MAP 890AN 3-6:6-0

The Culture of Cities

The Culture of Cities will investigate classic and contemporary thinking on cities as sites where art and culture are made and received. Frameworks of analysis will include contemporary paradigms, such as post-colonialism, race, gender, the post modern, culture and technologies, the culture industries and the culture of everyday life.

MAP 890AP 3-6:6-0

Queer Sites and Popular Culture

Analysis and contextualization of queer aesthetics and discursive sites within popular culture and music, in relation to queer identity and socio-cultural contexts. Drawing on theoretical/cultural texts, the course explores the significance of the image, career, life and celebrity of singer Whitney Houston as a queer site within popular culture.

MAP 890AQ 3-6:6-0

Production of Space

This course investigates the production of space in contemporary arts and cultures. Focus may be on gendered, queer, post-colonial, and/or urban spaces.

MAP 890AR 3-6:6-0

Performance: Queer Spectators

This course will investigate issues in contemporary performance, with a focus on specific areas of interest (such as performer-spectator relations, performance and celebrity, queer performance, gender and performance, performance art and its critical/theoretical contexts, etc.)

MAP 890AU 3-6:6-0

Street Art and the Politics of Resistance

This course will examine the use of public art, graffiti and street art in relation to the politics of resistance. International examples will be posited in relation to resistance art in the Americans, Cuban, Brazilian, and Mexican.

Course Catalogue

Note: Students may receive credit for one of MAP 890BF or FA 890BF.

MAP 890AV 3-6:6-0
New Media and Performance
Examine key theoretical and practical approaches to new media in live events including: interdisciplinary collaboration, online technologies, telematics, video capture/projection, immersive audio, wearable technologies and new instrumentation, locative and social media, augmentation and mobile devices.

MAP 890AW 3-6:6-0
Sound Art
This course includes a basic historical survey of sound art practices and introduction to practical sound recording, editing and mixing techniques: as well as a chance for graduates to focus on sound art practitioners in their area of specialization.

MAP 890AX 3-6:6-0
Art and Trauma
This course explores questions of trauma and memory in contemporary art theory and practice.

MAP 890AY 3-6:6-0
Socially Engaged Art
This course focuses on socially engaged art and performance. Students will choose 1-2 areas of study from a list of topics in social, community-based, relational or activist practices.

MAP 890AZ 3-6:6-0
Queer Identity in Performance
This course will require student(s) to undertake various activities (research, writing, dramaturging, and performing) a performance piece that situates (and performs) sexual/gender identity within a larger popular culture framework. Critical readings/analysis of contemporary queer(ed) performances will also be required.

MAP 890BA 3-6:6-0
Visual Culture of Race
This course will investigate the intersection of visual culture and critical race theory.

MAP 890BB 3-6:6-0
Interactive Audio Art
Course focuses on critical engagement with the concept of interactivity in experimental audio practices since the 19th century including composition, installation, and performance (including improvisation). Includes examination of key critical and historical texts and art objects, analysis of artist methodologies, and writing and practical exercises supporting the student's thesis project.

MAP 890BC 3-6:6-0
Cultures of Sound and Technology
This course examines how the creation and movement of sound ? particularly in the context of music-making - is intertwined with the political, social and creative contexts in the contemporary world. The course examines the relationship between sound, technology and culture. As such, the work that informs this course is interdisciplinary.
Note: Students may receive credit for one of MAP 890BC or FA 890BC.

MAP 890BD 3-6:6-0
Creative Technologies in Performance
Students will work on creative technologies as it pertains to their project, with studio work examining the incorporation of audio, film projection, online media, and new media into live events as related to the students graduate project.
Note: Students may receive credit for one of MAP 890BD or FA 890BD.

MAP 890BE 3-6:6-0
Performance and Prosthetics - Expanding the Body
This course investigates the use of "add-ons" in order to enhance, extend and embellish the body in performance.
Note: Students may receive credit for one of MAP 890BE or FA 890BE.

MAP 890BF 3-6:6-0
Topics in Creative Technology
This course investigates theories and practices of creative technologies as applied to the graduate's own thesis topic. Areas could include mobile/interactive gadgets and devices, locative strategies, video projection, networked spaces, wearables, and augmented reality.

MAP 890BG 3-6:6-0
Topics in Improvisation
This course investigates critical studies in improvisation as it relates to the student's own graduate thesis. Topics covered include critical readings in improvised art practices, and/or a program or practical work drawing on the research into the work of important improvising artists from across disciplines.
Note: Students may receive credit for one of MAP 890BG or FA 890BG.

MAP 890BH 3-6:6-0
Theoretical Investigations II
Students will further investigate the theoretical and contextual ideas of their thesis project through reading, discussion and writing.
Note: Students may receive credit for one of MAP 890BH or FA 890BH.

MAP 890BI 3:0-0
Topics in Creative Technologies II
This course investigates theories and practices of creative technologies as applied to the graduate's own thesis topic. Areas could include mobile/interactive gadgets and devices, locative strategies, video projection, networked spaces, wearables, and augmented reality.
Note: Students may receive credit for one of MAP 890BI or FA 890BI.

MAP 890BJ 3:0-0
Topics in Creative Technologies III
This course investigates theories and practices of creative technologies as applied to the graduate's own thesis topic. Areas could include mobile/interactive gadgets and devices, locative strategies, video projection, networked spaces, wearables, and augmented reality.
Note: Students may receive credit for one of MAP 890BJ or FA 890BJ.

MAP 890BK 3:0-0
Introduction to the Nonprofit and Voluntary Sector
This course examines theories and roles the non-profit and voluntary sector play in society and contemporary public governance. Other topics include the size and scope of work, various organizational forms and functions, and leadership and accountability in the context of governing and managing non-profit and voluntary organizations.
Note: Students may receive credit for one of MAP 890BK or FA 890BK.

MAP 890BL 3-6:0-0
Research for Indigenous Curation
The student will conduct research with the Kampelmacher Indigenous Art Collection, select 200 art works and develop a rationale and background information for a proposed acquisition by the Mackenzie Art Gallery.

MAP 890BM 3-6:0-0
Grounding Curation in Indigenous Theory and Knowledge
This course will examine theoretical frameworks and methodologies for Indigenous curation drawn from language and cultural knowledge. This will emphasize relationships, curating care, and reclaiming territory. It will include a survey of current curatorial practices that are redefining Indigenous exhibitions, art-making and community engagement.

MAP 890BN 3-6:0-0
Art in the Anthropocene
This course will focus on art, aesthetics and environmentalism in order to explore art's ability to transform ways of seeing and being in the pressing global crisis of the Anthropocene.

MAP 890BO 3-6:0-0
Contemporary Indigenous Art and Curation
This class will explore contemporary Indigenous art and curation from North America, New Zealand and Australia. It will explore global responses to colonialism, artistic activism, and the role of contemporary art in cultural revitalisation. It will emphasize the emergence of Indigenous curation on the world scene, key Indigenous theorists, and the application of language and culture-based concepts to contemporary creation and curation.

MAP 890BP 3-6:0-0
Engaging Climate Change: Creativity, Community, Intervention
This multidisciplinary course explores climate change and environmental concerns, with a focus on resilience, community, Indigenous worldviews, science, artist engagements, local/global projects, and thinking outside the box in the face of change. Assignments will be applied and/or artistic

Course Catalogue

explorations of course themes. Students from all university disciplines are welcome.

MAP 890BQ **3:0-0**
On Display! Exhibitions and Indigenous Art
 With an emphasis on Canada, this course charts changes and directions in Indigenous curation over thirty years. The course includes analysis of theories, methods, and exhibition histories that have prompted new models and voices. An evening of round table discussion with Indigenous scholars and curators will help set our direction.

MAP 890BR **3:0-0**
Directed Reading in Decolonizing Animal Ethics
 Seminar explores animal ethics and decolonization in media and artistic research. The student will examine ethics via theories and case studies, critique existing models, and investigate ethical practices in order to glean lessons that can be useful in our research.

MAP 890BS **3:0-0**
Directed Reading in African Theatre and Postcolonial Thinking
 Seminar explores critical thinking in African theatre from the perspective of postcolonial theory from the 20th century to 21st century.

MAP 890BT **3:0-0**
Multispecies Ethnography
 Focusing on multispecies/nonhuman agency and ways of knowing in the context of ethnographic practices and representation, this course integrates scholarly readings, discussion, film/media analysis, writing, and film/media production for course content and assignments.

MAP 890BU **3:0-0**
Prairie-based Theatre - Past, Present, and Future
 This course explores historical survey of theatre on the prairies (20th and 21st century) and examines critical thinking in site specific theatre on the prairie with a case study of Future Prairie Theatre.

MAP 890BW **3-6:0-0**
Site-Specific Theatre: Space, Audience and Mobility
 Directed Reading Course on site-specific theatre practice, and the questions surrounding space, audience and mobility. The readings will focus on site-specific practice with readings from theoreticians and practitioners in found-space performance/installation art. When one area of investigation is set in motion, its opposite is implicitly mobilized: within site and rootedness is their antithesis - mobility.

MAP 890BX **3:0-0**
Metis History and Art After 1870
 This course will explore the historic dispossession of the Metis Nation after 1870, the 1885 resistance, and political reappearance in the 1930s. It will explore the importance of reclaiming narrative, genealogical reconstruction, and the role of creative expression (particularly literature and film) in cultural resurgence.

MAP 890BY **3-6:6-0**
Creative Technologies Practice
 This practice-based course focuses on the development of studio work in creative technologies, supported by studio research activities and an end of semester critique.

MAP 890BZ **3-6:6-0**
Eco-critical Art History
 This directed reading will explore various methodological approaches in eco-critical and animal art history. The course will examine key ideas such as ecocriticism, bio-ethics, the Anthropocene, and new materialism.

MAP 890CA **3-6:6-0**
Exploring Two Spirit Identity through Woodland Cree Art
 This class will explore Two-Spirit gender identity through traditional Woodland Cree art practices. It will draw on both the emerging scholarship related to Two-Spirit identity and traditional beliefs related to the role of Two-Spirit individuals in a Cree world view. In part, the course will explore the connection between beadwork done in the Nehithawak style using a variety of techniques and the idea of Two-Spirit people bringing balance to their communities. Through beadwork "story" works, personal narratives of fully reclaiming identity, including exploring barriers will be visually narrated.

MAP 890CB **3-6:0-0**

Media, Policing and Race
 Explores key theories for understanding media, policing and race. Examples will be drawn from Canada, the United States and elsewhere.

MAP 890CC **3:0-0**
Curatorial Strategies and Applications
 This is a practical course where theoretical concepts related to cultures of display and curation are put into practice in a gallery setting. The course will focus on both widely used and emerging trends in curation.

MAP 899 **3-15:0-0**
Grad Level Professional Placement
 The professional placement course offers a practical opportunity for experiential research or case study investigation.
 NOTE: Students may only receive credit for one of FA 899 or MAP 899.

MAP 900 **3:0-0**
Comprehensive Exam
 Examination measuring comprehensively the knowledge and practice in the disciplines relevant to the PhD thesis/project.
 NOTE: Students may only receive credit for one of FA 900 or MAP 900.

MAP 901 **1-15:0-0**
Thesis Research
 Research supporting an MA or PhD program including the thesis proposal, ethics review application (if applicable), and research resulting in the writing and defense of a graduating thesis of 60-100 pages for an MA; or the preparation of a PhD graduating thesis, research-creation project, or hybrid thesis/research-creation project, as applicable.
 NOTE: Students may only receive credit for one of FA 901 or MAP 901.

MAP 902 **1-15:0-0**
Research Project
 Research supporting a professional, practice-based MFA program resulting in the writing of a comprehensive critical engagement paper of 40 pages and the preparation and public presentation of a graduating research-creation project.
 NOTE: Students may only receive credit for one of FA 902 or MAP 902.

MAP 903 **0:0-0**
Project Report Course
 The student submits the final project or critical engagement paper.
 NOTE: Students may only receive credit for one of FA 903 or MAP 903.

MATH	Mathematics
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MATH 800 **3:3-0**
Comprehensive Review of a Selected Topic in Mathematics
 The student will conduct an in-depth literature review of a selected area in Mathematics and prepare a report pertaining to the selected topic. The topic will be chosen in consultation with the supervisor and the Department Head. A final examination (written, oral or both) will be conducted by a committee of the Department.

MATH 802 **3:3-0**
Major Essay in Mathematics
 Essay on a selected topic for students in the course-based MSc program in Mathematics.

MATH 803 **6:0-0**
Approved Summer School
 This course is available to full-time Mathematics graduate students in good standing. Students will participate in a summer school offered by an approved institute. The school and credit award must be approved by the Graduate Coordinator for Mathematics and Statistics (or designee).
 Prerequisite: Approval of Department Head.
 Note: Students may only take MATH 803 once in their program.

MATH 810 **3:3-0**
Measure & Integration
 Integration and measure theory, spaces of continuous functions, and Lp spaces.

MATH 812 **3:3-0**
Complex Analysis
 Riemann mapping theorem, analytic continuation, Riemann surfaces.

MATH 813 **3:3-0**

Course Catalogue

Functional Analysis

Banach spaces, Banach algebras, and operator theory.

MATH 814 3:3-0

Operator Algebras

C^* -algebras and von Neumann algebras.

MATH 816 3:3-0

Introduction to Quantum Information Theory

A first course in the mathematics of quantum information theory. Topics include information measures, quantum states and observables, qubits, entanglement, quantum channels, entropy, and measurements.

MATH 818 3:3-0

Intro to Lie Algebras and Representation Theory

The course is an introduction to the structure of finite dimensional complex semisimple Lie algebras, via root systems, as well as their finite dimensional irreducible representations, through highest weight modules.

MATH 819 3:3-0

Topics in Analysis

Advanced study of selected areas of analysis.

MATH 820 3:0-0

Introduction to Commutative Algebra

A first graduate course in commutative algebra. Topics include prime and maximal ideals, radicals, Nakayama's Lemma, exact sequences, tensor products, localization, Noetherian and Artinian rings and selected additional topics.

MATH 821 3:3-0

Number Theory

Topics from analytic and algebraic number theory.

MATH 822 0-3:3-3

Linear Algebra

Vector spaces, linear transformations and matrices, canonical forms, multilinear algebra.

MATH 823 3:3-0

Algebra

Advanced study of group theory, Galois theory, and ring and module theory.

MATH 824 3:3-3

Topics in Algebra

Advanced study of selected areas of algebra.

MATH 825 3:3-0

Matrix Analysis

Matrix canonical forms, norms, spectral theory, perturbation theory, special classes of matrices.

MATH 826 3:3-0

Combinatorial Matrix Theory

Matrices arising from directed and undirected graphs, and related connections between matrix theory and combinatorial mathematics.

MATH 827 3:3-0

Graph Theory

Advanced study of selected areas of graph theory.

MATH 828 3:3-0

Combinatorics

Advanced study of selected areas of combinatorics.

MATH 831 3:3-3

Differential Geometry

Differentiable manifolds, the tangent bundle, differential forms, and the general Stokes' theorem.

MATH 832 3:3-3

Topics in Differential Geometry and Topology

Advanced study of selected areas of differential geometry and topology.

MATH 837 3:3-0

Intro to Algebraic Number Theory

A course on rings of integers of algebraic number fields, Dedekind rings, and Ideal Class Groups.

MATH 838 3:3-0

Associative Algebras, Groups, and Representation Theory

An introductory course on the fundamental results concerning associative algebras, groups, and the representation theory of groups and algebras.

MATH 841 3:3-0

General Topology

Separability of spaces, paracompactness, metrization theorems, function spaces.

MATH 842 3:3-0

Algebraic Topology

Introduction to homotopy groups, and to the homology and cohomology of topological spaces.

MATH 843 3:0-0

Homological Algebra

A first graduate course in homological algebra. Topics include modules over rings, chain complexes, homology, projective and injective resolutions, derived functors, abelian categories, derived categories, and selected additional topics.

MATH 849 3:3-0

Topics in Topology

Advanced study of selected areas of topology.

MATH 869 3:3-0

Numerical Analysis

Advanced study of selected areas of numerical analysis.

MATH 881 3:3-0

Partial Differential Equations

The Cauchy problem, the Fredholm alternative in Banach space, the potential equation, the Dirichlet problem, the heat equation, Green's functions, and the separation of variables.

MATH 882 3:3-3

Topics in Applied Mathematics

Advanced study of selected topics in applied mathematics.

MATH 885 3:3-0

Special Topics in Mathematics

Lecture course in various specialized areas of Mathematics.

MATH 890 3:3-0

Directed Readings

Directed readings in various areas of Mathematics.

MATH 890AG 3:3-0

Topics in Combinatorics

This course will include transitivity in graphs, eigenvalues of graphs, homomorphisms of graphs, and some results from extremal set theory, particularly the Erdos-Ko-Rado theorem that can be proven using algebraic graph theory.

MATH 890AH 3:3-0

Topics in Complex Manifold Theory

definition, examples incl. projective spaces, tori, type decompositions as $(1, 0)$, $(0, 1)$, holomorphic functions, holomorphic forms, sheaves, sheaf cohomology, Dolbeault cohomology, divisors, fiber bundles incl. line bundles and vector bundles, almost complex manifolds, Hermitian metrics, Kaehler metrics, connections

MATH 890AI 3:3-0

Lie Groups

This course is an introduction to the main fundamental results of Lie Group theory through an extensive study of the classical groups.

MATH 890AK 3:3-0

Extremal combinatorics

An introduction to extremal combinatorics and extremal set theory.

MATH 890AL 3:3-0

Permutation Groups

A course in the theory of permutation groups, with an emphasis on actions of finite permutation groups on combinatorial structures, such as graphs, designs and geometries.

Course Catalogue

MATH 890AM Topics In Analysis II Advanced study of selected areas of analysis and operator algebras.	3:3-0
MATH 890AN Advanced Topics in Functional Analysis Locally convex topologies, geometry of Banach spaces, bounded and unbounded operators on Banach spaces, spectral theory.	3:3-0
MATH 890AP Quiver representations of algebras The algebra of a quiver; Auslander-Reiten quivers; classification of finite dimensional algebras and their representation theory in terms of quivers.	3:3-0
MATH 890AQ Matrix Analysis and Entrywise Positivity Preservers This course is an advanced course in matrix analysis and will concentrate on the topic of entrywise positivity preservers. Preservers are functions that operate on the individual entries of matrices and preserve the cone of positive semidefinite matrices.	3:3-0
MATH 890AT Design Theory This course will be an introduction to design theory. This course will include block designs, symmetric designs, Hadamard matrices and orthogonal arrays. We also study distance regular graphs, projective and affine space. We will look at focus on constructions and bounds of designs as well as connections to other areas of math.	3:3-0
MATH 890AU Combinatorial Association Scheme This class will be on Association Schemes with a combinatorial perspective. The course will look at specific association scheme arising in graph theory, such as distance regular graphs, strongly regular graphs and the Johnson scheme. Including a focus on the symmetric group and how it applies to Schurian association schemes.	3:0-0
MATH 890AV Continuum Mechanics Tensor analysis, fundamentals of continuum mechanics, Navier-Stokes equations.	3:3-0
MATH 900 Seminar Preparation and presentation of a one-hour lecture to graduate students and faculty.	1:1-0
MATH 901 Research Thesis research.	1-15:0-0
MATH 902 Research Tools in Mathematics This course teaches students about the computing and library resources available in the Mathematics and Statistics department. This course also includes an introduction to using LaTeX for preparing papers, writing research proposals, and giving academic presentations.	0:0-0
MATH 903 Comprehensive Exam 1 Students must complete a comprehensive exam in one of the following topics: Matrix Theory and Linear Algebra, Commutative Algebra, Abstract Algebra, or Combinatorics and Graph Theory. It is evaluated on a pass/fail basis.	1:0-0
MATH 904 Comprehensive Exam 2 Students must complete a comprehensive exam in one of the following topics: Topology, Algebraic Topology, Functional Analysis, Measure and Integration, Differential Geometry, or Probability Theory. It is evaluated on a pass/fail basis.	1:0-0
MATH 905 Research Proposal Students are required to submit a written research proposal for their PhD thesis research project during its early stages. The candidate will give a seminar before the department to defend their proposal. The topic must be	1:0-0

approved by the research supervisor and the candidate's PhD committee. It is evaluated on a pass/fail basis. This course is required of all PhD students in Mathematics, and will usually be completed following the completion of MATH 903 and 904.

