

The following Motions and Documents were considered by the GFC Programs Committee at its Thursday, January 14, 2021 meeting:

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Agenda Title: **Course and Minor Program Changes**

- Agricultural, Life and Environmental Sciences
- Arts
- Augustana
- Business
- Education
- Engineering
- Kinesiology, Sport and Recreation
- Law
- Medicine and Dentistry
- Pharmacy
- Public Health
- Saint-Jean
- Science

CARRIED MOTION:

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the attached course and minor program change submissions from the Faculties of Agricultural, Life and Environmental Sciences, Arts, Augustana, Business, Education, Engineering, Kinesiology, Sport and Recreation, Law, Medicine and Dentistry, Pharmacy, Public Health, Saint-Jean, and Science.

FINAL Item 4 *(Pages 108-109 were revised March 1, 2021)*

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Agenda Title: **Items Deemed Minor or Editorial**

- A. Ancient and Medieval History Program Name Change
- B. BFA (Acting) Entrance Requirements
- C. Faculté Saint-Jean Admissions Deadlines and Entrance Requirements
- D. Faculty of Science Undergraduate Admissions Deadlines
- E. Oncology Graduate Entrance Requirements
- F. Oral Biology Graduate Entrance and Program Requirements
- G. Dentistry Graduate Entrance and Program Requirements
- H. Communication Sciences & Disorders Graduate Entrance Requirements
- I. Physical Therapy Graduate Entrance Requirements

CARRIED MOTION:

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council:

- A. the proposed name change for the Bachelor of Arts Major in Ancient and Medieval History as set forth in attachment A;
  - B. the proposed changes to entrance requirements for the Bachelor of Fine Arts (Acting) Program as set forth in attachment B;
  - C. the proposed changes to entrance requirements and application deadlines for undergraduate programs in Faculté Saint-Jean, as set forth in attachment C;
  - D. the proposed changes to application deadlines for undergraduate programs in the Faculty of Science, as set forth in attachment D;
  - E. the proposed changes to entrance requirements for graduate programs in Oncology, as set forth in attachment E;
  - F. the proposed changes to entrance and program requirements for graduate programs in Oral Biology, as set forth in attachment F;
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- G. the proposed changes to entrance and program requirements for graduate programs in Dentistry, as set forth in attachment G;
- H. the proposed changes to entrance requirements for graduate programs in Communication Sciences and Disorders, as set forth in attachment H; and
- I. the proposed changes to entrance requirements for graduate programs in Physical Therapy, as set forth in attachment I.

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FINAL Item 5

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Agenda Title: **Proposed Name Change for the Bachelor of Commerce Major in Management Information Systems (MIS) to Business Technology Management (BTS), Faculty of Business**

CARRIED MOTION:

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the name change for the Bachelor of Commerce major in Management Information Systems to Business Technology Management, as submitted by the Faculty of Business to take effect July 1, 2021.

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FINAL Item 6

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Agenda Title: **Proposed Changes to Entrance and Program Requirements for Graduate Programs in Biological Sciences, Faculty of Science and Faculty of Graduate Studies and Research**

CARRIED MOTION:

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the proposed changes to entrance and program requirements for Graduate programs in Biological Science, as set forth in Attachment 1, to take effect upon approval.

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FINAL Item 7

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Agenda Title: **Proposed Changes to Entrance and Program Requirements for Graduate Programs in Nursing, Faculty of Nursing, and the Faculty of Graduate Studies and Research**

CARRIED MOTION:

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the proposed changes to Entrance Requirements for graduate programs in Nursing as set forth in Attachment 1: Appendix A.

CARRIED MOTION:

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the proposed changes to program requirements and courses for the Master of Nursing programs as set forth in Attachment 1: Appendix A, Appendix B, and Appendix C, and Attachment 2.

CARRIED MOTION:

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the proposed change to courses for the PhD program in Nursing as set forth in Attachment 3.

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FINAL Item 8

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**Governance Executive Summary  
Action Item**

<b>Agenda Title</b>	<p>Course and Minor Program Changes</p> <ul style="list-style-type: none"> <li>- Agricultural, Life and Environmental Sciences</li> <li>- Arts</li> <li>- Augustana</li> <li>- Business</li> <li>- Education</li> <li>- Engineering</li> <li>- Kinesiology, Sport and Recreation</li> <li>- Law</li> <li>- Medicine and Dentistry</li> <li>- Pharmacy</li> <li>- Public Health</li> <li>- Saint-Jean</li> <li>- Science</li> </ul>
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**Item**

Action Requested	<input checked="" type="checkbox"/> Approval <input type="checkbox"/> Recommendation
Proposed by	Faculty Councils
Presenter(s)	Tammy Hopper, Vice-Provost (Programs) and Chair, GFC

**Details**

Office of Administrative Responsibility	Provost and Vice-President (Academic)
The Purpose of the Proposal is <i>(please be specific)</i>	To approve course and minor program changes.
Executive Summary <i>(outline the specific item – and remember your audience)</i>	<p>All routine course and minor program changes that do not involve or affect other Faculties or units and do not form part of a proposal for a new program or a substantive program change are approved regularly by the GFC Programs Committee in an omnibus motion.</p> <p>See individual item for Faculty Council approval information.</p>
Supplementary Notes and context	<This section is for use by University Governance only to outline governance process.>

**Engagement and Routing** (Include meeting dates)

<p>Consultation and Stakeholder Participation (parties who have seen the proposal and in what capacity)</p>	<p><b><u>Those who are actively participating:</u></b></p> <ul style="list-style-type: none"> <li>• Vice-Provost (Programs) and Chair, GFC Academic Standards Committee</li> <li>• Faculty Councils</li> <li>• Representatives of the Office of the Registrar</li> </ul>
<p>&lt;For information on the protocol see the <a href="#">Governance</a></p>	<p><b><u>Those who have been consulted:</u></b></p> <ul style="list-style-type: none"> <li>• Undergraduate Program Support Team</li> </ul>

Item No. 4

<a href="#">Resources section Student Participation Protocol</a> >	<p><i>Those who have been informed:</i></p> <ul style="list-style-type: none"> <li>• Items have been posted on the University Governance website for information</li> </ul>
<p>Approval Route (Governance) (including meeting dates)</p>	<p>See individual item for Faculty approval information GFC PC January 14, 2021</p>

**Strategic Alignment**

<p>Alignment with <i>For the Public Good</i></p>	<p>Objective 21</p>
<p>Legislative Compliance and jurisdiction</p>	<p><i>Post-Secondary Learning Act (PSLA)</i> GFC Programs Committee (PC) Terms of Reference</p>

Attachments

1. Agricultural, Life and Environmental Sciences
2. Arts
3. Augustana
4. Business
5. Education
6. Engineering
7. Kinesiology, Sport and Recreation
8. Law
9. Medicine and Dentistry
10. Pharmacy
11. Public Health
12. Saint-Jean
13. Science

*Prepared by:* Heather Richholt, Assistant Secretary to GFC, heather.richholt@ualberta.ca



**Faculty of Agricultural, Life & Environmental Science  
2021-2022 Calendar Changes**

Current Calendar Entry	Proposed Calendar Entry
<b><i>COURSES</i></b>	
<b>New course</b>	<p><b>AFNS 505 - Introduction to the Principles of Nutrition</b>            ★ 3 (fi 6) (first term, 3-0-0) Basic principles of nutrition and metabolism of macronutrients and micronutrients.  <u>Prerequisite: Consent of instructor.</u></p>
<p><b>Proposed by:</b> Donna Vine (NUFS Program Chair, course instructor)  <b>Rationale for Change:</b> MSc in Human Nutrition and other Faculty (ALES/MED) graduate students currently register in AFNS 500 (Individual Study course) to complete the graduate version of NUFS 305. To manage this course registration more effectively and avoid confusion with AFNS 500 sections in e-class it is recommended to create a graduate version of NU FS 305.  <b>Approval:</b> ALES Academic Coordinating Committee, September 21, 2020</p>	

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Drama**

Change: **Course**

**Rationale:** The changes reflect an MFA Directing curriculum review that came out of the Department of Drama’s strategic planning process. The goals of the curriculum review were to make the Directing program more sustainable, while bringing it into line with current trends in the professional theatre by:


- a) reducing the HCE required to run the program from 4 per year to 2.5 (2 one year and 3 the next, in alternation)
- b) increasing enrollment in 3 of the 4 offered seminars from 2 students to a minimum of 4, accomplished by rotating some seminars and having first- and second-year Directing students take these seminars together
- c) dedicating DR 686 to training directors in the practice of devised theatre, as opposed to its previous focus of work on new plays

Second only to the shift in focus for DR 686, which responds to changes in the field, the most important rationale for the changes to course titles and descriptions was the need to clarify the program’s curricular flow through the 4 seminars by clearly naming the focus of each unit (1. Essentials, 2. Contemporary Play, 3. Style Play, 4. Devised Theatre and Performance). Previously the names and descriptions of the seminars were generic, giving readers of the course calendar no idea what the pedagogical focus of each seminar would be. As we want to open these seminars to more students, the added detail will be of value.

[https://calendar.ualberta.ca/content.php?filter%5B27%5D=DRAMA&filter%5B29%5D=&filter%5Bcourse\\_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur\\_cat\\_oid=33&expand=&navoid=10000&search\\_database=Filter&filter%5Bexact\\_match%5D=1#acalog\\_template\\_course\\_filter](https://calendar.ualberta.ca/content.php?filter%5B27%5D=DRAMA&filter%5B29%5D=&filter%5Bcourse_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur_cat_oid=33&expand=&navoid=10000&search_database=Filter&filter%5Bexact_match%5D=1#acalog_template_course_filter)

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
<p>DRAMA 683 – <del>Styles of Directing I</del> ★ 3 (fi 6) (either term, 0-3s-6) Note: Restricted to <del>MFA (Drama) students. Not to be taken by students with credit in DRAMA 680.</del></p> <p>DRAMA 684 – <del>Styles of Directing II</del> ★ 3 (fi 6) (either term, 0-3s-6) Note: Restricted to MFA <del>(Drama) students. Not to be taken by students with credit in DRAMA 680.</del></p> <p>DRAMA 685 – <del>Advanced Projects in Directing I</del> ★ 3 (fi 6) (either term, 0-3s-6) Note: Restricted to MFA <del>(Drama) students. Not to be taken by students with credit in DRAMA 681.</del></p> <p>DRAMA 686 – <del>Advanced Projects in Directing II: New Play Dramaturgy</del> ★ 3 (fi 6) (either term, 0-3s-6) Note: Restricted to <del>MFA (Drama) and MA (Drama) students. Not to be taken by students with credit in DRAMA 681.</del></p>	<p>DRAMA 683 – <u>Essentials of Directing</u> ★ 3 (fi 6) (either term, 0-3s-6) <u>Theory and practice of the essential aesthetic tools directors employ in their craft.</u> Note: Restricted to <u>Graduate students in Drama, or by consent of the Department.</u></p> <p>DRAMA 684 – <u>Approaches to Staging the Contemporary Play</u> ★ 3 (fi 6) (either term, 0-3s-6) <u>Theory and practice of directing the full-length contemporary play.</u> Note: Restricted to MFA <u>Directing students, or by consent of the Department.</u> Prerequisite: <u>DRAMA 683.</u></p> <p>DRAMA 685 – <u>Approaches to Staging the Style Play</u> ★ 3 (fi 6) (either term, 0-3s-6) <u>Theory and practice of directing extended theatrical styles.</u> Note: Restricted to MFA <u>Directing students, or by consent of the Department.</u> Prerequisite: <u>DRAMA 683.</u></p> <p>DRAMA 686 – <u>Devised Theatre and Performance for Directors</u> ★ 3 (fi 6) (either term, 0-3s-6) <u>Theory and practice of directing devised theatre and performance.</u> Note: Restricted to <u>Graduate students in Drama, or by consent of the Department.</u></p>

Department Contact: Liz Ludwig/David Kennedy	Department Council Approval Date: Sept 24, 2020
Chair or Designate: Melanie Dreyer-Lude	Signature: 

Approval: Arts Faculty Council November 26, 2020

Department: **East Asian Studies**

Change: **Course**

**Rationale:**

**EASIA 239** - Because of the need to move all courses online for Fall 2020, this course was converted from blended learning to all-online format, and hence the current 2-1s-0 structure creates a confusing listing on Bear Tracks which does not reflect the reality of the course. I anticipate that all-online delivery of this course will better meet student preferences for the near future. Therefore, I am requesting a change to 3-0-0, which will simplify scheduling and student registration.

In addition, the word "ancient" is changed to "classical" to reduce the appearance of Orientalizing the subject matter.

**EASIA 238** - This is a new course proposal, intended to complement the successful introduction of EASIA 239: Daoism and Chinese Civilization. If adopted, it will be the University's first course dedicated to the subject of Confucianism, one of the world's most famous and influential belief systems. Online course delivery is planned to allow for additional flexibility for students. Because the course will be interdisciplinary in scope, permission to offer the course has been granted by the Departments of History and Classics, and of Philosophy.

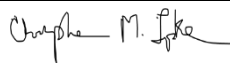
**EASIA 325** - New EASIA 300-level course for a topic that I have been regularly offering (every 2-3 teaching years) using EASIA 323 Topics in East Asian Religions. Making this topic a designated course should help with visibility and enrollments. The new course will also help supplement our offerings in modern Japan, an area of particular student interest and department need. Consulted with the Department of East Asian Studies.

**EASIA 429**- This course topic "Landscape and Soundscape in East Asian Culture" has been taught under the "EASIA428 Topics in East Asian Studies" in Winter2020 and Fall2020 semesters, and needs its own independent course number. Often students do not know that this course exists, or register for EASIA428 not knowing what the topic is, because there is no description of the topic provided in the course catalogue. This is also a course offered by a new faculty in his area of expertise.

[https://calendar.ualberta.ca/search\\_advanced.php?cur\\_cat\\_oid=33&search\\_database=Search&search\\_db=Search&cpage=1&ecpage=1&ppage=1&spage=1&tpage=1&location=33&filter%5Bkeyword%5D=easia&filter%5Bexact\\_ma](https://calendar.ualberta.ca/search_advanced.php?cur_cat_oid=33&search_database=Search&search_db=Search&cpage=1&ecpage=1&ppage=1&spage=1&tpage=1&location=33&filter%5Bkeyword%5D=easia&filter%5Bexact_match%5D=1)

**Calendar Copy:**

<b>Current:</b> <del>Strike through and highlight</del> deletions	<b>Proposed:</b> <u>Underline and highlight</u> additions
<p>EASIA 239 – Daoism and Chinese Civilization ★ 3 (fi 6) (either term, <del>2-1s-0</del> <del>Ancient</del> Chinese Daoist thought and its influence on the later history and culture of China.</p>	<p>EASIA 239 – Daoism and Chinese Civilization ★ 3 (fi 6) (either term, <u>3-0-0</u> <u>Classical</u> Chinese Daoist thought and its influence on the later history and culture of China.</p> <p><u>EASIA 238 – Confucianism and Chinese Civilization</u> ★ 3 (fi 6) (either term, <u>3-0-0</u>) <u>Classical Chinese Confucian</u> thought and its influence on the later history and culture of <u>China.</u></p> <p><u>EASIA 325 - Modern and Early Modern Japanese Religions</u> ★ 3 (fi 6) (either term, <u>3-0-0</u>) <u>Note: Not open to students with credit in EASIA 323 with the topic "Edo and Modern Japan"</u></p> <p><u>EASIA 429 - Landscape and Soundscape in East Asian Culture</u> ★ 3 (fi 6) (either term, <u>3-0-0</u>) <u>The interdisciplinary study of East Asian traditional landscape painting and music through combined research and creative practices.</u> <u>Prerequisites: EASIA 101 and *3 in EASIA at a senior level, or consent of Department.</u></p>

Department Contact: <b>Yoshi Ono</b>	Department Council Approval Date: 9/11/20
Chair or Designate: <b>Christopher Lupke</b>	Signature: 

**Submission Deadlines: 20-21 Calendar** - October 14, 2019

**21-22 Calendar** - November 11, 2019; January 13, 2020; March 16, 2020; April 13, 2020

**Department: Economics**
**Change: Course - Change 1 (all)**

**Why is this change being proposed and who was consulted?** New courses & prerequisite update (Removal of ECON 299 as a prerequisite for ECON 386 as the course ECON 299 has changed to exclude calculus content. There is a new STAT course (STAT 161) for economics and business students, which substitutes for STAT 151. The course STAT 161 has been created by the MMSS department in close collaboration with the Economics department. Creation of Urban Economics (ECON 562). The course is currently offered (as a topic graduate course) as a split course with ECON 462 Urban Economics. Creation of the graduate course Political Economy (ECON 552). The course is currently offered (as a topic graduate course) as a split course with ECON 452 Political Economy. The Political Science department has been contacted and supports the creation of the ECON 552 graduate course. Creation of the graduate course Indigenous Economic Development (ECON 551). The course is currently offered (as a topic graduate course) as a split course with ECON 451. Creation of a graduate and an undergraduate course in economic data analysis (ECON 494 and 594). These courses complement data analysis subject material as offered in ECON 299, ECON 399 and ECON 497, by focusing on economic data analysis using mainstream but powerful coding languages (e.g., SAS, Python, R). Creation of the undergraduate and graduate courses Macroeconomics and Asset Prices I and II, respectively ECON 486 and ECON 586. The course has been piloted for two terms as an Economics undergraduate and graduate split topic course. The Finance Department at the Business School has been consulted, and it approves the new courses. We are adding a prerequisite to ECON 421 to better differentiate the course from ECON 323. Creation of the second course of the two-course sequence of History of Economic Thought. We created the course History of Economic Thought two years ago, and the instructor has found that there is too much material for one semester. Students in the course petitioned for a second course. Creation of a Topic Course at the 500 level (ECON 500), since we do not have one and may experiment with other split courses. We have had to use 600 numbers for our split experiments. We experimented with a Projects course in Winter 2020 and it worked exceptionally well for both students and external partners; we intend to make it a permanent offering as ECON 404.

[https://calendar.ualberta.ca/content.php?filter%5B27%5D=ECON&filter%5B29%5D=&filter%5Bcourse\\_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur\\_cat\\_oid=33&expand=&navoid=10000&search\\_database=Filter&filter%5Bexact\\_match%5D=1#acalog\\_template\\_course\\_filter](https://calendar.ualberta.ca/content.php?filter%5B27%5D=ECON&filter%5B29%5D=&filter%5Bcourse_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur_cat_oid=33&expand=&navoid=10000&search_database=Filter&filter%5Bexact_match%5D=1#acalog_template_course_filter)

**Calendar Copy:**

<b>Current:</b> <u>Strike through and highlight</u> deletions	<b>Proposed:</b> <u>Underline and highlight</u> additions
<p><b>ECON 225 - History of Economic Thought</b>            ★ 3 (fi 6) (either term, 3-0-0) The development of economic thought in social and political context. Major schools of thought from Greek philosophers up to the Marxist, Classical, and Neoclassical doctrines.            Prerequisites: ECON 109, ECON 101 and ECON 102.</p> <p><b>ECON 299 - Quantitative Methods in Economics</b>            ★ 3 (fi 6) (either term, 3-0-1) Introduction to the use of statistical methods in economics with computer applications. Prerequisites: ECON 101 and 102, <u>STAT 151</u> or equivalent, and MATH 154 or equivalent. Note: Designed for students taking Economics as a major subject of concentration. Department permission must be obtained by other students wishing to take this</p>	<p><b>ECON 225 - History of Economic Thought I</b>            ★ 3 (fi 6) (either term, 3-0-0) The development of economic thought in social and political context. Major schools of thought from Greek philosophers up to the Marxist, Classical, and Neoclassical doctrines.            Prerequisites: ECON 109, ECON 101 and ECON 102.</p> <p><b>ECON 226 – History of Economic Thought II</b>            ★ 3 (fi 6) (either term, 3-0-0) <u>Analysis of the development of economic thought in the context of the social and political environments in which these doctrines developed. This analysis begins with the rise of Marginalism and the contributions of Alfred Marshall and the Neoclassical School. It covers Keynes and the Keynesians, the New Classicalism of Milton Friedman. The course will also examine the work of the Institutionalists such as Galbraith and the work of Walras, Hicks, and others in formalizing economics.</u>  <u>Prerequisites: ECON 109, ECON 101 and ECON 102.</u></p> <p><b>ECON 299 - Quantitative Methods in Economics</b>            ★ 3 (fi 6) (either term, 3-0-1) Introduction to the use of statistical methods in economics with computer applications. Prerequisites: ECON 101 and 102, <u>STAT 161</u> or equivalent, and MATH 154 or equivalent. Note: Designed for students taking Economics as a major subject of concentration. Department permission must be obtained by other students wishing to take this</p>

course. ECON 299 or equivalent must be taken before ECON 399. Not open to students with credit in STAT 265 and 266.

### **ECON 386 - Applications of Mathematics to Economics I**

★ 3 (fi 6) (either term, 3-0-0) Elements of logic and set theory, linear algebra, differential calculus and their conjunction, as used in classical and modern economic analysis. Prerequisites: ECON 109, ECON 281, 282, and 299 or equivalent, MATH 125 or equivalent, and MATH 156 or equivalent.

### **ECON 421 - International Trade**

★ 3 (fi 6) (either term, 3-0-0) Nature and relevance of international trade; early trade doctrines; the theory of comparative advantage, classical and modern approaches and empirical evidence for them; new approaches to the pure theory of international trade; economic growth and international trade; market imperfections and trade; commercial policy; economic integration and the gains from trade. Prerequisites: ECON 109, ECON 281 and MATH 154 or equivalent.

### **ECON 442 - The Economics of Financial Markets**

★ 3 (fi 6) (either term, 3-0-0) The measurement of risk; portfolio analysis; hedging and speculation; market microstructure; asset pricing and market equilibrium. Prerequisites: ECON 109, ECON 281, STAT 154 or equivalent, and MATH 154 or equivalent. Students may not receive credit for both ECON 442 and FIN 412.

course. ECON 299 or equivalent must be taken before ECON 399. Not open to students with credit in STAT 265 and 266.

### **ECON 386 - Applications of Mathematics to Economics I**

★ 3 (fi 6) (either term, 3-0-0) Elements of logic and set theory, linear algebra, differential calculus and their conjunction, as used in classical and modern economic analysis. Prerequisites: ECON 109, ECON 281, 282, MATH 125 or equivalent, and MATH 156 or equivalent.

### **ECON 404 – Applied Economics Projects**

★ 3 (fi 6) (either term, 3-0-0) This is an applied projects course in which you will be interacting directly with a partner organization in industry, government, or the non-profit sector, with an Economics faculty member to provide guidance and supervision. No in-class meeting pattern; group meetings and advisor meetings will be scheduled throughout the term as needed. Prerequisite: ECON 109 and consent of Department. ECON 399 recommended.

### **ECON 421 - International Trade**

★ 3 (fi 6) (either term, 3-0-0) Nature and relevance of international trade; early trade doctrines; the theory of comparative advantage, classical and modern approaches and empirical evidence for them; new approaches to the pure theory of international trade; economic growth and international trade; market imperfections and trade; commercial policy; economic integration and the gains from trade. Prerequisites: ECON 109, ECON 281 and ECON 386 or equivalent.

### **ECON 442 - The Economics of Financial Markets**

★ 3 (fi 6) (either term, 3-0-0) The measurement of risk; portfolio analysis; hedging and speculation; market microstructure; asset pricing and market equilibrium. Prerequisites: ECON 109, ECON 281, STAT 161 or equivalent, and MATH 154 or equivalent. Students may not receive credit for both ECON 442 and FIN 412.

### **ECON 486 – Macroeconomics and Asset Pricing.**

★ 3 (fi 6) (either term, 3-0-0)

The course explores the intersection of macroeconomics and financial economics, using growth, business-cycle and asset pricing theories to motivate a series of data projects that cover the long-run and short run determinants of interest rates, equity premium, cyclical patterns of bond and equity returns, monetary policy, CAPM and other factor models. Prerequisites: Econ 282, ECON 299, Math 156 or equivalent, and Econ 109.

### **ECON 494 – Economic Data Analysis I**

★ 3 (fi 6) (either term, 3-0-0) Computer programming for the statistical analysis of data in economics with focus on SAS, R, and Python. Prerequisites: ECON 109 and ECON 299 or equivalent.

### **ECON 500 - Selected Topics in Economics**

★ 3 (fi 6) (either term, 3-0-0) Content varies from year to year. Topics announced prior to registration period. Additional prerequisites may be required; consult the department for further information.

### **ECON 551 – Indigenous Economic Development II**

★ 3 (fi 6) (either term, 3-0-0) An examination of the economic development challenges faced by Indigenous communities with a particular focus on Indigenous

	<p>communities in Canada. Application of economic development theory and tools to Indigenous contexts.</p> <p><b>ECON 552 – Political Economy II</b>  ★ 3 (fi 6) (either term, 3-0-0) Economic analysis of incentives facing citizens, politicians and policymakers, how these incentives are shaped by institutions, and the resulting effects on economic outcomes and policy.</p> <p><b>ECON 562 – Urban Economics II</b>  ★ 3 (fi 6) (either term, 3-0-0) Urban spatial structure, residential land use, firm location decisions, housing, transportation, and urban public finance.</p> <p><b>ECON 586 – Macroeconomics and Asset Pricing.</b>  ★ 3 (fi 6) (either term, 3-0-0)  The course explores the intersection of macroeconomics and financial economics, using growth, business-cycle and asset pricing theories to motivate a series of data projects that cover the long-run and short run determinants of interest rates, equity premium, cyclical patterns of bond and equity returns, monetary policy, CAPM and other factor models.</p> <p><b>ECON 594 – Economic Data Analysis II</b>  ★ 3 (fi 6) (either term, 3-0-0) Computer programming for the statistical analysis of data in economics with focus on SAS, R, and Python.</p>
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In which academic year is this change is this change required? **2021-2022**

Department contact name: <i>Rae Beaumont</i>	Department Council Approval Date: <i>09 /28 /2020</i>
Chair or Designate name: <i>Rick Szostak</i>	Signature:

Approval: Arts Faculty Council November 26, 2020



Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **English and Film Studies**

Change: **Course**

**Rationale:** The change from “3-0-0” to “variable” in three of our first-year English courses will facilitate course scheduling and better reflect current practice in EFS. The department currently offers a few supersections of Jr. ENGL in a mentoring context with GTAs, but scheduling the additional seminar components with the current 3-0-0 configuration requires the assistance of Exams & Timetabling and is time-intensive. Changing the approved hours of ENGL 102, 103 & 125 to “variable” will provide us with the flexibility to offer both Lec/Sem supersections and Lecture-only versions of the same course.

Regardless of the configuration, only three hours of instruction per week will be scheduled, as per the current practice.