MBA	Master Business Administration
MBA 701 Foundations of Organizational Behaviour This course examines the individual and group behaviour and their impact on organizational effectiveness and organizations in general. Relevant concepts from the behavioural sciences include personality, motivation, attitudes, group processes, power and leadership. Students will develop a basic understanding of antecedents and consequences of individual and group action.	1.5:1.5-0
MBA 702 Foundations of Accounting This course is designed to facilitate the understanding of accounting information with an emphasis on making decisions. Students will be provided an opportunity to enhance their communication and decision making skills.	1.5:1.5-0
MBA 703 Financial Statement Analysis This course introduces students to the analysis, interpretation and evaluation of an organization's financial statements and related information. It also covers the recognition and measurement of accounting events and the preparation of financial statements.	1.5:1.5-0
MBA 704 Foundations of Marketing This course will assist the students in developing foundational knowledge of marketing concepts and theory. Tactical applications of the marketing mix are also addressed ? product, price, place and promotion. Ethical and legal issues are also discussed.	1.5:1.5-0
MBA 705 Foundations of Entrepreneurship This course explores the foundations of entrepreneurship including entrepreneurial motivations, start-up process, idea generation, venture capital, gender considerations, and various forms of entrepreneurship, such as accelerators, corporate venturing and social enterprise. The course also explores entrepreneurs' alignment with other disciplines, including agile testing, lean analysis and business modeling.	1.5:1.5-0
MBA 706 Foundations of Indigenous Business This course covers theories, motivations, forms and objectives of Indigenous venturing and its role in the decolonization process. It will help students identify and understand the various and complex aspects of Indigenous business that are relevant to both Indigenous and non-Indigenous organizations.	1.5:1.5-0
MBA 710 Foundations of Strategic Marketing The course objective is to assist the student in developing skills in the creative and systematic use of marketing concepts and strategies in the design and evaluation of strategic plans at all levels of the organization. The strategic role of marketing within an organization and its integration with other functional units will be studied. Students are expected to develop a working knowledge of a family of strategic marketing planning processes, concepts, methods, and strategies.	3:3-0
MBA 750 Foundations of Strategic HR Management This course examines human resource functions in public and private organizations from a strategic, institutional and trans-national perspective. The topics include human resource planning, recruitment and selection, performance measurement and assessment, training and development and the design of reward systems.	3:3-0
MBA 760 Foundations of Global Organizational Behavior This course examines the individual's interaction within work groups and an organization. Relevant concepts from the behavioral sciences include intrapersonal, interpersonal, group, and organizational processes.	3:3-0

Course Catalogue

MBA 780 3:3-0**Foundations of Accounting for Managers**

This course is designed to facilitate the understanding of accounting information with an emphasis on making decisions. Students will be provided an opportunity to enhance their communication and decision making skills.

MBA 790 3:3-0**Foundations of Financial Management**

This course provides a comprehensive study of the financial decisions in today's business enterprises. Major emphasis is placed on the dividend, investment and financial structure policies of a firm. Justification and use of present value, internal rate of return and selection criteria for projects.

MBA 801 0:0-0**Grad Work Term I**

This first work placement is for students who wish to gain work experience in business or management in Canada. Students will be exposed to the skills used by managers at senior levels in business and management and will perform a variety of tasks.

MBA 802 0:0-0**Grad Work Term II**

This second work placement is for students who wish to gain work experience in business or management in Canada. Students will be exposed to the skills used by managers at senior levels in business and management and will perform a variety of tasks.

MBA 803 0:0-0**Grad Work Term III**

This third work placement is for students who wish to gain work experience in business or management in Canada. Students will be exposed to the skills used by managers at senior levels in business and management and will perform a variety of tasks.

MBA 805 6:6-0**MBA Research Practicum**

A study and research entailing the practical application of knowledge and skills accumulated through the MBA with Specializations/Concentrations Program. The practicum involves careful definition of a problem facing a specific organization and presentation of a report with a view to recommending a feasible solution. The project will be supervised by a faculty member of the MBA Program with Specializations/Concentrations.

MBA 810 3:3-0**Statistics & Quantitative Methods for Business**

An examination of statistical and quantitative techniques useful for managerial decision-making. Topics include multivariate regression analysis, forecasting, and models of qualitative choice. Applications will focus both on evaluating existing research, and on conducting original research.

MBA 815 3:3-0**Strategic Management**

The course focuses on the identification, evaluation and formulation of organizational strategy in an international context. Special emphasis is placed on inherent tensions faced by global organizations in developing and implementing strategy, such as the effects of cultural, economic and political differences on standardization versus adaptation and the identification of global niches, through the use of lectures, discussion, student analysis, and case studies of various kinds of organizations.

Prerequisite: Must complete any two courses from the Levene MBA with specializations program

MBA 816 3:3-0**Production and Operations Management**

This course provides an introduction to the concepts, processes and problems associated with the production and operations management (POM) function which is primarily concerned with productivity and techniques for solving business problems. Particular emphasis will be placed on value stream analysis and its implications for international supply chain management.

MBA 817 3:3-0**Managing People in Organizations**

This course is designed to develop students' management skills through an exploration of the theory and practice involved in managing people. The emphasis is on understanding individual, team, and organizational factors

and the processes through which they influence behaviour and performance, with a view to improving managerial effectiveness.

MBA 830 3:3-0**Business, Government and Society**

This course examines ethical and social issues relevant to business management. It includes a multidisciplinary application of knowledge and concepts to contemporary issues challenging business executives, and the role of consultation with local communities and governments, sustainable business practices and evolving global standards of corporate social responsibility and ethics.

MBA 834 3:3-0**Corporate Finance**

This course provides a comprehensive study of financial decisions in today's business enterprises. Major emphasis is placed on investment, asset valuation and financial structure policies of a firm. Topics include discounted cash flow, capital budgeting, risk-return trade-off, capital structure and major financial instruments.

MBA 835 3:3-0**International Business**

This course focuses upon opportunities and problems that arise when business operations cross national boundaries. The international business environment is examined, and the tasks of management are integrated into this multinational framework. Students will gain familiarity with global economics, various international institutions and practices that impact upon business firms, and students will learn and apply specific models and techniques to aid decision-making in a multinational context.

MBA 836 3:0-0**Innovation and Entrepreneurship**

The course explores the concept and practice of entrepreneurship and its relationship to progress, with a focus on creating and growing global ventures. It analyses the determinants of innovation and develops the skills change managers need to analyze opportunities and stimulate more entrepreneurship, innovation, enterprise, and initiative from their employees. It also helps students to understand concepts of going to market and competitive sustainability.

MBA 838 3:3-0**Research Methods in Management**

This course is designed to assist the student in conducting research projects in the areas of marketing and management. It introduces the student to a variety of research designs, including survey and experimental designs, and qualitative methods. The latter part of the course is concerned with data analysis and interpretation. Several multivariate techniques commonly used in management will be covered.

MBA 841 3:3-0**International Marketing**

The course will introduce the student to environmental factors affecting international marketing and the similarities and differences versus domestic marketing; the knowledge and skills in administering the international marketing function; ethics and cross-cultural nuances in marketing to developed and developing economies; and evaluation of recent environmental changes on international marketing.

MBA 845 3:3-0**Selected Topics in Business Administration**

Examination of one or more selected problems in business administration relative to the interests of the faculty member and the students. A multidisciplinary application of knowledge, concepts, and analytical tools to contemporary issues challenging administrators.

MBA 845AA 3:3-0**Leadership and Ethics**

Introduction to elements of leadership, ethical decision making and social responsibility which are critical influences for organizational success. The course is designed to encourage the investigation of leadership assumptions, behaviors, and goals and to begin planning to improve leadership effectiveness.

MBA 845AE 3:3-0**Directed Readings in Change Management**

This directed readings course will examine change management. The course will entail a comprehensive reading list and analysis of existing literature on change management including topics such as change models,

Course Catalogue

resistance to change, and change management strategies. It will also entail an emphasis on becoming a reflective practitioner requiring the student to think critically about the links between research and practice and their own leadership practice as a change agent.

MBA 845AF 3:0-0
Advanced Operations Management

An advanced course that covers the management of operations in organizations. Topics will include: supply chain management, inventory management, aggregate planning, material requirement planning and scheduling. Problems of production of goods and services will be considered. The course will also include an introduction to the use of quantitative techniques such as simulation and waiting line models as an aid to organizational decision making.

MBA 845AG 3:0-0
Entrepreneurs & Development

The course explores the potential and constraints of the contribution of entrepreneurship to the development of an emerging economy and develop a questionnaire for a field study on this topic. Also it beforehand identifies the determinants of entrepreneurship and the description of the economic situation of a chosen emerging economy.

MBA 848 3:3-0
International Study Tour

This course involves travel abroad, with the purpose of exposing students to real world business activities. The course involves travel to one or more destinations to visit business enterprises, as well as pre- and post-travel classroom activities.

Prerequisite: 18 required completed credits or to be approved by the Associate Dean, Research & Graduate Programs.

MBA 848AA 3:3-0
Study Tour - Mexico

The course includes a study tour of Mexico. This is an international business course that examines the concepts and current practice related to doing business in Mexico. The course will develop an understanding of the people, culture and history of Mexico, Mexican business, finance, politics, NAFTA and Mexican business culture.

MBA 848AC 3:3-0
International Study Trip - Finland and Estonia

This course examines concepts and current practice related to doing business in an international environment. Emphasis is placed on the business, political, and cultural aspects of Finland and Estonia as they relate to Canadian organizations. The course includes a field trip to Finland and Estonia for which additional costs apply.

MBA 848AD 3:3-0
International Study Trip Europe

This course examines concepts and current practice related to doing business in an international environment. Emphasis is placed on the business, political, and cultural aspects of Europe as they relate to Canadian organizations. The course includes a field trip to Europe for which additional costs apply.

MBA 860 3:3-0
Managing Change

This course provides students with an awareness and understanding of how organizations assess situations and plan, implement, communicate and maintain change. The course also provides an understanding of how cultural differences, including attitudes toward employee empowerment and employee-initiated change, affect the development and implementation of change processes. The objective of the course is to develop change-agent skills in the management ranks.

MBA 865 3:3-0
Project Management

This course will introduce students to the many phases of a project's life cycle and how to address them through knowledge and understanding of Project Management principles and how to manage them effectively using Project Management techniques by monitoring and maintaining control of scope, time, and costs within a project.

MBA 866 3:0-0
Managing Information Systems

This course provides an in-depth examination of management and organizational issues surrounding the IS/IT function in organizations. Topics

include the evolution of the IS/IT functions, acquiring and managing IS/IT resources, strategy, current trends, and ethical issues surrounding IS/IT.

MBA 880 3:3-0
Business Analytics

This is an introductory course to business analytics. Students will learn to identify tools, understand valid and reliable ways to collect, analyze and visualize data. Students will also learn to identify patterns in data to inform decision making. The course is designed for students without a background in operations management.

MBA 891 3:3-0
International Financial Management

This course provides the student with an understanding of the special issues and problems involved in international financial management. Topics include the international monetary system, balance of payments, foreign exchange markets, international parity conditions, management of exchange rate risk, sourcing funds, capital budgeting, working capital management, trade financing, international banking, and portfolio diversification.

MBA 899 6:6-0
Integrative Practicum

The practicum requires students to integrate the knowledge and skills developed across the MBA program. In their practicum, students will analyse an organization and its environment, evaluate the organization's activities in light of its strategy, and develop recommendations and an implementation plan that contributes to the organization's future success.

MBA 900 6:0-0
Research Project in Business Administration

Under the guidance of a supervisory committee, a student analyzes a significant organizational problem with a view to recommending a feasible solution. Problems may be either specific or general, requiring either a particular disciplinary background or a multidisciplinary approach. Students are required to register in a minimum of 3 credit hours of project research. The course will be graded on a credit/no credit (C/N) basis.

MHIM	Master Health Info Management
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MHIM 800 3:0-0
Statistics and Research Methods

An understanding of quantitative and qualitative research methodologies; an introduction to statistical concepts, methods and applications useful for health care and HIM professionals. Emphasis on the application of statistical tools to support clinical and managerial decision making and identifying statistical tests and methods appropriate for the data and research design.

MHIM 801 3:0-0
Data Management

This course focuses on the principles of data governance to develop policies and procedures that support the HIM life cycle. Data quality frameworks will be examined. The issues around data management and data integrity will be explored. Canadian health care databases will be used to create presentations.

MHIM 802 3:0-0
Health Information Management

This course introduces principles of information governance, information management (HIM life cycle), and information storage and retrieval systems. This course includes the organizational structure of health care institutions, health information departments, disease registries, the medical record, and professional associations of the health information manager and tumor registrar.

MHIM 803 3:0-3
Coding and Classification

This course focuses on learning the concepts of coding classification and data capture to support health care policy, and to introduce the classification and terminology systems used in Canada and internationally. The principles of taxonomy and the purposes of classification systems will be reviewed. A lab component is included.

MHIM 804 3:0-0
Leadership in Health Organizations

This course focuses on leadership in a health organizational context to prepare students to undertake leadership roles in HIM careers. Topics

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include leadership models and theories, critical thinking, change management, workflow analysis, human resource management, strategic planning, financial management, and ethics. It includes a one week face to face seminar.

MHIM 805 3:0-0
Introduction to Health Informatics and Health Information Technology
 An integrative study of the Information Technology (IT) used in all facets of health care administration and delivery. Emphasis on the management, synthesis, and transformation of information for tactical and strategic decision making throughout the health care enterprise. Theoretical and pragmatic issues related to Electronic Health Record (HER) technology are addressed.

MHIM 806 3:0-0
Health Information Systems
 Builds upon basic concepts of analysis, design, implementation, and evaluation of health information systems learned in pre-requisite course. Focuses on defining information needs, interpreting the capabilities of health information systems, setting forth feasible alternatives, and guiding the appropriate diffusion of information science technology into the health care system.
 Pre-requisite: MHIM 805.

MHIM 807 3:0-3
Analytics and Decision Support
 This course focuses on the health system use of data (primary and secondary uses of health data), the application of meaningful use of data, the participation in clinical and administrative decision support, and the designing of data sources for intelligence extraction. A laboratory component is included.

MHIM 808 3:0-0
Health Databases and Database Management
 Addresses database theory, methodologies for database design, and issues related to database administrations specifically in a healthcare context. Emphasizes on requirements and methodologies for assuring data integrity and security in healthcare enterprise information systems, specifically in relationship to the database environment. Provides a foundation for managing databases in healthcare environments.

MHIM 809 3:0-0
Health Information Privacy
 This course focuses on the design of a privacy and security infrastructure including policies and procedures involving data collection, use, access, disclosure, retention, storage, destruction of paper, hybrid, electronic, digital images, voice recording and electronic mails. Privacy, security, and confidentiality policies and procedures will be discussed and developed.

MHIM 810 3:0-0
Financial and Compliance Management
 This course provides an analysis of financial planning and management, risk and investment policies relating to HIM. This course addresses the field of health care compliance and various topics in health care compliance, including corporate compliance, privacy, risk management and identity theft.

MHIM 811 3:0-0
Health Information Projects Management
 This course provides students with the necessary tools to assess project management tools, design strategic planning research models and methods, engage stakeholders in information governance initiatives, as well as propose innovative healthcare policies. Students will learn how to use research methods to integrate best practices in project planning and management.

MHIM 900 3:0-0
Applied Project Proposal and Research
 Individual study hours under the supervision of a faculty member. Students will prepare a proposal for an applied project and conduct research supporting a topic related to health information management.

MHIM 902 3:0-0
Applied Project Development and Presentation
 Students will conclude research supporting a topic related to health information management resulting in the writing of a comprehensive paper and public presentation of an applied project.

MISW	Master of Indigenous SW
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MISW 800 3:3-0
Cultural Camp
 This course focuses on traditional First Nations spirituality, values, and ceremonies at a level well beyond the undergraduate culture camp. At its core is a weeklong experiential cultural immersion program guided by elders, taking place in a local First Nations community, coupled with intensive seminars before and after the experience.

MISW 810 3:3-0
The Residential School Experience and Its Legacy of Abuse
 An advanced examination of the nature, history and structure of the residential school system, emphasizing the experience of residential school students and the abuses they suffered, including intergenerational impacts of this legacy of abuse. Psychological, cultural and political perspectives will be employed, focusing on issues of colonization and liberation.

MISW 822 3:3-0
Traditional Aboriginal Counseling
 An in-depth exploration of the principles and practices of traditional Aboriginal counseling with the dual aim of having students develop effective ways of collaborating with the healing efforts of traditional counselors in First Nations/Metis communities and organizations, and enhancing the cultural relevance and sensitivity of their own counselling approaches.

MISW 830 3:3-0
Individual Counseling
 An individual therapeutic counseling course examining First Nations and Western approaches addressing the legacy of residential schooling. Emphasis is placed on effective collaboration and integration of approaches, making Western approaches more sensitive to First Nations healing, and developing deeper understanding and practice of First Nations methods of therapy.

MISW 850 3:3-0
Group, Families, and Community Counseling
 An intensive practice course examining First Nations and Western approaches to group, family, and community counseling particularly emphasizing residential school impacts. With emphasis on effective integration of perspectives on issues of health and healing, this course facilitates a deeper understanding of First Nations counseling methods.

MISW 860 3:3-0
Community-based Research
 This course focuses on community-based research as a methodology which can be most relevant to the issues and needs of First Nations communities. Emphasis is on both qualitative and quantitative methods including statistical analysis, all within the context of collaborating sensitivity with affected communities.

MISW 900 3:9-0
Internship Research Report
 This course consists of a written report and analysis of the internship experience, including the student's areas of learning and the students' understanding of their boundaries of competence and qualifications and their abilities to build an effective network of qualified service providers.

MISW 904 3-15:15-0
Internship
 This course is an experiential field-based agency placement. The student will develop advanced clinical and counseling skills under professional supervision. The integration of theory and practice regarding the needs of First Nations and Metis people will be paramount considerations in the internship experiences.

MNUR	Master of Nursing Program
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MNUR 800 3:3-0
Foundations for Advanced Practice Nursing
 The course reviews the domains of advanced practice nurse roles in Canada. An examination of the historical, philosophical, sociopolitical and economic influences develops the foundation for practice. Factors that

Course Catalogue

affect role implementation and innovative models that utilize the advanced practice nurse role in primary health care are investigated.

MNUR 801 3:3-0
Research for Nurse Practitioners

Evidence informed methods used in clinical practice by advanced practice nurses are examined. Critically appraise and apply research, best practice guidelines and theory relevant to advanced nursing practice. Students will develop a research question addressing an identified gap related to advanced practice nursing.

MNUR 802 3:6-3
Advanced Health Assessment and Diagnostic Reasoning

Phases of clinical judgment and various diagnostic reasoning models are explored in the context of direct patient care. Health maintenance concepts and diagnostic reasoning skills are developed. The mandatory one-week on-campus residency is designed to develop and evaluate health assessment and diagnostic reasoning skills.

Prerequisite: MNUR 800 & MNUR 803.

Note: Whilst enrolled, the student will engage in 16 hours of clinical practice. Additionally, a one week mandatory residency in Regina is held at the end of this course. The residency will account for 39 lab hours.

MNUR 803 3:0-0
Advanced Pathophysiology and Pharmacology I

Pathophysiology of common acute and chronic disorders across the lifespan informs therapeutic decisions including pharmacotherapeutic principles, professional, ethical, regulatory and practical aspects of prescribing. Cellular biology, immunity and the central nervous system will provide a foundation for the study of disease and therapeutics in other body systems.

Prerequisite: MNUR 800 (Courses can be taken concurrently).

MNUR 805 3:13-0
Advanced Pathophysiology and Pharmacology II

Building on the content from MNUR 803, pathophysiology of common disorders across the lifespan informs health assessments and pharmacotherapeutic decisions in nursing practitioner practice. Analysis of the functioning of body systems provides a foundation for the study of disease and pharmacotherapeutics.

Prerequisites: MNUR 802 and MNUR 803

*Note: Whilst enrolled, the student will engage in 114 hours of clinical practice.***

MNUR 806 3:12-0
Health and Illness across the Lifespan I

A broad knowledge base is integrated with critical appraisal for determining diagnoses and patient needs. Appropriate selection from a range of evidence-informed non-pharmacological and pharmacological interventions restores or maintains functional, physiological and mental stability to achieve optimal health. Conception, prenatal, postnatal care and family health care are emphasized. ***Prerequisite: MNUR 805***

MNUR 807 3:12-0
Health and Illness across the Lifespan II

A broad knowledge base is integrated with critical appraisal for determining diagnoses and patient needs. Appropriate selection from a range of evidence-informed non-pharmacological and pharmacological interventions restores or maintains functional, physiological and mental stability to achieve optimal health. Gender and episodic care is emphasized.

Prerequisite: MNUR 805

MNUR 808 3:12-0
Health and Illness across the Lifespan III

A broad knowledge base is integrated with critical appraisal for determining diagnoses and patient needs. Appropriate selection from a range of evidence-informed non-pharmacological and pharmacological interventions restores or maintains functional, physiological and mental stability to achieve optimal health. Healthy aging and chronic care management is emphasized.

Prerequisite: MNUR 805

MNUR 809 3:3-0
Transition to Advanced Nursing Practice I

Transforming complex clinical problems to researchable questions, students will systematically review and appraise the literature for evidence, consider ethical issues in research methods, design a study proposal, and consider knowledge translation strategies. A literature review is completed

in preparation for a major research paper that addresses health improvements for patients, families, communities, or health care systems.

Prerequisite: 24 approved credit hours at the 800 level.

MNUR 810 3:17-0
Transition to Advanced Nursing Practice II

Advanced nursing practice concepts are integrated into a consolidated clinical practice experience. Autonomy, accountability, decision-making, and critical analysis of organizational and system issues that influence advanced nursing practice are demonstrated. Knowledge translation of a piece of scholarly work completed during the program is facilitated.

Prerequisite: All other CNPP course (30 credit hours).

Note: While enrolled, the student will engage in 182 hours of practice education experience.

MNUR 818 3:3-0
Advanced Nursing Practice Leadership in Health Promotion

Advanced practice nurses will be prepared with a strong theoretical foundation in health promotion, illness prevention and maintenance of health across populations and communities. Interprofessional approaches to improve population health considering the influence of sociopolitical, environmental, economic and health concepts are included.

Note: Students cannot take both MNUR 804 and MNUR 818 for credit in the Collaborative Nurse Practitioner Program

MU	Music
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MU 801 1:3-0
University Concert Band I

Participation as principal in one of the sections of the ensemble. Students will assist in duties contributing toward the presentation of concert events.

MU 802 2:3-0
University Concert Band II

Participation as principal in one of the sections of the ensemble. Students will assist in duties contributing toward the presentation of concert events.

MU 803 3:3-0
Medieval Music

Selected Topics in Medieval Music.

MU 804 3:3-0
Music of the Renaissance

Selected Topics in the Music of the Renaissance.

MU 805 3:3-0
Music of the Baroque

Selected Topics in the Music of the Baroque.

MU 806 3:3-0
Music of the Classical Era

Selected topics in the Music of the Classical Era.

MU 807 3:3-0
Music of the Romantic Era

Selected topics in the Music of the Romantic Era.

MU 808 3:3-0
Music of the Twentieth Century

Selected topics in the Music of the Twentieth Century.

MU 808AC 3:1-0
Selected Topics Music Theory

Seminar in analysis of classical-era sonata-form movements including selected readings from the music theoretical literature and experience analyzing movements from the solo chamber music and symphonic repertoires, with emphasis on Haydon, Mozart and Beethoven.

MU 809 3:3-0
Selected Topics in Musicology

Study of selected topics in musicology.

MU 809AC 3:0-0
Current Issues in Musicology

Students will examine current musicological issues that serve historical, theoretical, and performance objectives related to their own research interests. Interdisciplinary approaches will be considered in particular in order to increase students' familiarity with multiple musical concerns and

Course Catalogue

interpretations applicable to a wide range of musical genres and scholarly approaches.

MU 809AD 3:3-0
Percussion Styles from 1945 to the Present
Continuation of MU 813AA. More advanced practical application and a focus on the playing techniques and style analysis of each major player and period.

MU 809AE 3:3-3
History and Literature of Chamber Music
There are two components to the course: a survey of the history of chamber music as a genre and a study of the historical and societal context of chamber music as an art form.

MU 809AF 3:3-0
Performance Practice - Baroque to Modern
This writing-intensive course traces the development of performance practice from the Baroque period to modern times, with equal emphasis on theoretical, aesthetic and practical applications. As part of their course work, graduate students will be asked to teach an undergraduate class (MUS 415) on the history of performance practice.

MU 809AG 3:3-0
Popular Music and Theory
This course explores theories and methods used in the discipline of popular music studies. The student is required to analyze different theoretical texts used to analyze popular music and global music practices.

MU 809AH 3:3-0
The 19th-Century Lied
An in-depth study of the aesthetic, cultural and stylistic evolution of the Lied with special emphasis on 19th-century German repertoire, specifically Schubert and his contemporaries. Students will be honing their critical writing, listening and presentation skills through a variety of written and oral assignments.

MU 809AI 3:3-0
The Composer as Storyteller
How does a composer convincingly portray the action in a story? Selected vocal and instrumental musical genres (e.g., opera, Lied, tone poem, program symphony, etc.) will be examined to answer this question. Emphasis will be placed on sharpening research, writing and comparative listening skills.

MU 809AJ 3:0-0
Vocal Improvisation and Social Practice
The human voice is an instrument accessible to all, with huge potential for expression, interaction, collaboration and community building. This course will explore technical possibilities of the voice, including extended techniques; and will work on skills in creativity, improvisation and the role of music in the community.

MU 809AK 3:0-0
Topics in Improvisation
This is an independent study course with both academic and practical sections. Its goal is to develop and explore the role of creative musical improvisations in cultural, community and personal development of at-risk youth in Regina.

MU 809AL 3:0-0
Topics in Piano Pedagogy
Topics in Piano Pedagogy is an exploration of methods and approaches (contemporary and historical) used in studio teaching, and is designed to provide students with knowledge and resources thereof.

MU 809AM 3:0-0
Listening as Social Practice
This course looks critically and creatively at the artistic practice of sound art, in connection with the Great Lakes Association for Sound Studies Conference, Listening as a Shared and Social Practice, which will take place at the University of Regina.

MU 809AN 3:3-0
Studies in French-language Poetry and Song
The setting of French poetry to music by composers from the classical and popular music traditions from 1850 to today.

Note: Students may receive credit for one of MU 809AN, FRN 860AI, or MU 499AB.

Note: This course is normally taught in French; course work may be submitted in English.

MU 811 3:3-0
Twentieth Century Music
Emphasis on contemporary music. Detailed study and analysis of selected works in chamber, symphonic, choral and solo literature.

MU 812 3:3-0
Music History Survey
Emphasis on selected master works from the middle ages through modern times and their relation to trends of their times.

MU 813 3:3-0
Dir Studies Music Literature
Study related to the performing medium of the student. Repertoire and its stylistic development through a study of selected works.

MU 813AA 3:3-0
Advanced Jazz Percussion Concepts
A study of jazz percussion solo and ensemble styles of each historic period.

MU 813AB 3:3-0
Selected Studies in Violin Repertoire and Performance Practice
This course begins with a study of performance practice as it relates to the violin repertoire. This background is then applied to case studies of selected works from the violin repertoire of the baroque, classical, and romantic periods.

MU 813AC 3:3-0
Lecture Recital and Field Exam
Lecture Recital and oral examination on the dissertation proposal.

MU 813AD 3:3-3
Directed Studies in Literature
This course covers the history of song from the Renaissance through to the 21st century. The course comprises reading, listening, papers, and a final public lecture-recital.

MU 813AE 3:3-3
Directed Studies in Tuba Literature
Taught in conjunction with MU 901-006, tuba lessons. Guidance in completing a survey of the history of tuba repertoire by means of a bibliography and discography. Guidance in presenting case studies of selected works, leading to an essay concerning the stylistic development of repertoire for the tuba.

MU 813AF 3:3-3
Directed Studies in Piano Literature
Studies related to piano repertoire and its stylistic development through a study of selected works. The student will use research tools acquired in MU 815 to construct a bibliography and discography, conduct an analytical review of the chosen works, and present/discuss the material regularly with the instructor.

MU 813AG 3:2-0
Directed Studies in Flute Literature
A study of the development of the flute from the baroque period to the present, incorporating performance practice of the baroque, classical, and romantic periods. The student will prepare and present case studies of specific repertoire from each period.

MU 813AH 3:0-0
Directed Studies in Trombone Literature
An in-depth study of the history, literature, and pedagogy of the trombone, drawn from primary sources, editions, organology, iconography, and recordings, combined with the study of modern commentary and research.

MU 813AI 3:0-0
Expanded Voice
This course encompasses study of experimental vocal music, musical improvisation, and extended vocal techniques. Study of these techniques will culminate in a lecture-recital demonstrating how the expanded voice may connect with standard vocal techniques.

MU 815 3:3-0

Course Catalogue

Bibliography

Bibliographical materials for graduate study in music theory, history or performance.

MU 816 3:3-0

History of Music Theory

A survey of theoretical writings from ancient times to the present.

MU 817 3:3-0

Analysis

Techniques of analysis covering a variety of approaches and musical styles.

MU 818 3:1-0

Selected Topics Music Theory

Research problems and topics related to the candidate's needs and interests.

MU 818AC 3:1-0

Schenkerian Analysis

An introduction to basic Schenkerian principles and analytic applications of Schenkerian analysis to tonal music, based on the textbook by Allan Cadwallader and David Gagne. Other sources to be employed are Schenker's Free Composition and Five Graphic Analyses.

MU 818AD 3:3-0

Theories of Sonata Form for the Music of Haydn, Mozart and Beethoven

Readings in, and analytic projects concerning, Sonata Theory, with emphasis on theories applicable to the late eighteenth century and to Beethoven. In weekly assignments, students will teach the analytic theories, analyses and repertoire they have read about, and present their own analyses of movements by Haydn, Mozart and Beethoven.

MU 819 3:1-0

Musicology Seminar

Attendance at meetings and presentation of a research paper.

MU 820 3:1-0

Music Theory Seminar

Attendance at meetings and presentation of a research paper.

MU 821 3:3-0

Music Composition

Composing music in the smaller forms and for small ensembles.

MU 831 1:3-0

University Concert Choir

Participation as section leader. Students will assist in duties contributing to the presentation of concert events.

MU 832 2:3-0

University Concert Choir II

Participation as section leader. Students will assist in duties contributing to the presentation of concert events.

MU 835 1:3-0

University Chamber Singers I

Specializing in acappella music from the Renaissance to the Twentieth century. Participation as section leader. Students will assist in duties contributing to the presentation of concert events.

MU 836 2:3-0

University Chamber Singers II

Specializing in acappella music from the Renaissance to the Twentieth century. Participation as section leader. Student will assist in duties contributing to the presentation of concert events.

MU 841 3:3-0

Orchestration

Writing for various instrumental combinations and dealing with the overall problems of blending and balance.

MU 860 3:0-0

Applied Diction For Singing

Applied Diction For Singing

In this course, the International Phonetic Alphabet is studied, with direct application to repertoire for voice and choir. The course also covers the specific vocal pedagogy associated with its successful application.

MU 861 3:3-0

Opera & Music Theatre Workshop I

Preparation and performance of principal roles from the opera and musical theatre literature, in departmental productions. Students must possess a voice suitable to the operatic repertoire and have achieved an advanced level of vocal technique.

MU 862 3:3-0

Opera & Music Theatre Workshop II

Preparation and performance of principal roles from the opera and musical theatre literature, in departmental productions. Students must possess a voice suitable to the operatic repertoire and have achieved an advanced level of vocal technique.

MU 863 3:3-0

Opera Music Theatre Workshop III

Preparation and performance of principal roles from the opera and musical theatre literature, in departmental productions. Students must possess a voice suitable to the operatic repertoire and must have achieved an advanced level of vocal technique.

MU 871 1:3-0

University Chamber Orchestra I

Participation as principal in one of the sections of the ensemble. Students will assist in duties contributing toward the presentation of concert events.

MU 872 2:3-0

Univ Chamber Orchestra II

Participation as principal in one of the sections of the ensemble. Students will assist in duties contributing toward the presentation of concert events.

*** Prerequisite: MU 871 *** ** Permission of the Department Head is required to register. **

MU 881 1-3:3-0

Chamber Music Ensemble I

Coaching in performance problems and interpretation of selected works from the chamber literature that includes the student's instrument.

MU 882 1-3:3-0

Chamber Music Ensemble II

Coaching in performance problems and interpretation of selected works from the chamber literature that includes the student's instrument, culminating in presentation of a chamber music recital.

*** Prerequisite: MU 881 ***

MU 901 1-15:15-0

Thesis Research

Research supporting a studies-based program (MA in Musicology and in Music Theory) resulting in the writing and defense of a graduating thesis of 60 - 100 pages.

MU 902 1-15:15-0

Research Project

Research supporting a professional, practice-based program (MMus in Composition; MMus in Conducting; and MMus in Performance). MMus in Performance is expected to perform two solo recitals -- the first after not more than 6 credit hours of study.

NORD

**Northern Governance
& Develop**

NORD 847 4:0-0

Circumpolar Innovation and Entrepreneurship

This course examines the manner in which scientific and technological innovation, or the commercialization of technology-based products and services, is shaping the circumpolar world. Nations around the world have identified innovation as being the cornerstone of economic competitiveness and critical to everything from job creation to environmental sustainability.

NURS

Nursing

NURS 804 3:0-0

Global Health

Course Catalogue

Critically analyze population health and current research on the determinants of health, with an emphasis on the sociopolitical, cultural and environmental determinants of health. The role of the advanced practice nurse in health policy development, and primary health care will be explored.

*Note:
This course is offered as an open elective to all graduate students.*
Note: Students cannot take both MNUR 804/NURS 804 and MNUR 818 for credit.

NURS 812 3:0-0
Advanced Health Foundations for Clinical Nurse Specialists
This course is designed for advance practice nursing students with a Registered Nurse (RN) license who want to increase their knowledge in their specialty area. Course content will allow the student to explore pathophysiology, health conditions, health promotion, treatment modalities and the role of advanced practice nurses, as it relates to their specialty.

NURS 813 3:12-0
APN: Clinical Nursing Specialization Seminar & Practicum
This course will guide students toward the development of scientific knowledge and skill in Advanced Practice Nursing. Using nursing frameworks, application of advanced knowledge and advanced nursing practice skills students will develop advanced clinical strategies for the management of health problems. During this course, students will engage in clinical practice.
Prerequisite or co-requisite of NURS 812

NURS 814 3:12-0
APN Clinical Nurse Specialization II: Seminar and Practicum
This course allows advanced practiced nursing students to concentrate on an area of clinical practice. This course is based on the core competencies for Clinical Nurse Specialists from the Canadian Nurses Association (2014). This is the second clinical course in the Clinical Nurse Specialist program.
Prerequisite: NURS 813.

NURS 815 3:3-0
Health Care Ethics
This course will be a critical analysis of ethical theories as it is applied to nursing practice. Nursing problems will be examined using an ethics lens.

NURS 820 3:3-0
Patterns of Health and Illness in Older Adults
This course offers broad-based knowledge and skills through integrated, interprofessional education related to health and illness in old age. Physiological changes and psychosocial aspects of aging as they relate to common health problems will be examined.

NURS 900 0-6:14-0
Special Topics in Nursing
Special Topics in Nursing.

NURS 900AA 3:0-0
Critical Review of Nursing and Health Related Research: Pregnant Women & Addictions
This course will examine the nursing & health related research literature from a critical, reflexive & theory-informed perspective of addictions in pregnant women. This will include exploration of inequities in health care, social, economic, behavioral & physiological aspects of addiction in this population.

NURS 900AB 3:0-0
Advanced Nursing Practice: Practicum & Control Drugs & Substances
This course has three parts (1) Unit on Control Drugs and Substances plus (2) Clinical Practica Education in a preceptored pharmacy setting-learning the processes involved in dispensing (39 Hours) plus (3) Advanced Health Assessment clinical practice working with a primary nurse practitioner (91 hours).

NURS 900AC 3:0-0
Perspectives in Nursing Education and Practise
This course will use a research framework to critically examine issues in nursing education and practice. Two Malawian students will participate in observational experiences in educational institutions, midwifery clinics, women and adolescent clinics and other voluntary organizations. Students will complete a research paper.

NURS 900AD 3:0-0
A Scoping Study of the Healthcare Literature

A scoping review of the extant literature in nursing and healthcare pertinent to research topic "The evolution of the industrialization of healthcare". The scoping review will give meaning and significance to the research literature and provide direction to future research priorities. This course is delivered online.

NURS 900AE 3:0-0
Annotated Bibliography of Institutional Ethnography
A review of published and grey literature pertinent to Institutional Ethnography. The annotated bibliography will provide direction to future research methodology. The course will be delivered online.

NURS 900AF 3:10-0
CNS Transition to Advanced Practice
Clinical Nurse Specialist concepts are integrated into a consolidated clinical practice experience. Autonomy, accountability, decision-making, and critical analysis of organizational and system issues that influence clinical nurse specialists are demonstrated. A major project will be completed. Students will complete a minimum of 120 hours of clinical.

NURS 900AG 3:0-0
Diagnostic Reasoning Enhancement
Pathopharmacotherapeutic concepts will be applied to the diagnostic reasoning process using a symptom to diagnosis approach.

NURS 900AH 6:0-0
Advanced Nursing Practice: Canadian Context
Advanced Nursing Practice in health promotion and review of research best practices guideline in Canadian context. This course is pass/fail.

NURS 900AI 3-6:0-0
Guided Independent Study
Guided Independent Study on Scoping Review in Nursing Practice.

NURS 901 1-15:15-0
Thesis Research
Thesis Research.

PHIL	Philosophy
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PHIL 880 3:3-0
Special Topics in Philosophy
Special topics in philosophy. May be repeated for credit if the topic differs.
Permission of the Department Head is required to register.

PHIL 880AC 3:3-0
Epistemology
Permission of the Department Head is required to register.

PHIL 880AH 3:3-0
Kant's Ethics
An in-depth study of the moral philosophy of Immanuel Kant its impact from the time of his contemporaries to the present. A careful reading of Kant's major writings in ethics (particularly the "Groundwork of the Metaphysics of Morals" and the "Metaphysics of Morals."
Permission of the Department Head is required to register.

PHIL 880AI 3:3-0
History of Ancient Political Thought
We explore Socrates as the first political philosopher. Starting with Aristophanes' critique of Socrates, we then turn to Plato's Socrates and his account of the soul, the holy and justice in the city and the soul. We conclude with Aristotle's criticisms of Socrates and his analysis of just political orders.
Permission of the Department Head is required to register.

PHIL 880AJ 3:3-0
Liberalism and Freedom
An examination of the significance, both historical and theoretical, that the concepts of freedom and autonomy have played in various forms of liberalism. Particular, but not exclusive attention will be given to J.S. Mill's ideas about freedom and liberalism.
Permission of the Department Head is required to register.

PHIL 880AN 3:3-0
Ethical Theory and Moral Character

Course Catalogue

An extensive examination of the history and development of the character-based--"virtue ethics" -- approach to ethics. Attention will be given to both theoretical and applied aspects of the approach.

Permission of the Department Head is required to register.

Note: Students may receive credit for one of PHIL 880AN, PHIL 372AJ, or PHIL 471AJ.