[https://calendar.ualberta.ca/content.php?filter%5B27%5D=ENGL&filter%5B29%5D=&filter%5Bcourse\\_type%5D=1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur\\_cat\\_oid=33&expand=&navoid=10000&search\\_database=Filter&filter%5Bexact\\_match%5D=1#acalog\\_template\\_course\\_filter](https://calendar.ualberta.ca/content.php?filter%5B27%5D=ENGL&filter%5B29%5D=&filter%5Bcourse_type%5D=1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur_cat_oid=33&expand=&navoid=10000&search_database=Filter&filter%5Bexact_match%5D=1#acalog_template_course_filter)

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>ENGL102 – Introduction to Critical Analysis</b> ★ 3 (fi 6) (either term, <del>3-0-0</del>) Introduces methods of critical analysis through a range of literature written in English, broadly conceived, from different historical periods and cultural locations. Not to be taken by students with *6 in approved junior English.</p> <p><b>ENGL103 – Case studies in Research</b> ★ 3 (fi 6) (either term, <del>3-0-0</del>) This variable content course introduces methods of literacy research as an in-depth process through one or more case studies. Not to be taken by students with *6 in approved junior English. This course can only be taken once for credit. Note: refer to the Class Schedule and the Department of English and Film Studies website for specific topics.</p> <p><b>ENGL 125 – Aboriginal Writing</b> ★ 3 (fi 6) (either term, <del>3-0-0</del>) Studies in Aboriginal knowledge, values, and identity in written expression, and other cultural texts. Not to be taken by students with *6 in approved junior English. Note: Sections reserved for students in the TYP Program include a 3 hour seminar component in addition to the 3 hour lecture component.</p>	<p><b>ENGL102 – Introduction to Critical Analysis</b> ★ 3 (fi 6) (either term, <u>variable</u>) Introduces methods of critical analysis through a range of literature written in English, broadly conceived, from different historical periods and cultural locations. Not to be taken by students with *6 in approved junior English.</p> <p><b>ENGL103 – Case studies in Research</b> ★ 3 (fi 6) (either term, <u>variable</u>) This variable content course introduces methods of literacy research as an in-depth process through one or more case studies. Not to be taken by students with *6 in approved junior English. This course can only be taken once for credit. Note: refer to the Class Schedule and the Department of English and Film Studies website for specific topics.</p> <p><b>ENGL 125 – Aboriginal Writing</b> ★ 3 (fi 6) (either term, <u>variable</u>) Studies in Aboriginal knowledge, values, and identity in written expression, and other cultural texts. Not to be taken by students with *6 in approved junior English. Note: Sections reserved for students in the TYP Program include a 3 hour seminar component in addition to the 3 hour lecture component.</p>

Department Contact: <b>Katherine Binhammer</b>	Chair’s Advisory Council Approval Date: September 17 2020
Chair or Designate: Cecily Devereux	Signature: 

Approval: Arts Faculty Council November 26, 2020

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **English and Film Studies**

Change: **Course**

**Rationale:** This new 100-level English course is directed at students interested in pursuing a program in English. English has not had a dedicated introductory course for our Majors because our 100-level English courses fulfill core requirements for multiple Faculties across the university. The Faculty of Arts has now reduced its required Junior ENGL credits from \*6 to \*3 while the prerequisite for entrance into senior level ENGL courses remains \*6 of Junior ENGL. Thus, EFS is introducing this course to allow Arts students the option of fulfilling their remaining \*3 Junior ENGL prerequisite credits with a course dedicated to the foundational principles and methodologies of the discipline. The course is restricted to Arts students and the Faculty of Arts will be submitting a concurrent calendar change to exclude ENGL 150 from fulfilling the Core requirement.

In 2017, CTL performed a survey and focus groups with English Majors. Their research revealed that our Majors students do not feel prepared for 200-level English courses by their 100-level courses. As well, students expressed frustration with their experience in 100-level courses and often continued in English Studies despite their first year experience, not because of it. The reduction in required B.A. core credits in Junior English provides us with the opportunity to address this pedagogical gap.

[https://calendar.ualberta.ca/content.php?filter%5B27%5D=ENGL&filter%5B29%5D=&filter%5Bcourse\\_type%5D=&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur\\_cat\\_oid=33&expand=&navoid=10000&search\\_database=Filter&filter%5Bexact\\_match%5D=1#course-listings](https://calendar.ualberta.ca/content.php?filter%5B27%5D=ENGL&filter%5B29%5D=&filter%5Bcourse_type%5D=&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur_cat_oid=33&expand=&navoid=10000&search_database=Filter&filter%5Bexact_match%5D=1#course-listings)

**Calendar Copy:**

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
	<p><u>ENGL 150: Introduction to English Studies</u>  <u>★ 3 (fi 6) (either term, variable)</u></p> <p><u>An introduction to studies in the discipline recommended for students considering a major, minor, or Honors degree in English. Students will be introduced to a variety of methodological approaches while learning about current topics in literary, cultural and media studies, with special attention to race, Indigeneity, ethnicity, gender, sexuality, and class. NOTE: Credit does not fulfill Arts' common English requirement. (See notes.) Restricted to students registered in the Faculty of Arts.</u></p>

Department Contact: Katherine Binhammer	Department Council Approval Date: 24 September 2020
Chair or Designate: Cecily Devereux, Department Chair	Signature:

Approval: Arts Faculty Council November 26, 2020



**Submission Deadlines: 21-22 Calendar** – 09.02.20, 09.23.20, 10.07.20

**Submission Deadlines: 22-23 Calendar** – 01.13.21, 03.31.21

**Department: English and Film Studies**
**Change: Course**

**Rationale:** This update to the editorial content of the English “Notes” section takes account of the introduction of ENGL 150, an introductory course for English majors that will not fulfill the Faculty of Arts Jr ENGL core requirement and that will be restricted to Arts students. It also updates the Notes with the Faculty of Arts reduction of the B.A. core requirement in Junior English.

[https://calendar.ualberta.ca/content.php?filter%5B27%5D=ENGL&filter%5B29%5D=&filter%5Bcourse\\_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur\\_cat\\_oid=33&expand=&navoid=10000&search\\_database=Filter&filter%5Bexact\\_match%5D=1#course-listings](https://calendar.ualberta.ca/content.php?filter%5B27%5D=ENGL&filter%5B29%5D=&filter%5Bcourse_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur_cat_oid=33&expand=&navoid=10000&search_database=Filter&filter%5Bexact_match%5D=1#course-listings)

**Calendar Copy:**

<b>Current:</b> <del>Strike through and highlight</del> deletions	<b>Proposed:</b> <u>Underline and highlight</u> additions
<p><b>English: Undergraduate</b></p> <p><b>Department of English and Film Studies</b> <b>Faculty of Arts</b></p> <p><b>Note:</b> Courses in the Department of English and Film Studies teach the English language and its several literatures; some works may be taught in translation as necessary to fulfil the primary goal of understanding English literature.</p> <p>See also Writing, WRITE. Except as noted, WRITE courses may be taken as ENGL courses.</p> <p><b>Notes</b></p> <ol style="list-style-type: none"> <li>Any two (★6) from ENGL 102, ENGL 103, ENGL 125, or any one (★3) plus WRS 101 <del>will serve as the prerequisite to all senior English courses, or will fulfill degree requirements for faculties</del> that require first-year English. All three of the above noted junior ENGL courses study selected works from a range of genres (poetry, drama, fiction or nonfiction).</li> <li>No more than ★6 in junior English, or equivalent, may be taken for credit in an undergraduate program.</li> <li>Junior English courses require a substantial amount of writing in essays and tests, and devote a minimum of 30% of class time to writing instruction.</li> <li>All senior courses have as prerequisite any two (★6) taken from ENGL 102, ENGL 103, ENGL 125, or equivalent; or any one (★3) plus WRS 101; prerequisites for 400-level courses are ★12 of senior ENGL, ★6 of which must be at the 300-level (as numbered</li> </ol>	<p><b>English: Undergraduate</b></p> <p><b>Department of English and Film Studies</b> <b>Faculty of Arts</b></p> <p><b>Note:</b> Courses in the Department of English and Film Studies teach the English language and its several literatures; some works may be taught in translation as necessary to fulfil the primary goal of understanding English literature.</p> <p>See also Writing, WRITE. Except as noted, WRITE courses may be taken as ENGL courses.</p> <p><b>Notes</b></p> <ol style="list-style-type: none"> <li>Any two (★6) from ENGL 102, ENGL 103, ENGL 125, or any one (★3) plus WRS 101 <u>will fulfill degree requirements for degree programs</u> that require ★6 first-year English. <u>Any one (★3) from ENGL 102, ENGL 103, ENGL 125, WRS 101 or WRS 102 will fulfill the BA, BA Honors or BA Criminology degree requirements.</u> All three of the above noted junior ENGL courses study selected works from a range of genres (poetry, drama, fiction or nonfiction).</li> <li>No more than ★6 in junior English, or equivalent, may be taken for credit in an undergraduate program.</li> <li>ENGL 102, 103 and 125 require a substantial amount of writing in essays and tests, and devote a minimum of 30% of class time to writing instruction.</li> <li>All senior courses have as prerequisite any two (★6) taken from ENGL 102, ENGL 103, ENGL 125, <u>ENGL 150</u> or equivalent; or any one (★3) plus WRS 101 <u>or WRS 102</u>; prerequisites for 400-level courses are ★12 of senior ENGL, ★6 of which must be at the 300-level (as numbered in this edition of</li> </ol>

<p>in this edition of the Calendar, including any specific course prerequisites in the individual course descriptions).</p> <p>5. <del>Courses at the 200 level need not be tied to any one national literature or historical period.</del></p> <p>6. Not all senior courses are offered in any given year.</p>	<p>the Calendar, including any specific course prerequisites in the individual course descriptions).</p> <p>5. Not all senior courses are offered in any given year.</p>

Department Contact: Katherine Binhammer	Department Council Approval Date: 24 September 2020
Chair or Designate:	Signature:

Approval: Arts Faculty Council November 26, 2020

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Linguistics**

Change: **Course**

**Rationale:** Adding 310 as a prerequisite for 308 in order to facilitate the sequencing of the two courses and student success in 308.



[https://calendar.ualberta.ca/content.php?filter%5B27%5D=LING&filter%5B29%5D=308&filter%5Bcourse\\_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur\\_cat\\_oid=29&expand=&navoid=7430&search\\_database=Filter&filter%5Bexact\\_match%5D=1#acalog\\_template\\_course\\_filter](https://calendar.ualberta.ca/content.php?filter%5B27%5D=LING&filter%5B29%5D=308&filter%5Bcourse_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur_cat_oid=29&expand=&navoid=7430&search_database=Filter&filter%5Bexact_match%5D=1#acalog_template_course_filter)



**Calendar Copy:**

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>LING 308 – Morphology</b></p> <p>★ 3 (<i>fi 6</i>) (either term, 3-0-0) Basic principles of word formation and structure across languages. Prerequisites: LING 101, 204 <u>and 205</u>.</p>	<p><b>LING 308 – Morphology</b></p> <p>★ 3 (<i>fi 6</i>) (either term, 3-0-0) Basic principles of word formation and structure across languages. Prerequisites: LING 101, 204, <u>and 310</u>.</p>

Department Contact: <b>Grace Jamieson</b>	Department Council Approval Date: September 23, 2020
Chair or Designate: <b>Juhani Järvikivi</b>	Signature:

Approval: Arts Faculty Council November 26, 2020

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Philosophy**

Change: **Course**

**Rationale:** We want to add a new course on Ethics and Artificial Intelligence. This course will be taught in Winter 2021 as PHIL 384: Topics in Practical Ethics (currently 32 students are enrolled) by a regular faculty member in the Department. Given the importance of the topic, we think that it should have its own number and course description to attract more students. It should also be one of the approved course for the Certificate in Ethics. Ethics and AI is an important area of contemporary ethics and is in line with the new signature area in AI for Society. Like our other practical ethics courses (PHIL 355, PHIL 386), this course is at the 300-level and does not have a prerequisite.


We consulted with the Department of Computer Science last year before offering the “Topics” version of this course and shared our intention of developing a dedicated course to ethics and AI. The Department of Philosophy was consulted by email (Department Council in September is after the submission deadline of Sept. 23).

Deleting courses because PHIL 493 was removed as a program requirement in 2015

[https://calendar.ualberta.ca/content.php?filter%5B27%5D=PHIL&filter%5B29%5D=&filter%5Bcourse\\_type%5D=20275&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bpage%5D=1&cur\\_cat\\_oid=33&expand=&navoid=1000&search\\_database=Filter#acalog\\_template\\_course\\_filter](https://calendar.ualberta.ca/content.php?filter%5B27%5D=PHIL&filter%5B29%5D=&filter%5Bcourse_type%5D=20275&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bpage%5D=1&cur_cat_oid=33&expand=&navoid=1000&search_database=Filter#acalog_template_course_filter)

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
<p><del>PHIL 493 – Fourth-Year Honors Seminar</del>  <del>★ 3 (fi 6) (first term, 0-3s-0) Note: For students in the fourth year of the Honors program.</del></p>	<p><b><u>PHIL 385 – Ethics and Artificial Intelligence</u></b>  <u>★ 3 (fi 6) (either term, 3-0-0) A study of ethical issues raised by artificial intelligence systems.</u></p>

Department Contact: <b>Grace Jamieson</b>	Department Council Approval Date: Sept. 18 , 2020
Chair or Designate: Marie-Eve Morin	Signature: 

Approval: Arts Faculty Council November 26, 2020

These materials were reviewed and revised through, **Faculty of Arts Academic Affairs Committee (AAC)** on 21 October 2020 and approved by **Arts Executive Committee (AEC)** on November 5, 2020 with delegated authority from Arts Faculty Council.

<b>Page</b>	<b>Change Type</b>	<b>Department/Unit</b>	<b>What is Changing</b>
2	Course	Art and Design	ART 350, 351, 450,451,550,551
4	Course	East Asian Studies	EASIA 211, 316
5	Course	History and Classics	HIST 104, 135
6	Course	History and Classics	RELIG 443, 500, 543
7	Course	History and Classics	INT D 205
8	Course	Media Studies and Technology (PLLC)	INT D 135
9	Course	Modern Languages and Cultural Studies	C LIT 210
10	Course	Modern Languages and Cultural Studies	POLISH - 111, 112
11	Course	Modern Languages and Cultural Studies	SLAV 320
12	Course - Delete	Political Science	POL S 321, 322, 330, 374, 405, 435, 450, 483, 505, 650, 670
14	Course - New	Political Science	POL S 201, 298, 331, 369, 398, 437, 537, 577
16	Course - Change	Political Science	POL S 327, 417,517
17	Course	Psychology	PSYCO 212 300 399 400 405 415 423 431 443 445 447 490
20	Course	Sociology	SOC 226, 459, 486

**Submission Deadlines: 21-22 Calendar** – 09.02.20, 09.23.20, 10.07.20

**Submission Deadlines: 22-23 Calendar** – 01.13.21, 03.31.21

**Department: Art & Design**
**Change: New Courses**
**Rationale:** (why is this change being proposed and who was consulted?)

Currently we have classes that are titled as follows:

**ART 240** and **ART 340** are listed as “Drawing I & II”

**ART 440** and **ART 441** are listed as “Drawing: Intermediate Studies”

**ART 540** and **ART 541** are listed as “Drawing/Intermedia: Advanced Studies I & II”

ART 440 and 441 and 540 and 541 have exclusively Intermedia content even though they have ‘Drawing’ in their titles. The incongruity between the title and the content of these courses is confusing for the students.

With this scenario, fine art students are not introduced to digital media / media art until 400 level. Currently, they use two years of drawing as prerequisites for the digital media / media art classes. Because of this, they are ill-prepared for the content. This application for new numbering and names will allow drawing classes to stay with the ‘40 numbering system and continue to 400 and 500 level and for Media Arts classes to have a separate ‘50 numbering system. The decision to change the name from Intermedia to Media Arts reflects Canada Council of the Arts’ naming and we believe as a department to be a more encompassing and contemporary term. This request has been discussed at BFA revisioning meetings in 2019/20 and was presented at the Art & Design Council Meeting on September 23, 2020.

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
	<p><b><u>ART 350 Media Art: Digital Media I</u></b>  <u>*3 (fi 6) (either term, 0-6L-0) This studio course explores concept-based modes of contemporary art production with an emphasis on digital media arts. Approaches may include: digital imaging, sound, video and animation. Prerequisites: ART 134 and DES 135 or ART 136 and DES 138 and consent of the department.</u></p> <p><b><u>ART 351 Media Art: Extended Studio I</u></b>  <u>*3 (fi 6) (either term, 0-6L-0) This studio course explores concept-based modes of art production using expanded studio practices that include digital media, installation, performance, video, and other media-based practices. Prerequisites: ART 134 and DES 135 or ART 136 and DES 138 and consent of the department.</u></p> <p><b><u>ART 450 Media Art: Digital Media II</u></b>  <u>*3 (fi 6) (either term, 0-6L-0) Intermediate individual study in Intermedia/Media Art practices. This studio</u></p>

course explores concept-based modes of contemporary art production with an emphasis on digital media arts. Approaches may include: digital imaging, sound, video, 3D modelling, interactive and generative art. Prerequisites: ART 350 and consent of department.

**ART 451 Media Art: Extended Studio II**

\*3 (fi 6) (either term, 0-6L-0) Intermediate individual study in Intermedia/Media Art practices that include digital media, installation, performance, video, and other media-based practices. Prerequisites: ART 350 or 351 and consent of department.

**ART 550 Media Art: Advanced Studies I**

\*3 (fi 6) (first term, 0-6L-0) Advanced individual study in Intermedia/Media Art practices that include digital media, installation, performance, video, and other media-based practices. Prerequisites: ART 450 and 451 and consent of department.

**ART 551 Media Art: Advanced Studies II**

\*3 (fi 6) (second term, 0-6L-0) Advanced individual study in Intermedia/Media Art practices that include digital media, installation, performance, video, and other media-based practices. Prerequisites: ART 550 and consent of department.

Department Contact: Dawn Hunter	Department Council Approval Date: September 23, 2020
Chair or Designate: Aidan Rowe	Signature:

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **East Asian Studies**

Change: **Course**

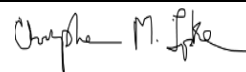
**Rationale:** EASIA 211-The previous requirement of JAPAN 201 or 202 as concurrent requirements was a scheduling nightmare and an obstacle to students. The course now has a new instructor (the previous instructor has retired and will not be teaching it again), who is revising the course to make it more accessible and useful to students. Japan 241 is the old course number which we stopped using several years ago.

EASIA 315 - To make the course more appealing to students by giving it a less technical title. Course content will remain unchanged. The prerequisite change sets the language requirement as JAPAN 202, while giving students three options for the linguistics requirement. This should make the course more accessible for students. Japan 326 is the old course number which we stopped using several years ago. EASIA 215 has been renumbered to EASIA 315.

<https://apps.ualberta.ca/catalogue/course/easia/211>

**Calendar Copy:**

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<p>EASIA 211 - Overview of the Japanese Language ★ 3 (fi 6) (either term, 3-0-0) <del>To be taken concurrently with JAPAN 201 or 202. Note: Not open to students with credit in or completing JAPAN 301. Not open to students with credit in JAPAN 241.</del></p> <p>EASIA 316 - <del>Japanese Sociolinguistics</del> ★ 3 (fi 6) (either term, 3-0-0) Introduction to social and interactional aspects of the Japanese language. <del>Note: Not open to students with credit in JAPAN 326.</del> Prerequisite: *3 from <del>EASIA 215</del> or LING 101 and <del>*3 from JAPAN 202 or EASIA 211</del>, or consent of Department.</p>	<p>EASIA 211 - Overview of the Japanese Language ★ 3 (fi 6) (either term, 3-0-0) <u>Pre- or co-requisite: JAPAN 201, or consent of Department.</u></p> <p>EASIA 316 - Japanese <u>Language and Society</u> ★ 3 (fi 6) (either term, 3-0-0) Introduction to social and interactional aspects of the Japanese language. Prerequisite: <u>JAPAN 202 and</u> *3 from <u>EASIA 211, EASIA 315</u> or LING 101, or consent of Department.</p>

Department Contact: Yoshi Ono	Department Council Approval Date: Oct 23, 2020
Chair or Designate: Christopher Lupke	Signature: 



Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **History and Classics**

Change: **New Course**

**Rationale:** HIST 104 reflects the research and teaching interests of several faculty members, as well as departmental efforts to develop attractive new 100 level courses. The course will feed into courses at higher levels, including HIST 251, HIST 332, HIST 382, HIST 385, HIST 421, HIST 442, HIST 449.

HIST 135 will introduce 100-level students to the ancient history of India and South Asia, including the Indus Valley Civilization, the migration of Indo-European speakers to the subcontinent and the foundation of the earliest cities and kingdoms of the Ganges valley. This 100-level course offers broader geographical and earlier chronological content than the 200-level courses on India and South Asia (HIST 289 and HIST 292), which are designed as successor courses to this course. The required work levels -- reading and writing – are designed for an introductory audience of first-year undergraduate skills.

[https://calendar.ualberta.ca/search\\_advanced.php?cur\\_cat\\_oid=33&search\\_database=Search&search\\_db=Search&cpage=1&ecpage=1&ppage=1&spage=1&tpage=1&location=33&filter%5Bkeyword%5D=HIST&filter%5Bexact\\_mat](https://calendar.ualberta.ca/search_advanced.php?cur_cat_oid=33&search_database=Search&search_db=Search&cpage=1&ecpage=1&ppage=1&spage=1&tpage=1&location=33&filter%5Bkeyword%5D=HIST&filter%5Bexact_match%5D=1)  
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	<p><u>HIST 104: The Atomic Age: The World After 1945</u>  <u>★ 3 (fi 6) (either term, 3-0-0)</u>  <u>Introduction to key economic, political, and societal changes at the global scale.</u></p> <p><u>HIST 135: Origins of Ancient India: Cities, Migrations and Peoples</u>  <u>★ 3 (fi 6) (either term, 3-0-0)</u>  <u>Introduction to the formative period of South Asian history, from approximately 3000 BCE to 600 CE, covering the Harappan civilization, Indo-European migration, and the first kingdoms of the Ganges valley.</u></p>

Department Contact: Shannon Stunden Bower	Department Council Approval Date: October 8, 2020
Chair or Designate: Jaymie Heilman Associate Chair-Undergrad	Signature: Jaymie Heilman

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **History and Classics**

Change: **Course**

**Rationale:** RELIG 443/543 is a new advanced RELIG course, to be taught as a combined 400/500-level offering, for a topic that has been regularly offered under a variable topics course RELIG 442/542 “Studies in Buddhism.” Making this topic a designated course should help with visibility and enrollments.

Relig 443/543 is not not intended as a replacement for RELIG 442/542 (which remains useful as a general topics course). Consultations were carried out with the Religious Studies program and Department Council.

RELIG 500 is intended to meet in conjunction with CLASS 501, Research Methods and Resources in Classics, and HIST 602, Research Methods and Resources in History. This one-credit course for incoming graduate students is an introduction to graduate study at the University of Alberta. The addition of a third course number for Religious Studies students is occasioned by this program’s move from the Office of Interdisciplinary Studies to the Department of History and Classics, effective July 1, 2020.

[https://calendar.ualberta.ca/content.php?filter%5B27%5D=RELIG&filter%5B29%5D=&filter%5Bcourse\\_type%5D=&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur\\_cat\\_oid=33&expand=&navoid=10000&search\\_database=Filter&filter%5Bexact\\_match%5D=1#acalog\\_template\\_course\\_filter](https://calendar.ualberta.ca/content.php?filter%5B27%5D=RELIG&filter%5B29%5D=&filter%5Bcourse_type%5D=&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur_cat_oid=33&expand=&navoid=10000&search_database=Filter&filter%5Bexact_match%5D=1#acalog_template_course_filter)

**Calendar Copy:**

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
	<p><b><u>RELIG 443 - Visual and Material Culture in Buddhism</u></b>            ★ 3 (fi 6) (either term, 0-3s-0) Prerequisite: <u>One of: RELIG 240, RELIG 343, EASIA 223, EASIA 323, EASIA 325 or consent of Instructor. Note: Not open to students with credit in RELIG 442 with the topic “Visual and Material Culture in East Asia”</u></p> <p><b><u>RELIG 500 – Research Methods and Resources in Religious Studies</u></b>            ★ 1 (fi 2) (first term, 0-1s-0)</p> <p><b><u>RELIG 543 - Visual and Material Culture in Buddhism</u></b>            ★ 3 (fi 6) (either term, 0-3s-0) Note: <u>Not open to students with credit in RELIG 542 with the topic “Visual and Material Culture in East Asia”</u></p>

Department Contact: Jocelyn Hendrickson	Department Council Approval Date: September 10, 2020
Chair or Designate: Jaymie Heilman, Assoc. Chair Undergraduate	Signature: Jaymie Heilman

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **History and Classics**

Change: **Course**

**Rationale:** This request accompanies our program change request to change the existing major and minor in Ancient and Medieval History into a major and minor in Ancient and Medieval Studies. To reflect the interdisciplinary nature of the new program, students will take a single common required course under the INT D rubric.

[Course listings for Interdisciplinary Studies:  
https://calendar.ualberta.ca/content.php?filter%5B27%5D=INT+D&filter%5B29%5D=&filter%5Bcourse\\_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur\\_cat\\_oid=33&expand=&navoid=10000&search\\_database=Filter&filter%5Bexact\\_match%5D=1#acalog\\_template\\_course\\_filter](https://calendar.ualberta.ca/content.php?filter%5B27%5D=INT+D&filter%5B29%5D=&filter%5Bcourse_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur_cat_oid=33&expand=&navoid=10000&search_database=Filter&filter%5Bexact_match%5D=1#acalog_template_course_filter)

**Calendar Copy:**

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
	<p><b><u>INT D 205 – Introduction to Ancient and Medieval Studies</u></b></p> <p><b><u>★ 3 (fi 6) (either term, 3-0-0)</u></b></p>

Department Contact: <b>Josie Hendrickson</b>	Department Council Approval Date: September 10, 2020
Chair or Designate: Jaymie Heilman, Associate Chair Undergraduate	Signature: Jaymie Heilman

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Media and Technology Studies**

Change: **Course**


**Rationale:** Under the auspices of Media and Technology Studies, PLLC is proposing to introduce a new, 100 level course in leadership. Many students participate in leadership classes and activities in high school but are not able to pursue their interests at University, in a course environment, until their second year of study. This situation arises due to the current organization of PLLC courses, and the fact that Certificates are designed for senior level students. MTS makes sense as the academic home for this course, as the course is focused on the representation of leadership in various media.

In preparing this proposal, PLLC has consulted with the Director of Media and Technology Studies and the chair of the MTS curriculum planning group, as well as the Chair of Drama and the Coordinator of the Film Program in English and Film Studies and received support from all. PLLC has also received approval for this proposal from members of the PLLC Academic Oversight Committee which includes Allen Ball, Gerda de Vries (Associate Dean, Science), Scott Jeffrey (Associate Dean, ALES), Karsten Mundel (Associate Dean, Augustana), Paulin Mulatis (Associate Dean, Campus St. Jean) - and two student representatives.