PHIL 880AP 3:3-0

Aristotle's Ethics

The class will explore Aristotle's Nicomachean Ethics. We focus on such themes as Aristotle's understanding of moral virtue, intellectual virtue, and the role of friendship in ethical character and action, always keeping in mind the questions of justice, pleasure, philosophy and the highest human good. This class concludes by comparing ethics in Aristotle's thought to that of Thomas Hobbes.

Permission of the Department Head is required to register.

Note: Students may receive credit for one of PHIL 880AP, PHIL 310AK, PHIL 312, PHIL 410AK, or PHIL 412.

PHIL 880AQ 3:3-0

Philosophy of Language

Critical examination of modern analytic philosophy of language, focusing on theories of meaning, reference and use.

Permission of the Department Head is required to register.

Note: Students may receive credit for one of PHIL 880AQ or PHIL 435BB.

PHIL 880AR 3:3-0

Philosophy of Mind

Critical examination of modern analytic philosophy of mind, with emphasis on the debates between the reductive materialists and the anti-materialists. Of special concern will be current attempts to produce a naturalized account of the mind.

Permission of the Department Head is required to register.

Note: Students may receive credit for one of PHIL 880AR or PHIL 435BC.

PHIL 880AS 3:3-0

Plato: Love Pleasure Sophistry

This is a detailed study of some of Plato's most fascinating dialogues, the Symposium, the Phaedrus, the Sophist, and the Philebus, dealing with the topics of love, pleasure, and sophistic rhetoric. Plato's treatment of love, pleasure, and sophistic rhetoric waves itself through a blend of ethical, epistemological, and metaphysical issues.

Permission of the Department Head is required to register.

Note: Students may receive credit for one of PHIL 880AS, PHIL 310AA, or PHIL 410AA.

PHIL 880AW 3:3-0

Heidegger

This course is dedicated to a careful study of Heidegger's Being and Time (1927). BT raises some of the most fundamental and most complex questions ever asked in the history of philosophy. It inquires primarily about: the meaning of Being, space, time, world, death, selfhood, conscience, finitude, and anxiety.

Permission of the Department Head is required to register.

Note: Students may receive credit for one of PHIL 880AW or PHIL 410AL.

PHIL 880AX 3:3-0

Professional Ethics

Course focuses on the helping professions; topics will include an introduction to philosophical ethics, informed consent, personal autonomy, power relations and imbalance, professionals and friendships, counselling and personal value conflicts; conflicts of interest.

Permission of the Department Head is required to register.

PHIL 880AY 3:3-0

Environmental Ethics and Public Policy

An examination of the ways in which environmental ethics can be relevant to public policy decision makers. Specific areas for consideration include: economics, cost-benefit analysis, and environmental policy; obligations to future generations and sustainability; preserving wilderness and biodiversity; corporate responsibility; global climate change. (No background in environmental philosophy will be assumed.)

Permission of the Department Head is required to register.

Note: Students may receive credit for one of PHIL 880AY or GSP 835AN.

PHIL 880BB 3:3-0

Topics in Marx's Political and Social Philosophy

An advanced critical examination of the origins, development and central themes of Marx's political and social philosophy. ***Permission of the Department Head is required to register***

PHIL 880BD 3:3-0

Advanced Topics - Issues in Consequentialist Ethics

An advanced critical examination of some of the following issues: the nature of well-being, the relationship between utilitarianism and rights, consequentialism and integrity, or direct and indirect consequentialism.

Permission of the Department Head is required to register.

PHIL 880BE 3:3-3

Contemporary Continental Philosophy

This course will take an intensive look at French and German philosophy of the past century. Topics covered will include the philosophical importance of language and history; the status of the humanities and the natural sciences; and the nature of subjectivity and truth.

Permission of the Department Head is required to register.

Note: Students may receive credit for one of PHIL 880BE, PHIL 310AI, or PHIL 410AI.

PHIL 880BF 3:3-0

Philosophy, Literature, and the Good Life

A critical investigation of the significance of literary works for philosophy in general and for ethics in particular. Authors to be discussed include Stanley Cavell, Alasdair MacIntyre, Iris Murdoch, Martha Nussbaum, and Onora O'Neill.

Permission of the Department Head is required for registration.

Note: Students may receive credit for one of PHIL 880BF, PHIL 335CF, or PHIL 435CF.

PHIL 880BG 3:3-0

Kant's Critique of Pure Reason

A close reading of Kant's Critique of Pure Reason. Topics to be discussed include the nature of space, time, and causality, the role of concepts in organizing experience, and the limits of human knowledge.

Permission of the Department Head is required to register.

Note: Students may receive credit for one of PHIL 880BG, PHIL 328AA, or PHIL 428AA.

PHIL 880BH 3:3-0

Metaethics

Metaethics studies the nature and foundation of moral claims. In this course, various forms of scepticism will be considered (nihilism, subjectivism, relativism). The naturalism/non-naturalism, realism/anti-realism debates will also be considered.

Permission of the Department Head is required to register.

PHIL 880BI 3:3-0

Metaphilosophy

A critical investigation into the nature, goals, and methods of philosophical inquiry. Topics to be discussed include the relationship between philosophy and the natural sciences, the nature of philosophical evidence, and the possibility of philosophical progress. Prerequisite: permission of the department head is required to register.

Permission of the Department Head is required to register.

PHIL 880BJ 3:3-0

Death and Well-Being

An in-depth philosophical investigation of issues concerning the nature, meaning, and ethical implications of death, e.g. questions about whether immortality would be desirable, about whether things that happen after one's death can be said to affect one's life, and about whether death (ever) harms the person who dies.

Permission of the Department Head is required to register.

PHIL 880BK 3:3-0

Philosophical Dimensions of Sustainable Livelihoods

An examination of the meaning and significance of the concept of sustainable livelihoods through diverse philosophical lenses and as a strategy in advancing sustainable development. Its relation to other sustainability terms (e.g. sustainable lifestyles, sustainable consumption and production) and philosophical concepts (e.g. autonomy, agency) will also be explored.

Permission of the Department Head is required to register.

Note: Students may receive credit for one of PHIL 880AK or PHIL 870AJ.

PHIL 880BL 3:3-0

Course Catalogue

The Lived Experience of Democracy

This course in political phenomenology will consist of lectures and seminars through which we will approach democracy as it is lived by persons, rather than as a set of institutions or processes. It will rely on student input and participation to encourage reflection on contemporary experiences of democracy.

Permission of the Department Head is required to register.

PHIL 880BM 3:3-0

The Philosophy of John Dewey

A critical analysis of John Dewey's pragmatist philosophy with special attention to its relevance for educational theory and practice.

Permission of the Department Head is required to register.

PHIL 890 3:3-0

Directed Readings in Philosophy

Individual directed reading courses in Philosophy. May be repeated for credit if topic is different.

Permission of the Department Head is required to register.

PHIL 890AA 3:3-0

Advanced Ethics

An advanced exploration into the problems of moral philosophy, such as good and evil, virtue and vice, right and wrong, and related moral concepts. Readings will be selected from the following philosophers: Plato, Aristotle, St. Augustine, Aquinas, Hume, Kant, Hegel, Mill and Nietzsche.

Permission of the Department Head is required to register.

PHIL 890AG 3:3-0

Philosophy of Mind

A seminar on problems in the philosophy of mind. Topics may include: the mind-body problem, dualism, monism, materialism, idealism, naturalism, consciousness, qualia, intentionality, representation, mental causation, language.

Permission of the Department Head is required to register.

PHIL 890AJ 3:3-0

Advanced Epistemology

A critical examination of the issue of certainty in the analytic epistemological literature.

Permission of the Department Head is required to register.

PHIL 890AK 3:3-0

Theoretical Ethics

Exploration and comparison of leading views in both meta-ethics and normative ethics. Views considered will include cognitivism, intuitionism and relativism as well as consequentialism, deontology and virtue ethics.

Permission of the Department Head is required to register.

PHIL 890AL 3:3-0

Varieties of Political Freedom

An examination of various understandings of the concept of freedom, with a view to exploring its connections to a number of related concepts, such as labour, rights, democracy, law and autonomy.

Permission of the Department Head is required to register.

PHIL 890AN 3:3-0

The Self and European Philosophy

A study of recent attempts in France and Germany to move past postmodern declarations of the "death of the subject", and to philosophize in a substantive way about what the self is. Our main texts will be Paul Ricoeur's "Oneself as Another" and Ernst Tugendhat's "Self-Consciousness and Self-Determination."

Permission of the Department Head is required to register.

PHIL 890AO 3:3-0

Narrative and Philosophy

A study of narrative and its philosophical significance. Topics will include the relation between narrative structure and reality, the difference between fictional and historical narratives, and the links between narrating and evaluating. Authors to be studied include Paul Ricoeur, Hayden White, and David Carr.

Permission of the Department Head is required to register.

PHIL 890AP 3:3-0

Readings in Heidegger: Selected Topics

This course proposes a close reading of some of Heidegger's major works. Topics covered include at least some of the following: the meaning of being, time, the self, imagination, language, philosophy as phenomenology.

Permission of the Department Head is required to register.

PHIL 890AQ 3:3-0

Studies in Democratic Theory

This course involves a comprehensive and systematic examination of theories of democracy from both a historical and analytic perspective. It is designed to complement the student's advanced programme in Political Thought.

Permission of the Department Head is required to register.

PHIL 890AS 3:3-0

Philosophy of History

A study of philosophical problems concerning the nature of historical knowledge. Figures to be studied may include Hegel, Nietzsche, Collingwood, Hempel, and Danto.

Permission of the Department Head is required to register.

Note: Students may receive credit for one of PHIL 890AS, PHIL 332, or PHIL 435AG.

PHIL 890AT 3:3-0

New Directions in Social Philosophy

This course explores a neglected terrain of social philosophy: the role of implicit understanding in reasoning about the world. We will chart this terrain by reading for implicit and assumed stances about race, gender, class, and species in works of philosophy and literature.

Permission of the Department Head is required to register.

PHIL 890AU 3:3-0

Being Human: The Philosophy of Simone de Beauvoir

This course is an historical reading of Beauvoir's philosophical work from "Pyrrhus and Cineas" to "The Second Sex". Our focus will be her theories of human ambiguity, the tension between human freedom and responsibility, the relationship between metaphysics and literature.

Permission of the Department Head is required to register.

Note: Students may receive credit for one of PHIL 890AU, PHIL 310AO, or PHIL 410AO.

PHIL 890AV 3:3-0

Topics in Political and Social Philosophy

This course will explore general issues about the role of cultural identity and practice in individual and political life, including possible tensions between multiculturalism and equality. The course will also discuss whether there can be any standpoint from which one can legitimately criticize other cultures, or one's own.

Permission of the Department Head is required to register.

PHIL 890AW 3:3-0

Topics in Critical Aesthetics

Directed Reading: Feminism, Disgust, and the Work of Art. We will consider both traditional aesthetic theory, and some of the ways feminist philosophers have engaged that tradition. Topics will include feminist aesthetics, the role and nature of disgust in aesthetic judgement, and the status of female-created artworks.

Permission of the Department Head is required to register.

PHIL 890AX 3:3-0

Gender/Technol/Cyborgs

In this course, we will focus on the use and emergence of technologies in relation to sex-gender, with a particular focus on trans* embodiments, practices, and lives, by considering readings in New Materialism, cyborg theory, and trans*-attuned philosophy.

Permission of the Department Head is required to register.

PHIL 890AY 3:3-0

Phenomenological Approaches to Social and Political Thought and Action

An examination of different thinkers in social and political phenomenology. Readings may include Alfred Schutz, Maurice Merleau-Ponty, Edmund Husserl, Frantz Fanon, Simone de Beauvoir, Hannah Arendt.

Permission of the Department Head is required to register.

PHIL 901 3-15:1-0

Thesis Research

Thesis research in Philosophy.

PHYS	Physics
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PHYS 800 **3:3-0**
Classical Electrodynamics
 Simple radiating systems, scattering, diffraction; covariant formulation of electrodynamics; the Lienard- Wiechert potentials and the field of a uniformly moving and accelerated electron; the motion of charged particles in e-m fields; Hamiltonian formulation of Maxwell's equations.
 Prerequisite: Enrolment is restricted to graduate students in Physics, except with permission of the department head.
 *Prior exposure to Maxwell's equations, dielectric and magnetic properties of matter, multipoles, and concepts in physical optics and electromagnetic radiation is expected.

PHYS 801 **3:3-0**
Adv Quantum Mechanics
 Unitary transformations; dynamical equations; symmetries and conservation laws; angular momentum; density operator formalism; creation and annihilation operators; relativistic quantum mechanics; scattering theory.
 Prerequisite: Enrollment restricted to graduate students in Physics, except with permission of the Department Head.
 Familiarity with axiomatic formulation, representations, angular momentum and spin, perturbation theory, systems of identical particles, and matrix mechanics is expected.

PHYS 803 **3:3-0**
Quantum Field Theory
 Canonical quantization; free scalar, vector and spinor fields; interacting fields; perturbation theory and Feynman diagrams; quantum electrodynamics, renormalization, gauge fields.
 Prerequisite: Enrolment restricted to graduate students in Physics, except with permission of Department Head.
 Familiarity with axiomatic formulation, representations, angular momentum and spin, perturbation theory, systems of identical particles, and matrix mechanics is expected.

PHYS 805 **3:3-0**
Quantum Field Theory II
 Path integral formalism, renormalization, renormalization group, operator product expansions. *** Prerequisite: PHYS 803 ***

PHYS 810 **3:3-0**
General Relativity
 Mathematics of general relativity; unconnected manifold, affinely connected manifolds and metrically connected manifolds; Physics of general relativity, conservation laws and variational principles.
 Prerequisite: PHYS 411 or PHYS 811.
 *Note: Students may credit for one of PHYS 430 or PHYS 810.**

PHYS 811 **3:3-0**
Advanced Classical Mechanics
 Hamilton-Lagrange equations. Hamilton-Jacobi theory and applications, transformation theory, and special relativity.
 Prerequisite: Enrolment restricted to graduate students in Physics, except with permission of the Department Head.
 Note: Students may receive credit for one of PHYS 411 or PHYS 811.

PHYS 831 **3:3-0**
Advanced Nuclear Physics
 Review of symmetries; nucleon-nucleon interaction and polarization observables; nuclear models; the nuclear many-body problem; Hartree-Fock potential; random-phase approximation; quasi-particles; e-m interactions with nuclei the weak interaction.
 Prerequisite: PHYS 801 and PHYS 432 or permission of the instructor.

PHYS 833 **3:3-0**
Nuclear Reactions
 Direct and compound nuclear reactions; plane wave theory; scattering theory; phenomenological optical potential, DWBA, DWBA amplitudes and DWIA; coupled channels; microscopic theory of inelastic nucleon-nucleus scattering.
 Prerequisite: PHYS 801 and PHYS 432 or permission of the instructor.

PHYS 834 **3:3-0**
Inter Energy Nuclear Physics
 Meson exchange theories; accelerators, experimental techniques; electron-nucleon and electron nucleon interaction, nucleon-nucleon scattering;

nucleon-nucleus interactions; pion-nucleus interactions; relativistic kinematics.
 Prerequisite: PHYS 831 or PHYS 833.

PHYS 835 **3:3-0**
Elementary Particles
 Symmetries and quantum numbers of leptons, hadrons, and quarks; e-m weak, and strong interactions; charm and heavy quark hadrons and hadron spectroscopy; introduction to QCD; unified gauge theories; selected topics beyond the standard model.
 Prerequisite: PHYS 803 and PHYS 442 or permission of the instructor.

PHYS 838 **3:3-0**
The Structure of the Proton
 Nucleon electromagnetic form factors and structure functions, Quark-Parton Model, Elements of Perturbative QCD, treatment of Deep Inelastic Scattering within QCD, and various aspects of non-Perturbative QCD including incorporation of transverse degrees of freedom.
 Prerequisite: PHYS 835.
 Note: Students may receive credit for only one of PHYS 890AE and PHYS 838.

PHYS 839 **3:3-0**
The Structure of the Proton II
 The Structure of the Proton for Ph.D. students in Subatomic Physics. Topics include: Parton densities at small x, Hadronic form factors in perturbative QCD, QCD factorization, Generalized Parton Distributions, Nucleon Spin Structure, Nuclear EMC Effect.
 Prerequisite: PHYS 838.
 Note: Students may receive credit for only one of PHYS 890AF and PHYS 839.

PHYS 871 **3:0-6**
Experimental Methods of Subatomic Physics
 Basic techniques of experimental nuclear and Particle physics. Interaction of particles in matter; cosmic rays and natural radiation; particle accelerators and beam optics; particle detection techniques; data acquisition systems.
 Prerequisite: Permission of Department Head

PHYS 875 **3:3-0**
Synchrotron Radiation Techniques and Their Applications
 The physics and experimental aspects of synchrotron radiation light sources and the different methods applied to areas from physics to biology. Techniques such as hard and soft X-ray spectroscopy and imaging, infrared microscopy and spectrometry and X-ray diffraction will be covered in detail.
 Prerequisite: Permission of Department Head.
 Note: Students may receive credit for only one of PHYS 890AG and PHYS 875.

PHYS 877 **3:3-0**
Tomographic Image Reconstruction
 The course will primarily focus on positron emission tomography (PET) instrumentation, data collection, sources of noise in data, image reconstruction and analysis. Topics common to many tomographic imaging modalities; including reconstruction of images from non-uniformly sampled data, from projections, from undersampled data, and image auto-focusing, will be discussed.
 Prerequisite: Permission of Department Head.
 Note: Students may receive credit for only one of PHYS 890AJ and PHYS 877.

PHYS 878 **3:3-0**
Computer Simulations in Particle Physics
 The course has emphasis on practical tasks with four major components: review of C++ programming applicable in particle physics, data analysis with ROOT, detector simulations with GEANT4 and optional topics (e.g. python, event generators, fast detector simulations, code repositories, batch queueing systems, shell scripts).
 Prerequisite: Permission of Department Head.
 Note: Students may receive credit for only one of PHYS 887AE and PHYS 888.

PHYS 885 **1-3:0-0**
Approved Summer School
 This course is available to full-time Physics Graduate students in good standing. Students will participate in a summer school offered by an approved institute. The school and credit award must be approved by a

Course Catalogue

committee consisting of Department Head, Physics Graduate Coordinator, and the student supervisor.

Prerequisite: Permission of the Department Head.

Note: This class can be taken more than once in a program, for a maximum total of 3 credit hours, provided the institute and course content are different each time.

PHYS 887 1-3:1-0

Selected Topics in Physics

Special topics of interest to both students and faculty. It will be possible for students to repeat this course for credit if the content is different when the course is repeated.

PHYS 887AF 3:1-0

Selected Machine Learning Topics in Physics

Machine Learning approaches to subatomic physics particle identification will be explored. The class expectations include comprehensive literature searches and essays. Hands-on projects will include processing simulated data towards detector and experimental optimization.

PHYS 887AG 3:1-0

Physics and Engineering of Particle Accelerators

The course will provide an introduction to the physics, technology and some engineering aspects of particle accelerators with focus on proton and ion accelerator technology. The course will include a survey of existing accelerator types and an introduction to transverse and longitudinal beam optics.

PHYS 887GT 1-3:3-0

Group Theory 1

A systematic developments of the theory of finite groups and their representations, application to various physical systems, the theory of continuous groups; $SO(2)$ $SO(3)$, the $SU(N)$ groups and their applications. The student(s) will be required to do homework assignments.

PHYS 890 3:3-0

Selected Readings

Selected readings.

PHYS 890AH 3:0-0

Advanced Methods in Statistical Analysis Applied to Physics

The course will explore advance statistics methods applied to physics data analysis. More specifically, it will cover the definition of significance of a measurement and the construction of confidential level intervals based on Bayesian and Frequentist Statistics, as well as the main differences between these two methods.

PHYS 890BA 3:3-0

Hadron-Hadron Scattering in Neutrino Production Experiments

Directed readings. Hadron-hadron scattering cross sections are a major factor in determining the production of neutrinos in long baseline and other neutrino experiments. This class will focus on the quasi-elastic and inelastic hadron scattering at the low GeV-scale, which are essential factors in understanding neutrino production characteristics.