 Paste **current** calendar URL here 

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
	<p><u>INT D 135 – Popular Representations of Leadership</u></p> <p><u>★ 3 (fi 6) (either term, 3-0-0) This course uses various media genres to explore both dominant understandings of leadership as well as shifts in those understandings. Exploring film, stage, television, and video games, we will analyze the way that popular culture is both informed by, and informs, popular theories and public understanding of leadership. Situating content within its historical and sociopolitical context, we will analyze how various texts inform public understandings of what a leader looks like, how they should act, and what is at stake in following them.</u></p>

Department Contact: Dr. Jaimie Baron (for MTS) Dr. Lois Harder (for PLLC)	Department Council Approval Date: 21/09/20
Chair or Designate: Dr. Astrid Ensslin	 Signature:

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

 Department: **Modern Languages and Cultural Studies**

 Change: **Course**

**Rationale:** The proposed change offers more current wording for the course name and a description that will also be more appealing to students. The content of the course remains the same.

[https://calendar.ualberta.ca/content.php?filter%5B27%5D=C+LIT&filter%5B29%5D=&filter%5Bcourse\\_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpag%5D=1&cur\\_cat\\_oid=33&expand=&navoid=10000&search\\_database=Filter&filter%5Bexact\\_match%5D=1#acalog\\_template\\_course\\_filter](https://calendar.ualberta.ca/content.php?filter%5B27%5D=C+LIT&filter%5B29%5D=&filter%5Bcourse_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpag%5D=1&cur_cat_oid=33&expand=&navoid=10000&search_database=Filter&filter%5Bexact_match%5D=1#acalog_template_course_filter)

**Calendar Copy:**

<b>Current:</b> <u>Strike through and highlight</u> deletions	<b>Proposed:</b> <u>Underline and highlight</u> additions
C LIT 210 — <u>Cyberliterature</u> ★ 3 (fi 6) (either term, 3-0-0) An introduction to the relations between literature and <u>online</u> textuality.	C LIT 210 — <u>Literature in the Digital Age</u> ★ 3 (fi 6) (either term, 3-0-0) An introduction to the relations between literature and <u>digital</u> textuality.

Department Contact: <b>Natalie Van Deusen</b>	Department Council Approval Date: October 5, 2020
Chair or Designate: Alla Nedashkivska	Signature:

**Submission Deadlines: 21-22 Calendar** – 09.02.20, 09.23.20, 10.07.20

**Submission Deadlines: 22-23 Calendar** – 01.13.21, 03.31.21

**Department: Modern Languages and Cultural Studies**
**Change: Course**
**Rationale:** POLSH 111 and 112 will be changed to a blended learning format with 3 in-class hours and 2 online hours.

[https://calendar.ualberta.ca/search\\_advanced.php?cur\\_cat\\_oid=29&search\\_database=Search&search\\_db=Search&page=1&ecpage=1&ppage=1&spage=1&tpage=1&location=3&filter%5Bkeyword%5D=polish&filter%5Bexact\\_match%5D=1](https://calendar.ualberta.ca/search_advanced.php?cur_cat_oid=29&search_database=Search&search_db=Search&page=1&ecpage=1&ppage=1&spage=1&tpage=1&location=3&filter%5Bkeyword%5D=polish&filter%5Bexact_match%5D=1)
**Calendar Copy:**

<b>Current:</b> <del>Strike through and highlight</del> deletions	<b>Proposed:</b> <u>Underline and highlight</u> additions
<p><b>POLSH 111 - Beginners' Polish I</b>            ★ 3 (<i>fi</i> 6) (either term, <del>5-0-0</del>) Intended for students with no previous knowledge of the language and designed to develop basic skills: listening, reading, speaking, writing, and intercultural competence. Note: not to be taken by students with native or near native proficiency, or with Polish 30 or its equivalents in Canada and other countries. Sections may be offered in a Cost Recovery format at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students.</p> <p><b>POLSH 112 - Beginners' Polish II</b>            ★ 3 (<i>fi</i> 6) (either term, <del>5-0-0</del>) Prerequisite: POLSH 111 or consent of Department. Note: not to be taken by students with native or near native proficiency, or with Polish 30 or its equivalents in Canada and other countries. Sections may be offered in a Cost Recovery format at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students.</p>	<p><b>POLSH 111 - Beginners' Polish I</b>            ★ 3 (<i>fi</i> 6) (either term, <u>3-0-2</u>) Intended for students with no previous knowledge of the language and designed to develop basic skills: listening, reading, speaking, writing, and intercultural competence. Note: not to be taken by students with native or near native proficiency, or with Polish 30 or its equivalents in Canada and other countries. Sections may be offered in a Cost Recovery format at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students.</p> <p><b>POLSH 112 - Beginners' Polish II</b>            ★ 3 (<i>fi</i> 6) (either term, <u>3-0-2</u>) Prerequisite: POLSH 111 or consent of Department. Note: not to be taken by students with native or near native proficiency, or with Polish 30 or its equivalents in Canada and other countries. Sections may be offered in a Cost Recovery format at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students.</p>

Department Contact: <b>Natalie Van Deusen</b>	Department Council Approval Date: October 5, 2020
Chair or Designate: Alla Nedashkivska	Signature:

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

 Department: **Modern Languages and Cultural Studies**

 Change: **Course**

**Rationale:** This new course is part of an ongoing effort to broaden the appeal of offerings in the Folklore and Slavic Studies areas in the Department of Modern Languages and Cultural Studies, with the goal of eventually creating a sustainable program. Specifically, this course will allow folklore and immigration culture content to be taught to a broader audience by exposing students of UKR to the subject, and students who are interested in folklore, popular and immigration culture to Ukrainian Studies. The course has been successfully taught in the Spring terms of 2019 and 2020 as SLAV 399 Special topics course with 18 and 31 students enrolled respectively. The course aligns with the teaching interests of at least two faculty members.

Course learning outcomes: At the end of this course, students will become familiar with a wide range of primary sources (immigration promoting brochures, immigration narratives and folksongs, letters, newspaper articles, etc.); will learn about different cultural practices in connection to material culture and everyday life; will be able to explain basic concepts of immigration culture studies (ethnicity, cultural adaptation, fluid identity, etc.).

[https://calendar.ualberta.ca/search\\_advanced.php?cur\\_cat\\_oid=33&search\\_database=Search&search\\_db=Search&page=1&ecpage=1&ppage=1&spage=1&tpage=1&location=33&filter%5Bkeyword%5D=slav&filter%5Bexact\\_match%5D=1](https://calendar.ualberta.ca/search_advanced.php?cur_cat_oid=33&search_database=Search&search_db=Search&page=1&ecpage=1&ppage=1&spage=1&tpage=1&location=33&filter%5Bkeyword%5D=slav&filter%5Bexact_match%5D=1)

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
	<p><u>SLAV 320: Ukrainian Canadian Culture</u>  <u>*3 (either term, 3-0-0). Culture of Ukrainian</u>  <u>immigrants in Canada during the late 19<sup>th</sup> and 20<sup>th</sup></u>  <u>centuries with the main focus on oral, material and</u>  <u>popular culture of the Canadian Prairies. Taught in</u>  <u>English.</u></p>

Department Contact: <b>Natalie Van Deusen</b>	Department Council Approval Date: October 5, 2020
Chair or Designate: Alla Nedashkivska	Signature:

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Political Science**

Change: **Course**

**Rationale:** In the format taken from the 2020-21 Calendar Draft

Courses no longer taught and/or on reserve list.

◀ (2020-21 Draft) ▶

**Calendar Copy:**

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b><del>POL S 321 - The Politics of Health Care in Canada I</del></b>            ★ 1.5 (fi 3) (either term, 18 hours) The development of Canada's health care system, its legislative and philosophical grounds, as well as financing and delivery. Note: Open only to students in the Faculty of Nursing. Not open to students with credit in SC PO 320.</p> <p><b><del>POL S 322 - The Politics of Health Care in Canada II</del></b>            ★ 1.5 (fi 3) (either term, 18 hours) Current stresses in the health care system such as challenges to universality; alternative health delivery system from a comparative perspective. Note: Open only to students in the Faculty of Nursing. Not open to students with credit in SC PO 320. Prerequisite: POL S 321I</p> <p><b><del>POL S 330 - Urbanization and Urban Politics</del></b>            ★ 3 (fi 6) (either term, 3-0-0) Introduction to the major theoretical traditions and key contributions of Political Science to the study of urban development. Prerequisite: One of POL S 223, 235 (or 230 or 240) or Department consent.</p> <p><b><del>POL S 374 Politics and Society of Postcolonial Africa</del></b>            ★ 3 (fi 6) (either term, 3-0-0). An intensive survey of selected African politics and societies from colonialism to globalization. Prerequisite: One of POL S 235 (or 240), MEAS major/minor or Department consent</p> <p><b><del>POL S 405 Democratic Theory</del></b>            ★3 (fi 6) (either term, 0-3s-0). An investigation of different conceptions of democracy in political thought. Prerequisite: One of POL S 211, 212 (or 210) or Department consent.</p> <p><b><del>POL S 435 - Metropolitan Government</del></b>            ★ 3 (fi 6) (either term, 0-3s-0) The comparative study of the political economy of metropolitan government. Prerequisite: One of POL S 220, 224, 225, 235 (or 223, 230, or 240) or Department consent.</p> <p><b><del>POL S 450 - Topics in Comparative Theory</del></b>            ★ 3 (fi 6) (either term, 0-3s-0) Seminar in major areas of comparative theory such as political economy and the politics of collective action. A variable content course, which may be repeated if topics vary. Prerequisite: One of POL S 235 (or 230 or 240) or Department consent.</p>	



<p><b>POL S 483 – United States Constitutional Law</b>          ★3 (fi 6) (either term, 0-3s-0) Individual liberties and the equal protection of groups in the United States, focusing on court rulings about the Bill of Rights and 14th Amendment, controversies over constitutional interpretation, and the political of rights. Prerequisite: One of POL S 390, 419 or Department consent; also open to Law students.</p> <p><b>POL S 505 Democratic Theory</b>          ★3 (fi 6) (either term, 0-3s-0). An investigation of different conceptions of democracy in political thought. Not open to students with credit in POL S 405.</p> <p><b>POL S 650 Comparative Studies in Industrialized Countries</b>          ★3 (fi 6) (either term, 0-3s-0). A survey of the study of the politics of industrialized countries. Concepts, theories, and analyses of various state and society issues will be examined.</p> <p><b>POL S 670 Studies in Comparative Development</b>          ★3 (fi 6) (either term, 0-3s-0). A survey of the critical concepts and theories in development politics</p>	
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Department Contact: Judith A. Garber, Associate Chair (Undergraduate)	Department Council Approval Date: 09/30/2020
Chair or Designate: Judith A. Garber, Associate Chair (Undergraduate)	Signature: <i>Judith A. Garber</i>

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Political Science**

Change: **Course**

**Rationale:** In the format taken from the 2020-21 Calendar Draft

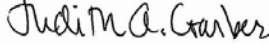
Creating courses requested by faculty in our Indigenous Politics field, including a core undergraduate course (201) and two topics courses being turned into unique courses (331, 437/537). Two disciplinary topics courses (298, 398) to be used in here or in Cortona/study abroad. Two topics course turned into a unique courses (369, 577). We are consulting with NS, WGS, ECON, RELIG.

« 2020-21 Draft »

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
	<p><b><u>POL S 201 - Introduction to Indigenous Politics</u> ★ 3 (fi 6) (either term, 3-0-0)</b> Core concepts in the field of Indigenous politics. Prerequisite: POL S 101 or Department consent.</p> <p><b><u>POL S 298 - Topics in Political Science</u> ★ 3 (fi 6) (either term, 3-0-0)</b> A variable content course, which may be repeated if topics vary. Prerequisite: POL S 101 or Department consent.</p> <p><b><u>POL S 331 - Indigenous Feminist Politics</u> ★ 3 (fi 6) (either term, 3-0-0)</b> Indigenous women's/LGBTAIQ2S' voices and politics as they cut across theories, methodologies and practices. Prerequisite: Any 200-level course in POL S or NS or Department consent.</p> <p><b><u>POL S 369 - The Politics of Money</u> ★ 3 (fi 6) (either term, 3-0-0)</b> Political questions animating money and finance in Canada and globally, e.g., financialization, financial crises, consumer debt, popular resistance. Prerequisite: Any 200-level POL S course or Department consent.</p> <p><b><u>POL S 398 - Topics in Politics</u> ★ 3 (fi 6) (either term, 3-0-0)</b> A variable content course, which may be repeated if topics vary. Prerequisite: Any 200-level POL S course or Department consent.</p> <p><b><u>POL S 437 - Indigenous Political Thought</u> ★ 3 (fi 6) (either term, 0-3s-0)</b> Engaging the works of critical Indigenous thinkers. Prerequisite: POL S 327, POL S 329, POL S 331 or Department consent.</p> <p><b><u>POL S 537 - Indigenous Political Thought</u> ★ 3 (fi 6) (either term, 0-3s-0)</b> Engaging the works of critical Indigenous thinkers.</p>

**POL S 577 - Islam, Modernity, and Democracy**  
★ 3 (fi 6) (either term, 0-3s-0)  
Political ideas and practice in Islamic countries, including historical and contemporary constructions of Islam.

Department Contact: Judith A. Garber, Associate Chair (Undergraduate)	Department Council Approval Date: 09/30/2020
Chair or Designate: Judith A. Garber, Associate Chair (Undergraduate)	Signature: 

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Political Science**

Change: **Course**

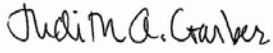
**Rationale:** In the format taken from the 2020-21 Calendar Draft

Updating courses to reflect what is taught in them.

◀ 2020-21 Draft ▶

**Calendar Copy:**

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>POL S 327 - <del>Aboriginal Peoples and</del> Politics in Canada</b> ★ 3 (fi 6) (either term, 3-0-0) <del>This course is an examination of different</del> historical and contemporary issues associated with <del>Aboriginal</del> politics. Prerequisite: <del>One of POL S 224, 225 (or 220), NS 110 or 111.</del></p> <p><b>POL S 417 - <u>Philosophical Issues of</u> Human Rights</b> ★ 3 (fi 6) (either term, 0-3s-0) <u>An enquiry into the idea(s) of human rights and the adequacy of their philosophical grounding.</u> Prerequisite: <u>One of POL S 211, 212 (or 210)</u></p> <p><b>POL S 477 - <del>Topics in</del> Islamic Politics</b> ★ 3 (fi 6) (either term, 0-3s-0) <u>A variable content course, which may be repeated if topics vary.</u> Prerequisite: <u>One of POL S 235 (or 240 or 380)</u></p> <p><b>POL S 517 - <u>Philosophical Issues of</u> Human Rights</b> ★ 3 (fi 6) (either term, 0-3s-0) <u>An enquiry into the idea(s) of human rights and the adequacy of their philosophical grounding.</u></p> <p><b>POL S 536 - <u>Topics n</u> Indigenous Politics</b> ★ 3 (fi 6) (either term, 0-3s-0) A variable content course, which may be repeated if topics vary.</p>	<p><b>POL S 327 - <u>Indigenous</u> Politics in Canada</b> ★ 3 (fi 6) (either term, 3-0-0) <u>Historical and contemporary issues associated with <u>Indigenous</u> politics in Canada.</u> Prerequisite: <u>Any 200-level course in POL S or NS or Department consent.</u></p> <p><b>POL S 417 - <u>Topics in</u> Human Rights</b> ★ 3 (fi 6) (either term, 0-3s-0) <u>A variable content course that may be repeated if topics vary.</u> Prerequisite: <u>Any 200-level course in POL S or Department consent.</u></p> <p><b>POL S 477 - <u>Islam, Modernity, and Democracy</u></b> ★ 3 (fi 6) (either term, 0-3s-0) <u>Political ideas and practice in Islamic countries, including historical and contemporary constructions of Islam.</u> Prerequisite: <u>Any 200-level course in POL S or Department consent.</u></p> <p><b>POL S 517 - <u>Topics in</u> Human Rights</b> ★ 3 (fi 6) (either term, 0-3s-0) <u>A variable content course that may be repeated if topics vary.</u></p> <p><b>POL S 536 - <u>Topics in</u> Indigenous Politics</b> ★ 3 (fi 6) (either term, 0-3s-0) A variable content course, which may be repeated if topics vary.</p>

Department Contact: Judith A. Garber, Associate Chair (Undergraduate)	Department Council Approval Date: 04/30/2020
Chair or Designate: Judith A. Garber, Associate Chair (Undergraduate)	Signature: 

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

 Department: **Psychology**

 Change: **Course**
**Rationale:** STAT 161 is a new course that is considered equivalent to STAT 151.

The intention is to change each of PSYCO 399 and PSYCO 490 courses from a ★3 two-term course to two sections of ★3 each, so that students could receive ★6 if they complete both sections. This change is meant to more adequately reflect the amount of time that students are expected to put into their apprenticeship/thesis work, while maintaining consistency with the BSc Honors. Turning the two-term courses into two one-term courses also addresses potential issues with full year courses and grade assignments, such as those that came to light when the University had to change to a CR/NC system in Winter 2020.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37986&hl=%22honors+in+psychology%22&returnto=search](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37986&hl=%22honors+in+psychology%22&returnto=search)


**Calendar Copy:**

<b>Current:</b> <del>Strike through and highlight</del> deletions	<b>Proposed:</b> <u>Underline and highlight</u> additions
<p><b>PSYCO 212 - Introduction to Research Methods in Psychology</b>            ★ 3 (fi 6) (either term, 3-0-0) Experimental and nonexperimental methods in psychology. Topics covered include philosophy of science, measurement, reliability and validity of methods, measures, and effects; experimental quasi-experimental, and single-subject designs; biases in experimentation; and research ethics. Prerequisites: PSYCO 104 or SCI 100, and PSYCO 105, and STAT 141 or 151. [Faculty of Arts]</p> <p><b>PSYCO 300 - Honors Seminar I</b>            ★ 3 (fi 6) (<u>two</u> term, 3-0-0) A range of conceptual and methodological issues in psychology are considered, and students receive intensive training and practice in both written and oral communications. The seminar meets once a week for the full Fall/Winter period. Restricted to, and required of, third-year students in the Arts Honors Psychology program. [Faculty of Arts]</p> <p><b>PSYCO 399 - Honors Thesis I: Research Apprenticeship</b>            ★ 3 (fi 6) (<u>two</u> term, 0-0-6) Under the direction of a Faculty member, students pursue a topic of interest leading to the development of a thesis proposal and, during their fourth year, the thesis research. The work normally involves both directed readings and empirical research experience. Restricted to, and required of, third-year students in the Arts Honors Psychology program. [Faculty of Arts]</p>	<p><b>PSYCO 212 - Introduction to Research Methods in Psychology</b>            ★ 3 (fi 6) (either term, 3-0-0) Experimental and nonexperimental methods in psychology. Topics covered include philosophy of science, measurement, reliability and validity of methods, measures, and effects; experimental quasi-experimental, and single-subject designs; biases in experimentation; and research ethics. Prerequisites: PSYCO 104 or SCI 100, and PSYCO 105, and STAT 141 or 151 <u>or 161</u>. [Faculty of Arts]</p> <p><b>PSYCO 300 - Honors Seminar I</b>            ★ 3 (fi 6) (<u>either</u> term, 3-0-0) A range of conceptual and methodological issues in psychology are considered, and students receive intensive training and practice in both written and oral communications. The seminar meets once a week for the full Fall/Winter period. Restricted to, and required of, third-year students in the Arts Honors Psychology program. [Faculty of Arts]</p> <p><b>PSYCO 399 - Honors Thesis I: Research Apprenticeship</b>            ★ 3 (fi 6) (<u>either</u> term, 0-0-6) Under the direction of a Faculty member, students pursue a topic of interest leading to the development of a thesis proposal and, during their fourth year, the thesis research. The work normally involves both directed readings and empirical research experience. Restricted to, and required of, third-year students in the Arts Honors Psychology program. [Faculty of Arts]</p>

<p><b>PSYCO 400 – Honors Seminar</b></p> <p>★ 3 (fi 6) (<b>two</b> term, 3-0-0) A continuation of PSYCO 300, with an emphasis on the development of professional skills. Topics include the new information technologies, the publication process, ethical issues, and the application of research findings to real-world problems. The seminar meets once a week for the full Fall/Winter period. Prerequisite: PSYCO 300. Restricted to, and required of, fourth-year students in the Arts Honors Psychology program. [Faculty of Arts]</p> <p><b>PSYCO 405 - Special Topics in Psychology II</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Review and discussion of special theoretical or methodological topics, or a novel or emerging research areas in contemporary psychology. Prerequisites: PSYCO 104 or SCI 100, and PSYCO 105, and STAT 141 or 151. Note: Consult with the Department for the specific topic offered each year and any additional prerequisites. [Faculty of Arts]</p> <p><b>PSYCO 415 - Qualitative Methods in Sociocultural Psychology</b></p> <p>★ 3 (fi 6) (either term, 3-0-2) The assumptions that inform the design of qualitative research in sociocultural psychology; the procedures for gathering meaningful information through interviews, conversation, observed interaction, and textual archives; and the analysis of such information. Prerequisites: STAT 141 or 151, and PSYCO 212, and one of PSYCO 223, 233, 241, or 341. [Faculty of Arts]</p> <p><b>PSYCO 423 - Advanced Topics in Developmental Psychology</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) An in-depth review and analysis of research in an area of developmental psychology. Prerequisites: STAT 141 or 151, and PSYCO 323 or PSYCO 327 or 329. Note: Consult with the Department for the specific topic offered each year and any additional prerequisites. [Faculty of Arts]</p> <p><b>PSYCO 431 - Theory and Practice of Psychometrics</b></p> <p>★ 3 (fi 6) (either term, 3-0-3) The nature of psychological tests: some practical work in administration, scoring and interpretation of tests. Prerequisites: STAT 141 or 151 and PSYCO 333 or 335. [Faculty of Arts].</p> <p><b>PSYCO 443 - Social Cognition</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Advanced treatment of topics in the study of how we think about the world of persons and events. Topics may include the role of categories, schemas, theories, and heuristics in social cognition, factors underlying the stereotyping of persons and groups, and the question of motivated bias in social perception. Prerequisites: STAT 141 or 151 and PSYCO 241. [Faculty of Arts]</p> <p><b>PSYCO 445 - Social Psychology and Cinema</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) The purpose of this course is to use a combination of social psychological theory, research and feature length films to explore the psychological determinants of</p>	<p><b>PSYCO 400 – Honors Seminar</b></p> <p>★ 3 (fi 6) (<b>either</b> term, 3-0-0) A continuation of PSYCO 300, with an emphasis on the development of professional skills. Topics include the new information technologies, the publication process, ethical issues, and the application of research findings to real-world problems. The seminar meets once a week for the full Fall/Winter period. Prerequisite: PSYCO 300. Restricted to, and required of, fourth-year students in the Arts Honors Psychology program. [Faculty of Arts]</p> <p><b>PSYCO 405 - Special Topics in Psychology II</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Review and discussion of special theoretical or methodological topics, or a novel or emerging research areas in contemporary psychology. Prerequisites: PSYCO 104 or SCI 100, and PSYCO 105, and STAT 141 or 151 <b>or 161</b>. Note: Consult with the Department for the specific topic offered each year and any additional prerequisites. [Faculty of Arts]</p> <p><b>PSYCO 415 - Qualitative Methods in Sociocultural Psychology</b></p> <p>★ 3 (fi 6) (either term, 3-0-2) The assumptions that inform the design of qualitative research in sociocultural psychology; the procedures for gathering meaningful information through interviews, conversation, observed interaction, and textual archives; and the analysis of such information. Prerequisites: STAT 141 or 151 <b>or 161</b>, and PSYCO 212, and one of PSYCO 223, 233, 241, or 341. [Faculty of Arts]</p> <p><b>PSYCO 423 - Advanced Topics in Developmental Psychology</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) An in-depth review and analysis of research in an area of developmental psychology. Prerequisites: STAT 141 or 151 <b>or 161</b>, and PSYCO 323 or PSYCO 327 or 329. Note: Consult with the Department for the specific topic offered each year and any additional prerequisites. [Faculty of Arts]</p> <p><b>PSYCO 431 - Theory and Practice of Psychometrics</b></p> <p>★ 3 (fi 6) (either term, 3-0-3) The nature of psychological tests: some practical work in administration, scoring and interpretation of tests. Prerequisites: STAT 141 or 151 <b>or 161</b> and PSYCO 333 or 335. [Faculty of Arts].</p> <p><b>PSYCO 443 - Social Cognition</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Advanced treatment of topics in the study of how we think about the world of persons and events. Topics may include the role of categories, schemas, theories, and heuristics in social cognition, factors underlying the stereotyping of persons and groups, and the question of motivated bias in social perception. Prerequisites: STAT 141 or 151 <b>or 161</b> and PSYCO 241. [Faculty of Arts]</p> <p><b>PSYCO 445 - Social Psychology and Cinema</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) The purpose of this course is to use a combination of social psychological theory, research and feature length films to explore the psychological determinants of important forms of human social behavior. Topics</p>
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<p>important forms of human social behavior. Topics include the existential realities of the human condition, aggression, obedience, prejudice, attraction, and relationships. Prerequisites: One of STAT 141 or 151 or PSYCO 212, and one of PSYCO 333, 342, 343, or 347. PSYCO 212 is strongly recommended. Note: Not open to students with credit in PSYCO 405 Topic: Studies of Self Through Cinema. [Faculty of Arts].</p> <p><b>PSYCO 447 - Self and Identity</b> ★ 3 (fi 6) (either term, 3-0-0) Review of theory and research on the self, primarily from a social psychological perspective. Prerequisites: One of STAT 141 or 151 or PSYCO 212, and one of PSYCO 342 or PSYCO 347. PSYCO 212 is strongly recommended. Note: Not open to students with credit in PSYCO 405 Topic: Self and Identity. [Faculty of Arts]</p> <p><b>PSYCO 490 - Honors Thesis II: Thesis Research</b> ★ 3 (fi 6) (two term, 0-0-6) Under the direction of a faculty member, students conduct an empirical research project culminating in the Honors Thesis. Prerequisite: PSYCO 399. Restricted to, and required of, fourth-year students in the Arts Honors psychology program. [Faculty of Arts]</p>	<p>include the existential realities of the human condition, aggression, obedience, prejudice, attraction, and relationships. Prerequisites: One of STAT 141 or 151 or 161 or PSYCO 212, and one of PSYCO 333, 342, 343, or 347. PSYCO 212 is strongly recommended. Note: Not open to students with credit in PSYCO 405 Topic: Studies of Self Through Cinema. [Faculty of Arts].</p> <p><b>PSYCO 447 - Self and Identity</b> ★ 3 (fi 6) (either term, 3-0-0) Review of theory and research on the self, primarily from a social psychological perspective. Prerequisites: One of STAT 141 or 151 or 161 or PSYCO 212, and one of PSYCO 342 or PSYCO 347. PSYCO 212 is strongly recommended. Note: Not open to students with credit in PSYCO 405 Topic: Self and Identity. [Faculty of Arts]</p> <p><b>PSYCO 490 - Honors Thesis II: Thesis Research</b> ★ 3 (fi 6) (either term, 0-0-6) Under the direction of a faculty member, students conduct an empirical research project culminating in the Honors Thesis. Prerequisite: PSYCO 399. Restricted to, and required of, fourth-year students in the Arts Honors psychology program. [Faculty of Arts]</p>
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Department Contact: Jannie Boulter	Department Council Approval Date: Not necessary (editorial)
Chair or Designate: Cor Baerveldt	Signature: 

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Sociology**

Change: **Course**

**Rationale: SOC 226** - The Department is changing the name of this course to more accurately reflect the field of study. "Surveillance Studies" is now a well recognized term that captures the interdisciplinary and critical approach to understanding the diverse forms of surveillance that exist in contemporary society. The faculty member responsible for developing this course (and who regularly teaches it) has been consulted and supports the change. The proposal has been approved by both UTC and Department Council.

**SOC 459** - Over the last several decades, the field of family demography has expanded considerably in reaction to the many changes that are evolving in the areas of sexuality and intimate partnerships and the changing concept of family. Young adults today have varied experiences with respect to forming conjugal unions; and their life course differs significantly from that of older generations. While marriage remains highly desirable, many postpone it or abandon the idea altogether and opt for non-traditional types of partnerships. Marriage is one of several alternatives, for example, cohabitation as a precursor to marriage; cohabitation as an alternative to marriage; and serial cohabitation. Consequently, an increasing proportion of children annually are born outside of traditional marital unions. Alongside these developments is the rising trend of same-sex unions in Canada and in a growing number of other countries. The course title and description need revision to take into account these social demographic realities. Both faculty members who teach this course have been involved in the preparation of this proposal. The proposal has been approved by both UTC and Department Council.

**SOC 486** The Department is changing the name of this course to be consistent with one of its prerequisites, SOC 382 (Sociology of Health and Illness), and to reinforce the idea that "mental health," not just "mental illness," is an important dimension of the course. The faculty member primarily responsible for teaching this course has been consulted and supports the change. The proposal has been approved by both UTC and Department Council.


[https://calendar.ualberta.ca/content.php?filter%5B27%5D=SOC&filter%5B29%5D=&filter%5Bcourse\\_type%5D=1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur\\_cat\\_oid=29&expand=&navoid=7430&search\\_database=Filter&filter%5Bexact\\_match%5D=1#acalog\\_template\\_course\\_filter](https://calendar.ualberta.ca/content.php?filter%5B27%5D=SOC&filter%5B29%5D=&filter%5Bcourse_type%5D=1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur_cat_oid=29&expand=&navoid=7430&search_database=Filter&filter%5Bexact_match%5D=1#acalog_template_course_filter)

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
<p>SOC 226 – <del>Social Studies of Surveillance</del> ★ 3 (fi 6) (either term, 3-0-0) Critical analysis of the increased prominence of diverse forms of surveillance in contemporary society.</p> <p>SOC 459 – The Demography of <del>Marriage and Family</del> ★ 3 (fi 6) (either term, 3-0-0) <del>Review and analysis of the demographic interrelationships of fertility, mortality, and migration with marriage and the family; a cross-cultural review of historical trends, contemporary patterns and future implications; emphasis on statistical measurement, family planning and policy in the Canadian setting.</del> Prerequisite: SOC 271 or consent of the instructor.</p> <p>SOC 486 – Sociology of Mental Illness ★ 3 (fi 6) (either term, 3-0-0) Sociological aspects of mental health and illness. Includes historical</p>	<p>SOC 226 – <u>Surveillance Studies</u> ★ 3 (fi 6) (either term, 3-0-0) Critical analysis of the increased prominence of diverse forms of surveillance in contemporary society.</p> <p>SOC 459 – The <u>Social</u> Demography of <u>Partnerships and Families</u> ★ 3 (fi 6) (either term, 3-0-0) <u>Social demographic analysis of family change and processes; the transitions individuals make into and out of partnerships, parenting and family formation.</u></p> <p>Prerequisites: <u>One of SOC 251</u>, SOC 271, <u>SOC 301</u> or consent of the instructor.</p> <p>SOC 486 – Sociology of Mental <u>Health and</u> Illness</p>



<p>perspectives, diagnostic issues, and perspectives on causation and treatment. Prerequisite: SOC 224 or 382 or consent of instructor.</p>	<p>★ 3 (fi 6) (either term, 3-0-0) Sociological aspects of mental health and illness. Includes historical perspectives, diagnostic issues, and perspectives on causation and treatment. Prerequisite: SOC 224 or 382 or consent of instructor.</p>
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<p>Department Contact: Alison Dunwoody</p>	<p>Department Council Approval Date: October 7, 2020</p>
<p>Chair or Designate: Alison Dunwoody</p>	<p>Signature: </p>

**Submission Deadlines: 21-22 Calendar** – 09.02.20, 09.23.20, 10.07.20

**Submission Deadlines: 22-23 Calendar** – 01.13.21, 03.31.21

**Department: History and Classics**
**Change: Program**

**Rationale:** The idea of having standard field lists for all students has not worked and we wish to return to a system that allows for more tailoring of fields to individual students. The proposal was developed by the Ad Hoc Committee on the History PhD Program and has been approved by the History Division of the Department and Department Council.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37418&hl=%22HIST%22&returnto=search](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37418&hl=%22HIST%22&returnto=search)  
**The Degree of PhD in History (History and Classics)[Graduate]**

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>The Degree of PhD in History (History and Classics)[Graduate]</b></p> <p>[...]</p> <p><b>Comprehensive examinations</b></p> <p>After completing their coursework, students are required to complete an oral comprehensive examination in their major and minor fields. <del>From the list of geographic and thematic fields available on the Department website,</del> students can select one major and two minor fields, or two major fields. The major field can be geographic or thematic but, in combination, the doctoral fields must include both geographic and thematic fields. A single oral comprehensive examination covers all the fields. If the candidate passes the comprehensive examinations, they will then be permitted to proceed to the candidacy examination.</p>	<p><b>The Degree of PhD in History (History and Classics)[Graduate]</b></p> <p>[...]</p> <p><b>Comprehensive examinations</b></p> <p>After completing their coursework, students are required to complete an oral comprehensive examination in their major and minor fields. <u>By the end of the first term in the program, students will declare their fields and submit reading lists to the Department for approval.</u> Students can select one major and two minor fields, or two major fields. The major field can be geographic or thematic but, in combination, the doctoral fields must include both geographic and thematic fields. A single oral comprehensive examination covers all the fields. If the candidate passes the comprehensive examination, they will then be permitted to proceed to the candidacy examination.</p>

Department Contact: <b>Heather Coleman</b>	Department Council Approval Date: Aug. 18 2020
Chair or Designate: Jaymie Heilman, Associate Chair	Signature: Jaymie Heilman

Approval: Arts Faculty Council November 26, 2020

Department: **Economics**

Change: **Program - Change (minor)**

**Why is this change being proposed and who was consulted?** There is a new STAT course (STAT 161) for economics and business students which substitutes STAT 151. The course STAT 161 has been created by the MMSS department in close collaboration with the Economics department.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37978](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37978)

**Calendar Copy:**

<b>Current:</b> <del>Strike through and highlight</del> deletions	<b>Proposed:</b> <u>Underline and highlight</u> additions
<p>[...]</p> <p><b>Honors Route for Graduate Study in Economics</b></p> <hr/> <p><b>Course Requirements</b></p> <ul style="list-style-type: none"> <li>• ECON 101 - Introduction to Microeconomics <b>AND</b></li> <li>• ECON 102 - Introduction to Macroeconomics <b>OR</b></li> <li>• ECON 204 - Principles of Economics</li> <li>• <u>MATH 125 - Linear Algebra I (or equivalent)</u></li> <li>• <u>MATH 154 - Calculus for Business and Economics I (or equivalent)</u></li> <li>• MATH 156 - Calculus for Business and Economics II</li> <li>• <del>STAT 151 - Introduction to Applied Statistics I (or equivalent)</del> <b>AND</b></li> <li>• ECON 299 - Quantitative Methods in Economics <b>OR</b></li> <li>• STAT 265 - Statistics I <b>AND</b></li> <li>• STAT 266 - Statistics II</li> </ul> <p>[...]</p> <p><b>Honors Essay Route</b></p> <hr/> <p>This program does not have a minor</p> <p><b>Course Requirements</b></p> <hr/> <ul style="list-style-type: none"> <li>• ECON 101 - Introduction to Microeconomics <b>AND</b></li> <li>• ECON 102 - Introduction to Macroeconomics <b>OR</b></li> <li>• ECON 204 - Principles of Economics</li> <li>• <u>MATH 125 - Linear Algebra I (or equivalent)</u></li> <li>• <u>MATH 154 - Calculus for Business and Economics I (or equivalent)</u></li> <li>• MATH 156 - Calculus for Business and Economics II</li> <li>• <del>STAT 151 - Introduction to Applied Statistics I (or equivalent)</del> <b>AND</b></li> <li>• ECON 299 - Quantitative Methods in Economics <b>OR</b></li> <li>• STAT 265 - Statistics I <b>AND</b></li> <li>• STAT 266 - Statistics II</li> </ul>	<p>[...]</p> <p><b>Honors Route for Graduate Study in Economics</b></p> <hr/> <p><b>Course Requirements</b></p> <ul style="list-style-type: none"> <li>• ECON 101 - Introduction to Microeconomics <b>AND</b></li> <li>• ECON 102 - Introduction to Macroeconomics <b>OR</b></li> <li>• ECON 204 - Principles of Economics</li> <li>• MATH 125 - Linear Algebra I</li> <li>• MATH 154 - Calculus for Business and Economics I</li> <li>• MATH 156 - Calculus for Business and Economics II</li> <li>• <u>STAT 161 - Introductory Statistics for Business and Economics</u> <b>AND</b></li> <li>• ECON 299 - Quantitative Methods in Economics <b>OR</b></li> <li>• STAT 265 - Statistics I <b>AND</b></li> <li>• STAT 266 - Statistics II</li> </ul> <p>[...]</p> <p><b>Honors Essay Route</b></p> <hr/> <p>This program does not have a minor</p> <p><b>Course Requirements</b></p> <hr/> <ul style="list-style-type: none"> <li>• ECON 101 - Introduction to Microeconomics <b>AND</b></li> <li>• ECON 102 - Introduction to Macroeconomics <b>OR</b></li> <li>• ECON 204 - Principles of Economics</li> <li>• MATH 125 - Linear Algebra I</li> <li>• MATH 154 - Calculus for Business and Economics I</li> <li>• MATH 156 - Calculus for Business and Economics II</li> <li>• <u>STAT 161 - Introductory Statistics for Business and Economics</u> <b>AND</b></li> <li>• ECON 299 - Quantitative Methods in Economics <b>OR</b></li> <li>• STAT 265 - Statistics I <b>AND</b></li> <li>• STAT 266 - Statistics II</li> </ul>

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In which academic year is this change is this change required? **2021-2022**

Department contact name: <i>Rae Beaumont</i>	Department Council Approval Date: <i>09/28/2020</i>
Chair or Designate name: <i>Valentina Galvani</i>	Signature:

Approval: Arts Faculty Council November 26, 2020

Department: **Economics**

Change: **Program - Change (minor)**

Why is this change being proposed and who was consulted? New STAT course (STAT 161) for economics students, already an active course, substitutes STAT 151. The course STAT 161 has been created in close collaboration with the MMSS department.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poiid=37080](https://calendar.ualberta.ca/preview_program.php?catoid=33&poiid=37080)

Calendar Copy:

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>A major in Economics requires:</b></p> <ul style="list-style-type: none"> <li>ECON 101 - Introduction to Microeconomics <b>AND</b></li> <li>ECON 102 - Introduction to Macroeconomics <b>OR</b></li> <li>ECON 204 - Principles of Economics</li> <li>MATH 154 - Calculus for Business and Economics I (<del>or equivalent</del>)</li> <li>MATH 156 - Calculus for Business and Economics II</li> <li><del>STAT 151 - Introduction to Applied Statistics I (or equivalent)</del></li> </ul> <p>[...]</p> <p><b>Notes</b></p> <ol style="list-style-type: none"> <li>To have the greatest possible flexibility in their choice of the 300- and 400-level courses required to complete a concentration in Economics, students should complete all the departmental requirements earlier rather than later in their programs. In particular, students should complete the ECON 101 and ECON 102; MATH 154 and MATH 156; <del>STAT 151</del>; ECON 281, ECON 282 and ECON 299 requirements as part of their first ★60. Students are urged to take MATH 154 as soon as possible, preferably in their first year.</li> <li>[...]</li> <li>MATH 154, MATH 156, and <del>STAT 151</del> meet the requirements for ★6 from Non-Arts Discipline(s).</li> </ol>	<p><b>A major in Economics requires:</b></p> <ul style="list-style-type: none"> <li>ECON 101 - Introduction to Microeconomics <b>AND</b></li> <li>ECON 102 - Introduction to Macroeconomics <b>OR</b></li> <li>ECON 204 - Principles of Economics</li> <li>MATH 154 - Calculus for Business and Economics I</li> <li>MATH 156 - Calculus for Business and Economics II</li> <li><u>STAT 161 - Introductory Statistics for Business and Economics</u></li> </ul> <p>[...]</p> <p><b>Notes</b></p> <ol style="list-style-type: none"> <li>To have the greatest possible flexibility in their choice of the 300- and 400-level courses required to complete a concentration in Economics, students should complete all the departmental requirements earlier rather than later in their programs. In particular, students should complete the ECON 101 and ECON 102; MATH 154 and MATH 156; <u>STAT 161</u>; ECON 281, ECON 282 and ECON 299 requirements as part of their first ★60. Students are urged to take MATH 154 as soon as possible, preferably in their first year.</li> <li>[...]</li> <li>MATH 154, MATH 156, and <u>STAT 161</u> meet the requirements for ★6 from Non-Arts Discipline(s).</li> </ol>

In which academic year is this change required? **2021-2022**

Department contact name: <i>Rae Beaumont</i>	Department Council Approval Date: <i>09/28/2020</i>
Chair or Designate name: <i>Valentina Galvani</i>	Signature:

Approval: Arts Faculty Council November 26, 2020

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **History and Classics**

Change: **Program**

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**Rationale:** History and Classics currently offers an interdisciplinary major and minor in Ancient and Medieval History. Building on but replacing this would be the proposed program in Ancient and Medieval *Studies*. Broader than the current program, the new one will draw on courses from a range of continuing disciplinary programs across the Faculty of Arts, whose departments regularly offer lectures, seminars and language instruction pertaining to ancient and medieval cultures (including those outside the “West”). This inclusive major/minor in Ancient and Medieval Studies will appeal to students looking for a comparative or interdisciplinary perspective on the study of pre-modern worlds and offer wider cultural representation than the existing AMH major. AMS will thus complement existing programs that focus on particular eras, regions or disciplinary approaches.

Faculty were consulted in all departments where relevant coursework is offered. All responded positively and most contributed courses that we may list as cross-listed courses for this major and minor on the departmental webpage (see appendix). Of the language options listed below, HEBR, GREEK, LATIN, and SANSK are offered through our department. We have obtained written permission to list the other languages (Arabic, Classical Chinese, and Old Norse).

Major: [https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=38066](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=38066)

Minor: [https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=38064](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=38064)

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Proposed: Underline and highlight additions

Requirements

See [Bachelor of Arts \(BA\)](#).

### Major in Ancient and Medieval **History**

The Department of History and Classics offers a major in the area of Ancient and Medieval History. Students are required to complete a minimum of \*30 to a maximum of \*48:

Required courses are:

- HIST 290— Introduction to Historiography (★3)

**★12 Ancient History selected from the following of which at least ★3 must be taken at the 400-level:**

- CLASS 254— Introduction to Greek Art and Archaeology
- CLASS 255— Introduction to Roman Art and Archaeology
- CLASS 261— Women, Gender and Sexuality in the Ancient World
- CLASS 280— Introduction to Ancient Greek History
- CLASS 282— Introductory Roman History I
- CLASS 283— Introductory Roman History II
- CLASS 294— Ancient Science, Technology, and Medicine
- CLASS 299— Topics in the Ancient World
- CLASS 303— Religion in Greco-Roman Antiquity
- CLASS 304— Warfare in Greco-Roman Antiquity
- CLASS 330— From Alexander the Great to Cleopatra: The Hellenistic World
- CLASS 354— Topics in Greek Civilization \*
- CLASS 355— Topics in Roman Civilization \*
- CLASS 356— Topics in Ancient Art
- CLASS 376— Early Civilization I
- CLASS 380— History of Palestine
- CLASS 399— Topics in the Ancient World \*
- CLASS 463— Topics in Roman History
- CLASS 473— Topics in Classical Archaeology
- CLASS 478— Topics in Roman Art
- CLASS 480— Topics in the Archaeology of the Roman Provinces
- CLASS 481— Topics in Greek History
- CLASS 499— Individual Study of Historical and Archaeological Problems
- HIST 289— Introduction to Classical India

Note: \*Eligible when the topic is on ancient history or archaeology, but not literature.

**★12 Medieval History selected from the following of which at least ★3 must be taken at the 400-level:**

- HIST 207— Pre-Modern Europe I
- HIST 212— Pre-Modern Europe II

Requirements

See [Bachelor of Arts \(BA\)](#).

### Major in Ancient and Medieval **Studies**

Degrees in Ancient and Medieval Studies are interdisciplinary programs administered by the Department of History and Classics. Students are required to complete a minimum of \*30 to a maximum of \*48 at the senior level, chosen from a list of cross-listed courses. Consult the History and Classics website at <https://www.ualberta.ca/history-classics/index.html> for a current list of approved cross-listed courses.

See [Cross-Listed Courses](#) for regulations concerning cross-listed courses.

Required courses:

**★3 INT D 205 – Introduction to Ancient and Medieval Studies**

**★6 at the 400-level**

**★6 of a language relevant to Ancient and Medieval Studies:**

- A minimum of ★6 in [Arabic, Classical Chinese, Greek, Hebrew, Latin, Old Norse, or Sanskrit](#), which may also fulfil the LOE requirement in the BA program. Note that some language courses may have prerequisites and not all languages are offered every year. Consult the program website at <https://www.ualberta.ca/history-classics/index.html> for a current list of approved courses that meet this requirement.

Note: Students may not count more than ★12 from any one course designation (i.e., HIST) toward the required credits for the major.

**In addition to the requirements listed above:**

[Students are strongly encouraged to pursue temporal, geographic, and disciplinary diversity in their coursework.](#)



- HIST 228—The Early History of the British Peoples
- HIST 243—The Golden Age of Islam: History of the Muslim World to the 16th Century
- HIST 272—Religion in History \*
- HIST 297—The History of Christianity
- HIST 300—Topics in European History \*
- HIST 313—Medieval and Early Imperial Russia
- HIST 397—History of Science I
- HIST 403—Topics in Medieval European History
- HIST 420—Topics in the History of Early Modern Europe
- HIST 421—Topics in the History of Europe \*
- HIST 428—Topics in the History of Christianity \*
- HIST 429—Topics in British History \*
- HIST 498—Directed Study \*

Note: \*Eligible when the topic is on medieval history.

**★3 further senior level approved CLASS or HIST**

Selected from ★12 Ancient History or ★12 Medieval History above.

**In addition to the requirements listed above**

Students majoring in Ancient and Medieval History are strongly encouraged to take:

- A minimum of ★6 in Latin or Greek, which may also fulfil the LOE requirement in the BA program.

**Two of**

1. CLASS 103—Introduction to Ancient Greece
2. CLASS 104—Introduction to Ancient Rome
3. CLASS 110—The Ancient World
4. HIST 110—The Pre-Modern World

Department Contact: Josie Hendrickson	Department Council Approval Date: September 10, 2020
Chair or Designate: Jaymie Heilman, Associate Chair Undergraduate Studies	Signature: Jaymie Heilman

Approval: Arts Faculty Council November 26, 2020

**Submission Deadlines: 21-22 Calendar** – 09.02.20, 09.23.20, 10.07.20

**Submission Deadlines: 22-23 Calendar** – 01.13.21, 03.31.21

**Department: History and Classics**
**Change: Program**

**Rationale:** History and Classics currently offers an interdisciplinary major and minor in Ancient and Medieval History. Building on but replacing this would be the proposed program in Ancient and Medieval Studies. Broader than the current program, the new one will draw on courses from a range of continuing disciplinary programs across the Faculty of Arts, whose departments regularly offer lectures, seminars and language instruction pertaining to ancient and medieval cultures (including those outside the “West”). This inclusive major/minor in Ancient and Medieval Studies will appeal to students looking for a comparative or interdisciplinary perspective on the study of pre-modern worlds and offer wider cultural representation than the existing AMH major. AMS will thus complement existing programs that focus on particular eras, regions or disciplinary approaches.

Faculty were consulted in all departments where relevant coursework is offered. All responded positively and most contributed courses that we may list as cross-listed courses for this major and minor on the departmental webpage (see appendix). Of the language options listed below, HEBR, GREEK, LATIN, and SANSK are offered through our department. We have obtained written permission to list the other languages (Arabic, Classical Chinese, Old English, Old Norse).

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=38064](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=38064)

**Calendar Copy:**

<b>Current:</b> <del>Strike through and highlight</del> deletions	<b>Proposed:</b> <u>Underline and highlight</u> additions
<p><b>Minor in Ancient and Medieval <del>History</del> [Arts]</b></p> <p><b>Requirements</b>            A minimum of ★18 selected from the senior-level <del>courses listed above</del> including:</p> <ol style="list-style-type: none"> <li>1. ★9 in <del>Ancient History courses</del></li> <li>2. ★9 <del>Medieval History courses</del></li> </ol> <p>3. ★3 at the 400-level</p>	<p><b>Minor in Ancient and Medieval <u>Studies</u> [Arts]</b></p> <p><b>Requirements</b>            A minimum of ★18 at the senior level <u>chosen from a list of cross-listed courses</u>, including:</p> <p>★3 <u>INT D 205 – Introduction to Ancient and Medieval Studies</u></p> <p>★3 at the 400-level</p> <p><u>Consult the History and Classics website at <a href="https://www.ualberta.ca/history-classics/index.html">https://www.ualberta.ca/history-classics/index.html</a> for a current list of approved cross-listed courses.</u></p> <p><u>See Cross-Listed Courses for regulations concerning cross-listed courses.</u></p> <p><u>Students are strongly encouraged to pursue temporal, geographic, and disciplinary diversity in their coursework.</u></p>

Department Contact: Josie Hendrickson	Department Council Approval Date: Department Council Approval Date: September 10, 2020
Chair or Designate: Jaymie Heilman, Associate Chair Undergraduate Studies	Signature:

Approval: Arts Faculty Council November 26, 2020

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Modern Languages and Cultural Studies**

Change: **Program**

**Rationale:** Central to the BA in Modern Languages and Cultural Studies is experiential learning. For the language studies route, these options are only “immersive experiences” (in Francophone areas of Canada or international) or CSL, whereas the cross-cultural studies route is more expansive. Given the financial burden on students and the shifting budgetary landscape of the university, this is too restrictive. The changes reflect streamlining of the requirement so that the two are nearly the same, with the only differences being 1) the addition of a “language” focus in the language studies route; and 2) the order of items listed, with study abroad coming first in the language studies route to highlight that option as preferred. This will allow students the best possible degree that is flexible for students while also being sustainable and fiscally responsible. Further minor changes include the addition of “a minimum,” which appeared in some but not all of the descriptions to allow for more than \*6 of experiential learning, and the removal of “immersive,” which was confusing and difficult to define. Instead, the word “significant” was added. The level of what is a "significant" experiential component is defined by the department (20%) and will be clearly indicated in the syllabus. This component is defined by the department as an experiential project, assignment, field work, or CSL component resulting in 20% or more of the final grade weight details of which will be included in the syllabus, which is approved by the Associate Chair Undergraduate; courses with approved experiential components will be listed on our website each term. We would like to avoid including 20% in the calendar description because this value may change in the future. For the Academic Advisement report, this value will be communicated manually each term and this is a pre-arranged agreement. The mention of MLCS 210 was removed as unnecessary. The change went through departmental governance.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37026&returnto=9977](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37026&returnto=9977)

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>Bachelor of Arts (BA)</b> [...] <b>Major in Modern Languages and Cultural Studies [Arts]</b> [...]</p> <p><u>(1) Cross-cultural studies route</u></p> <p>a. ★6 at the senior level in one language taught in the Department of MLCS.</p> <p>b. ★6 at the senior level in the same language taught in the Department of MLCS OR ★6 at the senior level in an additional language taught in the Department of MLCS OR ★6 at the senior level in courses with the same prefix within the Department of MLCS taught in English.</p> <p>c. ★12 in courses with the same prefix within the Department of MLCS taught in English.</p> <p>d. ★6 of the ★24 taken in (1) a and/or b and/or c must be at the 400-level.</p> <p>e. <del>at least</del> ★6 <del>in this route must be earned in</del></p>	<p><b>Bachelor of Arts (BA)</b> [...] <b>Major in Modern Languages and Cultural Studies [Arts]</b> [...]</p> <p><u>(1) Cross-cultural studies route</u></p> <p>a. ★6 at the senior level in one language taught in the Department of MLCS.</p> <p>b. ★6 at the senior level in the same language taught in the Department of MLCS OR ★6 at the senior level in an additional language taught in the Department of MLCS OR ★6 at the senior level in courses with the same prefix within the Department of MLCS taught in English.</p> <p>c. ★12 in courses with the same prefix within the Department of MLCS taught in English.</p> <p>d. ★6 of the ★24 taken in (1) a and/or b and/or c must be at the 400-level.</p> <p>e. <u>a minimum of</u> ★6 <u>from</u> courses that include</p>

<p>courses that include experiential learning components appropriate to the area of study <u>(including MLCS 210, if applicable)</u></p> <p><u>(2) Language studies route</u></p> <p>a. ★24 at the senior level in one language OR split between two languages taught in the Department of MLCS. If credits are split between two languages, at least ★6 at the senior level must be earned in each language.</p> <p>b. ★6 of the ★24 taken in (2) a must be at the 400-level.</p> <p>c. ★6 <u>of the credits earned in this route must be earned in an immersive</u> experience abroad or in Francophone areas of Canada outside of the Edmonton Capital Region OR in courses that <u>have a Community Service Learning Component (including MLCS 210, if applicable)</u></p> <p>Note: for a current list of languages that are available for the language studies route to the Major in MLCS, see the department webpage.</p>	<p><u>significant</u> experiential learning components appropriate to the area of study <u>OR in an experience abroad or in Francophone areas of Canada.</u></p> <p><u>(2) Language studies route</u></p> <p>a. ★24 at the senior level in one language OR split between two languages taught in the Department of MLCS. If credits are split between two languages, at least ★6 at the senior level must be earned in each language.</p> <p>b. ★6 of the ★24 taken in (2) a must be at the 400-level.</p> <p>c. <u>a minimum of ★6 from</u> an experience abroad or in Francophone areas of Canada outside of the Edmonton Capital Region OR in courses that <u>include significant experiential learning components related to the language(s) studied.</u></p> <p>Note: for a current list of languages that are available for the language studies route to the Major in MLCS, see the department webpage.</p>
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Department Contact: EVA Glancy	Department Council Approval Date: 04/20/2020
Chair or Designate: Carrie Smith	Signature:

Approval: Arts Faculty Council November 26, 2020

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Modern Languages and Cultural Studies**

Change: **Program**

**Rationale:** Central to the BA in Modern Languages and Cultural Studies is experiential learning. For the language studies route, these options are only “immersive experiences” (in Francophone areas of Canada or international) or CSL, whereas the cross-cultural studies route is more expansive. Given the financial burden on students and the shifting budgetary landscape of the university, this is too restrictive. The changes reflect streamlining of the requirement so that the two are nearly the same, with the only differences being 1) the addition of a “language” focus in the language studies route; and 2) the order of items listed, with study abroad coming first in the language studies route to highlight that option as preferred. This will allow students the best possible degree that is flexible for students while also being sustainable and fiscally responsible. Further minor changes include the addition of “a minimum,” which appeared in some but not all of the descriptions to allow for more than \*6 of experiential learning, and the removal of “immersive,” which was confusing and difficult to define. Instead, the word “significant” was added. The level of what is a "significant" experiential component is defined by the department (20%) and will be clearly indicated in the syllabus. This component is defined by the department as an experiential project, assignment, field work, or CSL component resulting in 20% or more of the final grade weight details of which will be included in the syllabus, which is approved by the Associate Chair Undergraduate; courses with approved experiential components will be listed on our website each term. We would like to avoid including 20% in the calendar description because this value may change in the future. For the Academic Advisement report, this value will be communicated manually each term and this is a pre-arranged agreement. The mention of MLCS 210 was removed as unnecessary. The change went through departmental governance.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37983](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37983)

**Calendar Copy:**

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>Honors in Modern Languages and Cultural Studies</b> [...]</p> <p><b>Course Requirements</b> [...]</p> <p><u>(1) Cross-cultural studies route</u></p> <p>a. ★6 at the senior level in one language taught in the Department of MLCS.</p> <p>b. ★12 at the senior level in the same language taught in the Department of MLCS OR ★12 at the senior level in an additional language taught in the Department of MLCS OR ★12 at the senior level in courses with the same prefix within the Department of MLCS taught in English</p> <p>c. ★18 in courses with the same prefix within the Department of Modern Languages &amp; Cultural Studies taught in English.</p> <p>d. ★6 of the ★36 taken in (1) a and/or b and/or c must be at the 400-level.</p> <p>e. ★6 <u>in this route must be earned in</u> courses that include experiential learning components appropriate to the area of study <u>(including MLCS 210, if applicable)</u></p>	<p><b>Honors in Modern Languages and Cultural Studies</b> [...]</p> <p><b>Course Requirements</b> [...]</p> <p><u>(1) Cross-cultural studies route</u></p> <p>a. ★6 at the senior level in one language taught in the Department of MLCS.</p> <p>b. ★12 at the senior level in the same language taught in the Department of MLCS OR ★12 at the senior level in an additional language taught in the Department of MLCS OR ★12 at the senior level in courses with the same prefix within the Department of MLCS taught in English</p> <p>c. ★18 in courses with the same prefix within the Department of Modern Languages &amp; Cultural Studies taught in English.</p> <p>d. ★6 of the ★36 taken in (1) a and/or b and/or c must be at the 400-level.</p> <p>e. <u>a minimum of</u> ★6 from courses that include <u>significant</u> experiential learning components appropriate to the area of study <u>OR in an experience abroad or in Francophone areas of Canada.</u></p>

## (2) Language studies route

a. ★36 at the senior level in one language OR split between two languages taught in the Department of MLCS. If credits are split between two languages, at least ★12 must be earned in each language.

b. ★6 of the ★36 taken in (2) a must be at the 400-level.

c. ★6 of the credits earned in this route must be earned in an immersive experience abroad or in Francophone areas of Canada outside of the Edmonton Capital Region OR in courses that have a Community Service Learning Component (including MLCS 210, if applicable)

Note: for a current list of languages that are available for the language studies route to the Honors in MLCS, see the department webpage.