PHYS 900 1:1-0

Seminar

Graduate students enrolled in this subject will present a 50 minute seminar to the Department of Physics. The subject of the seminar will be decided in consultation with student's supervisor.

PHYS 901 1-15:15-0

Research

Thesis research.

PHYS 902 0:0-0

PHYS 902 PhD Comprehensive Exam

PhD students must pass the Physics Departmental Comprehensive Exam. Grading is Pass/Fail.

Pre-requisite: Permission of the Department Head.

PLST	Police Studies
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PLST 800 3:3-0

Research Design in Police Studies

The course critically examines issues and techniques relating to quantitative and qualitative social science research as it is related to police

and justice studies. The course uses the case method as well as seminar and lecture formats.

Note: Students may receive credit for one of PLST 800 or JS 800.

PLST 801 3:3-0

Multidisciplinary Theoretical Perspectives on Justice

An examination of the nature and foundations of justice in its various renderings, such as justice as retribution, desert, righteousness, equality, procedural fairness, and restoration of harmony and balance. The course draws upon religious thought, philosophy, legal concepts, economic and social theory, and Aboriginal cultures and teachings.

Note: Students may receive credit for one of PLST 801 or JS 801.

PLST 805 3:3-0

Research Seminar

Students will undertake research topics on subjects relating to policing and present them to fellow students and interested faculty.

Note: Students may receive credit for one of PLST 805 or JS 805.

PLST 810 3:3-0

Crime and Society

The course examines the social processes involved in the definition and measurement of crime. Students critically examine alternate theoretical explanations of these processes and issues in the conflict of law. The course uses the case method as well as seminar and lecture formats.

Note: Students may receive credit for one of PLST 810 or JS 810.

PLST 820 3:3-0

Issues in Contemporary Policing

This course will provide students with a brief historical review of policing issues and an in-depth examination of the major contemporary issues facing policing today. Topics will include: community policing, professionalization, technology, international policing/investigation efforts, and training.

Note: Students may receive credit for one of PLST 820 or JS 880.

PLST 880 3:3-0

Selected Topics in PS

Selected topics in Police Studies to be offered as required.

PLST 880AD 3:3-0

Contemporary Issues in Policing

This course focuses on issues in contemporary Canadian policing including the internal and external forces that are shaping police practices. A number of theories of police organizations are introduced and they provide a framework to better understand the behaviour of police organizations in the present, as well as how they will impact the futures of policing.

Note: Students may receive credit for one of PLST 880AD or JS 880AD.

PLST 890 3:3-0

Directed Readings in PS

Directed readings in selected topics.

PLST 890AA 1-3:3-0

Social Science and Policing

This course will focus on an examination of Social Science research, theories, and models as they relate to policing. Topics include eye witness, interviewing, interrogation, and professionalization

PLST 890AB 3:3-0

Confiscation of Criminal Gains

An examination of the ethics, legality and effectiveness of confiscating "proceeds of crime" derived from the illegal drug trade of organized crime in Canada.

PLST 890AC 3:3-0

The Future of Policing

Students in this course examine trends in policing, with a focus upon the historical, social, demographic, political, and cultural factors that have shaped the policing industry and the future prospects for policing. A number of key themes are explored, including; community policing, the application of technology, police-social system partnerships, the management of high-risk offenders, specialized units, potential threats and opportunities (including changes in crime trends), and human resource management. Of key interest will be forecasting the future of policing in 2035, including Aboriginal and rural and remote policing in Canada.

PLST 890AD 3:3-0

Contemporary Issues in Policing

This course focuses on issues in contemporary Canadian policing including the internal and external forces that are shaping police practices. A number of theories of police organizations are introduced and they provide a framework to better understand the behaviour of police organizations in the present and the futures of policing.

PLST 890AF **3:0-0**

Issues in Contemporary Public Safety

This course focuses on the organizations engaged in crime prevention activities in Canada; building on the concept of the safety and security web. Students critically evaluate the internal and external forces influencing public safety organizations, including organizational structures, the impact of technology, legal decisions, and economic conditions.

PLST 890AG **3:0-0**

Police Administration and Leadership

This course focuses on the principles of police administration and leadership. Topics include the analysis of financial and human resource management, program implementation and reforming police organizations. This course also examines different models and styles of police organizational activities and leadership in these organizations.

PLST 901 **3-15:15-0**

Research

Thesis Research

PSCI	Political Science
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PSCI 800 **3:3-0**

Seminar

First part of the course (5-6 weeks) used for instruction in methodology. Last part of course used for presentation of a research paper. (Honours students could be integrated into the latter part of the course.)

PSCI 803 **3:3-0**

Adv Sem Strct Prcs Cdn Pol

PSCI 804 **3:3-0**

Adv Sem Polit Issues Canada

PSCI 812 **3:3-0**

Advanced Seminar on Modern Political Theory- continental tradition

This seminar examines the major theoretical concepts and philosophical foundations of the Continental Tradition of Modern Political Theory. The figures examined may include Rousseau, Kant, Hegel, Marx, Kierkegaard and Nietzsche.

PSCI 813 **3:3-0**

Adv Sem Political Theory I

PSCI 814 **3:3-0**

Adv Sem Pol Theory II

PSCI 823 **3:3-0**

Adv Sem Theory Internl Policy

PSCI 824 **3:3-0**

Adv Sem Foreign Policy

PSCI 825 **3:3-0**

Advanced Seminar on Selected Topics in Comparative Politics

This seminar examines the main theories in comparative politics as well as compares different approaches to the study of political systems, institutions, policies, cultures and ideologies in different regional and national contexts.

PSCI 833 **3:3-0**

Adv Sem Nat & Reg Studies

PSCI 842 **3:3-0**

Advanced Seminar on Theories of International Relations

This course is a study of the most important theories, approaches, concepts, and debates within the field of International Relations. The course examines the connections between IR Theory and the actual events, both historical and contemporary, of world politics.

PSCI 843 **3:3-0**

Adv Sem Public Policy Mkg

PSCI 844 **3:3-0**

Politics of Health Care

Public health insurance politicized healthcare. It increased conflict between the state and the medical professions and forced political parties to deal with health issues. Healthcare is the focus of ongoing federal- provincial antagonisms, constitutional wrangling and national public debate. The course will examine how the constellation of political forces involved in each of the above areas converged to produce the unique healthcare system which exists in Canada today.

PSCI 845 **3:3-0**

Pol Healthcare Labour Relation

This course covers the evolution of Saskatchewan's legislative framework for healthcare labour relations in the post World War II period. It will describe the emergence of various employee, employer, and professional associations and assess their relationships to both the government and one another.

PSCI 846 **3:3-0**

SIPP Internship

This course is offered at the Sask. Institute of Public Policy in conjunction with the Department of Political Science. Students will be supervised by an accredited member appointed to SIPP. They will be asked to participate in the work of the Institute, write policy papers as required, and complete a research paper by the end of the term. *** Prerequisite: PSCI 800 and 801 ***

PSCI 851 **3:3-0**

Advanced Seminar on Political Issues in Canada

This course examines various political issues in Canadian political system. Policy areas that will be addressed may include: social, economic, fiscal, environmental, aboriginal people, and labor. Different instructors may choose to concentrate on different policy areas as well as at provincial or federal levels.

PSCI 890 **3:3-0**

Directed Readings

PSCI 890AH **3:3-0**

Revolution/Self-determination

This course is focused on China's ethnic minorities, especially different modes of governance in three regions: Yunnan, Xinjiang and Tibet. Different manifestations of self-governance in three regions will be studied. The themes examined include revolution, indigenous and ethnic minority people's participation in state affairs, developmental state, colonialism, and self-determination.

PSCI 890AI **3:3-0**

Global Financial Governance

The course is an advanced study of the political economy of global finance and financial governance. It focuses on the evolution of the post-second World War international financial order and the recent emergence of a new global financial system. It examines power relations and institutions that underlie financial markets.

PSCI 890AJ **3:3-0**

Aboriginal Const. Issues

This course will examine the place of Aboriginal peoples in the Canadian constitution with particular emphasis on the content and nature of Aboriginal rights, the constitutional requirements for abridgement of such rights and the constitutional entitlement of Aboriginal communities to establish distinct and separate political societies.

PSCI 890AK **3:3-0**

Selected Topics in Aboriginal Canadian Decolonization

The course will consider the relationship between Indigenous peoples and the Canadian state, both historically and currently, including future political possibilities. Issues include the nature of colonialism (or imperialism), of capitalism, of citizenship; and of identity, race/ism and sex/ism.

PSCI 890AL **3:3-0**

Women's Political Involvement in Western Liberal Democracies

The course will examine the political involvement of women in Western liberal democracies such as Canada and West European countries. The focus will be on whether the feminization of political institutions is a necessary and sufficient condition for their democratization.

Course Catalogue

<p>PSCI 890AM 3:3-0 Theories of the State The course will examine a variety of contemporary debates and issues relating to the nature of power in the liberal democratic state. The focus will be on those approaches particularly relevant to the issue of Metis politics.</p>	<p>This graduate course is to study theories of democratization and rule of law. Readings and discussions will be focused on the debate between democracy school and legal reform school in China and on China's human rights movement as that contributing to China's ongoing transition toward democracy and rule of law.</p>
<p>PSCI 890AN 3:3-0 Neoconservatism This course examines the intellectual underpinnings of the neoconservative ideology that has dominated the Republican Party in the United States and the Conservative Party in Canada. The course will examine four aspects of neoconservatism: Political, social, economic, and international.</p>	<p>PSCI 890AZ 3:3-0 Integration and Regionalism in Asia This graduate course is to study international integration theory and regional practice of economic and political integration in Asia-Pacific. Readings and discussions will be particularly focused on distinctive integration experience in Northeast Asia, especially among China, Japan, Korea and Taiwan.</p>
<p>PSCI 890AO 3:3-0 Gambling and Public Policy This course will examine the inter-relationship between government, public policy, and gambling in Canada.</p>	<p>PSCI 890BA 3:3-0 Dimensions of Ethnic Conflicts and Alternative Strategies This class will study dimensions of ethnic conflicts and changing international responses to political and social conflict. It will discuss the concepts of prevention, management and settlement of ethnic and religious self-determination conflicts in such case-studies as Bosnia, Kosovo, Isreal/Palestine, and Somalia.</p>
<p>PSCI 890AP 3:3-0 American Foreign Policy in a New Era Foreign policy decisions are the product of a historical context (individual and cultural). In order to criticize, evaluate and understand those decisions, this course will examine all these components in relation to emerging doctrines of U.S. foreign policy.</p>	<p>PSCI 890BB 3:3-0 Political Theory=Public Policy An examination of the critical and theoretical roots of policy discourse and post-positivist approaches to policy studies. Topics will include deliberative policy analysis, the contextual orientation of Harold Lasswell, framing, and narrative approaches.</p>
<p>PSCI 890AQ 3:3-0 Advanced Feminism, Women and Development This course will be an examination of the conditions of women's lives in a global context. Engaging feminist theoretics within postcolonialism, anti-racism and civil rights and examine issues that impact women's lives such as poverty, environment, labour, power and subsequent feminist responses.</p>	<p>PSCI 890BC 3:3-0 Classical & Contemporary Readings-Policy Theory An examination of the development of policy theory through close reading of key texts. Topics include rational decision-making, incrementalism, institutionalism, theories of policy change, network theories and post positivism.</p>
<p>PSCI 890AR 3:3-0 Development Policy and International Organizations Students will look at an array of international institutions and their policies in relation to economic development activities, and their participation in social, political and cultural areas. They will examine the increasing role of these organizations in domestic public policy formulation.</p>	<p>PSCI 890BD 3:3-0 Ancient Political Theory This class explores the ancient understanding of the best political order. We consider the classical account of historical regimes, focusing on Persia, Athens, and Sparta as portrayed in the writings of Herodotus, Thucydides and Plutarch. We then turn to philosophical reflections on the best regime provided by Plato and Aristotle.</p>
<p>PSCI 890AT 3:3-0 Citizen Minority Rights & Political Participation This course is to study theories of minority rights, citizenship and political participation as well as political participation practice in Canada. The course will examine the political discourse of liberal multiculturalism and its implication for Canadian politics.</p>	<p>PSCI 890BE 3:3-0 Modern Political Theory: The Continental Tradition This seminar examines the major philosophical concepts and theoretical foundations of the Continental Tradition of Modern Political Theory. The figures examined may include Rousseau, Kant, Hegel, Marx, Kierkegaard, and Nietzsche. *** Prerequisite: Permission of graduate studies required ***</p>
<p>PSCI 890AU 3:3-0 Contemporary Citizenship Theory An examination of the influence of key thinkers in the continental tradition of political theory - Rousseau, Kant, Hegel and Nietzsche - on the development of new conceptions of citizenship in the face of challenges to the identity of the traditional nation state.</p>	<p>PSCI 890BF 3:3-0 Global Governance and Democracy This course is an advanced study of the emerging system of global governance from the perspective of democracy. It critically examines the institutions of global governance, including the European Union, in terms of the principles of democracy. It considers the relationship between global governance and territorial state-based democracy.</p>
<p>PSCI 890AV 3:3-0 Post-Colonial States and Ethnic-Communal Conflict This course is to designed to study theories of war and peace, ethnic and communal conflict, and post-colonial states, especially through the examination of African geo-political examples. The course will discuss the main international relations (IR) theories on war and peace, ethnic issues and communal conflict.</p>	<p>PSCI 890BG 3:3-0 Marxist Thoery and the Contours of Global Capitalism This course explores different theoretical approaches within contemporary Marxism and examines the specificities of the systemic logic of global capitalism as well as its historicity. It offers a broad survey of various themes in Marxist theory and how they relate to finance, feminism, anti-racism, ecology, and the Global south, among other themes.</p>
<p>PSCI 890AW 3:3-0 Postmodernism and the Challenge to the Platonic Tradition This course is an examination of the challenge that postmodernism poses to the intellectual tradition of Western thought represented by the Platonic and Neo-Platonic defence of objective and universal conceptions of truth and justice.</p>	<p>PSCI 890BH 3:3-0 Feminist Thoery An engagement with feminist theory in general; its principles and intentions. An examination of feminist theories from the 1990s until present intersecting with standpoint, poststructural, postcolonial queer, and antiracist feminist theories; theoretical orientations such as heteronormativity, whiteness and white privilege, performance, masculinities and femininities, power, and so forth.</p>
<p>PSCI 890AX 3:3-0 Selected Topics in Aboriginal-Canadian Decolonization This course will consider the relationship between indigenous peoples and the Canadian state, both historically and currently. The question of what aboriginality means will be interrogated along with questions about the nature of colonialism (or imperialism) of capitalism, of citizenship and of identity.</p>	<p>PSCI 890BI 3:3-0</p>
<p>PSCI 890AY 3:3-0 Democracy and Rule of Law in China</p>	<p></p>

Course Catalogue

Media, Politics, and Theory

The course will consider the democratic and cultural significance of the media and its role as creators of political culture (focusing on tolerance, racism, and sexism); and as enmeshed in political and economic frameworks. It will consider the interests and effects of private and public ownership and of ownership concentration of media; and of the constitutional recognition of the media for freedom of information and speech.

PSCI 890BJ 3:3-0

Issues in Global Environmental Governance

An examination of recent trends in global environmental policy, focusing on the shift from international regimes based on multilateral agreements to partnership and private governance arrangements. The course will focus on the consequences of this shift for policy design at regional, national and local scales.

PSCI 890BK 3:3-0

Advanced Course - Constitutional Issues in Canada

An advanced course on the major constitutional negotiations in Canada since WWII. This course places particular emphasis on the patriation of the Constitution in 1982.

PSCI 890BL 3:3-0

The UN Security Council

An examination of the role of the United Nations Security Council in world politics. The first part of the course will focus on the UNSC's origins, its evolution, the use of the veto, and its recent decisions and activities. The second part of the course will assess proposals for reforming the UNSC's membership and powers. Permission of Department Head.

PSCI 890BM 3:3-0

Equality and International Relations Theory

This course examines how the idea of equality has been understood in international relations theory. The course will consider how the notion of equality has been addressed within the main strands of IR theorizing including in realism, in liberalism, in the theory of international society, as well as in critical international theory.

PSCI 890BN 3:3-0

Trends in War and Media

An examination of the relations between warfare and the media. The course considers technological, political, and cultural changes in media-military relations. It will look at current trends and future scenarios in the media, in conflict across the world, and in their complex relationship.

PSCI 890BO 3:3-0

Provincial Politics

An examination and comparison of politics in Canadian provinces. Saskatchewan politics will receive significant attention, though always in comparison with other provinces, and significant public policy problems facing the provinces will be examined.

PSCI 890BP 3:3-0

Making Politics Public: Ideas for Citizens

This course examines the efforts of public intellectuals, from a variety of backgrounds, to engage with central political issues. It engages both with the substance of the arguments they make and seeks to understand what makes for a successful intellectual engagement with politics.

PSCI 890BQ 3:3-0

Topics in Canadian Politics - Democracy in Practice

An examination of the practice of Canadian democracy across a range of the country's central institutions and the consideration of the possibilities for the reform and renewal of those institutions.

PSCI 890BR 3:3-0

Power in International Relations

This course studies both theory and exercise of power in international relations. It investigates the different notions and types of power that shape relations between and among states, international organizations, and transnational entities. It explores who/what has power, what type of power and why in the global political system.

PSCI 890BS 3:3-0

Theories of Int'l Relations

A study of the most important theories, approaches, concepts, and debates within the field of International Relations. Examining the connections

between IR Theory and the actual events, both historical and contemporary, of world politics. ***Prerequisites: approval of the instructor and department head***

PSCI 890BT 3:3-0

Topics in International Relations

This course is a seminar in selected topics in International Relations. Topics covered in this course may include the following: current issues of world politics; ethics and international affairs; international conflict and security; history of international relations; and the international political economy.

PSCI 890BU 3:3-0

Theoretical Approaches to Media and Politics

An intensive introduction to the major theories and research approaches that examine the intersection of media and politics. In addition, other issues such as audience effects, public opinion formation, gaming culture and new media practices will be considered.

PSCI 890BV 3:3-0

Advanced Topics in International Affairs

This seminar course studies major contemporary issues in international affairs within the framework of main relevant theories. The objective is to develop a good understanding of how the political, economic, social and cultural aspects of international issues are interrelated.

PSCI 890BW 3:3-0

Advanced Topics in International Development

This seminar course examines critical perspectives of international development. Topics include, among others, strategies to alleviate poverty, population growth and scarcity, urbanization, land rights, microfinance, displacement and development refugees, environmental sustainability, and the role of civil society in development.

PSCI 890BX 3:3-0

Erasure and Resurgence: Indigenous Peoples and Canadian Settler Colonialism

What does it mean to call Canada a settler colonial society? How in settler colonialism, do indigenous peoples articulate their nationhood? Through a discussion of land, rights, economy, and governance, this seminar course will look at settler colonial attempts of erasure alongside indigenous peoples' resistance and resurgence.

PSCI 890BY 3:0-0

The Political Economy of the French Revolution

This course is designed to introduce you to the economic dimensions of the Revolution, culminating in a close study of the breakdown of the assignats and the resulting hyperinflation: considered as a case study in the fundamental dysfunction of eighteenth-century French public finance. The course will use an interdisciplinary approach.

PSCI 890BZ 3:3-0

The Comparative Politics of Multiculturalism

The course will examine the politics of multiculturalism from a global comparative perspective. It will address the normative arguments in favour of multiculturalism as well as those in favour of other politics of diversity. The course will also examine the movement and directionality of multiculturalism as policy phenomenon across democracies.

Note: Students may receive credit for one of PSCI 890BZ or PSCI 461.

PSCI 890RX 3:3-0

Global Health Governance

This course explores health and population health as an issue of global concern. It will examine the institutions that monitor and promote health internationally as well as the political, social, and economic forces that impact on population health such as: the impact of globalization, the international movement of health professionals and national and international responses to global health issues and crises.

PSCI 901 1-15:3-0

Research

PSYC	Psychology
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PSYC 800 3:3-0

History, Theory, and Systems of Psychology

An advanced examination of the history, origins, theoretical approaches, and methodologies of psychology.