## **Combined Honors in Modern Languages and Cultural Studies**

[...]

### **Program Requirements**

[...]

## (1) Cross-cultural studies route

a. ★6 at the senior level in one language taught in the Department of MLCS.

b. ★6 at the senior level in the same language taught in the Department of MLCS OR ★6 at the senior level in an additional language taught in the Department of MLCS OR ★6 at the senior level in courses with the same prefix within the Department of MLCS taught in English.

c. ★12 in courses with the same prefix within the Department of MLCS taught in English.

d. ★6 of the ★24 taken in (1) a and/or b and/or c must be at the 400-level.

e. ★6 in this route must be earned in courses that include experiential learning components appropriate to the area of study (including MLCS 210, if applicable)

## (2) Language studies route

a. ★24 at the senior level in one language OR split between two languages taught in the Department of MLCS. If credits are split between two languages, at least ★6 at the senior level must be earned in each language.

b. ★6 of the ★24 taken in (2) a must be at the 400-level.

c. ★6 of the credits earned in this route must be earned in an immersive experience abroad or in Francophone areas of Canada outside of the Edmonton Capital Region OR in courses that have a Community Service Learning Component (including

## (2) Language studies route

a. ★36 at the senior level in one language OR split between two languages taught in the Department of MLCS. If credits are split between two languages, at least ★12 must be earned in each language.

b. ★6 of the ★36 taken in (2) a must be at the 400-level.

c. a minimum of ★6 from an experience abroad or in Francophone areas of Canada outside of the Edmonton Capital Region OR in courses that include significant experiential learning components related to the language(s) studied.

Note: for a current list of languages that are available for the language studies route to the Honors in MLCS, see the department webpage.

## **Combined Honors in Modern Languages and Cultural Studies**

[...]

### **Program Requirements**

[...]

## (1) Cross-cultural studies route

a. ★6 at the senior level in one language taught in the Department of MLCS.

b. ★6 at the senior level in the same language taught in the Department of MLCS OR ★6 at the senior level in an additional language taught in the Department of MLCS OR ★6 at the senior level in courses with the same prefix within the Department of MLCS taught in English.

c. ★12 in courses with the same prefix within the Department of MLCS taught in English.

d. ★6 of the ★24 taken in (1) a and/or b and/or c must be at the 400-level.

e. a minimum of ★6 from courses that include significant experiential learning components appropriate to the area of study OR in an experience abroad or in Francophone areas of Canada.

## (2) Language studies route

a. ★24 at the senior level in one language OR split between two languages taught in the Department of MLCS. If credits are split between two languages, at least ★6 at the senior level must be earned in each language.

b. ★6 of the ★24 taken in (2) a must be at the 400-level.

c. a minimum of ★6 from an experience abroad or in Francophone areas of Canada outside of the Edmonton Capital Region OR in courses that include significant experiential learning components related to the language(s) studied.

<p><b>MLCS 210, if applicable)</b></p> <p>Note: for a current list of languages that are available for the language studies route to the Combined Honors in MLCS, see the department webpage.</p>	<p>Note: for a current list of languages that are available for the language studies route to the Combined Honors in MLCS, see the department webpage.</p>
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<p>Department Contact: <b>Eva Glancy</b></p>	<p>Department Council Approval Date: 04/20/2020</p>
<p>Chair or Designate: Carrie Smith</p>	<p>Signature:</p>

Approval: Arts Faculty Council November 26, 2020



Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Economics**

Change: **Certificate**

**Rationale:** Faculty initiated changes as certificate will move onto the new standardized format. We are removing deleted courses that are no longer offered.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37103](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37103)

**Calendar Copy:**

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>Certificate in the Economics and Management of Natural Resources, Energy and the Environment</b></p> <p>The Certificate in the Economics and Management of Natural Resources, Energy and the Environment is integrated with Alberta's energy and resource-based economy, incorporating practical learning and interaction with business leaders. Students develop business and analytical skills that are applicable to the natural resources and energy markets, and acquire a broad understanding of the resource and energy industries. At the same time, the links between resource and energy questions and environmental issues are examined.</p> <p>This certificate is offered in collaboration with the Faculty of Business.</p> <p>Admission to the Certificate is by application to the Department of Economics only. There are a limited number of spaces available. Normally a student must have completed ★60 prior to admission which must include ECON 281, ECON 282 and ECON 299, and have a minimum cumulative GPA of 3.0. This Certificate will be awarded only at the same time as a student receives a BA with a major or honors in Economics.</p> <p>Students may pursue this Certificate in the Economics and Management of Natural Resources, Energy and the Environment by fulfilling existing requirements for major or honors in Economics and by completing at least one of ECON 365, ECON 366, ECON 269 <u>(or 369)</u>; and ECON 467; and a minimum of an additional ★15 from the following designated courses: ECON 269 <u>(or 369)</u>; ECON 353 <u>(or ECON 453)</u>, 355, ECON 365, ECON 366; B LAW 301, B LAW 428; BUEC 463, BUEC 464; OM 352. <u>Students may receive credit for both ECON 353 and ECON 453, but only one of these courses will apply to the requirements of the Certificate.</u> Students</p>	<p><b>Certificate in the Economics and Management of Natural Resources, Energy and the Environment</b></p> <p><b>General Information</b></p> <p>The Certificate in the Economics and Management of Natural Resources, Energy and the Environment is integrated with Alberta's energy and resource-based economy, incorporating practical learning and interaction with business leaders. Students develop business and analytical skills that are applicable to the natural resources and energy markets, and acquire a broad understanding of the resource and energy industries. At the same time, the links between resource and energy questions and environmental issues are examined.</p> <ul style="list-style-type: none"> <li>• Certificate Type: Embedded or Non-Credit credit</li> <li>• Who is eligible: BA Majors and Honors in Economics Students</li> <li>• Offered by: Department of Economics in collaboration with the Faculty of Business</li> <li>• Admission to the Certificate is by application to the Department of Economics only. There are a limited number of spaces available. Normally a student must have completed ★60 prior to admission which must include ECON 281, ECON 282 and ECON 299, and have a minimum cumulative GPA of 3.0. This Certificate will be awarded only at the same time as a student receives a BA with a major or honors in Economics.</li> <li>• To be awarded the certificate students must apply though Bear Tracks by the application deadline for graduation (see Academic Schedule, Dates, and Deadlines).</li> </ul> <p><b>Requirements ★21</b></p> <ul style="list-style-type: none"> <li>• ECON 467 - Environmental and Natural Resource Policy</li> </ul> <p><b>One of</b></p> <ul style="list-style-type: none"> <li>• ECON 365 - Resource Economics</li> </ul>

admitted to this Certificate program will not be granted credit for both ECON 269 (or 369) and BUEC 464.

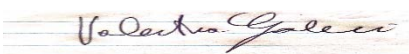
- ECON 366 - Energy Economics
- ECON 269 - Economics of the Environment

**And a minimum of ★15 from**

- ECON 269 - Economics of the Environment
- ECON 365 - Resource Economics
- ECON 366 - Energy Economics
- B LAW 301 - Legal Foundations of the Canadian Economy
- B LAW 428 - Natural Resource and Environmental Law
- BUEC 463 - Energy and the Environment: Industry Structure, Performance and Challenges
- BUEC 464 - Environmental Management
- OM 352 - Operations Management

Notes:

- 1) Students admitted to this Certificate program will not be granted credit for both ECON 269 or BUEC 464.

Department Contact: <a href="mailto:econ.undergrad@ualberta.ca">econ.undergrad@ualberta.ca</a>	Department Council Approval Date:
Chair or Designate: Valentina Galvani	 Signature:

Approval: Arts Faculty Council November 26, 2020

Department: **Political Science**

Change: **Certificate - Change**

**Why is this change being proposed and who was consulted?** The University Calendar is required to list all approved courses. POLS 211 and 212 have been added to 'Literature and Ideas' as POLS 210 (the 6\* predecessor of these two 3\* courses) was included in the original list when it went through governance in 2012. And a new course POL S 371 has also been added. Former ART H courses need to be updated to their new Designator of HADVC. The certificate now allows for students to apply for other courses to be counted with the approval of the advisor. This is designed to provide a more efficient way to include courses offered in Cortona, which typically use a variables topics of INT D course code, without requiring an annual calendar change. It also allows for the inclusion of directed reading or dissertation courses on a European theme. This aligns with the original intent of the certificate, preventing the unintended exclusion of these European content courses, and does so in a minimally burdensome manner.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poiid=37104](https://calendar.ualberta.ca/preview_program.php?catoid=33&poiid=37104)

Calendar Copy:

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>Certificate in European Studies</b>  <del>See Eligible Courses for information about European Studies designated courses.</del> The European Studies Certificate formally recognizes students' knowledge and skills gained in courses based in three categories of European Study: Histories and Politics; Literatures and Ideas; and Cultures and Societies. This certificate also recognizes that students have training in a European language other than English.</p> <p><del>Students wishing to pursue the Certificate in European Studies must apply through Undergraduate Student Services in the Faculty of Arts by the application deadline for convocation (see Academic Schedule, Dates, and Deadlines).</del></p> <p><del>Students may pursue the Certificate in European Studies by fulfilling existing requirements for majors, minors or honors in their respective disciplines and by completing ★30 in European coursework as follows:</del></p> <p><del>★24 in European Studies courses that:</del>  <del>Meet a distribution requirement of at least ★6 in each of the three areas of study</del></p>	<p><b>Certificate in European Studies</b></p> <p><b><u>General Information</u></b>  The European Studies Certificate formally recognizes students' knowledge and skills gained in courses based in three categories of European Study: Histories and Politics; Literatures and Ideas; and Cultures and Societies. This certificate also recognizes that students have training in a European language other than English.</p> <ul style="list-style-type: none"> <li><u>Offered by: The Department of Political Science</u></li> <li><u>For further information about this certificate program, students should consult the <a href="#">Certificate Advisor (Hyperlink)</a></u></li> </ul> <p><b>Certificate Requirements ★30:</b></p> <p>★6 from History and Politics:</p> <p>CLASS 280 - Introduction to Ancient Greek History  CLASS 282 - Introductory Roman History I  CLASS 283 - Introductory Roman History II  CLASS 355 - Topics in Roman Civilization  CLASS 481 - Topics in Greek History  DRAMA 208 - Theatre History I  DRAMA 306 - Historical Approaches to Western Dramatic and Theatrical Theories  DRAMA 308 - Theatre History II: Modern Theatre  HIST 207 - Pre-Modern Europe I  HIST 210 - Europe in the 19th and 20th Centuries  HIST 212 - Pre-Modern Europe II  HIST 231 - Scotland from Early Times to the Present Day  HIST 300 - Topics in European History  HIST 310 - A History of the Habsburg Monarchy, 1526-1918  HIST 312 - Foundations of East European History</p>

HIST 320 - Russia from Reform to Revolution, 1800-1917  
 HIST 322 - Russia in the 20th Century  
 HIST 403 - Topics in Medieval European History  
 HIST 414 - Topics in the History of Modern Germany  
 HIST 416 - Topics in Eastern European History  
 HIST 419 - Topics in Soviet History  
 HIST 421 - Topics in the History of Europe  
 HIST 429 - Topics in British History  
 HIST 490 - Topics in British Empire and Commonwealth History  
 MUSIC 284 - Western Art Music, 1850-present  
 MUSIC 101 - Introduction to Western Art Music  
 MUSIC 201 - Western Music and Contexts  
 MUSIC 280 - Introduction to the Study of Western Music History  
 MUSIC 283 - Western Art Music, 1600-1850  
 POL S 370 - Politics of the European Union  
 POL S 371 - Populism and Democracy in Central Europe  
 POL S 486 - Topics in European Politics  
 POL S 487 - Topics in European Union Politics

★6 from Literature and Ideas:

CLASS 221 - Literature of Greece and Rome  
 CLASS 321 - Literature and Culture of the Greek World  
 CLASS 322 - Literature and Culture of the Roman World  
 CLASS 355 - Topics in Roman Civilization  
 ENGL 300 - Social and Cultural History of the English Language  
 ENGL 324 - Medieval Literature and Culture: Chaucer  
 ENGL 325 - Medieval Literature and Culture: Medieval Texts  
 ENGL 336 - Early Modern Literature and Culture: 16th-Century Texts  
 ENGL 327 - Medieval Literature and Culture: Medieval and Tudor Drama  
 ENGL 348 - Restoration and 18th-Century Literature and Culture: The Novel  
 ENGL 353 - 19th-Century British Literature and Culture: Late Victorian Texts  
 ENGL 339 - Early Modern Literature and Culture: Studies in Shakespeare  
 ENGL 341 - Restoration and 18th-Century Literature and Culture: Restoration and Early 18th-Century Texts  
 ENGL 343 - Restoration and 18th-Century Literature and Culture: Late 18th-Century Texts  
 ENGL 344 - Early Modern Literature and Culture: Milton  
 ENGL 349 - 19th-Century British Literature and Culture: The Novel  
 ENGL 350 - 19th-Century British Literature and Culture: Romantic Texts  
 ENGL 363 - Early 20th-Century Literature and Culture: Modernism and Modernity  
 FREN 333 - French Cultural Moments  
 FREN 445 - Contemporary Cinema in French  
 FREN 315 - Cultural Representations of Food  
 GERM 274 - Shaping Modern Austria  
 GERM 343 - Postwar Cultures  
 GERM 225 - German Cinema  
 GERM 320 - From Masterpieces to Bestsellers  
 GERM 340 - Introduction to the Study of Modern German Literature  
 GERM 353 - Myths, Tales, and Legends  
 INT D 439 - Ukrainian Dance  
 MLCS 210 - Language(s) of Culture  
 MLCS 231 - Language and Power

MLCS 473 - Cultural Representations, World Media and Ethics  
 MUSIC 101 - Introduction to Western Art Music  
 MUSIC 201 - Western Music and Contexts  
 MUSIC 280 - Introduction to the Study of Western Music History  
 MUSIC 283 - Western Art Music, 1600-1850  
 MUSIC 284 - Western Art Music, 1850-present  
 PHIL 240 - Descartes to Hume  
 PHIL 291 - Existentialism  
 PHIL 343 - Kant to Nietzsche  
 PHIL 444 - Kant  
 PHIL 445 - Topics in 19th-Century Philosophy  
 PHIL 446 - Early Analytic Philosophy  
 POL S 211 - Introduction to History of Political Theory  
 POL S 212 - Introduction to Contemporary Political Theory  
 RUSS 326 - Readings in Russian Literature II  
 RUSS 404 - Russian Film  
 SPAN 314 - Civilization and Culture of Spain  
 SPAN 325 - Introduction to Cinema  
 SPAN 441 - Reading Colonial Culture  
 SPAN 460 - Self Portraits in Writing  
 SPAN 425 - Hispanic Filmmakers  
 SPAN 475 - Spanish in Society  
 SPAN 499 - Special Topics in Literature/Culture  
 UKR 300 - Ukrainian through its Living Culture I  
 UKR 400 - Ukrainian through its Living Culture II  
 MLCS 475 - X-Rated: Sex on Screen

★6 from Cultures and Societies:

CLASS 102 - Greek and Roman Mythology  
 CLASS 103 - Introduction to Ancient Greece  
 CLASS 104 - Introduction to Ancient Rome  
 CLASS 110 - The Ancient World  
 CLASS 254 - Introduction to Greek Art and Archaeology  
 CLASS 255 - Introduction to Roman Art and Archaeology  
 CLASS 294 - Ancient Science, Technology, and Medicine  
 CLASS 355 - Topics in Roman Civilization  
 CLASS 356 - Topics in Ancient Art  
 CLASS 478 - Topics in Roman Art  
 CLASS 480 - Topics in the Archaeology of the Roman Provinces  
 FREN 315 - Cultural Representations of Food  
 FREN 333 - French Cultural Moments  
 FREN 445 - Contemporary Cinema in French  
 GERM 343 - Postwar Cultures  
 GERM 225 - German Cinema  
 GERM 274 - Shaping Modern Austria  
 GERM 320 - From Masterpieces to Bestsellers  
 GERM 340 - Introduction to the Study of Modern German Literature  
 GERM 353 - Myths, Tales, and Legends  
 HADVC 202 Renaissance Visual Culture  
 HADVC 203 17<sup>th</sup> Century Visual Culture  
 HADVC 206 Early 20<sup>th</sup> Century Art  
 HADVC 251 Survey—Romanesque and Gothic Art  
 HADVC 252 Survey of Renaissance Art II  
 HADVC 255 Art from the Second Half of the 19<sup>th</sup> Century  
 HADVC 455 Topics in Art from the Second Half of the 19<sup>th</sup> Century  
 INT D 439 - Ukrainian Dance  
 MLCS 210 - Language(s) of Culture  
 MLCS 231 - Language and Power  
 MUSIC 101 - Introduction to Western Art Music  
 MUSIC 201 - Western Music and Contexts  
 MUSIC 280 - Introduction to the Study of Western Music History

<p>★6 in a European language other than English at the 200 level (at the 300 level for Greek and Latin) or higher</p> <p>Have at least ★6 at the 400 level</p> <p>Some courses are applicable to more than one <u>distribution requirement</u>; where this is the case, a course may be counted toward only one <u>of the distribution requirements</u> (Move Down)</p> <p><u>Count</u> no more than ★12 from courses in the student's declared major</p> <p>Students completing the European Certificate program are strongly encouraged to take advantage of opportunities for study abroad in Europe, either in U of A programs such as the U of A School in Cortona, in partner institutions, or in international internships offered through UAI.</p>	<p>MUSIC 283 - Western Art Music, 1600-1850  MUSIC 284 - Western Art Music, 1850-present  RUSS 325 - Readings in Russian Literature I  RUSS 326 - Readings in Russian Literature II  RUSS 404 - Russian Film  SPAN 325 - Introduction to Cinema  SPAN 425 - Hispanic Filmmakers  SPAN 441 - Reading Colonial Culture  SPAN 460 - Self Portraits in Writing  SPAN 475 - Spanish in Society  UKR 300 - Ukrainian through its Living Culture I  UKR 400 - Ukrainian through its Living Culture II</p> <p><b>AND</b></p> <hr/> <p>(Move up) ★6 in a European language other than English at the 200 level (at the 300 level for Greek and Latin) or higher.</p> <p>★6 from the list of approved classes from any category</p> <p><b>Notes:</b></p> <p>i. A minimum of ★6 at the 400 level is required.</p> <p>ii. (Moved) Some courses are applicable to more than one <u>area of study</u> where this is the case, a course may be counted toward only one <u>area's</u> requirements.</p> <p>iii. No more than ★12 from courses in the student's declared major can be applied to this certificate</p> <p>iv. <u>Students may apply for other courses to count toward the Certificate, with the approval of the Certificate Advisor.</u></p> <p>Students completing the European Certificate program are strongly encouraged to take advantage of opportunities for study abroad in Europe, either in U of A programs such as the U of A School in Cortona, in partner institutions, or in international internships offered through UAI.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
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In which academic year is this change is this change required? **2021-2022**

Department contact name: <i>Judith A. Garber</i>	Department Council Approval Date: <i>09/23/20</i>
Chair or Designate name: <i>Judith A. Garber</i>	Signature: <i>Judith A. Garber</i>

Approval: Arts Faculty Council November 26, 2020



Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Philosophy**


Change: **Certificate**

**Rationale:** We are adding a new Ethics course in Ethics and Artificial Intelligence (PHIL 385). This course should be part of the approved courses for the Certificate. The members of the Department of Philosophy were consulted (by email) at the same time as the proposal for PHIL 385)

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37916&hl=%22certificate+in+ethics%22&returnto=search](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37916&hl=%22certificate+in+ethics%22&returnto=search)

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>Certificate in Ethics</b> [...]</p> <p>★15 additional required courses from the list of approved courses.</p> <p>[...]</p> <ul style="list-style-type: none"> <li>• PHIL 350 - Foundations of Ethics</li> <li>• PHIL 355 - Environmental Ethics</li> <li>• PHIL 366 - Computers and Culture</li> <li>• PHIL 368 - Topics in Social Justice</li> <li>• PHIL 384 - Topics in Practical Ethics</li> <li>•</li> <li>• PHIL 386 - Health Care Ethics</li> <li>• PHIL 450 - Topics in Ethics</li> <li>• PHIL 451 - Topics in the History of Moral and Political Philosophy</li> </ul> <p>[...]</p>	<p><b>Certificate in Ethics</b> [...]</p> <p>★15 additional required courses from the list of approved courses.</p> <p>[...]</p> <ul style="list-style-type: none"> <li>• PHIL 350 - Foundations of Ethics</li> <li>• PHIL 355 - Environmental Ethics</li> <li>• PHIL 366 - Computers and Culture</li> <li>• PHIL 368 - Topics in Social Justice</li> <li>• PHIL 384 - Topics in Practical Ethics</li> <li>• <u>PHIL 385 – Ethics and Artificial Intelligence</u></li> <li>• PHIL 386 - Health Care Ethics</li> <li>• PHIL 450 - Topics in Ethics</li> <li>• PHIL 451 - Topics in the History of Moral and Political Philosophy</li> </ul> <p>[...]</p>

Department Contact: <b>Grace Jamieson</b>	Department Council Approval Date: Sept. 18, 2020
Chair or Designate: Marie-Eve Morin	Signature: 

Approval: Arts Faculty Council November 26, 2020



Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Modern Languages and Cultural Studies**

Change: **Program**

**Rationale:** Central to the BA in Modern Languages and Cultural Studies is experiential learning. For the language studies route, these options are only “immersive experiences” (in Francophone areas of Canada or international) or CSL, whereas the cross-cultural studies route is more expansive. Given the financial burden on students and the shifting budgetary landscape of the university, this is too restrictive. The changes reflect streamlining of the requirement so that the two are nearly the same, with the only differences being 1) the addition of a “language” focus in the language studies route; and 2) the order of items listed, with study abroad coming first in the language studies route to highlight that option as preferred. This will allow students the best possible degree that is flexible for students while also being sustainable and fiscally responsible. Further minor changes include the addition of “a minimum,” which appeared in some but not all of the descriptions to allow for more than \*6 of experiential learning, and the removal of “immersive,” which was confusing and difficult to define. Instead, the word “significant” was added. The level of what is a “significant” experiential component is defined by the department (20%) and will be clearly indicated in the syllabus. This component is defined by the department as an experiential project, assignment, field work, or CSL component resulting in 20% or more of the final grade weight details of which will be included in the syllabus, which is approved by the Associate Chair Undergraduate; courses with approved experiential components will be listed on our website each term. We would like to avoid including 20% in the calendar description because this value may change in the future. For the Academic Advisement report, this value will be communicated manually each term and this is a pre-arranged agreement. The mention of MLCS 210 was removed as unnecessary. The change went through departmental governance.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37026&returnto=9977](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37026&returnto=9977)

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>Bachelor of Arts (BA)</b> [...] <b>Major in Modern Languages and Cultural Studies [Arts]</b> [...]</p> <p><u>(1) Cross-cultural studies route</u></p> <p>a. ★6 at the senior level in one language taught in the Department of MLCS.</p> <p>b. ★6 at the senior level in the same language taught in the Department of MLCS OR ★6 at the senior level in an additional language taught in the Department of MLCS OR ★6 at the senior level in courses with the same prefix within the Department of MLCS taught in English.</p> <p>c. ★12 in courses with the same prefix within the Department of MLCS taught in English.</p> <p>d. ★6 of the ★24 taken in (1) a and/or b and/or c must be at the 400-level.</p> <p>e. <del>at least</del> ★6 <del>in this route must be earned in</del></p>	<p><b>Bachelor of Arts (BA)</b> [...] <b>Major in Modern Languages and Cultural Studies [Arts]</b> [...]</p> <p><u>(1) Cross-cultural studies route</u></p> <p>a. ★6 at the senior level in one language taught in the Department of MLCS.</p> <p>b. ★6 at the senior level in the same language taught in the Department of MLCS OR ★6 at the senior level in an additional language taught in the Department of MLCS OR ★6 at the senior level in courses with the same prefix within the Department of MLCS taught in English.</p> <p>c. ★12 in courses with the same prefix within the Department of MLCS taught in English.</p> <p>d. ★6 of the ★24 taken in (1) a and/or b and/or c must be at the 400-level.</p> <p>e. <u>a minimum of</u> ★6 <u>from</u> courses that include</p>

courses that include experiential learning components appropriate to the area of study (including MLCS 210, if applicable)

(2) Language studies route

a. ★24 at the senior level in one language OR split between two languages taught in the Department of MLCS. If credits are split between two languages, at least ★6 at the senior level must be earned in each language.

b. ★6 of the ★24 taken in (2) a must be at the 400-level.

c. ★6 ~~of the credits earned in this route must be earned in an immersive~~ experience abroad or in Francophone areas of Canada outside of the Edmonton Capital Region OR in courses that ~~have a Community Service Learning Component (including MLCS 210, if applicable)~~

Note: for a current list of languages that are available for the language studies route to the Major in MLCS, see the department webpage.

significant experiential learning components appropriate to the area of study OR in an experience abroad or in Francophone areas of Canada.

(2) Language studies route

a. ★24 at the senior level in one language OR split between two languages taught in the Department of MLCS. If credits are split between two languages, at least ★6 at the senior level must be earned in each language.

b. ★6 of the ★24 taken in (2) a must be at the 400-level.

c. a minimum of ★6 from an experience abroad or in Francophone areas of Canada outside of the Edmonton Capital Region OR in courses that include significant experiential learning components related to the language(s) studied.

Note: for a current list of languages that are available for the language studies route to the Major in MLCS, see the department webpage.

Department Contact: EVA Glancy	Department Council Approval Date: 04/20/2020
Chair or Designate: Carrie Smith	Signature:

Approval: Arts Faculty Council November 26, 2020

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Modern Languages and Cultural Studies**

Change: **Program**

**Rationale:** Central to the BA in Modern Languages and Cultural Studies is experiential learning. For the language studies route, these options are only “immersive experiences” (in Francophone areas of Canada or international) or CSL, whereas the cross-cultural studies route is more expansive. Given the financial burden on students and the shifting budgetary landscape of the university, this is too restrictive. The changes reflect streamlining of the requirement so that the two are nearly the same, with the only differences being 1) the addition of a “language” focus in the language studies route; and 2) the order of items listed, with study abroad coming first in the language studies route to highlight that option as preferred. This will allow students the best possible degree that is flexible for students while also being sustainable and fiscally responsible. Further minor changes include the addition of “a minimum,” which appeared in some but not all of the descriptions to allow for more than \*6 of experiential learning, and the removal of “immersive,” which was confusing and difficult to define. Instead, the word “significant” was added. The level of what is a “significant” experiential component is defined by the department (20%) and will be clearly indicated in the syllabus. This component is defined by the department as an experiential project, assignment, field work, or CSL component resulting in 20% or more of the final grade weight details of which will be included in the syllabus, which is approved by the Associate Chair Undergraduate; courses with approved experiential components will be listed on our website each term. We would like to avoid including 20% in the calendar description because this value may change in the future. For the Academic Advisement report, this value will be communicated manually each term and this is a pre-arranged agreement. The mention of MLCS 210 was removed as unnecessary. The change went through departmental governance.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37983](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37983)

**Calendar Copy:**

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>Honors in Modern Languages and Cultural Studies</b> [...]</p> <p><b>Course Requirements</b> [...]</p> <p><u>(1) Cross-cultural studies route</u></p> <p>a. ★6 at the senior level in one language taught in the Department of MLCS.</p> <p>b. ★12 at the senior level in the same language taught in the Department of MLCS OR ★12 at the senior level in an additional language taught in the Department of MLCS OR ★12 at the senior level in courses with the same prefix within the Department of MLCS taught in English</p> <p>c. ★18 in courses with the same prefix within the Department of Modern Languages &amp; Cultural Studies taught in English.</p> <p>d. ★6 of the ★36 taken in (1) a and/or b and/or c must be at the 400-level.</p> <p>e. ★6 <u>in this route must be earned in</u> courses that include experiential learning components appropriate to the area of study <u>(including MLCS 210, if applicable)</u></p>	<p><b>Honors in Modern Languages and Cultural Studies</b> [...]</p> <p><b>Course Requirements</b> [...]</p> <p><u>(1) Cross-cultural studies route</u></p> <p>a. ★6 at the senior level in one language taught in the Department of MLCS.</p> <p>b. ★12 at the senior level in the same language taught in the Department of MLCS OR ★12 at the senior level in an additional language taught in the Department of MLCS OR ★12 at the senior level in courses with the same prefix within the Department of MLCS taught in English</p> <p>c. ★18 in courses with the same prefix within the Department of Modern Languages &amp; Cultural Studies taught in English.</p> <p>d. ★6 of the ★36 taken in (1) a and/or b and/or c must be at the 400-level.</p> <p>e. <u>a minimum of</u> ★6 from courses that include <u>significant</u> experiential learning components appropriate to the area of study <u>OR in an experience abroad or in Francophone areas of Canada.</u></p>

(2) Language studies route

a. ★36 at the senior level in one language OR split between two languages taught in the Department of MLCS. If credits are split between two languages, at least ★12 must be earned in each language.

b. ★6 of the ★36 taken in (2) a must be at the 400-level.

c. ★6 of the credits earned in this route must be earned in an immersive experience abroad or in Francophone areas of Canada outside of the Edmonton Capital Region OR in courses that have a Community Service Learning Component (including MLCS 210, if applicable)

Note: for a current list of languages that are available for the language studies route to the Honors in MLCS, see the department webpage.

**Combined Honors in Modern Languages and Cultural Studies**

[...]

**Program Requirements**

[...]

(1) Cross-cultural studies route

a. ★6 at the senior level in one language taught in the Department of MLCS.

b. ★6 at the senior level in the same language taught in the Department of MLCS OR ★6 at the senior level in an additional language taught in the Department of MLCS OR ★6 at the senior level in courses with the same prefix within the Department of MLCS taught in English.

c. ★12 in courses with the same prefix within the Department of MLCS taught in English.

d. ★6 of the ★24 taken in (1) a and/or b and/or c must be at the 400-level.

e. ★6 in this route must be earned in courses that include experiential learning components appropriate to the area of study (including MLCS 210, if applicable)

(2) Language studies route

a. ★24 at the senior level in one language OR split between two languages taught in the Department of MLCS. If credits are split between two languages, at least ★6 at the senior level must be earned in each language.

b. ★6 of the ★24 taken in (2) a must be at the 400-level.

c. ★6 of the credits earned in this route must be earned in an immersive experience abroad or in Francophone areas of Canada outside of the Edmonton Capital Region OR in courses that have a Community Service Learning Component (including

(2) Language studies route

a. ★36 at the senior level in one language OR split between two languages taught in the Department of MLCS. If credits are split between two languages, at least ★12 must be earned in each language.

b. ★6 of the ★36 taken in (2) a must be at the 400-level.

c. a minimum of ★6 from an experience abroad or in Francophone areas of Canada outside of the Edmonton Capital Region OR in courses that include significant experiential learning components related to the language(s) studied.

Note: for a current list of languages that are available for the language studies route to the Honors in MLCS, see the department webpage.

**Combined Honors in Modern Languages and Cultural Studies**

[...]

**Program Requirements**

[...]

(1) Cross-cultural studies route

a. ★6 at the senior level in one language taught in the Department of MLCS.

b. ★6 at the senior level in the same language taught in the Department of MLCS OR ★6 at the senior level in an additional language taught in the Department of MLCS OR ★6 at the senior level in courses with the same prefix within the Department of MLCS taught in English.

c. ★12 in courses with the same prefix within the Department of MLCS taught in English.

d. ★6 of the ★24 taken in (1) a and/or b and/or c must be at the 400-level.

e. a minimum of ★6 from courses that include significant experiential learning components appropriate to the area of study OR in an experience abroad or in Francophone areas of Canada.

(2) Language studies route

a. ★24 at the senior level in one language OR split between two languages taught in the Department of MLCS. If credits are split between two languages, at least ★6 at the senior level must be earned in each language.

b. ★6 of the ★24 taken in (2) a must be at the 400-level.

c. a minimum of ★6 from an experience abroad or in Francophone areas of Canada outside of the Edmonton Capital Region OR in courses that include significant experiential learning components related to the language(s) studied.

MLCS 210, if applicable)

Note: for a current list of languages that are available for the language studies route to the Combined Honors in MLCS, see the department webpage.

Note: for a current list of languages that are available for the language studies route to the Combined Honors in MLCS, see the department webpage.

Department Contact: **Eva Glancy**

Department Council Approval Date: 04/20/2020

Chair or Designate: Carrie Smith

Signature:

Approval: Arts Faculty Council November 26, 2020

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Psychology**

Change: **Program**

**Rationale:**

1. The proposed Program change stipulates that the Honors Apprenticeship/Thesis course each need to be taken twice to meet the requirements of the Honors Program. Each section is expected to have clearly outlined learning outcomes and would be graded separately. This change is meant to more adequately reflect the amount of time that students are expected to put into their apprenticeship/thesis work, while also maintaining consistency with the BSc Honors. As a consequence of this change, the total credit value of the Honors apprenticeship and thesis component would go up.
2. INT D 401 is no longer offered and this change will keep the Arts Program in-line with the Science Program

**Notes on PSYCO 399 & PSYCO 490 being repeated:**

The intention is to change each of PSYCO 399 and PSYCO 490 courses from a ★3 two-term course to two sections of ★3 each, so that students could receive ★6 if they complete both sections. This change is meant to more adequately reflect the amount of time that students are expected to put into their apprenticeship/thesis work, while maintaining consistency with the BSc Honors. Turning the two-term courses into two one-term courses also addresses potential issues with full year courses and grade assignments, such as those that came to light when the University had to change to a CR/NC system in Winter 2020.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37079](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37079)

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>Honors in Psychology [Arts]</b> [...]</p> <p>A minimum of ★48 at the senior level in PSYCO including: [...]</p> <p>PSYCO 399 - Honors Thesis I: Research Apprenticeship (normally taken in the third year)</p> <p>[...]</p> <p>PSYCO 490 - Honors Thesis II: Thesis Research (taken in the fourth year) [...]</p> <p><b>Cooperative Education (Work Experience) Route</b> [...]</p> <p><b>Promotion and Graduation Requirements</b> The graduation requirement for the Work Experience program designation includes successful completion of, at minimum, WKEXP 801, WKEXP 802 <u>and INT D-401.</u></p>	<p><b>Honors in Psychology [Arts]</b> [...]</p> <p>A minimum of ★48 at the senior level in PSYCO including: [...]</p> <p>PSYCO 399 - Honors Thesis I: Research Apprenticeship (normally taken in the third year; <u>to be taken twice</u>)</p> <p>[...]</p> <p>PSYCO 490 - Honors Thesis II: Thesis Research (taken in the fourth year; <u>to be taken twice</u>) [...]</p> <p><b>Cooperative Education (Work Experience) Route</b> [...]</p> <p><b>Promotion and Graduation Requirements</b> The graduation requirement for the Work Experience program designation includes successful completion of, at minimum, WKEXP 801 <u>and</u> WKEXP 802.</p>

<p>Interested students should see the Work Experience Advisor in the Department of Psychology for more information.</p> <p><b>Notes:</b>  <del>1. INT D 401 must be taken in the first term immediately following completion of the WKEXP period. The employer also assesses the student's performance during the work term.</del></p> <p><del>2.</del> Students should be aware that under the [...]</p>	<p>Interested students should see the Work Experience Advisor in the Department of Psychology for more information.</p> <p><b>Notes:</b></p> <p><u>1.</u> Students should be aware that under the [...]</p>
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<p>Department Contact: Jan Boulter, Assistant Chair</p>	<p>Department Council Approval Date: 9 September 2020</p>
<p>Chair or Designate: Cor Baerveldt, Associate Chair</p>	<p>Signature:</p>

Approval: Arts Faculty Council November 26, 2020



Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Psychology**

Change: **Program**

**Rationale:** INT D 401 is no longer offered and this change will keep the Arts Program in-line with the Science Program.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37026](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37026)

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>Major in Psychology [Arts]</b> [...]</p> <p><b>Cooperative Education (Work Experience) Route</b> [...]</p> <p><b>Promotion and Graduation Requirements</b> The graduation requirement for the Work Experience program designation includes successful completion of, at minimum, WKEXP 801, WKEXP 802 <del>and INT D 401.</del></p> <p>Interested students should see the Work Experience Advisor in the Department of Psychology for more information.</p> <p><b>Notes:</b> <del>1. INT D 401 must be taken in the first term immediately following completion of the WKEXP period. The employer also assesses the student's performance during the work term.</del></p> <p>2. Students should be aware [...]</p>	<p><b>Major in Psychology [Arts]</b> [...]</p> <p><b>Cooperative Education (Work Experience) Route</b> [...]</p> <p><b>Promotion and Graduation Requirements</b> The graduation requirement for the Work Experience program designation includes successful completion of, at minimum, WKEXP 801 <u>and</u> WKEXP 802.</p> <p>Interested students should see the Work Experience Advisor in the Department of Psychology for more information.</p> <p><b>Notes:</b> <u>1.</u> Students should be aware [...]</p>

Department Contact: Jannie Boulter	Department Council Approval Date:
Chair or Designate: Cor Baerveldt	Signature:

Approval: Arts Faculty Council November 26, 2020

These materials were reviewed and revised through, **Faculty of Arts Academic Affairs Committee (AAC)** on 21 October 2020 and approved by **Arts Executive Committee (AEC)** on November 5, 2020 with delegated authority from Arts Faculty Council.

<b>Page</b>	<b>Change Type</b>	<b>Department/Unit</b>	<b>What is Changing</b>
2	Minor program	Linguistics	Correcting old and redundant language
3	Minor in French	Modern Languages and Cultural Studies	Correcting old language
4	Cert in World Sound Arts	Music	Removing redundant note
5	Cert in Research	Psychology	Removing Science courses that Arts students cannot take
7	Minor in Christian Theology	St. Joseph's College	Correcting names and removing recommended courses
8	Certificate information	USS/Faculty	Clarifying the process of graduating with a certificate

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Linguistics**

Change: **Program**

**Rationale:** Change initiated by Faculty Office and Calendar Production – The Proposed change clarifies the requirements are LING and not any courses at the 300 or 400 level.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37026](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37026)

**Calendar Copy:**

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>Minor in Linguistics [Arts]</b></p> <p>Requirements  <del>The minimum requirements are</del>                      LING 101 - Introduction to Linguistic Analysis                      LING 102 - Linguistics in Action                      LING 204 - Syntax of the World's Languages                      LING 205 - Phonetics                      ★6 <u>at the 3xx level or above.</u></p> <p><u>One of</u>                      LING 308 - Morphology and the Lexicon                      LING 309 - Syntax                      LING 310 - Phonology</p> <p><u>Note:</u>                      The Faculty of Arts requires that ★6 <del>must be at the 300- or 400-level).</del> Also see Minor.</p>	<p><b>Minor in Linguistics [Arts]</b></p> <p>Requirements                      LING 101 - Introduction to Linguistic Analysis                      LING 102 - Linguistics in Action                      LING 204 - Syntax of the World's Languages                      LING 205 - Phonetics                      ★6 <u>in 300 or 400</u> level LING</p> <p><u>★3 From</u>                      LING 308 - Morphology                      LING 309 - Syntax                      LING 310 - Phonology</p>

Department Contact: <b>Grace Jamieson</b>	Department Council Approval Date: 10/16/2020
Chair or Designate:	Signature:

**Submission Deadlines: 21-22 Calendar** – 09.02.20, 09.23.20, 10.07.20

**Submission Deadlines: 22-23 Calendar** – 01.13.21, 03.31.21

**Department: Modern Languages and Cultural Studies**


**Change: Program**

**Rationale:** Change initiated by Faculty Office and Calendar Production – The Proposed change clarifies the requirements are FREN and not any courses at the 300 or 400 level.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37026](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37026)

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>Minor in Modern Languages and Cultural Studies</b> [...]</p> <p><b>French</b> A minor in French requires a minimum of ★15 to a maximum of ★42 at the senior level including at least ★6 at the 300- or 400-level.</p> <p>Required courses: FREN 301 - Introduction to French Literary Studies ★3 <del>at the</del> 300-level ★3 <del>at the</del> 400-level [...]</p>	<p><b>Minor in Modern Languages and Cultural Studies</b> [...]</p> <p><b>French</b> A minor in French requires a minimum of ★15 to a maximum of ★42 at the senior level including at least ★6 <u>in FREN</u> at the 300- or 400-level.</p> <p>Required courses: FREN 301 - Introduction to French Literary Studies ★3 <u>in</u> 300-level <u>FREN</u> ★3 <u>in</u> 400-level <u>FREN</u></p>

Department Contact: <b>Natalie Van Deusen</b>	Department Council Approval Date:
Chair or Designate: Alla Nedashkivska	Signature: 

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Music**

Change: **Program**

**Rationale:** Note is not applicable to certificate requirements.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37091&hl=%22music+493%22&returnto=search](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37091&hl=%22music+493%22&returnto=search)

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>Certificate in World Sound Arts</b></p> <p>[...]</p> <p>one of:</p> <p>MUSIC 143 - Indian Music Ensemble I  MUSIC 144 - West African Music Ensemble I  MUSIC 148 - Middle Eastern and North African Music Ensemble I  MUSIC 193 - Experimental Improvisation Ensemble  MUSIC 443 - Indian Music Ensemble  MUSIC 444 - West African Music Ensemble  MUSIC 448 - Middle Eastern and North African Music Ensemble  MUSIC 493 - Experimental Improvisation Ensemble</p> <p><b>Note:</b>  <del>that MUSIC 443, MUSIC 444, MUSIC 448, and MUSIC 493 are repeatable courses.</del></p>	<p><b>Certificate in World Sound Arts</b></p> <p>[...]</p> <p>one of:</p> <p>MUSIC 143 - Indian Music Ensemble I  MUSIC 144 - West African Music Ensemble I  MUSIC 148 - Middle Eastern and North African Music Ensemble I  MUSIC 193 - Experimental Improvisation Ensemble  MUSIC 443 - Indian Music Ensemble  MUSIC 444 - West African Music Ensemble  MUSIC 448 - Middle Eastern and North African Music Ensemble  MUSIC 493 - Experimental Improvisation Ensemble</p>

Department Contact: <b>Stephen Tchir</b>	Department Approval Date: 10/16/2020
Chair or Designate:	Signature:

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Psychology**

Change: **Certificate**

**Rationale:** These changes were initiated by the faculty office and Calendar production to have the requirements clarified for Arts students. As some of the required courses have a Science equivalent all courses were listed but in this proposal we have removed the courses that only Science students can take.

If a student does switch from a BSc into the BA and wished to complete the certificate we have added a note for them to see assistance from the department who can approve equivalent courses at the time they confirm the additional requirement of a presentation.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37882](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37882)

**Calendar Copy:**

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>Research Certificate in Arts (Psychology)</b> The Research Certificate in Arts (Psychology) provides an opportunity for students to engage in focused research while pursuing their program. This certificate is open to all Arts students in Psychology. Normally a student will be able to fulfill the requirements for this certificate as part of their BA Psychology degree; some students may need to complete more than the minimum number of credits required in order to qualify for both the degree and the certificate. Students may pursue the Research Certificate in Arts (Psychology) by fulfilling the existing requirements for their program and by completing</p> <p>★21 as follows: ★3 in 200- or 300-level research class PSYCO 299 - Research Opportunity Program in Psychology PSYCO 300 - Honors Seminar I <del>PSYCO 309 - Honors Seminar I</del></p> <p>PSYCO 396 - Individual Research <b>OR</b> PSYCO 398 - Individual Study I</p> <p>★9 in 300 or 400-level research classes: <del>PSYCO 390 - Honors Thesis I: Research Apprenticeship</del> PSYCO 396 - Individual Research PSYCO 398 - Individual Study I PSYCO 399 - Honors Thesis I: Research Apprenticeship PSYCO 400 - Honors Seminar II <del>PSYCO 409 - Honors Seminar II</del> PSYCO 490 - Honors Thesis II: Thesis Research PSYCO 496 - Individual Research</p> <p>PSYCO 498 - Individual Study II <b>OR</b> <del>PSYCO 499 - Honors Thesis II: Thesis Research</del></p>	<p><b>Research Certificate in Arts (Psychology)</b> The Research Certificate in Arts (Psychology) provides an opportunity for students to engage in focused research while pursuing their program. This certificate is open to all Arts students in Psychology. Normally a student will be able to fulfill the requirements for this certificate as part of their BA Psychology degree; some students may need to complete more than the minimum number of credits required in order to qualify for both the degree and the certificate. Students may pursue the Research Certificate in Arts (Psychology) by fulfilling the existing requirements for their program and by completing</p> <p>★21 as follows: ★3 in 200- or 300-level research class PSYCO 299 - Research Opportunity Program in Psychology PSYCO 300 - Honors Seminar I</p> <p>PSYCO 396 - Individual Research PSYCO 398 - Individual Study I</p> <p>★9 in 300 or 400-level research classes:  PSYCO 396 - Individual Research PSYCO 398 - Individual Study I PSYCO 399 - Honors Thesis I: Research Apprenticeship PSYCO 400 - Honors Seminar II  PSYCO 490 - Honors Thesis II: Thesis Research PSYCO 496 - Individual Research  PSYCO 498 - Individual Study II</p>

<p>★9 in</p> <ul style="list-style-type: none"> <li>• PSYCO 212 - Introduction to Research Methods in Psychology</li> <li>• STAT 252 - Introduction to Applied Statistics II</li> <li>• <b>and</b> a 300 or 400-level PSYCO methods class (PSYCO 356, 402, 410, 411, 413, 414, 415, 431, 471, 476, 482 or other advanced research methods course approved by the Honors Advisor)</li> <li>• Presentation at a conference either on or off campus</li> </ul>	<p>★9 in</p> <ul style="list-style-type: none"> <li>• PSYCO 212 - Introduction to Research Methods in Psychology</li> <li>• STAT 252 - Introduction to Applied Statistics II</li> <li>• <b>*3 from a</b> 300 or 400-level PSYCO methods class (PSYCO 356, 402, 410, 411, 413, 414, 415, 431, 471, 476, 482 or other advanced research methods course approved by the Honors Advisor)</li> </ul> <p><b>Additional Requirement:</b></p> <hr/> <p>Presentation at a conference either on or off campus</p> <p><b>Note:</b></p> <hr/> <p><b>Equivalent courses from the Faculty of Science may be used to meet the requirements with departmental consent.</b></p>
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Department Contact: Kerry Ann Berrisford	Department Approval Date: 10/16/2020
Chair or Designate: Cor Baerveldt	Signature:



Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **St. Joseph's College**


Change: **Editorial - Correction**

**Rationale:** The St. Joseph's College Faculty Council agreed on Oct 5<sup>th</sup> to edit the language of the Minor in Christian Theology for the purposes of (a) reducing confusion among students about program requirements, and (b) updating the course designator for St. Stephen's College pending the successful approval of changes to their course designations.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37026&hl=arts+minor+in+christian+theology&returnto=search](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37026&hl=arts+minor+in+christian+theology&returnto=search)

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
<p>Minor in Christian Theology</p> <p>The Christian Theology Minor is an interdisciplinary program offered by the Faculty of Arts. To successfully complete the requirements of a Christian Theology Minor, students take courses offered by St Joseph's College and St Stephen's College. The <del>Department of Religious Studies and the Department of History and Classics each</del> offer additional courses that would augment and complement material learned in this program.</p> <p>A minimum of ★18 to a maximum of ★42 at the senior level in CHRTC/PHIL courses at St Joseph's College and/or <del>CHRTP</del> courses at St Stephen's College courses are required, including ★9 at the 300- or 400-level. <del>It is recommended that students include RELIG 102, CHRTC 100, CHRTP 312 and HIST 297 in their program.</del> The staff at St Joseph's College and St Stephen's College serve as student advisors.</p>	<p>Minor in Christian Theology</p> <p>The Christian Theology Minor is an interdisciplinary program offered by the Faculty of Arts. To successfully complete the requirements of a Christian Theology Minor, students take courses offered by St Joseph's College and St Stephen's College. The <u>History, Classics, and Religious Studies programs</u> offer additional courses that would augment and complement material learned in this program.</p> <p>A minimum of ★18 to a maximum of ★42 at the senior level in CHRTC/PHIL courses at St Joseph's College and/or <u>SPRIT</u> courses at St Stephen's College courses are required, including ★9 at the 300- or 400-level. The staff at St Joseph's College and St Stephen's College serve as student advisors.</p>

Department Contact: Sara McKeon	Department Council Approval Date: Oct 5, 2020
Chair or Designate: Dr. Matthew Kostelecky, Interim Vice-President (Academic) and Dean, St. Joseph's College	Signature: 

Submission Deadlines: 21-22 Calendar – 09.02.20, 09.23.20, 10.07.20

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Faculty / Undergraduate Student Services**

Change: **Certificate**

**Rationale:** (why is this change being proposed and who was consulted?)

<https://calendar.ualberta.ca/content.php?catoid=33&navoid=9839#certificate-programs>

**Calendar Copy:**

Current: <del>Strike through and highlight</del> deletions	Proposed: <u>Underline and highlight</u> additions
<p><b>Certificate Programs</b></p> <p>The Faculty of Arts offers a number of certificates to graduating students which acknowledge formally that students have studied particular themes, within one discipline, or across disciplines. Normally the requirements for the certificates can be completed as part of the requirements for the degree; however, in some cases, a student may need to take more than the minimum required for their degree program in order to qualify for both the degree and the certificate. Certificates are granted at the time of convocation only. For a list of certificates, see Faculty of Arts.</p>	<p><b>Certificate Programs</b></p> <p>The Faculty of Arts offers a number of certificates to graduating students which acknowledge formally that students have studied particular themes, within one discipline, or across disciplines. Normally the requirements for the certificates can be completed as part of the requirements for the degree; however, in some cases, a student may need to take more than the minimum required for their degree program in order to qualify for both the degree and the certificate.</p> <p><u>Students are encouraged to declare their intentions to pursue certificates as early as possible. Students can do this through the <a href="#">Faculty of Arts Website</a> where they can also find additional Academic Advising supports.</u></p> <p><u>To be awarded certificates, students must have previously declared it through the Faculty of Arts website. Faculty of Arts students then apply for the certificate(s) through Bear Tracks when they apply to graduate (see Academic Schedule, Dates, and Deadlines). Students in a faculty other than the Faculty of Arts must contact their home faculty office to inform them of certificate completion.</u> Certificates are granted at the time of convocation only. For a list of certificates, see Faculty of Arts.</p>

Department Contact: <b>Kristy Wuetherick</b>	Department Council Approval Date:
Chair or Designate:	Signature:

**Submission Deadlines: 21-22 Calendar** – 09.02.20, 09.23.20, 10.07.20

**Submission Deadlines: 22-23 Calendar** – 01.13.21, 03.31.21

**Department:** History and Classics

**Change:** Course

**Rationale:** SANSK 203 is a new course intended to be taught for the first time in the spring term of 2022. SANSK 203 is a six-credit course

Intensive Sanskrit, designed to be taught in a single semester, normally either spring or summer.