Course Catalogue

Clinical MA students must receive permission of the Director of Clinical Training to register.

PSYC 801 3:3-0
Research Design & Methodology
A critical examination of issues involved in the planning, conducting, and evaluation of research with emphasis on areas of relevance to clinical and experimental/applied psychology.

PSYC 802 3:3-2
Applied Multivariate Statistics
A survey of multivariate research methods in psychology. Topics may include: Multiple regression, ANOVA, and ANCOVA using MR, discriminant analysis, MANOVA, profile analysis, principal components and factor analysis, structural equation modelling, path analysis, and time series.

PSYC 803 3:3-0
Psychological Measurement
Psychometric theory and quantitative aspects of psychological testing. Topics may include scaling and norms, classical test theory, reliability, validity, factor analysis, extraneous response components, item response theory, subject operating characteristics curves, suppresser and moderator variables, modal profile analysis.
Clinical MA students must receive permission of the Director of Clinical Training to register.

PSYC 806 3:3-0
Ethics in Professional Practice
This course will provide an intensive examination of philosophical, legal and particularly ethical issues of these affect the practising psychologist.

PSYC 807 3:3-0
Research and Applied Ethics
This course will provide an intensive examination of ethical issues in research, teaching, and applied fields of psychological study.

PSYC 810 3:3-0
Advanced Developmental Psychology
An examination of selected topics in developmental psychology with reference to recent theoretical and experimental advances.
Clinical MA students must receive permission of the Director of Clinical Training to register.

PSYC 820 3:3-0
Advanced Social Psychology
An examination of selected topics in social psychology including a review of theories and constructs.
Clinical MA students must receive permission of the Director of Clinical Training to register.

PSYC 823 3:3-0
Program Development & Evaluation
An advanced seminar on approaches and techniques relevant to program development and evaluation.

PSYC 832 3:3-0
Advanced Psychopathology
An examination of current theories and research concerning psychological diagnoses.

PSYC 847 3:3-0
Selected Topics in Behavioural Neuroscience
An advanced seminar course dealing with current theories and research concerning neural organization and behavior.

PSYC 850 3:3-0
Psychological Assessment I
Training in clinical psychological assessment with an emphasis on cognitive testing with adults and children.

PSYC 851 3:3-0
Psychological Assessment II
Training in clinical psychological assessment with an emphasis on clinical interviewing and personality testing in adults and children.

PSYC 860 3:3-0
Psychological Interventions I

An introduction to theory, research, and practice in the areas of individual adult, child and group psychotherapies.

PSYC 861 3:3-0
Psychological Interventions II
An in-depth examination of selected methods of psychological interventions.
Prerequisite: PSYC 860 with a minimum grade of 70%.

PSYC 865CL 1:1-0
Comprehensive Exam in Clinical Psychology
Students are comprehensively examined in areas related to research, ethics, and professional clinical practice. This course is restricted to Clinical Psychology Doctoral students. The examinations are conducted by graduate program faculty and can take an oral or written format or a combination of both.
Prerequisite: Completion of 18 credit hours and permission of the Director of Clinical Training.
Note: This course is to be taken after the completion of all required course work.

PSYC 865EA 1:1-0
Comprehensive Examination in Experimental and Applied Psychology
This course is intended to expand the breadth of knowledge and skills of Experimental and Applied Psychology Doctoral students under the guidance of a supervisory committee of psychology faculty members. The examinations are conducted by graduate program faculty and can take an oral or written format or a combination of both.
Prerequisite: Completion of 18 credit hours and permission of the Experimental and Applied Psychology Graduate Program Chair.
Note: This course is to be taken after the completion of all required course work.

PSYC 870 1:0-0
Practicum Clinical Psychology
First practicum for Clinical Psychology PhD students. Supervised clinical training in a variety of clinical settings.
Permission of the Director of Clinical Training and Department Head is required for registration.

PSYC 871 1:0-0
Practicum Clinical Psychology
Second practicum for Clinical Psychology PhD students. Supervised clinical training in a variety of clinical settings.
Permission of the Director of Clinical Training and Department Head is required for registration.

PSYC 872 1:0-0
Practicum Clinical Psychology
Third practicum for Clinical Psychology PhD students. Supervised clinical training in a variety of clinical settings.
Permission of the Director of Clinical Training and Department Head is required for registration.

PSYC 873 1:0-0
Practicum Clinical Psychology
Fourth practicum for Clinical Psychology PhD students. Supervised clinical training in a variety of clinical settings.
Permission of the Director of Clinical Training and Department Head is required for registration.

PSYC 874 1:0-0
Practicum Clinical Psychology
Fifth practicum for Clinical Psychology PhD students. Supervised clinical training in a variety of clinical settings.
Permission of the Director of Clinical Training and Department Head is required for registration.

PSYC 875 1:0-0
Practicum Clinical Psychology
Sixth practicum for Clinical Psychology PhD students. Supervised clinical training in a variety of clinical settings.
Permission of the Director of Clinical Training and Department Head is required for registration.

PSYC 876 1:0-0
Internship in Clinical Psychology

Course Catalogue

A combination of instruction and supervised psychological experience in an applied/clinical setting conducted over a four-month period.

Permission of the Director of Clinical Training and Department Head is required for registration.

PSYC 880 1-3:0-0
Predoc Intern Clin Psyc

A twelve-month internship placement in an applied/clinical setting. Students in the initial stages of research, preparation, application and interview may register in section AA. Students actually commencing a twelve month internship will register in AB.

PSYC 880AA 1:1-0
Predoctoral Residency in Clinical Psychology (Preparation)

A twelve-month internship placement in an applied/clinical setting. Students in the initial stages of research, preparation, application and interview may register in section AA.

Prerequisite: Permission of the Director of Clinical Training is required for registration.

PSYC 880AB 3:3-0
Predoctoral Residency in Clinical Psychology

A twelve-month internship placement in an applied/clinical setting. Students actually commencing a twelve-month internship will register in AB.

Prerequisite: Permission of the Director of Clinical Training is required for registration.

PSYC 881 3:3-0
Advanced Human Information Processing

The objective of this course is to examine selected topics in the study of cognitive processes.

Clinical MA students must receive permission of the Director of Clinical Training to register.

PSYC 890 0-3:3-3
Directed Readings in Psychology

Directed readings in selected topics in Psychology.

PSYC 890BD 3:3-0
Qualitative Research in Psychology

The course objective is for students to gain an understanding of the commonly used methods for generating and analyzing qualitative data in the field of psychology. The course will cover the most common epistemological foundations and methodologies of qualitative research as well as logistical issues in data generation and analysis.

PSYC 890BK 0-3:3-3
Child Development

A review of current theories, methodologies, and findings in child developmental psychology. Course readings will focus on 2 or more areas of special interest, of the students' choosing, within the domain of child development.

PSYC 890BM 0-3:3-3
Directed Readings in Psychology: Special Topics in Law and Psychology

This course applies basic social and cognitive psychology to the law, to the aim of understanding how various legal actors might exhibit biased decision-making. The content is broken into three units (witnesses, victims, and juries), including such topics as eyewitness memory, the insanity defence, and emotion in the courtroom.

PSYC 890BQ 3:3-0
Environmental Psychology

Climate change and biodiversity loss may be the central problems of our era, and are central factors underlying many global human problems. Human behaviour is both a cause and an important solution to these issues, so this course will examine how psychological knowledge can contribute to solving environmental problems.

PSYC 890BR 3:0-0
Adult Offenders

This course is designed primarily to familiarize students with the most recent literature on adult offenders. This will involve readings on key topics and a review of the research methodology commonly used in research on adult offender, including: the development of risk assessment tools; typologies of adult offenders; as well as assessment, treatment, and management of adult offenders.

PSYC 890BS 3:3-0
Research in Face Perception

This course will include a comprehensive review of the literature in face perception, drawing from research in psychology, neuroscience, and computer vision as appropriate. Students will complete a course project on an approved topic of their choosing.

PSYC 890BT 3:3-0
Individuals, Coalitions, and Conflict

This course will allow for the exploration of the psychology of conflict. Readings will be directed at gaining an understanding of who joins coalitions, under what circumstances, and with what consequences. Contemporary issues in political psychology, international relations, and intergroup violence will be emphasized.

PSYC 890BU 3:0-0
Women's Reproductive Mood Disorders

In this course, students will gain an in-depth understanding of the most up-to-date literature examining the biopsychosocial basis of women's reproductive mood disorders: premenstrual dysphoric disorder, postpartum depression and perimenopausal depression.

PSYC 890BW 3:0-0
Using R for Data Analysis

This course will cover implementing R software for data science, visualization, analysis, and management. The general focus will be on experimental methods for this purpose.

PSYC 890BX 3:3-0
Social Identity and Categorization

This directed readings course will feature a selection of articles from classic psychological experiments pertaining to social identity and psychological essentialism. By the end of the course, the student should be able to identify likely mechanisms of social categorization, explain the limitations of current research paradigms in understanding group-related phenomena, describe the role of social identity in categorizing others, and critically evaluate the consequences of these phenomena in the real world. Topics will include: social complexity theory, intersectionality, the VUCA Challenge, and racial essentialism.

PSYC 890BY 3:3-0
Persuasion, Propaganda, and Perpetrators

This course examines the relations between propaganda, persuasion, and perpetrators.

PSYC 900 1-3:3-0
Graduate Seminar in Psychology

A series of seminars for graduate students in psychology.

PSYC 900AA 1:3-0
M.A. Seminar in Psychology

A Seminar for M.A. students in psychology devoted to the study of special topics, professional issues, and reports on research projects by graduate students, faculty, and associates of the department.

PSYC 900AB 1:1-0
Ph.D. Seminar in Clinical Psychology

A seminar offered to Ph.D. students in clinical psychology covering special topics and professional issues with a focus on supervision.

PSYC 901 1-15:15-0
Thesis Research

Thesis research.

RLST	Religious Studies
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RLST 800 3:3-0
Advanced Theory

An intensive study of selected methodological approaches to the study of religion, and significant contemporary issues in the discipline.

RLST 801 3:3-0
Comp Religious Thought

Comparative study of a constant theme in major religious traditions, an important influence on the current development of religions, or the thought of thinkers drawn from several traditions.

Note: Students may receive credit for one of RLST 801 or RLST 490AJ.

Course Catalogue

RLST 802 Religion After Modernity	3:0-0	Students in this course will examine ritual theories and specific ritual practices related to their area of study.
This graduate level course examines four different theoretical locations; postpatriarchy, postmodernism, poststructuralism, and postcolonialism, and their importance to the study of religion. The course engages each theoretical location according to intersections with modernity, epistemological assertions, theoretical import, and implications for the study of religion. Further to the understanding of the four 'posts' the writing of some of their more recognized proponents are read. ***Prerequisite: Permission of the Department Head.***		
RLST 810 Religious Studies Research Seminar	3:0-0	RLST 890CY Religion and Mobile Technology 3:3-0 This course provides a critical investigation of religion and online technology in the contemporary West. Particular attention will be paid to the personalization of religious spaces and experiences with the boom of mobile technology.
This seminar is a critical examination of issues involved in the construction of a research project. It is designed to integrate theoretical perspectives and scientific research projects. *** Prerequisite: Permission of Department Head. ***		
RLST 820 Feminist Contributions	3:3-0	RLST 890DA Storytelling in Japanese Religions 3:3-0 A critical examination of the form and function of storytelling traditions in pre-modern Japanese religions among various mediums (textual, visual, theatrical). Particular attention is given to the role of narratives in the construction of local religious identities and the promotion of miraculous objects of worship.
RLST 840 Advanced Studies in the Religions of Asia	3:0-0	RLST 890DB Storytelling in Asian Religions 3:3-0 This course is for students who wish to continue their studies in Asian religions. From the approach of textual studies, Religious syncretism among Buddhism, Confucianism, and Daoism will be the focus. Buddhism reflected in texts and in popular beliefs are important issues as well.
This course will explore selected themes, movements, philosophies, and religious practices of Asian religions such as Hinduism, Jainism, Sikhism, Buddhism, Daoism, Confucianism, and Shinto through the examination of selected figures, myths, rituals, and symbols. *** Prerequisite: Permission of Department Head. ***		
RLST 843 Advanced Studies in Islam	3:3-0	RLST 890DC Religion on the Internet 3:3-0 This course examines religion on the internet in its multiple manifestations. We will take a thematic look at web sites, web pages, and applications that have religious content. We will focus our analysis on the tendency to proselytize, appeal, and currency. Theoretical perspectives will include historical, sociological, and anthropological.
This course will explore selected themes, movements, philosophies, historical periods, and religious practices of Islam through the examination of selected figures, myths, texts, rituals and symbols.		
RLST 845 Advanced Studies in Christianity	3:3-0	RLST 890DD Contemporary Conspiracy Culture 3:3-0 This course explores the nature of conspiracy theories in religion and culture as a cogent contemporary response to the fears and anxieties of living in a corporate world where no one can trust those in positions of power, whether in politics or religion.
This course will explore selected themes, movements, philosophies, historical periods, and religious practices of Christianity through the examination of selected figures, myths, texts, rituals and symbols.		
RLST 847 Adv Studies Ancient Religions	3:3-0	RLST 890DE Interreligious Dialogue and Community Engagement 3:3-0 This course examines how interreligious dialogue can assist with supporting recent immigrants and refugees to our Canadian, multicultural context. What roles do religions, community engagement and public policy play in this accommodation of diversity?
This course will explore selected themes, movements, philosophies, and religious practices ancient religions including the traditional religions of Greece and Rome, Hellenistic religions, Hermetic materials, ancient Judaism, and ancient Christianity, through the examination of selected figures, myths, texts, rituals and symbols.		
RLST 890 Directed Readings	3:3-0	RLST 890DG Narratives of the Monstrous and Supernatural in East Asia 3:0-0 This course examines narratives of the monstrous and supernatural in contemporary East Asian religious culture as critiques of hegemonic power both foreign and domestic.
Directed readings in selected topics.		
RLST 890AM Advanced New Religions	3:3-0	RLST 890DH Advanced Religion and Animals 3:3-0 This course is an intra-historical and cross-cultural examination of non-human animals and their signification, use, and value within differing systems of belief and practice. Topics covered include, but are not limited to, animals in ritual, animals in folktale and myth, in the cosmos, as messengers, tricksters, and helpers, animals as deities and demons, and relations between non-human animals and human animals. *Note: Students may receive credit for one of RLST 890DH or RLST 390BD.*
This class will focus on new religious movements in various locations including North America, India, Japan and SE Asia. We will also explore various analyses of these regions including questions of origin, membership and teachings.		
RLST 890BI Advanced Gender: Theories and Practices	3:3-0	RLST 890DI Representations of Death 3:0-0 Students examine critically representations of death as they are propagated in symbol myth and ritual in cross-cultural and transhistorical contexts.
This course begins by examining gender/sex theories (feminist, masculinity and queer studies) arising from a variety of academic locations. Thereafter, we analyze gender/sex ideologies shaped by and in religio-cultural practices across a spectrum of historical locations (e.g., ancient Greece, early modern Europe, West Africa, and the Middle East). *Note: Students may receive credit for one of RLST 890BI or WGST 372.*		
RLST 890BL Women/NorthAmerican Buddhism	3:3-0	RLST 890DJ Pilgrims in a Foreign Land:Canadian Religious History and Immigration to the Prairies 3:3-0 This course will begin by offering a broad context for religious history in Canada, assessing some major writers on the subject, and then proceed to focus on a specific aspect of this history - religion's role in immigration to the Canadian Prairies. The effect of religious leaders, institutions, and discourse will be considered throughout the 19th and 20th centuries, along
This course will focus on women's role in Buddhism in North America. The Buddhist practices will be examined in the context of North American Culture and Society.		
RLST 890CB Ritual Studies	3:3-0	

Course Catalogue

with the methodological differences among academics within the realm of Canadian religious history.

RLST 890DK 3:3-0
Advanced Myth, Symbol and Ritual
 The course is an introduction to the critical study of the categories of myth, symbol and ritual. The course will examine the theoretical and socio-cultural dimensions of myth, symbol, and ritual examining each category individually.
 Note: Students may receive credit for one of RLST 890DK or RLST 372.

RLST 890DL 3:3-0
Muslim-Christian Relations
 This is an in-depth graduate course on the historical development in the inter-religious relations between Muslims and Christians since the advent of Islam in the seventh century till contemporary time. The focus will be on the mutual perspectives of Muslims and Christians on themes like leadership, authenticity, and co-existence.

RLST 890DM 3:3-0
A Freudian engagement of Christian development among First Nations communities in prairie Canada
 This course will explore the spread, integration, and rejection of Christian beliefs within Indigenous communities through the use of a Freudian lens. Questions will be asked about what traditional Indigenous spirituality is as well as if and how pre-contact religious expression might be meshed with a system of Christian beliefs imported from Europe.

RLST 890DN 3:0-0
Religion and the State in Early Japan
 This course examines the religious traditions of Shinto, Daoism, and Buddhism as power structures in the formation of the imperial state in early and classical Japan (late sixth century to twelfth century).

RLST 901 3-15:3-0
Thesis Research
 Thesis research. ** Permission of Coordinator is required to register. **

RLST 904 0:0-0
RLST Comprehensive Exams
 Religious Studies special case doctoral students will complete a series of comprehensive examinations as established by the supervisory committees.

RLST 906 0:0-0
RLST Research Language
 Religious Studies graduate students will complete one or more courses in a research language as established by their supervisory committees.

SCI	Science
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SCI 601 0:0-0
Graduate Co-op Work Term I
 The first one semester co-op placement for graduate students in the Faculty of Science. To register, a student must be in good standing and enrolled in a Master's program in the Faculty of Science. Completion of both SCI 601 and SCI 602 leads to the designation "Co-operative Education" on the degree. A "credit" grade requires both a satisfactory work-term report and a satisfactory employer's evaluation.
 Prerequisite: Set by the individual academic units.

SCI 602 0:0-0
Graduate Co-op Work Term II
 The second one semester co-op placement for graduate students in the Faculty of Science. To register, a student must be in good standing and enrolled in a Master's program in the Faculty of Science. Completion of both SCI 601 and SCI 602 leads to the designation "Co-operative Education" on the degree. A "credit" grade requires both a satisfactory work-term report and a satisfactory employer's evaluation.
 Prerequisite: Set by the individual academic units

SOC	Sociology
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SOC 800 0:1-0
Graduate Seminar
 A weekly seminar devoted to the discussion of special issues in sociology, reports of research projects, and the presentation of papers by students

and faculty. Students are expected to register in the graduate seminar in two semesters.

SOC 802 3:3-0
Advanced Sociological Theory I
 An advanced theory course with special consideration given to contemporary sociological theory.

SOC 803 3:3-0
Advanced Sociological Theory II
 An advanced theory course with special consideration given to classical sociological theory.

SOC 804 3:3-0
Advanced Research Methods I
 An advanced research methods course with special focus on controversies in social science methodology.

SOC 805 3:3-0
Advanced Research Methods II
 Research design and the application of statistical techniques in social science research.

SOC 806 3:3-0
Advanced Studies in Canadian Social Theory
 An examination of Canadian contributions to the development of sociological theory.

SOC 808 3:3-0
Seminar Class & Political Economy
 Development of and changes in the class structure of Canadian society and relations between class, class conflict and socio-economic growth, development and depression.

SOC 830 3:3-0
Development and Environment
 This seminar investigates relationships between environmental issues and development processes. Drawing upon theories such as political ecology, discourse analysis and ecofeminism, it provides a foundation for discussions of social, political and economic factors in environmental change and conflict. Issues explored may include water, agriculture, population, common property, and climate change.

SOC 831 3:3-0
Sociology of Underdevelopment
 This seminar provides a critical examination of theory and case studies of development and underdevelopment throughout the world. A comparative, historical perspective will be emphasized. Topics may include modernization/neo-liberalism, dependent development, world-systems theory, the developmental state, global commodity chains, globalization, development discourses, gender and development, culture, and new social movements.