Students will acquire a reading knowledge of simple texts in Sanskrit (equivalent to that of students who take SANSK 201 and 202 in the regular academic year). The linguistic objectives and target skills to be achieved in SANSK 203 will be the same as those in SANSK 201 and 202.

SANSK 203 should be of interest to undergraduate and graduate students who wish to focus on South Asian history and/or religion within History, Classics and Religion. It would also offer an opportunity for Arts students to complete the LOE who cannot fit a language course into their schedule during the regular academic year.

An intensive Sanskrit class that will give six credits in six weeks in the spring or summer will offer greater flexibility to students, will enhance our existing language programs and possibly increase our enrolments in upper-level Sanskrit or South Asian history/religions courses.

SANSK 301 is a new course is an intermediate Sanskrit reading course, which gives students the opportunity to develop their knowledge of Sanskrit acquired in SANSK 201 and 202, or SANSK 203, and further stimulate students' interest in ancient and medieval South Asian history and religion. Consultations were carried out with the Religion section and Department Council.

Paste **current** calendar URL here:

[https://calendar.ualberta.ca/search\\_advanced.php?cur\\_cat\\_oid=33&search\\_database=Search&search\\_db=Search&cpage=1&ecpage=1&ppage=1&spage=1&tpage=1&location=33&filter%5Bkeyword%5D=SANSK+201&filter%5Bexact\\_match%5D=1](https://calendar.ualberta.ca/search_advanced.php?cur_cat_oid=33&search_database=Search&search_db=Search&cpage=1&ecpage=1&ppage=1&spage=1&tpage=1&location=33&filter%5Bkeyword%5D=SANSK+201&filter%5Bexact_match%5D=1)

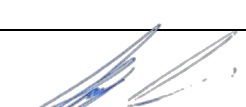
**Calendar Copy:**

<b>Current:</b> <u>Strike through and highlight</u> deletions	<b>Proposed:</b> <u>Underline and highlight</u> additions
<p><b>SANSK 201 - Introduction to Sanskrit I</b></p> <p>★ 3 (fi 6) (either term, 4-0-0) Fundamentals of the Sanskrit language for reading and translation purposes. Designed for students with no previous knowledge of Sanskrit. Note: Not open to students with credit in RELIG 239.</p> <p><b>SANSK 202 - Introduction to Sanskrit II</b></p> <p>★ 3 (fi 6) (either term, 4-0-0) A continuation of SANSK 201. Prerequisite: SANSK 201 or consent of Program in Religious Studies.</p>	<p><b>SANSK 201 - Introduction to Sanskrit I</b></p> <p>★ 3 (fi 6) (either term, 4-0-0) Fundamentals of the Sanskrit language for reading and translation purposes. Designed for students with no previous knowledge of Sanskrit. Note: Not open to students with credit in <u>SANSK 203 or</u> RELIG 239.</p> <p><b>SANSK 202 - Introduction to Sanskrit II</b></p> <p>★ 3 (fi 6) (either term, 4-0-0) A continuation of SANSK 201. Prerequisite: SANSK 201 or consent of Program in Religious Studies. <u>Note: Not open to students with credit in SANSK 203.</u></p> <p><b><u>SANSK 203 Intensive Beginner's Sanskrit</u></b></p> <p>★ 6 (fi 12) (either term, variable)</p>

Elements of Sanskrit grammar and reading of simple texts. Note: Not to be taken by students with credit in SANSK 201 or 202.

**SANSK 301 Intermediate Sanskrit**

★ 3 (fi 6) (either term, 3-0-0). Prerequisite: SANSK 201 and SANSK 202, or SANSK 203.

Department Contact: Dagmar Wujastyk	Department Council Approval Date: September 10, 2020
Chair or Designate: Jaymie Heilman, Associate Chair Undergrad	Signature: <i>Jaymie Heilman</i> 

Approval: Arts Executive Committee, E-vote, November 26, 2020

**Augustana Faculty  
Course and Program Changes  
For Implementation in Fall 2021**

<b>Current</b>	<b>Proposed</b>
<p><b>AUCHE 110 - General Chemistry I</b> ★ 3 (fi 6) (first term, 3-0-3) A general introduction to chemistry. Topics include <u>atomic structure; bonding and bonding theories; periodic trends</u>; states of matter and intermolecular forces; <u>and chemical kinetics</u>. Prerequisites: Chemistry 30 and Mathematics 30-1.</p>	<p><b>AUCHE 110 - General Chemistry I</b> ★ 3 (fi 6) (first term, 3-0-0) A general introduction to chemistry. Topics include <u>molecular shapes and Lewis structures</u>; states of matter and intermolecular forces; <u>qualitative and quantitative aspects of equilibrium, acid/base chemistry and buffers</u>. Prerequisites: Chemistry 30 and Mathematics 30-1.</p>
<p><del><b>AUCHE 112 - General Chemistry II</b> ★ 3 (fi 6) (second term, 3-0-3) Continuation of AUCHE 110. Topics include <u>thermodynamics, free energy, equilibria, acid-base chemistry, buffers, oxidation-reduction reactions, electrochemistry, and nuclear chemistry</u>. Prerequisite: <u>AUCHE 110</u>.</del></p>	<p><b>Delete</b></p>
<p><b>AUCHE 211 - Communicating Chemistry</b> ★ 3 (fi 6) (either term, 3-0-0) An introductory course in communicating chemical data and chemistry information using a variety of different media and targeting diverse audiences. Topics to be discussed include information and scientific literacy, locating and evaluating appropriate sources of literature, written and oral communication of scientific information, strategies for writing a scientific paper, strategies for orally presenting scientific data and strategies for constructing a scientific poster. All topics are taught from a chemistry perspective with a focus on chemistry-based course content. Prerequisite: <u>AUCHE 112</u>.</p>	<p><b>AUCHE 211 - Communicating Chemistry</b> ★ 3 (fi 6) (either term, 3-0-0) An introductory course in communicating chemical data and chemistry information using a variety of different media and targeting diverse audiences. Topics to be discussed include information and scientific literacy, locating and evaluating appropriate sources of literature, written and oral communication of scientific information, strategies for writing a scientific paper, strategies for orally presenting scientific data and strategies for constructing a scientific poster. All topics are taught from a chemistry perspective with a focus on chemistry-based course content. Prerequisite: <u>AUCHE 110</u>.</p>
<p><b>New</b></p>	<p><b>AUCHE 212 - General Chemistry II</b> ★ 3 (fi 6) (second term, 3-0-0) Continuation of AUCHE 110. Topics include <u>atomic structure, periodic trends, reaction kinetics, thermodynamics, chemical equilibria, and hybrid theory</u>. Prerequisite: <u>AUCHE 110</u>. <u>Note: Credit may be obtained for only one of AUCHE 112 (2021) and AUCHE 212.</u></p>

<p><b>New</b></p>	<p><b>AUCHE 213 – General Chemistry II Lab</b>  ★ 3 (fi 6) (second term, 1-0-3) This lab course introduces students to fundamental concepts in chemistry and foundational chemistry lab techniques. Concepts include atomic structure, reaction kinetics and electrochemistry. Techniques include rudimentary reaction set-ups, analytical testing, product characterization and use of basic chemical laboratory instrumentation. Co-requisites: AUCHE 212.</p>
<p><b>AUCHE 220 - Analytical Chemistry</b>  ★ 3 (fi 6) (either term, 3-0-3) Theoretical and practical aspects of chemical analysis. Topics include gravimetry, titrimetry, separations, acid-base equilibria, chromatography, and spectrophotometry. Examples emphasize the utility and limitations of analytical techniques. Prerequisite: AUCHE 112. Recommended corequisite: AUMAT 110 or 116.</p>	<p><b>AUCHE 220 – Analysis I</b>  ★ 3 (fi 6) (either term, 3-0-0) Theoretical and practical aspects of chemical analysis. Topics include titrimetry, separations, acid-base equilibria, chromatography, and spectrophotometry. Examples emphasize the utility and limitations of analytical techniques. Prerequisite: AUCHE 112. Recommended corequisite: AUMAT 110 or 116.</p>
<p><b>New</b></p>	<p><b>AUCHE 221 – Analysis I Lab</b>  ★ 3 (fi 6) (either term, 1-0-3) This is a lab course that introduces students to the principles and techniques of analytical chemistry. Laboratory experiments will include analysis techniques that involve titrimetry, electrochemistry, spectrophotometry and chromatography. Prerequisites: AUCHE 213. Corequisites: Recommended AUCHE 220.</p>
<p><b>AUCHE 222 – Instrumental Analysis</b>  ★ 3 (fi 6) (either term, 3-0-3) Study of the theory and practice of instrumental methods of analysis. Topics include atomic absorption and emission spectroscopy, fluorometry, liquid and gas chromatography, physical separations, and electrochemical methods. Examples include the analysis of chemicals with environmental importance. Prerequisite: AUCHE 220. Recommended corequisite: AUMAT 110 or 116.</p>	<p><b>Delete</b></p>
<p><b>AUCHE 230 - Inorganic Chemistry I</b>  ★ 3 (fi 6) (either term, 3-0-3) An introduction to inorganic chemistry. Topics include: the electronic structure of atoms, bonding models</p>	<p><b>AUCHE 230 – Structure and Bonding</b>  ★ 3 (fi 6) (either term, 3-0-0) An introduction to the principles of molecular structure and chemical bonding. Topics include: the</p>

<p>and Molecular Orbital Theory, symmetry and point groups, donor-acceptor chemistry, structure and bonding of ionic solids and nuclear chemistry. Prerequisite: AUCHE 112.</p>	<p>electronic structure of atoms, bonding models and Molecular Orbital Theory, symmetry and point groups, structure and bonding of ionic solids, structure and bonding of transition metal complexes, stereochemistry and conformational isomerism. Prerequisite: AUCHE 110.</p>
<p><b>AUCHE 250 - Organic Chemistry I</b>  ★ 3 (fi 6) (first term, 3-0-3) An introduction to bonding and functionality in organic compounds. Mechanistic approach to solving problems will be emphasized, with discussion of the reactions of alkanes, alkenes, alkynes, and alkyl halides. The three-dimensional structure of molecules and the concept of stereochemistry will be examined. Infrared spectroscopy and Nuclear Magnetic Resonance spectroscopy will be applied in both the lecture and the lab. Prerequisite: AUCHE 110; AUCHE 112 is recommended.</p>	<p><b>AUCHE 250 - Synthesis I</b>  ★ 3 (fi 6) (first term, 3-0-0) An introduction to bonding and functionality in organic compounds. Qualitative factors affecting acidity and basicity will be introduced, as well as the concept of aromaticity. A mechanistic approach to learning reactions will be emphasized, with discussion of the nucleophilic acyl additions and substitutions, nucleophilic reactions adjacent to carbonyls, simple substitutions, and electrophilic aromatic substitutions. The three-dimensional structure of molecules and the concept of stereochemistry will also be examined. Prerequisite: AUCHE 212; AUCHE 230 is recommended.</p>
<p><b>New</b></p>	<p><b>AUCHE 251 - Synthesis I Lab</b>  ★ 3 (fi 6) (first term, 1-0-3) This lab course introduces students to the principles and techniques of inorganic and organic synthesis. Concepts include organic redox reductions, nucleophilic acyl addition and substitution reactions, elimination reactions and additions to alkenes. Techniques introduced include melting point analysis, liquid-liquid extraction, reflux, distillation, thin-layer chromatography and interpretation of gas chromatographs and infrared spectra. Prerequisite: AUCHE 213. Corequisite: AUCHE 250.</p>
<p><b>AUCHE 252 - Organic Chemistry II</b>  ★ 3 (fi 6) (second term, 3-0-3) Continuation of AUCHE 250, again emphasizing a mechanist approach. The chemistry of alcohols, conjugated unsaturated systems, aromatic rings, carbonyl-containing compounds, organic reduction-oxidation reactions, and beta-dicarbonyl compounds will be discussed. Carbohydrate chemistry</p>	<p><b>Delete</b></p>



<p>will be introduced as a way to explore many concepts in a biochemical context. Prerequisite: AUCHE 250.</p>	
<p><b>AUCHE 277 - Introduction to Relativity and Quantum Mechanics</b> ★ 3 (fi 6) (either term, 3-0-0) Special relativity; photons and matter waves; Bohr atom model; Heisenberg Uncertainty Principle; Schrödinger equation; one-dimensional systems; hydrogen atom; spin; Pauli Exclusion Principle; many-electron atoms; molecules. Prerequisites: AUCHE 112, AUMAT 112, and AUPHY 120. Corequisite: AUMAT 211 is recommended. Note: Credit may be obtained for only one of AUCHE 277, AUPHY 260.</p>	<p><b>AUCHE 277 - Introduction to Relativity and Quantum Mechanics</b> ★ 3 (fi 6) (either term, 3-0-0) Special relativity; photons and matter waves; Bohr atom model; Heisenberg Uncertainty Principle; Schrödinger equation; one-dimensional systems; hydrogen atom; spin; Pauli Exclusion Principle; many-electron atoms; molecules. Prerequisites: AUCHE 212, AUMAT 112, and AUPHY 120. Corequisite: AUMAT 211 is recommended. Note: Credit may be obtained for only one of AUCHE 277, AUPHY 260.</p>
<p><b>AUCHE 279 - Physical Chemistry</b> ★ 3 (fi 6) (either term, 3-0-0) Study of the principles and concepts of physical chemistry. Topics include the laws of thermodynamics, chemical equilibrium, phase equilibria, surface chemistry, chemical kinetics and catalysis and spectroscopy and photochemistry. Prerequisites: AUCHE 112 and AUMAT 110 or 116.</p>	<p><b>AUCHE 279 - Physical Chemistry</b> ★ 3 (fi 6) (either term, 3-0-0) Study of the principles and concepts of physical chemistry. Topics include the laws of thermodynamics, chemical equilibrium, phase equilibria, surface chemistry, chemical kinetics and catalysis and spectroscopy and photochemistry. Prerequisites: AUCHE 212 and AUMAT 110 or 116.</p>
<p><b>AUCHE 320 – Analytical Chemistry III</b> ★ 3 (fi 6) (either term, 3-0-0) Theory and application of nuclear magnetic resonance spectroscopy, infrared spectroscopy and mass spectrometry. Prerequisite: AUCHE 222.</p>	<p><b>Delete</b></p>
<p><b>New</b></p>	<p><b>AUCHE 323 – Analysis II</b> ★ 3 (fi 6) (either term, 3-0-0) Study of the theory and practice of instrument methods of analysis. Topics include atomic absorption and emission spectroscopy, fluorometry, liquid and gas chromatography, physical separations and electrochemical methods. Examples include the analysis of chemicals with environmental importance. Prerequisite: AUCHE 220. Recommended corequisite: AUMAT 110 or 116. Note: Credit may be obtained for only one of AUCHE 222 (2021) and AUCHE 323.</p>
<p><b>AUCHE 324 - Research Techniques in Analytical Chemistry</b> ★ 3 (fi 6) (either term, 0-0-3) An advanced analytical laboratory course utilizing</p>	<p><b>AUCHE 324 - Analysis II Lab</b> ★ 3 (fi 6) (either term, 1-0-3) An advanced analytical laboratory course utilizing spectroscopic, chromatographic and</p>

<p>spectroscopic, chromatographic and electroanalytical techniques. The emphasis will be on the application of the instrumental techniques for the analysis and identification of unknown samples. Prerequisites: AUCHE 320.</p>	<p>electroanalytical techniques. The emphasis will be on the application of the instrumental techniques for the analysis and identification of unknown samples. Prerequisites: AUCHE 221.</p>
<p><b>New</b></p>	<p><b>AUCHE 325 – Analysis III</b>  ★ 3 (fi 6) (either term, 3-0-0) Theory and application of nuclear magnetic resonance spectroscopy, infrared spectroscopy and mass spectrometry. Prerequisite: AUCHE 320. Note: Credit may be obtained for only one of AUCHE 320 (2021) and AUCHE 325.</p>
<p><b>AUCHE 330 – Organometallic Chemistry</b>  ★ 3 (fi 6) (either term, 3-0-0) An introduction to organometallic chemistry. Topics include: the 18 electron rule, transition metal complexes of hydrides, phosphines, carbonyls, olefins, alkynes, polyolefins, cyclopentadienyl and related cyclic pi-ligands, metal-carbon sigma and multiple bonds, organometallic reactions and related mechanisms, catalysis and industrial applications. Prerequisite: AUCHE 232.</p>	<p><b>Delete</b></p>
<p><b>AUCHE 341 - Introduction to Environmental Chemistry</b>  ★ 3 (fi 6) (either term, 3-0-0) This course serves as an introduction to the chemical processes responsible for natural environmental phenomena and anthropogenic environmental sampling, climate change, pollution, waste management, fossil fuels and alternative energy technologies, toxic organic compounds and the principles of green chemistry. Prerequisites: AUCHE 112, third year standing, AUCHE 220 recommended.</p>	<p><b>AUCHE 341 - Introduction to Environmental Chemistry</b>  ★ 3 (fi 6) (either term, 3-0-0) This course serves as an introduction to the chemical processes responsible for natural environmental phenomena and anthropogenic environmental sampling, climate change, pollution, waste management, fossil fuels and alternative energy technologies, toxic organic compounds and the principles of green chemistry. Prerequisites: AUCHE 212, third year standing, AUCHE 220 recommended.</p>
<p><b>AUCHE 350 - Organic Chemistry III</b>  ★ 3 (fi 6) (either term, 3-0-0) Continuation of the foundation laid in AUCHE 250 and 252, considering in greater depth and breadth topics, including: reactions of carbonyl compounds, conjugate additions, and <sup>1</sup>H-NMR. Radical reactions, retrosynthesis and total synthesis (both overall strategy and key reactions) will also be explored. Prerequisite: AUCHE 252.</p>	<p><b>AUCHE 350 – Synthesis II</b>  ★ 3 (fi 6) (either term, 3-0-0) An introduction to inorganic chemistry with particular emphasis on the bonding, reactivity and characterization of transition metal complexes. Topics include: Donor-acceptor chemistry, ligand substitution, redox chemistry, photochemical reactions, electronic spectra, magnetochemistry, NMR spectroscopy and an introduction to</p>

	organometallic chemistry. Prerequisite: AUCHE 250.
<b>New</b>	<p><b>AUCHE 351 – Synthesis II Lab</b></p> <p>★ 3 (fi 6) (either term, 1-0-3) This lab course is an extension of AUCHE 251 and introduces students to intermediate and advanced synthetic laboratory principles and techniques. Concepts include the synthesis of transition metal and organometallic complexes, the rational design and synthesis of organic ligand systems, reactions of metal complexes and inert atmosphere synthesis. Students will also gain experience analyzing and interpreting real-world data acquired from a variety of characterization techniques, including NMR, UV-Vis, IR and magnetic susceptibility. Prerequisite: AUCHE 251.</p>
<b>New</b>	<p><b>AUCHE 352 - Synthesis III</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) An extension of AUCHE 350 and an introduction to catalysis. Topics include: Common organometallic ligand systems, organometallic reactions and related mechanisms, homogenous, heterogeneous and asymmetric catalysis, catalyst synthesis and design, flow chemistry and industrial catalytic applications. Prerequisite: AUCHE 350.</p>
<b>New</b>	<p><b>AUCHE 353 – Synthesis III Lab</b></p> <p>★ 3 (fi 6) (either term, 1-0-3) This course is a guided-inquiry laboratory course that is focused on the development of modern organic and inorganic synthetic skills and techniques. Students will gain hands-on experience in researching, developing and implementing synthetic methodologies and analyzing experimental results. In addition, student will strengthen their communication skills through oral and written assignments. Prerequisites: AUCHE 351. Note: Credit may be obtained for only one of AUCHE 353 and AUCHE 360 (2021).</p>
<b>AUCHE 360 – Advanced Synthetic Laboratory</b>	<b>Delete</b>
★ 3 (fi 6) (either term, 1-0-3) This course is a guided inquiry laboratory course that is focused on the development of modern	

<p>organic and inorganic synthetic skills and techniques. Students will gain hands-on experience in researching, developing and implanting synthetic methodologies and analyzing experimental results. In addition, student will strengthen their communication skills through oral and written assignments. Prerequisites: AUCHE 232 and AUCHE 252. AUCHE 210 recommended.</p>	
<p><b>AUCHE 410 - Senior Mentorship Experience</b>  ★ 6 (fi 12) (variable, 0-1s-3) This course will involve weekly laboratory instruction for general chemistry (AUCHE 110 and 112) labs. Students enrolled in the course will be responsible for supervision of students during the labs as well as mentoring of junior students who will be assisting in the lab. Students will be expected to attend weekly technical meetings on lab logistics, safety and procedures. In addition, students will attend biweekly seminars on teaching practice, communication and student mentorship experience. An important component of this course will be reflective assignments about the teaching experience. Prerequisites: AUCHE 112, third or fourth year standing, and consent of the instructors based on successful completion of the selection process.</p>	<p><b>Delete</b></p>
<p><b>AUCHE 450 - Enzymes and Enzyme Mechanisms</b>  ★ 3 (fi 6) (either term, 3-0-0) Study of the mechanism of different classes of enzymes along with experimental techniques used in enzymology. Prerequisite: AUCHE 252. Note: AUBIO/AUCHE 280 (Biochemistry Proteins, Enzymes and Energy) is a suggested pre or corequisite.</p>	<p><b>AUCHE 450 - Enzymes and Enzyme Mechanisms</b>  ★ 3 (fi 6) (either term, 3-0-0) Study of the mechanism of different classes of enzymes along with experimental techniques used in enzymology. Prerequisite: AUCHE 250. Note: AUBIO 280 (Biochemistry: Proteins, Enzymes and Energy) is a suggested pre or corequisite.</p>
<p><b>AUCSC 111 - Introduction to Computational Thinking and Problem Solving</b>  ★ 3 (fi 6) (either term, 3-0-3) An introduction to computational thinking, problem solving, and the fundamental ideas of computing science through programming in a scripting</p>	<p><b>Delete</b></p>

<p>language (such as Python or Ruby). Topics include algorithms, abstraction, and modelling; the syntax and semantics of a high-level language; fundamental programming concepts and data structures, including simple containers (arrays, lists, strings, dictionaries); basic software development methods and tools; documentation and style; introduction to object-oriented programming; exceptions and error handling; graphical user interfaces and event-driven programming; recursion; introduction to algorithm analysis and run-time efficiency. Prerequisite: Mathematics 30-1. Note: Credit may be obtained for only one of AUCSC 111 and AUCSC 120 (2019).</p>	
<p><b>AUCSC 112 – Data Structures and Algorithms</b>  ★ 3 (fi 6) (either term, 3-0-3) An introduction to object-oriented design and programming in Java; algorithm analysis; data structures and container classes (lists, stacks, queues, priority queues, maps, dictionaries), their implementations (arrays, linked lists, heaps, hash tables), and associated algorithms (insertion, removal, iterators, sorting, retrieval); introduction to recursion. Prerequisite: AUCSC 111 or 120. Corequisite: AUMAT 110 or 111 or 116 and 120. Note: Credit may be obtained for only one of AUCSC 112 and AUCSC 210.</p>	<p><b>Delete</b></p>
<p><b>New</b></p>	<p><b>AUCSC 211 – Data Structures and Algorithms</b>  ★ 3 (fi 6) (either term, 3-0-0) An introduction to object-oriented design and programming; algorithm analysis; data structures and container classes including arrays, lists, arraylists, stacks, queues, user-defined structures and an introduction to trees, along with associated algorithms such as insertion, removal, sorting and retrieval; introduction to recursion. Prerequisite: AUCSC 111 (2021), AUCSC 113 or AUSCI 135. Corequisite: AUSCI 235. Note: Credit may be obtained for only one of AUCSC 112 (2021) and AUCSC 211.</p>

<p><b>AUCSC 218 - Web Design, Development and Scripting</b></p> <p>★ 3 (fi 6) (either term, 3-0-1.5) Introduction to modern web architectures and technologies. Web platforms and standards. Client-side/server-side programming and web languages (e.g. HTML, JavaScript, PHP, CSS, Node.js). Introduction to internet security. Design and implementation of a simple web application. Prerequisite: AUCSC 112.</p>	<p><b>AUCSC 218 - Web Design, Development and Scripting</b></p> <p>★ 3 (fi 6) (either term, 3-0-1.5) Introduction to modern web architectures and technologies. Web platforms and standards. Client-side/server-side programming and web languages (e.g. HTML, JavaScript, PHP, CSS, Node.js). Introduction to internet security. Design and implementation of a simple web application. Prerequisite: AUCSC 112 (2021), or one of AUCSC 113 or AUSCI 135.</p>
<p><b>AUCSC 220 - Software Engineering I</b></p> <p>★ 3 (fi 6) (first term, 3-0-1.5) Software engineering paradigms, requirements specification, iterative software development, object-oriented design patterns, visual modelling with UML, software architecture; testing, verification and maintenance; software development environments and software engineering tools; societal implications such as the cost of failure and professional responsibilities. Prerequisite: AUCSC 112 or 210.</p>	<p><b>AUCSC 220 - Software Engineering I</b></p> <p>★ 3 (fi 6) (first term, 3-0-1.5) Software engineering paradigms, requirements specification, iterative software development, object-oriented design patterns, visual modelling with UML, software architecture; testing, verification and maintenance; software development environments and software engineering tools; societal implications such as the cost of failure and professional responsibilities. Prerequisite: AUCSC 112 (2021) or AUCSC 211 and AUSCI 235.</p>
<p><b>AUCSC 250 - Computer Organization and Architecture I</b></p> <p>★ 3 (fi 6) (first term, 3-0-1.5) Introduction to computer systems as multilevel machines. Topics include data representation; the organization and execution cycle of Von Neumann machines; assembly-level programming, addressing modes, control flow, procedure calls, input/output, interrupts, caching; finite state machines, Boolean algebra, logic gates, and digital circuits. Prerequisite: AUCSC 112 or 120 (2019).</p>	<p><b>AUCSC 250 - Computer Organization and Architecture I</b></p> <p>★ 3 (fi 6) (first term, 3-0-1.5) Introduction to computer systems as multilevel machines. Topics include data representation; the organization and execution cycle of Von Neumann machines; assembly-level programming, addressing modes, control flow, procedure calls, input/output, interrupts, caching; finite state machines, Boolean algebra, logic gates, and digital circuits. Prerequisite: AUCSC 112 (2021) or AUCSC 211 and AUSCI 235.</p>
<p><b>AUCSC 310 - Algorithm Design and Analysis</b></p> <p>★ 3 (fi 6) (either term, 3-0-1.5) Trees, binary trees, search trees, their implementation, traversal, and search and update operations. Introduction to graph theory; data structures for the representation of graphs, digraphs, and networks, and their associated algorithms</p>	<p><b>AUCSC 310 - Algorithm Design and Analysis</b></p> <p>★ 3 (fi 6) (either term, 3-0-1.5) Algorithm design techniques (divide-and-conquer, dynamic programming, the greedy method). Merge-sort and the analysis of divide-and-conquer algorithms with recurrence relations; bucket-sort, radix-sort, and the lower bound</p>