SOC 840 3:3-0
Knowledge, Science, Technology
 This seminar discusses the works of major figures in the sociology of knowledge, science, and technology. Issues covered will include the nature of scientific work, the organization of science, the drawing of boundaries between science and non-science, gender and science, the social relations of technology, and the epistemological and political authority of science.

SOC 841 3:3-0
Sociology of Knowledge
 This course examines issues in the production, transmission, and use of knowledge. Topics may include debates in the sociology of knowledge, the evolution of knowledge institutions and/or knowledge work, case studies of knowledge production, and the implications of various regimes governing knowledge production and dissemination and their alternatives.

SOC 850 3:3-0
Gender, Race, and Ethnicity
 This course analyses social justice issues in gender, race and ethnicity. It provides an advanced perspective on such topics as construction of difference, discrimination, racialization, assimilation, and the interplay of gender, ethnicity, race, and other social factors.

SOC 851 3:3-0
Crime, Deviance, Normalization

Course Catalogue

This course examines explanation, theory construction, measurement procedures, and techniques for data collection and analysis within the sociology of crime and deviance.

SOC 880 3:3-0

Selected Topics

Selected topics in sociology to be offered as required.

SOC 880AK 3:3-0
Mental & Concurrent Disorders, & Homelessness & Housing

This course explores the convergence of concurrent mental disorders and substance use with homelessness and housing. The student will be asked to develop an annotated bibliography and prepare an exploratory research paper. Key elements will include: best practices, psycho-social & housing first models and socio-economic realities.

SOC 880AL 3:3-0
Advanced Qualitative Research Methods

This course introduces graduate students to applied methods of qualitative research. Students will learn to conduct interviews and focus groups, use visual research methods, and carry out qualitative data analysis. Emphasis is placed on the connection between methods and key philosophies of science and methodological paradigms. The course includes data analysis training in NVivo software.

Note: Students may receive credit for one of SOC 880AL or SOST 307.

SOC 880AM 3:0-0
Political Economy of Psychopathology

Based on a critical examination of biological, sociobiological, and psychological approaches, an assessment of the usefulness of a political economy approach to psychopathology.

SOC 880BB 3:3-0
Directed Readings in Environmental Sociology and Environmental Education

This course examines advanced theoretical dimensions that relate to the link between environment and society, environment and education, in a context of high modernity.

SOC 890 3:3-0
Directed Readings

Directed readings in selected topics.

SOC 890AP 3:3-0
Advanced Social Data and Policy Analysis

Application of advanced quantitative data analysis techniques to sociological research problems. Emphasis is on multivariate analysis of secondary social data using SPSS.

SOC 890AQ 3:3-0
Critical Issues in Environmental Sociology

This course provides a critical examination of the human exemptionalism and new ecological paradigms. A survey instrument will be developed to assess pro-environmental attitudes and behavior.

SOC 890AR 3:3-0
Critical Perspectives on the Environment in the Global South

This course covers critical readings related to the sociology and political economy of environmental issues in the Global South, including how these problems are a product of contemporary development processes. Readings will include social theory and history of the environment, as well as cover particular problems, such as those related to climate change, agriculture, water, natural resources, land rights and conflicts, and oil.

SOC 890AS 3:3-0
Issues on Sociology of Disasters

The course focuses on the sociological explanation of disasters and on the different ways in which societies define and manage their exposure to risk

SOC 890AT 3:3-0
Food, Agriculture, and Environment in the Global Economy

This course examines the political economy of agriculture and food at the global scale. Topics will include the theoretical foundations of agri-food studies, the agrarian question, the ecology of agri-food systems, and agrarian and food movements.

SOC 890AU 3:3-0
The Sociology of Immigration, Ethnicity, and Community Development

This course examines the settlement experiences of immigrants in Canada, and the social, cultural and political processes of their integration and/or marginalization. In this context, it also explores immigrant-based institutions and social movements, and equitable approaches to service provision and community development.

SOC 890AV 3:3-0
The Sociology of Alternative Food Networks

This course examines alternative food networks (AFNs) as sites of economic and social exchange, identity formation, and social practice. A particular emphasis is placed on AFNs as sites of 'green?' or 'ethical?' production-consumption, and the motivations of actors participating in these networks.

SOC 890AW 3:0-0
Advanced Qualitative Research Methods in Immigration & Settlement

This course offers an opportunity to customize learning on a variety of methods and tools to qualitative research with the intent of (i) undertaking a qualitative research project, (ii) analyzing the results of the study, and (iii) writing up qualitative research for the sociological study of immigration and settlement.

SOC 890AX 3:0-0
Advanced Quantitative Data Collection, Analysis and Interpretation

This course covers advanced topics related to the development and testing of relevant sociological research questions using rigorous quantitative data analysis of primary survey data. Data organization, management and analysis methods will be examined. There is a strong emphasis on the use of statistical tools in data analysis and interpretation using computer packages (e.g., SPSS) as well as reporting and presenting of research findings.

SOC 890AY 3:3-0
Philosophical and Methodological Foundations of Social Science Research

This course will provide students with advanced knowledge and understanding of various influential social science paradigmatic traditions through a critical examination of their philosophical foundations, their conceptual and methodological implications, and their application to the research process.

SOC 901 3-15:15-0
Research

Thesis research

SOPT	Social and Political Thought
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SOPT 800 3:3-0
Foundations in Social and Political Thought I

A faculty-directed course of independent study in the foundations of political philosophy, historical and contemporary. The course will be administered by the Committee for Social and Political Thought.

Note: Students may receive credit for one of SOPT 800AA or SOPT 800.

SOPT 801 3:3-0
Foundations in Social and Political Thought II

A Faculty-directed course of independent study in the foundations of political philosophy, historical and contemporary. The course will be administered by the Committee for Social and Political Thought.

SOPT 890 3:3-0
Directed Readings in Social and Political Thought - an AA-ZZ series.
Directed Readings in selected topics.

SOPT 890AA 3:3-0
Early Modern Political Theory

This course examines the major figures of early modern political thought such as Machiavelli, Hobbes, Spinoza, Descartes and Locke with a view to their ideas about political realism, natural rights, the relation of science and politics, and the rise of modern constitutionalism.

Note: Students may receive credit for one of SOPT 890AA or PSCI 311.

SOPT 901 3-15:15-0
Thesis Research

Thesis Research.

Course Catalogue

SOST	Social Studies
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SOST 800 **0:0-0**
Graduate Seminar

A weekly seminar devoted to a discussion of special issues in interdisciplinary social sciences, reports of research projects, and presentations by students and faculty. Students are expected to register in the graduate seminar in two semesters.

SOST 801 **3:3-0**
Interdisciplinary Issues in the Social Sciences

A framework for interdisciplinary studies in the social sciences, examining the roles of complexity, uncertainty, and change in areas of social reality not normally covered by established disciplines. An emphasis on conceptual and methodological integration, developing alternative forms of conceptualization, constructing interdisciplinary research questions, and devising unique research strategies.

SOST 811 **1-3:1-0**
Social Research Projects

A research project to be supervised by faculty. The project could involve research within the University or be done in cooperation with government agencies or other groups outside the University.

SOST 880 **3:3-0**
Selected Topics

Selected topics in social studies to be offered as required.

SOST 880AE **3:3-0**
Qualitative Methodology

A practical exploration of the principles and methods of qualitative analysis, including interviews, focus groups, participant observation, content analysis, and discourse and media analysis. Students will design and conduct a research project.

SOST 880AM **3:0-0**
Community-Based Research: Approaches and Methodologies

This course is an in-depth examination of theoretical, methodological, and practical issues in the design and implementation of participatory community-based research for diverse contexts. It also investigates the role of community-based research in citizen-led social change.

SOST 880AN **3:3-0**
Community Engaged Scholarship and Outreach

Community engaged scholarship (CES) is about research, learning, and methods for working in partnership with communities. It builds on learning from community development, the commons, community-based research and social movements. It brings students, organizations and communities together to produce research and action, synthesize existing work and mobilize knowledge creatively.

SOST 880AO **3:3-0**
Advanced Qualitative Research Methodology

This course introduces graduate students to the practice of social research using qualitative methods. Emphasis is placed on both theory and application. Students will learn about several major methodological frameworks (e.g., ethnography, case study, participatory research) as well as concrete methods to collect and analyze qualitative data.

Note: Students may receive credit for one of SOST 880AO or SOST 890AY.

SOST 890 **1-3:1-0**
Directed Readings

Directed readings in selected topics with an inter-disciplinary focus.

SOST 890AG **1-3:3-0**
Animals & Society

This course critically examines social relations between human and other animals. Key theoretical perspectives, including animal rights, animal welfare, and political economy approaches, will provide an interdisciplinary framework for understanding the complex role of animals in human society, including humans' use of animals for pets, food, clothing, research, entertainment, and other uses.

SOST 890AH **3:0-0**
Applied Social Research in Gender and Food Security

This course is an exploration of the intersection of food (in)security and gender. Operating at three levels of inquiry (macro, meso, micro), the

course examines international trade and other policy determinants of food (in)security with links to gender dimensions at the household level. The course involves an applied research component focused on food and gender issues in the province of Saskatchewan.

SOST 890AI **3:0-0**
Gender, Media, and Representation

This course examines issues of gender and representation in contemporary media. The course begins with an overview of major theoretical approaches to gender/sex in the context of social inequality. Content analysis and discourse analysis methods will be used to examine gendered representation in contemporary media.

SOST 890AJ **3:0-0**
Social Dimensions of Climate Change

This course examines the social dimensions of climate change vulnerability and adaptation from a sociological perspective. Key topics include: conceptual frameworks for understanding social dimensions of climate change; social differentiation (e.g., gender, race, class, geopolitical location) and climate vulnerability; vulnerability assessment methods; and policies for sustainable adaptation.

SOST 890AK **3:0-0**
Sociology of Terrorism

A critical examination of the major theoretical perspectives on terrorism and an exploration of societal responses to terrorist attacks.

SOST 890AL **3:0-0**
Gender, Culture, and Intersectionality

This course will examine the origins and development of intersectionality as a theoretical framework for feminist research. With particular attention to the intersection of gender and culture, the course will explore both the theoretical implications and methodological applications of the intersectionality framework. Course readings will focus on two connected questions: how has intersectionality been applied in empirical research to date, and what methodological possibilities does it hold for future research?

SOST 890AN **3:0-0**
Ethics in Social Science Research

This course examines ethical issues in social science research with human participants. Assigned readings will cover the historical development of ethical review and the importance of ethical research. Contemporary ethical dilemmas, including those related to participatory action research and feminist research, will also be discussed. Course assignments include research project design and completing an application for research ethics review.

SOST 890AY **3:0-0**
Advanced Qualitative Research Methodology

This course introduces graduate students to the practice of social research using qualitative methods. Emphasis is placed on both theory and application. Students will learn about several major methodological frameworks (e.g., ethnography, case study, participatory research) as well as concrete methods to collect and analyze qualitative data.

Note: Students may receive credit for one of SOST 880AO or SOST 890AY.

SOST 890BA **3:0-0**
Interdisciplinary Issues in Veteran's Programming

This course examines issues confronting Canadian veterans from an interdisciplinary perspective. Areas for focus will include government programming, employment, homelessness and PTSD. Readings will draw upon disciplinary insights from public policy, psychology and sociology.

SOST 890BB **3:0-0**
The Sociology of Exclusion

A directed readings and research course that engages students in in-depth analysis of a historical or contemporary case project involving racialization, and gender discrimination, making use of theory and concepts from the social sciences related to the issues of systemic and institutionalized discrimination.

SOST 890BC **3:1-0**
Advanced Criminology: Indigenous Peoples and Criminal Justice

This course critically (a) examines the historical and contemporary issues concerning Indigenous Peoples and the Canadian criminal justice system (CJS) and (b) analyzes how factors such as racism and colonialism have

Course Catalogue

contributed to inequalities and discrimination experienced by the Indigenous Peoples and in turn shaped their interactions with the CJS.

SOST 901 3-15:1-0

Research
Thesis Research

STAT	Statistics
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STAT 754 3:3-0

Linear Statistical Models

Simple linear regression; multiple linear regression; diagnostics and remedial measures for regression models; remedial measures and alternative regression techniques; multicollinearity diagnostics.

Note: Students transferring to the MSc Thesis-Based Program or PhD Program from the MSc Course-Based Program may not receive any credit for completion of STAT 754.

STAT 757 3:3-0

Sampling Theory

Simple random sampling, sample size, estimation of ratios and ratio estimators, stratified sampling, cluster sampling, non-response in surveys and non-sampling errors.

Note: Students transferring to the MSc Thesis-Based Program or PhD Program from the MSc Course-Based Program may not receive any credit for completion of STAT 757.

STAT 800 3:3-0

Comprehensive Review

The student will conduct an in-depth literature review of a selected area in Statistics and prepare a report pertaining to the selected topic. The topic will be chosen in consultation with the supervisor and the Department Head. A final examination (written, oral or both) will be conducted by a committee in the Department.

STAT 802 3:3-0

Major Essay in Statistics

Essay on a selected topic for students in the course-based MSc program in Statistics.

STAT 803 6:0-0

Approved Summer School

This course is available to full-time Statistics graduate students in good standing. Students will participate in a summer school offered by an approved institute. The school and credit award must be approved by the Graduate Coordinator for Mathematics and Statistics (or designee).

Prerequisite: Approval of Department Head.

Note: Students may only take STAT 803 once in their program.

STAT 818 3:3-1

Time Series Analysis and Forecasting

A first graduate course in time series models and analysis. Topics include deterministic and stochastic models, stationary and non-stationary time series models, state space models, spectral analysis, and selected additional topics. This course includes a lab component.

Note: Students may receive credit for one of STAT 818, STAT 418, or ACSC 418.

STAT 819 3:3-0

Advanced Applications of Fourier Analysis in Life Sciences

Advanced applications of Fourier Analysis. Topics include confidence intervals, hypothesis testing, modelling linear relationships, time series and Fourier analysis. Advanced applications of Fourier Analysis in life sciences will be reviewed. The list of applications may vary.

STAT 826 3:3-0

Advanced Survival Analysis

Life table, survival distributions, types of censoring, estimation and inference for basic survival quantities, proportional hazards regression model, goodness of fit tests.

STAT 851 3:3-0

Probability

Probability measures; distribution functions; sequences of random variables; characteristic functions; modes of convergence; convergence theorems; weak and strong laws of large numbers; Central Limit Theorem

STAT 852 3:3-0

Statistical Inference

Detailed theoretical development of statistical interference; statistical models; exponential families, sufficiency; completeness; properties of point estimation; testing hypothesis and confidence regions; asymptotic properties of estimators.

STAT 853 3:3-0

Limit Theorems

Probability inequalities, weak limit theorems (central limit theorem, weak law of large numbers), strong limit theorems (strong law of large numbers, law of iterated logarithm).

STAT 855 3:3-3

Generalized Linear Models

Generalized linear models, exponential family, likelihood-based inference, analysis of contingency tables, estimation procedures.

STAT 856 3:0-0

Stochastic Processes

A first graduate course in stochastic processes. Topics include Markov chains, Poisson process, renewal theory, Brownian motions and selected additional topics. This class is cross-listed with STAT 456 and ACSC 456.

STAT 858 3:3-0

Statistical Modeling of Dependence and Extremes

A first graduate course in extreme value theory and copula dependence modelling. Topics include copula models, dependence measures, order statistics, maximum domains of attraction, extreme value distribution, peak over threshold method, generalized Pareto distribution and selected additional topics.

Prerequisite: STAT 851 or permission of the Department Head.

STAT 859 3:3-0

Design of Experiments

Completely randomized designs, randomized block designs, factorial and fractional factorial designs, nested designs, fixed and random effects models.

STAT 862 3:3-0

Advanced Topics in Stochastic Processes

This is an advanced course in stochastic processes. Topics include: Measure theoretic probability theory, stopping theorems, Poisson process, renewal processes, Markov processes, Brownian motion, Gaussian processes, martingales, stochastic integration, and applications.

STAT 870 3:3-0

Bootstrap Methods

A first course in Bootstrap techniques. Topics include bootstrap and jackknife procedures, confidence intervals, hypotheses testing, standard errors, regression models. Additional topics may vary. jackknife procedures, confidence intervals, hypotheses testing, standard errors, regression models. Additional topics may vary.

STAT 872 3:3-0

Large Sample Methods

Asymptotic behavior of estimators and test statistics, asymptotic relative efficiency, large sample theory for regression models.

STAT 885 3:3-0

Special Topics in Statistics

Lecture course in various specialized areas of Statistics.

STAT 890 3:3-0

Directed Readings

Directed Readings in various areas of Statistics.

STAT 890AD 3:3-0

Analysis of Longitudinal Data

Exploring longitudinal data. General linear model for longitudinal data. Parametric model for the covariance structure. Generalized linear model for longitudinal data. Likelihood-based methods for categorical data. Missing values for longitudinal data.

STAT 890AF 3:3-0

Directed Readings in Stochastic Processes

Directed readings in Stochastic Processes as selected by the instructor.

STAT 890AG 3:3-0

Statistical Analysis with Missing Data

Missing data is a major issue in statistical analysis. This course introduces the four common approaches for inference in models with missing values, including maximum likelihood, multiple imputation, fully Bayesian, and weighted estimating equations. Computational tools (e.g. the EM algorithm and the Gibbs' sampler) will be discussed.

STAT 890AI 3:3-0

Multivariate Statistical Modelling

Univariate generalized linear models, models for multicategorical responses, multivariate extensions of generalized linear models, selecting and checking models, semi and nonparametric approaches to regression analysis.

STAT 890AJ 3:3-0

Statistical Analysis for Language Assessment

This course explores statistical methods for language test validity and reliability. The main focus will be on Rasch models.

STAT 890AR 3:3-0

Stochastic Differential Equations for Finance

Modelling of mathematical finances in continuous time, stochastic integrals Ito's formula

STAT 890AS 3:3-0

Advanced Applied Multivariate Statistics in Educational Psychology

The purpose of this course is to teach the application of multivariate analysis to research problems in Educational Psychology. This course will include advanced instruction in applied multivariate analysis, including: simple linear regression, multiple regression, nonlinear regression, time-series analysis, logistic regression, MANOVA, factor analysis, between-groups comparison, profile analysis, structural equation modeling and path analysis. The course is designed to broaden one's understanding of applied statistics, and designing quantitative studies.

STAT 890AT 3:3-0

Regression Models for Time Series Analysis

Times Series Following Generalized Linear Models: Regression Models for Binary Time Series; Regression Models for Categorical Time Series; Regression for Count Time Series; Other models and Alternative Approaches
STAT Space Models: Prediction and Interpolation

STAT 890AW 3:0-0

Statistics in the Health Science

Function-Based Inference; Likelihood Tenet; Martingale; Bayes Factor; Empirical Likelihood; Jackknife and Bootstrap.

STAT 890AX 3:3-0

Computational Statistics

A general introduction to computational methods in statistics including optimization, statistical estimation algorithms, bootstrapping/jackknife procedures, Monte Carlo sampling, generating random deviates, computation in the R programming language.

STAT 900 1:0-0

Seminar

Preparation and presentation of a one-hour lecture to graduate students and faculty.

STAT 901 1-15:15-0

Research

Thesis research

STAT 902 0:0-0

Research Tools in Statistics

This course teaches students about the computing and library resources available in the Mathematics and Statistics department. This course also includes an introduction to using LaTeX for preparing papers, writing research proposals, and giving academic presentations.

STAT 903 1:0-0

Comprehensive Exam 1

Students must complete a comprehensive exam in Probability Theory. The exam will also include one of the following elective topics: Stochastic Processes, Dependence and Extremes, Limit Theorems, or Measure and Integration. It is evaluated on a pass/fail basis.

STAT 904 1:0-0

Comprehensive Exam 2

Students must complete a comprehensive exam in Statistical Inference. The exam will also include one of the following elective topics: Generalized Linear models, Survival Analysis, Experimental Design, Time Series Analysis, Linear Models, or Sampling Theory. It is evaluated on a pass/fail basis.

STAT 905 1:0-0

Research Proposal

Students are required to submit a written research proposal for their PhD thesis research project during its early stages. The candidate will give a seminar before the department to defend their proposal. The topic must be approved by the research supervisor and the candidate's PhD committee. It is evaluated on a pass/fail basis. This course is required of all PhD students in Statistics, and will usually be completed following the completion of STAT 903 and 904.

SW	Social Work
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SW 803 3:3-0

End of Life Issues

This course deals with impacts of end of life issues on individuals, families, social workers and health practitioners. Cultural, societal and personal perspectives of death and dying will be explored, along with roles of social workers and health professionals in practice, research, education and policy in end of life care.

SW 810 3:3-0

Social Policy Analysis

Through lectures and seminars students will undertake a comprehensive review of ideological basis for policy making and social planning in the delivery of human services. Although primary attention will be given to the Canadian Prairies experience, comparisons will be made with needs, policies and services elsewhere in Canada and internationally. This course will devote primary attention Social Administration Case Studies.

SW 811 3:3-0

Family & Child Policies & Programs

Historical, theoretical, comparative and current literature will be used to gain a comprehensive overview of the development of policies relevant to families and to children. A critical analysis of family and child policies developed within the liberal welfare state will be incorporated into this course. The development of alternative policies and programs will be considered.

SW 812 3:3-0

Organ Theories Social Admin

This course is designed to provide MSW students with the conceptual and technical skills to conduct appropriate interventions in human service organizations. Topics include: the role of social work in organizational intervention, organizational theories, ethics, organizational development as well as critical review of management roles and practices.

SW 816 3:3-0

Aging, Society & HS Work

This course considers social work practice research, education and policy with seniors in the community and in institutions. The focus of the course will be the role of the social work perspective in each of these professional activities with seniors.

SW 817 3:3-0

Critical Issues in Addiction

This course explores research, theory, and policy in addictions and examines individual, group and community levels interventions within the Canadian political and economic realities. The complex interactions of biological, psychological, and sociocultural factors will be examined to provide knowledge and skills in advanced social work practice in the field of addiction.

SW 820 3:3-0

Feminist Theory & Analysis

This course will provide a feminist analysis of the historic and current issues pertaining to women's lives and to critique patriarchal institutions and structures of society. A specific emphasis will be on feminist therapy as it pertains to practice and the contributions of feminist research.

SW 831 3:3-0

Work, Welfare and Social Justice

Course Catalogue

Most people's economic security hinges on attachment to the labour market. Certain groups, particularly women, the disabled and people of colour, often confront significant employment inequalities. This course will help students understand the relationship

SW 835 3:3-0
Current Aboriginal SW Practice

This course will critically examine current counselling models through the lens of colonization, decolonization and employing cross-cultural, structural and anti-oppressive approaches to social work practice with specific attention given to the historical legacies of colonization and residential school in examining practice issues of power, cultural competence and sensitivity.

SW 840 3:3-0
Sel Topics Direct SW Practice

Courses which emphasize direct social work practice with individuals, groups, families and communities will be offered as needed.

SW 840AH 3:3-0
Internet Cognitive Behavioral Therapy (ICBT) in Practice

This course will be offered in a blended format including classroom and electronic instruction. Focusing on the theory and practice of ICBT, students will be assigned an e-client who they will work with through a five module therapeutic program. All communication with the e-clients will be supervised by the professor.

SW 849 3:3-0
SW Practice with Families

This course will review various approaches of family therapies and discuss how they can be used in a variety of practice settings and for a wide array of issues and problems. Limitations, criticisms and ethical issues for each approach will be explored.

SW 850 3:3-0
Selected Topics in Social Just

Courses will be offered that focus on issues of social oppression, on human rights and on social justice within Canadian and International contexts.

SW 851 3:3-0
Soc Justice/Human Rights & SW

The course will focus on the evolution of human rights as tools for promoting social justice. Some of the areas to be explored include: inequalities as they relate to gender, racialized minorities, children, individuals with special needs, those living in poverty. The course will give careful consideration to the impact of human rights laws on the job of the socialworker.

SW 852 3:3-0
Advanced Social Work Practice with Children and Youth

This class will review child and adolescent development, ethical considerations in working with children and youth, diversity, group work and other theories of intervention. Students will be expected to focus on common problems for children and youth.

SW 853 3:3-0
Antiracist Perspectives in Social Work Practice

This course provides a framework for the historical and contemporary contexts of transformative antiracist social work theory and practice. Students examine how broader historical social relations of power and inequity are (re)inscribed, contested and disrupted at the intersecting sites of individual, organizational and structural social work theory and practice. *Note: Students may receive credit for one of SW 853 or SW 850AC.*

SW 855 3:3-0
Social Work and the Environment

This course explores emerging theoretical perspectives and skills necessary for critical ecological social work practice. Links between environmental, social, structural and justice issues will be made through critiques of western industrialization and consumerism. Implications for direct practice will occur through reflection, dialogue, and the development of holistic practice frameworks.

SW 860 3:3-0
Special Topics in Social Work

Course offerings in a variety of topics of relevance to social work. Generally these courses will be offered as electives.

SW 860AG 3:0-0
Critical Social Work Practice with 2SLGBTQ+ Communities
This course critically examines the historical, political, and socio-cultural systems and forces that structure the everyday lives and experiences of 2SLGBTQ+ communities. Students analyze relevant theories, frameworks, and discourses to formulate critical, culturally-relevant micro, mezzo, and macro social work approaches with 2SLGBTQ+ communities.

SW 867 3:3-0
Critical Indigenous Analysis of Social Welfare Policy
This course focuses on critical and theoretical analyses of historical and contemporary social welfare policies and practices affecting Indigenous people in Canada. A wide array of Indigenous theory writings and public policies are introduced and reviewed to facilitate understanding of Indigenous and decolonizing frameworks for social welfare policy analysis.

SW 872 3:3-0
Community Organizing & SW Prac
This course explores various theories, principles, models and strategies of community organizing, and their importance for social work. Emphasis is placed on issues of power and the reallocation of power within society.

SW 873 3:3-0
Social Work Practice with Couples
This is a graduate level course on social work practice with couples. This course is theory and practice driven and equips students with couple's therapy assessment and treatment skills. The course focuses on experiential learning and students will have multiple opportunities to practice counselling skills in class.

SW 876 3:3-0
Perspectives and Models of Social Work for Direct Practice
Major SW practice perspectives/models are subject to a critical comparative analysis with respect to the epistemological background and the basic values and premises about people. Applicability of the major practice perspectives/models to SW practice is examined, with a concentrated focus on relevant approaches for differing situations of practice.

SW 879 3:3-0
Social Work, Empowerment and Disability
Drawing on a critical realist perspective, this course will examine a pluralist, engaged and nuanced approach to disability in relation to practice, policy, research and education. Key topics discussed will include dichotomies such as disabled people versus non-disabled people, identity politics, bioethics in disability, and care and social relationships.

SW 880 3:3-0
Quantitative Methods in Social Work Research
This course will provide an overview of design and methodology options in quantitative research with an emphasis on the application to social welfare policy and social work practice issues. In addition to the methodological issues, the course will review the appropriate use and interpretation of statistical techniques in social work research.

SW 881 3:3-0
Qual & App Research Methods
These courses may be offered by the Faculty of Social Work of planned in co-operation with other Faculties of the University. Such courses will be arranged as needed when the student's research interests are determined.

SW 885 3:3-0
Thesis Proposal
Students registered in the thesis route will complete a comprehensive thesis proposal.

SW 890 3:3-0
Directed Readings
Directed individual reading courses on topics approved by the Supervisory Committee.

SW 890BX 3:3-0
Feminist Theory & Feminist Therapy
This course will explore various feminist theories and feminist therapy. From a social work perspective, the strengths and limitations of feminist therapies in clinical practice will be explored. Attention will be given to the role of power and privilege in creating and maintaining oppression from a contemporary feminist perspective.

Course Catalogue

SW 890BY **3:3-0**
Children's Exposure to Sexually Explicit Internet Material
 This class will provide the student with the opportunity to develop a thorough understanding of the current research and popular literature in the area of children's exposure to sexually explicit internet material and the implications of such exposure to children's health and wellbeing.

SW 890BZ **3:3-0**
Aetiology of Housing First
 Study of the aetiology of the Housing First approach to homelessness. Subject material includes an ontological analysis of the model's formalized agenda described within its "Pathways to Housing" and the approach's ongoing development. Will also include an analysis of Canada's recent official adoption of this approach to deal with homelessness.

SW 890CA **3:3-0**
A Narrative Approach to Social Work Practice
 This course will explore a narrative approach to clinical social work practice. Specific strengths and limitations of Narrative Therapy will be reviewed. The content of this course will include a thorough literature review, assigned readings, critical analysis, application and reflection in practice; as well as design and facilitation of a narrative therapy teaching seminar.

SW 890CB **3:3-0**
Exploring Musical Improvisation with At-Risk Youth
 Exploration of how and in what ways diverse creative practices and musical improvisation can support the empowerment of marginalized and at-risk youth.

SW 890CC **3:3-0**
Critical Indigenous Analysis of Social Welfare Policy
 This course focuses on critical and theoretical analyses of historical and contemporary social welfare policies and practices affecting Indigenous people in Canada with a focus on domestic violence and Indigenous women. A wide array of Indigenous theory writings and public policies are introduced and reviewed to facilitate understanding of Indigenous and decolonizing frameworks for social policy analysis in relation to the issue of domestic violence.

SW 890CD **3:3-0**
Critical Analysis of Indigenous and Child Welfare Policy and the Truth and Reconciliation Commission
 This course focuses on critical and theoretical analyses of historical and contemporary social welfare policies and practices affecting Indigenous people in Canada with a focus on child welfare and the TRC. A wide array of Indigenous theory writings and public policies are introduced and reviewed to facilitate understanding of Indigenous and decolonizing frameworks for social policy analysis in relation to the topics.

SW 890CE **3:3-0**
Exploring Disability and Sexuality
 In preparation for student MSc thesis project, this directed readings class will seek to better prepare the MSc student for work with people who experience disability, and struggles regarding sexuality, abuse and consent.

SW 890CF **3:3-0**
Indigenous Perspectives towards Synthesizing Traditional & Contemporary Healing Modalities
 Course will advance critical thought & deep anti-colonial & anti-racism analysis of contemporary mental health treatment modalities. Will enable student to engage in reflection for decolonizing their own practice. Examine & critically assess the existing knowledge (research, literature, treatment models) of decolonizing mental health & assess strengths, limitations, and gaps.

SW 901 **3-12:12-0**
Thesis
 This is the student's MSW thesis.

SW 910 **3-12:12-0**
Research Practicum
 Registration for the project will follow the same pattern and conditions as the registration for a thesis. Projects are conducted in a field setting under the supervision of a social work professional associate.

SW 920 **3-12:12-0**
Field Practicum

Students register in the practicum which will take place over one or two semesters in a social work practice setting under the supervision of an experienced social work field supervisor. Students work under the direction of a faculty member over the duration of the practicum.

THEA	Theatre
THEA 810 Topics in Theatre Studies Seminar Course examining selected topics in Theatre Studies	3-6:6-0
THEA 810AA Spatiality in Art/Performance This course will examine the transition of contemporary art and theatre practice, from mid-century to the present, into a conjoined performance strategy favouring process over form and found space over conventional exhibition/presentation venues. Issues surrounding performance based disciplines and diverse media practices.	3-6:6-0
THEA 810AE Literature of Disability and Performance In this course the student will, through assigned readings and critical writing, research and develop an understanding of the language and current issues related to disability and performance. This course will assist the student in building a bibliography related to the MAM/MFA thesis.	3-6:6-0
THEA 810AJ Readings in Queer Theatre An examination of play texts and critical discourse that has fostered the development and understanding of queer theatre. Examining theatrical texts from the turn of the century to the present day; the course will trace the development of 'the on stage homosexual' and its continually problematized place in and on the heteronormative stage.	3-6:6-0
THEA 810AK Revisoning of Modernist Texts in Performance This course examines modernist dramatic texts which rework folk tales and myths. Modernist and postmodernist critical and aesthetic theories of the personal and cultural function, use and value of the folkloric and mythical will provide context. Particular attention will be paid to psychoanalysis, structural anthropology, and theories of performance.	3-6:6-0
THEA 810AL Contemporary Canadian Theatre An examination of play texts and critical discourse that has fostered the development and understanding of Canadian drama. Examining theatrical texts the course will trace the development of Canada in performance and Canada as a performed nation state.	3-6:6-0
THEA 810AM Directed Reading in Multilingual Performance An examination of play texts and critical discourse that has fostered the development and understanding of multilingual performance in theatre, film, and other live performance forms. In this directed reading course, the student will examine relevant theoretical and methodological foundations of multilingual performance.	3-6:0-0
THEA 820 Topics in Theatre Production Seminar course or project examining selected topics in Theatre Production	3-6:6-0
THEA 820AG Projects in Dramaturgy In this directed study course, students will undertake creative dramaturgical projects while examining the relevant theoretical and methodological foundations of dramaturgical practice.	3-6:6-0
THEA 820AM Projects in Playwriting I A course focused on advanced level playwriting with exercises and readings related to both traditional and contemporary approaches to such matters as plot, character, dialogue, style, critique and revision.	3-6:6-0
THEA 820AQ Critical Concepts in Performance Investigates critical theories affecting the development of art practices in the areas of theatre and performance. Students will complete a collection of critical readings and/or studio exercises designed to help them to	3-6:0-0

Course Catalogue

articulate their own methodologies for performance making. Readings will draw on cultural studies, performance studies and theatre.

THEA 820AS 3:0-0

Development of the One-Person Performance

The focus of this class is to investigate the Theory and Practice of the one-man play and the aesthetics that move reflection from a passive narrative to an active Theatrical event of engagement.

THEA 820AT 3:0-0

Production Management with a Focus on Accessibility

The student will study the role and duties of a Theatrical Production Manager with a focus on long-term planning, season scheduling, budgeting of theatrical productions, cost analysis of theatrical construction and leadership skills. Every one of these projects will focus on accessibility for both audience and performers.

THEA 820AU 3-6:0-0

Theatrical Technical Direction

The student will co-ordinate the technical elements of the production creating schedules, assisting on budgeting, supervise technical crews and problem solve. Create CAD drawings of the set detailing the construction elements of the set design. Assist the designers in the realization of their designs.

THEA 890 3-6:6-0

Directed Reading In Theatre

Directed reading in Theatre under the supervision of a faculty member.

THEA 890AK 3-6:6-0

Movement Research for Visual Art Practice

This course focuses on movement research in support of studio-based practice.

THEA 890AL 3-6:0-0

Exploring Performance Theory

Exploring Performance Theory

This course will provide an entry point onto the essential theoretical, historical and practical discourses of the field of performance theory. It explores theories and methodologies used in understanding plays and performances as applied to a variety of theatrical texts from different periods, practices, and places.

THEA 902 1-18:18-0

Master's Project

Research, rehearsal and public presentation of a project.

WGST	Women's and Gender Studies
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WGST 800 3:3-0

Feminist Theory

This course is an examination of feminist theory from 1980s until present. Our intention is to examine in detail different epistemological positions and theoretical orientations (with some attention to methodology) such as standpoint, poststructuralism, postcolonialism, queer, and antiracist feminist theories.

Note: Students may receive credit for one of WGST 800 or WGST 880AG.

WGST 801 3:3-0

Queer Theory and Trans Studies: Embodiment and Representation of Gender and Sexuality

This course examines sexualities cross-culturally and historically. Subjects such as heterosexuality, homosexuality, heterosexism, transsexuality, so-called sexual deviancy, and gay and lesbian culture are investigated. Included will be an elucidation of sexualities via recourse to social, cultural, and ritual practices.

Prerequisite: Permission of the Department Head.

WGST 802 3:3-0

Women, Feminism and Globalization--Advanced

This course will be an examination of the conditions of women's lives in a global context. Engaging feminist theoretics within postcolonialism, anti-racism and civil rights locations, this course will examine women's issues, poverty, environment, labour, power, etc. and subsequent feminist responses generated from a variety of geo-political locations.

WGST 803 3:3-0

Gender: Theories and Practices

This graduate level course is a comparative investigation of gender/sex ideology. Our endeavor is to isolate and examine gender/sex as a category of analysis and then analyze its deployment through sign-symbol, myth and ritual in varying geographical, historical and cultural location, e.g., modern Eurowest, ancient Greece and Rome, and Africa.

WGST 880 3:3-0

Selected Topics

Courses designated as required for graduate students

WGST 880AB 3:3-0

Masculinity and Gendered Violence

This course is an exploration of theories of masculinity and how masculinity is related to gender-based violence. Topics will include: construction of male identity, male hegemony, social representations of masculinities, and racialized masculinities. An in-depth literature review and theoretical paper on existing research in the area will be included.

WGST 880AI 3:3-0

Violence and Indigenous Women

This course will engage postcolonial, feminist, Indigenous and poststructuralist theory to examine the discourse on missing and murdered Indigenous Women. Working from our national context and moving to a global perspective, students will identify patterns of violence and resistance and become skilled at historical, political, gendered, economic and cultural analyses.

WGST 880AJ 3:0-0

Women, Motherhood and Mothering - Advanced

This course is a feminist exploration of the many issues revolving around women as mothers. Motherhood as a patriarchal institution has often oppressed women while women's experiences of mothering have often been empowering. Mother roles, expectations, stereotypes, and experiences will be examined from an interdisciplinary, cross-cultural, and historical perspective.

WGST 880AK 3:0-0

Indigenous Feminist Storytelling

This course examines intersecting methods of Indigenous storytelling and feminist methodology as intersecting and decolonizing processes.

WGST 880AL 3:3-0

Feminist Theories and Islamic Scholars

This course addresses contemporary social justice issues in feminist Islamic scholarship with specific attention paid to historical, socio-cultural, legal, geographical and religious discourses. Leading scholars specific to student concerns will be analyzed, and postcolonial and poststructural methodologies employed.

Note: Students may receive credit for one of WGST 880AL or RLST 390AM.

WGST 880AM 3:3-0

Advance Gender, Race, and Sexuality in Popular Culture

This course interrogates social relations of power embedded within Western popular culture from a feminist perspective. It examines a range of cultural texts from television and film, to artistic representations and performances, to blogs and podcasts. The course is organized around three themes of critique: representation, consumption, and production.

WGST 880AN 3:0-0

Feminist Interrogations of Violence

This course provides students with an opportunity to develop their knowledge and understanding of violence as it is enacted in social bodies around the globe. Subjects examined by students can be intimate partner violence, sexual violence, racial violence, violence enacted in civil conflict and war, bullying, and so forth.

Note: Students may receive credit for one of WGST 880AN or WGST 490AD.

WGST 880AO 3:0-0

Racialized Policing

This class explores racialised policing practices by looking at the history of policing, its roots in white supremacy, and settler colonialism. The class is organized through an intersectional lens to analyze movements including Black Lives Matter and Indigenous Lives Matter within broader discussions of justice reform and the abolitionist movement.

WGST 880AP**3:0-0****Women's Memoir: Theory and Practice**

This seminar examines the genre of women's memoir through both a critical and creative lens. We analyze several contemporary women's memoirs while gaining practice in the craft of memoir writing. Feminist and gender theory enables us to understand as well as trouble categories such as woman, identity, memory, and narration.

WGST 880AQ**3:0-0****Research Methodologies**

Students will develop research methods to support their graduate projects.

WGST 880AR**3:0-0****Reproductive Justice**

This course is an interdisciplinary, cross-cultural, and historical exploration of women and reproduction through a feminist lens. Topics will range over a broad spectrum of social, cultural and scientific issues. These may include: women's reproductive knowledge and midwifery and/or rituals and taboos surrounding conception among others.

WGST 880AS**3:0-0****Feminist and Social Justice Research Methodologies**

This course examines the research process through feminist lenses engaging with questions about power, inequality, and positionality inherent in doing research. Considerations of how power relations inform the various steps in the research process are examined from the selection of topics to the presentation of findings.

WGST 901**3-15:15-0****Thesis Research**

Thesis Research