<p>(traversal, connected components, topological sorting, minimum spanning trees, shortest paths, transitive closure). Dynamic equivalence relations and union-find sets; amortized analysis. String matching. Algorithm design techniques (divide-and-conquer, dynamic programming, the greedy method). Merge-sort and the analysis of divide-and-conquer algorithms with recurrence relations; bucket-sort, radix-sort, and the lower bound on sorting; comparison of sorting algorithms. Prerequisites: AUCSC 112 or 210 and AUMAT 250.</p>	<p>on sorting; comparison of sorting algorithms. Trees, binary trees, search trees, their implementation, traversal, and search and update operations. Introduction to graph theory; data structures for the representation of graphs, digraphs, and networks, and their associated algorithms (traversal, connected components, topological sorting, minimum-spanning trees, shortest paths, transitive closure). Dynamic equivalence relations and union-find sets; amortized analysis. String matching. Prerequisites: AUCSC 112 (2021) or AUCSC 211 and AUSCI 235, and AUMAT 250.</p>
<p><b>AUCSC 330 - Database Management Systems I</b>  ★ 3 (fi 6) (second term, 3-0-1.5) Introduction to current database management systems in theory and practice. Topics include relational database design (including entity-relationship modelling, relational schema, and normal forms); relational algebra, use of a query language (typically SQL) and other components of a current database management system; overview of database system architecture, file structures (including B-tree indices), query processing, and transaction management; new directions. Prerequisites: AUCSC 112 or 210, and AUMAT 250.</p>	<p><b>AUCSC 330 - Database Management Systems I</b>  ★ 3 (fi 6) (second term, 3-0-1.5) Introduction to current database management systems in theory and practice. Topics include relational database design (including entity-relationship modelling, relational schema, and normal forms); relational algebra, use of a query language (typically SQL) and other components of a current database management system; overview of database system architecture, file structures (including B-tree indices), query processing, and transaction management; new directions. Prerequisites: AUCSC 112 (2021) or AUCSC 211 and AUSCI 235, and AUMAT 250.</p>
<p><b>AUCSC 340 – Numerical Methods</b>  ★ 3 (fi 6) (either term, 3-0-1.5) Computer arithmetic and errors, solution of systems of linear equations, root finding, interpolation, numerical quadrature, and numerical solutions of ordinary differential equations. Applications from physics are included. Prerequisites: AUCSC 111, AUMAT 120, AUMAT 112; or consent of the instructor. Note: Credit may be obtained for only one of AUCSC 340, AUMAT 340, AUPHY 340.</p>	<p><b>Delete</b></p>
<p><b>AUCSC 370 - Programming Languages</b>  ★ 3 (fi 6) (first term, 3-0-1.5) Principles of language design, abstraction, syntax and parsing, operational semantics (declaration, allocation, evaluation, run-time environment,</p>	<p><b>AUCSC 370 - Programming Languages</b>  ★ 3 (fi 6) (first term, 3-0-1.5) Principles of language design, abstraction, syntax and parsing, operational semantics (declaration, allocation, evaluation, run-time environment,</p>



<p>typing, activation), and programming language paradigms (procedural, object-oriented, functional, logic programming). Prerequisites: AUCSC 112 <b>or 210</b>, and AUMAT 250. Corequisite: AUCSC 250.</p>	<p>typing, activation), and programming language paradigms (procedural, object-oriented, functional, logic programming). Prerequisites: AUCSC 112 <b>(2021)</b> or <b>AUCSC 211 and AUSCI 235</b>, and AUMAT 250. Corequisite: AUCSC 250.</p>
<p><b>AUCSC 415 – Automata, Algorithms and Complexity</b>  ★ 3 (fi 6) (either term, 3-0-0) Models of computers, including finite automata and Turing machines, basics of formal languages, compatibility, algorithm optimality, complexity classes (p, NP, NPcomplete, EXP, PSPACE, etc.), probabilistic algorithms, approximation algorithms, number theoretic and other selected algorithms, including selection and order statistics. Prerequisites: AUCSC 310. Notes: This course may not be taken for credit if credit has previously been received for AUCSC 315 (2019), 410 (2019), or AUMAT 355 (2019).</p>	<p><b>Delete</b></p>
<p><b>AUCSC 450 - Parallel and Distributed Computing</b>  ★ 3 (fi 6) (either term, 3-0-1.5) Parallel architectures, programming language constructs for parallel computing, parallel algorithms and complexity. Message-passing, remote procedure call, and shared-memory models. Synchronization and data coherence. Load balancing and scheduling. Appropriate applications. Prerequisites: AUCSC <b>350</b>.</p>	<p><b>AUCSC 450 - Parallel and Distributed Computing</b>  ★ 3 (fi 6) (either term, 3-0-1.5) Parallel architectures, programming language constructs for parallel computing, parallel algorithms and complexity. Message-passing, remote procedure call, and shared-memory models. Synchronization and data coherence. Load balancing and scheduling. Appropriate applications. Prerequisites: AUCSC <b>250</b>.</p>
<p><b>AUCSC 490 – Social and Ethical Issues for Computing Professionals</b>  ★ 3 (fi 6) (either term, 3-0-0) Historical and social context of computing; the social and ethical responsibilities of the computing professional; the risks and liabilities that can accompany a computing application; intellectual property. The course includes extensive writing assignments and oral presentations. Prerequisite: At least *15 in Computing Science; at least third year standing.</p>	<p><b>Delete</b></p>
<p><b>AUHS 190 – The Historian’s Craft: Research Skills and Tools</b></p>	<p><b>Delete</b></p>

<p>★ 3 (fi 6) (either term, 3-0-0) Introduction to the skills and methods needed for the study of history. The course familiarizes students with the specialized vocabulary of the discipline. It guides students through all the steps necessary to write a research paper: the choice and delineation of a research topic, the elaboration of the thesis, the collection of data and the treatment of the information, the outline and the writing of the paper. Note: This course is only open to students with a major or a minor in History.</p>	
<p><b>AUIDS 137 - Science Laboratory Experiences</b>  ★ 3 (fi 6) (either term, 0-0-3) Introduction to experimental work in Biology, chemistry, environmental science and physics. This course emphasizes numeracy, scientific communication and experimental techniques but does not presuppose any specific knowledge of disciplinary content. Note: Closed to students with *6 or more in AUBIO, AUCHE, AUENV and AUPHY.</p>	<p><b>AUIDS 137 - Science Laboratory Experiences</b>  ★ 3 (fi 6) (either term, 0-0-3) Introduction to experimental work in Biology, chemistry, environmental science and physics. This course emphasizes numeracy, scientific communication and experimental techniques but does not presuppose any specific knowledge of disciplinary content. Note: Closed to students with *6 or more in AUBIO, AUCHE, AUENV, AUPHY and AUSCI.</p>
<p><b>New</b></p>	<p><b>AUMAT 216 Intermediate Calculus</b>  ★ 3 (fi 6) (either term, 3-0-0) Further foundational topics in calculus, including: limits of sequences and functions, infinite series (including Taylor and Fourier series) and multi-variable differential calculus. Prerequisites AUMAT 110 or 116, and AUMAT 120.</p>
<p><b>New</b></p>	<p><b>AUMAT 328 Cryptography</b>  ★ 3 (fi 6) (either term, 3-0-0) Introduction to cryptography in theory and practice, including its applications and mathematical foundations. Topics include classical cryptosystems, private-key cryptosystems (including DES and AES), hashing and public-key cryptosystems (including RSA), digital signatures, selected topics in cryptography. Prerequisite: AUMAT 250 and AUSCI 250.</p>
<p><b>AUMAT 332 - Mathematical Ecology and Dynamical Systems</b></p>	<p><b>AUMAT 332 - Mathematical Ecology and Dynamical Systems</b></p>

<p>★ 3 (fi 6) (either term, 3-0-0) <b>Mathematical analysis of problems associated with ecology, including models of population growth (e.g., discrete, continuous, age-structured, limited carrying capacity), the population dynamics of ecosystems, the spread of epidemics, the transport of pollutants, and the sustainable harvesting of vegetation and animal populations.</b> Fundamental concepts of discrete and continuous dynamical systems, both linear and nonlinear. Prerequisites: AUMAT 120 and 211.</p>	<p>★ 3 (fi 6) (either term, 3-0-0) Fundamental concepts of discrete and continuous dynamical systems, both linear and nonlinear; <b>nonlinear differential equations; deterministic, nondeterministic, and chaotic dynamics; strange attractors and fractals. Applications in ecology, biology and physics.</b> Prerequisites: AUMAT 216.</p>
<p><b>AUMAT 340 – Numerical Methods</b>  <del>★ 3 (fi 6) (either term, 3-0-1.5) Computer arithmetic and errors, solution of systems of linear equations, root finding, interpolation, numerical quadrature, and numerical solutions of ordinary differential equations. Applications from physics are included. Prerequisites: AUCSC 111, AUMAT 120, AUMAT 112; or consent of the instructor. Note: Credit may be obtained for only one of AUMAT 340, AUCSC 340, AUPHY 340.</del></p>	<p><b>Delete</b></p>
<p><b>New</b></p>	<p><b>AUMAT 350 - Optimization</b>  ★ 3 (fi 6) (either term, 3-0-0) Introduction to optimization (definition, notation and taxonomy); unconstrained optimization using gradient descent and stochastic gradient descent; linear programming: The Simplex Method; constrained optimization and Lagrange multipliers; convex optimization and quadratic programming. Prerequisites: AUSCI 250 and AUMAT 216.</p>
<p><b>New</b></p>	<p><b>AUMAT 353 – Applied Probability</b>  ★ 3 (fi 6) (either term, 3-0-0) Introduction to elementary probability theory and stochastic processes with a special emphasis on their applications in science. Topics include basics of probability, random variables, functions of random variables, random vectors, random processes and their classification, well-known random processes including the Bernoulli process, random walk process, Gaussian process, Poisson process, and Markov process. Prerequisite: AUMAT 250.</p>

<p><b>AUPHY 102 - Introductory General Physics I (Mechanics)</b></p> <p>★ 3 (fi 6) (first term, 3-2L-3/2) Noncalculus course in physics for a student without credit in Physics 30. Topics include vectors, forces in equilibrium, linear and rotational motion, dynamics of particles, and oscillations. Prerequisite: Mathematics 30-1 or consent of the instructor. Notes: AUPHY 102 does not count toward the major in Mathematics and Physics or the minor in Physics. The course is intended to be taken in sequence with AUPHY 106. Credit may be obtained for only one of AUPHY 102, 104, 110.</p>	<p><u>Delete</u></p>
<p><b>AUPHY 104 - Introductory General Physics I (Mechanics)</b></p> <p>★ 3 (fi 6) (first term, 3-0-3/2) Content is the same as that of AUPHY 102, but is designed for a student who has credit in Physics 30. Prerequisites: Physics 30 and Mathematics 30-1. Notes: The course does not count toward the major in Mathematics and Physics or the minor in Physics. Credit may be obtained for only one of AUPHY 104, 102, 110.</p>	<p><u>Delete</u></p>
<p><b>AUPHY 106 - Introductory General Physics II (Wave Motion, Sound, Heat, and Optics)</b></p> <p>★ 3 (fi 6) (second term, 3-0-3/2) Properties of gases, liquids, and solids; wave motion and sound; heat and thermodynamics; geometrical and physical optics. Prerequisite: One of AUPHY 102, 104, 110. Notes: The course does not count toward the major in Mathematics and Physics or the minor in Physics. Credit may be obtained for only one of AUPHY 106, 120.</p>	<p><u>Delete</u></p>
<p><b>AUPHY 110 - Mechanics</b></p> <p>★ 3 (fi 6) (either term, 3-0-3/2) Vectors, kinematics, work, energy, momentum, dynamics, and periodic motion. Prerequisites: Mathematics 30-1; Physics 30 is recommended. Corequisite: AUMAT 110 or 116. Note: Credit may be obtained for only one of AUPHY 110, 102, 104.</p>	<p><u>Delete</u></p>

<p><b>AUPHY 120 - Waves, Thermodynamics, and Optics</b></p> <p>★ 3 (fi 6) (either term, 3-0-3/2) Oscillatory motion, waves on a string, sound waves, interference of waves, temperature, heat, entropy, first and second laws of thermodynamics, geometric optics, interference of light. Prerequisites: AUPHY 102 or 104 or 110; AUMAT 110 or 116. Note: Credit may be obtained for only one of AUPHY 120, 106.</p>	<p><b>AUPHY 120 – Introductory Physics</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Oscillatory motion, waves on a string, sound waves, interference of waves, temperature, heat, entropy, first and second laws of thermodynamics, geometric optics, interference of light. Prerequisites: <b>Mathematics 30-1.</b></p>
<p><b>AUPHY 250 - Electricity and Magnetism</b></p> <p>★ 3 (fi 6) (either term, 3-0-3/2) Electric fields, Gauss’s law, magnetic fields, Ampere’s law, Faraday’s law, induction, direct and alternating currents. Prerequisites: AUPHY 110 and AUMAT 112.</p>	<p><b>AUPHY 250 - Electricity and Magnetism</b></p> <p>★ 3 (fi 6) (either term, 3-0-3/2) Electric fields, Gauss’s law, magnetic fields, Ampere’s law, Faraday’s law, induction, direct and alternating currents. Prerequisites: AUPHY 110 (2021), AUPSY 120 and AUMAT 112.</p>
<p><b>AUPHY 340 – Numerical Methods in Physics</b></p> <p>★ 3 (fi 6) (either term, 3-0-1.5) Computer arithmetic and errors, solution of systems of linear equations, root finding, interpolation, numerical quadrature, and numerical solutions of ordinary differential equations. Applications from physics are included. Prerequisite: AUCSC 111, AUMAT 120, AUPHY 120 or 250, AUMAT 112. Note: Credit may be obtained for only one of AUPHY 340, AUCSC 340, AUMAT 340.</p>	<p><b>Delete</b></p>
<p><b>New</b></p>	<p><b>AUSCI 125 – General Chemistry Lab I</b></p> <p>★ 3 (fi 6) (either term, 1-0-3) Introduction to the scientific process and methods in chemical sciences. Hands-on experiments will be used to introduce key techniques and concepts in the chemistry lab, including simple aqueous reactions, manipulation of solids and liquids, titrations and stoichiometry.</p>
<p><b>New</b></p>	<p><b>AUSCI 165 –Physics Laboratory</b></p> <p>★ 3 (fi 6) (either term, 1-0-3) Introduction to the scientific process and experimental methods in physics. Hands-on experiments, spanning several branches of physics, will develop skills in experimental design.</p>

	<p>quantitative data analysis, experiment evaluation and scientific communication.</p>
<b>New</b>	<p><b>AUSCI 235 –Practices in Data Structures and Algorithms</b></p> <p>★ 3 (fi 6) (either term, 0-0-3) Object-oriented design and programming in Java with experience in data structures and container classes using arrays, lists, arraylists, stacks, queues, user-defined structures and an introduction to trees, along with associated algorithms such as insertion, removal, sorting and retrieval; introduction to examples in algorithm analysis; introduction to recursion. Prerequisites: One of AUCSC 111 (2021), AUCSC 113, or AUSCI 135. Corequisite: AUCSC 211. Note: Credit may be obtained for only one of AUCSC 112 (2021) and AUSCI 235.</p>
<b>New</b>	<p><b>AUSCI 250 – Introduction to Computational Methods</b></p> <p>★ 3 (fi 6) (either term, 3-0-1.5) Computational methods and software packages and libraries in the mathematical sciences with applications to differentiation and integrations, data fitting, nonlinear systems and differential equations. Prerequisites: AUCSC 111 (2021) or AUCSC 113, and AUMAT 110 or 116; or consent of the instructor. Corequisite: AUMAT 120.</p>
<b>New</b>	<p><b>AUSCI 330 – History and Theory of Computing</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) History and models of computers including finite automata and Turing machines, computability, basics of formal languages and complexity classes (P, NP, NP-complete). Prerequisite: AUCSC 113 or AUSCI 135 and AUMAT 250. Note: Credit may be obtained for only one of AUMAT 355, AUCSC 315 and AUCSC 415 (2021).</p>
<b>New</b>	<p><b>AUSCI 385 – Mentoring in Computing and Mathematics</b></p> <p>★ 3 (fi 6) (either term, 0-0-3) This course involves tutoring students learning first-year material in mathematics and computing science for 3 hours per week in the Math &amp;</p>

	<p>Computing Support Centre (MCSC). Tutors will also receive coaching from the MCSC Director in how best to perform their duties. Prerequisites: ★ 15 in MAT or CSC and third-year standing.</p>
<b>New</b>	<p><b>AUSCI 405 – Chemical and Physical Sciences Capstone</b>  ★ 3 (fi 6) (either term, 3-0-0) This course will integrate learning across the different streams in the Chemical and Physical Sciences major. Students will spend time examining some significant historical problems such as the history of the development of the atomic model, history of the development of the periodic table, diversity and ethical questions and problems in the natural sciences. The course will culminate with an interdisciplinary senior research project. Prerequisites: 4<sup>th</sup> year standing and ★6 of 300-or 400-level AUBIO, AUCHE or AUPHY.</p>
<b>New</b>	<p><b>AUSCI 425 – Senior Mentorship Experience</b>  ★ 3 (fi 6) (either term, 0-3-0) This course will involve weekly laboratory instruction for general chemistry (AUSCI 125 and AUCHE 213) labs. Students enrolled in the course will be responsible for supervision of students during the labs as well as mentoring of junior students who will be assisting in the lab. Students will be expected to attend weekly technical meetings on lab logistics, safety and procedures. In addition, students will attend weekly seminars on teaching practice, communication and student mentorship experience. An important component of this course will be reflective assignments about the teaching experience. Prerequisites: 3rd or 4th year standing. Consent of the instructors based on successful completion of the selection process.</p>
<b>New</b>	<p><b>AUSCI 430 - Ethical Issues in Computing and Mathematics</b>  ★ 3 (fi 6) (either term, 3-0-0) This course explores a variety of ethical issues related to</p>



	<p>computing and mathematics. Students will study ethical theory, professional codes of ethics, and apply them to make moral decisions. Topics involve information privacy and security, surveillance, cryptography, data mining, intellectual property and copyrights, computer crime and abuse, etc. The course includes extensive writing assignments and oral presentations. Prerequisite: At least *15 in Computing Science or Mathematics or at least third-year standing.</p>
<p><b>AUSTA 215 - Statistical Methods for the Natural Sciences</b>  ★ 3 (fi 6) (either term, 3-0-0) Experimental design, data presentation and analysis; descriptive statistics, probability distributions and statistical hypothesis testing; parametric and nonparametric tests, correlation and regression; use of statistical software. Prerequisites: Mathematics 30-1 or 30-2; one of AUBIO 111, 112, AUCHE 110, AUCSC 111, AUENV 120, AUGEO 120, AUMAT 110, 116, 120, AUPHY 102, 104, 110. Notes: The course does not count toward the major in Mathematics and Physics or the minor in Mathematics. Credit may be obtained for only one of AUSTA 213, 215, AUPSY 213.</p>	<p><b>AUSTA 215 - Statistical Methods for the Natural Sciences</b>  ★ 3 (fi 6) (either term, 3-0-0) Experimental design, data presentation and analysis; descriptive statistics, probability distributions and statistical hypothesis testing; parametric and nonparametric tests, correlation and regression; use of statistical software. Prerequisites: Mathematics 30-1 or 30-2; one of AUBIO 111, AUCHE 110, AUCSC 111 (2021), 113, AUENV 120, AUGEO 120, AUMAT 110, 116, 120, AUPHY 102 (2021), 104 (2021), 110 (2021), 120. Notes: The course does not count toward the major in Mathematics and Physics or the minor in Mathematics. Credit may be obtained for only one of AUSTA 213, 215, AUPSY 213.</p>
<p><b>Creativity and Culture Program Requirements [Augustana]</b>  Creativity and Culture combines the study of Text and Theory, Creative Practice, and Language and requires a minimum of ★63 to complete; students who choose to pursue a specialization in Visual Art, Drama, or Music will require ★75.</p> <p>Text and Theory elements are drawn from courses in Art History, Classical Studies, English, Music History, Philosophy, Religion, and French, German, and Scandinavian Literature.</p> <p>Creative Practice elements include courses in Studio Art, Creative Writing, Drama, and Music.</p>	<p><b>Creativity and Culture Program Requirements [Augustana]</b>  Creativity and Culture combines the study of Text and Theory, Creative Practice, and Language and requires a minimum of ★63 to complete; students who choose to pursue a specialization in Visual Art, Drama, or Music will require ★75.</p> <p>Text and Theory elements are drawn from courses in Art History, Classical Studies, English, Music History, Philosophy, Religion, and French, German, and Scandinavian Literature.</p> <p>Creative Practice elements include courses in Studio Art, Creative Writing, Drama, and Music.</p>

The Language element will typically be satisfied by French, German, Latin, or Norwegian language courses at the appropriate level for a student.

### **Requirements**

#### **Text and Theory**

##### **★3 from:**

- AUENG 102 - Critical Reading, Critical Writing
- AUENG 103 – English Literature from the Romantic Period to the Present
- AUSCA 142 - Viking Age Mythology

##### **★3 from:**

- AUART 100 - Introduction to Art History and Visual Culture
- AUMUS 170 - Tuning In: An Introduction to Music

#### **Additional Requirements in Text and Theory**

- ★12 at the 200-level in Text and Theory
- ★9 at the 300-level in Text and Theory. AUPHI 365 or AUSOC 372 may also be counted towards this requirement
- ★3 at the 400-level in Text and Theory

#### **Creative Practice**

##### **★6 from:**

- AUART 111 - Studio Foundation I
- AUDRA 144 - Improvisation I: Introduction
- AUMUS 100 - Introduction to Music Theory **OR**
- AUMUS 160 - Theoretical and Analytical Studies I  
Note: Students may only use one of AUMUS 100 or 160 to fulfill this requirement. Students intending to complete the Music Specialization must complete AUMUS 160.

The Language element will typically be satisfied by French, German, Latin, or Norwegian language courses at the appropriate level for a student.

### **Requirements**

#### **Text and Theory**

##### **★3 from:**

- AUENG 102 - Critical Reading, Critical Writing
- AUSCA 142 - Viking Age Mythology

##### **★3 from:**

- AUART 100 - Introduction to Art History and Visual Culture
- AUMUS 170 - Tuning In: An Introduction to Music

#### **Additional Requirements in Text and Theory**

- ★12 at the 200-level in Text and Theory
- ★9 at the 300-level in Text and Theory. AUPHI 365 or AUSOC 372 may also be counted towards this requirement
- ★3 at the 400-level in Text and Theory

#### **Creative Practice**

##### **★6 from:**

- AUART 111 - Studio Foundation I
- AUDRA 144 - Improvisation I: Introduction
- AUMUS 100 - Introduction to Music Theory **OR**
- AUMUS 160 - Theoretical and Analytical Studies I  
Note: Students may only use one of AUMUS 100 or 160 to fulfill this requirement. Students intending to complete the Music Specialization must complete AUMUS 160.

<p><b>Additional Requirements in Creative Practice</b></p> <ul style="list-style-type: none"> <li>• ★6 at the 200-level in Creative Practice</li> </ul> <p><b>Language other than English</b></p> <ul style="list-style-type: none"> <li>• ★6 in Language other than English</li> </ul> <p><b>Additional Requirements</b></p> <ul style="list-style-type: none"> <li>• ★3 at the 400-level in Text and Theory <b>OR</b> Creative Practice</li> </ul> <p><b>★6 from:</b></p> <ul style="list-style-type: none"> <li>• Any other 100-level or 200-level courses in AUHIS, AUPOL, or AUSOC</li> <li>• AUIND 101 - Introduction to Indigenous Studies</li> <li>• AUIND 201 - Introduction to Indigenous Studies</li> <li>• AUIDS 100 - The World in Progress: Inquiry in the Social Sciences</li> <li>• AUIDS 230 - Introduction to Gender and Women’s Studies</li> <li>• AULAN 101 - Introduction to Linguistic Analysis</li> </ul> <p><b>★6 from:</b></p> <ul style="list-style-type: none"> <li>• <b>AUCSC 111 – Introduction to Computational Thinking and Problem Solving</b></li> <li>• AUCSC 204 - Computing Technology in Modern Society</li> <li>• AUIDS 137 - Science Laboratory Experiences</li> </ul> <p><b>Specializations</b> Students in Creativity and Culture may choose to include a specialization in Visual Art, Drama, or Music. Each specialization requires an additional ★12, along with prescribed courses that overlap with other requirements of the major.</p> <p>{...no further changes...}</p>	<p><b>Additional Requirements in Creative Practice</b></p> <ul style="list-style-type: none"> <li>• ★6 at the 200-level in Creative Practice</li> </ul> <p><b>Language other than English</b></p> <ul style="list-style-type: none"> <li>• ★6 in Language other than English</li> </ul> <p><b>Additional Requirements</b></p> <ul style="list-style-type: none"> <li>• ★3 at the 400-level in Text and Theory <b>OR</b> Creative Practice</li> </ul> <p><b>★6 from:</b></p> <ul style="list-style-type: none"> <li>• Any other 100-level or 200-level courses in AUHIS, AUPOL, or AUSOC</li> <li>• AUIND 101 - Introduction to Indigenous Studies</li> <li>• AUIND 201 - Introduction to Indigenous Studies</li> <li>• AUIDS 100 - The World in Progress: Inquiry in the Social Sciences</li> <li>• AUIDS 230 - Introduction to Gender and Women’s Studies</li> <li>• AULAN 101 - Introduction to Linguistic Analysis</li> </ul> <p><b>★6 from:</b></p> <ul style="list-style-type: none"> <li>• <b>AUCSC 113 - Foundational Introduction to Computational Thinking and Problem Solving</b></li> <li>• AUCSC 204 - Computing Technology in Modern Society</li> <li>• AUIDS 137 - Science Laboratory Experiences</li> </ul> <p><b>Specializations</b> Students in Creativity and Culture may choose to include a specialization in Visual Art, Drama, or Music. Each specialization requires an additional ★12, along with prescribed courses that overlap with other requirements of the major.</p> <p>{...no further changes...}</p>
<p><b>Ethics and Global Studies Program Requirements [Augustana]</b> Students must complete a minimum of ★63.</p>	<p><b>Ethics and Global Studies Program Requirements [Augustana]</b> Students must complete a minimum of ★63.</p>

<p><b>Requirements</b></p> <ul style="list-style-type: none"> <li>• AUHIS 121 - Topics in Global History</li> <li>• AUPOL 103 - Introduction to Global and Political Studies</li> <li>• AUREL 100 - Introduction to Religion</li> <li>• AIDS 370 - Topics in Integrative Studies</li> <li>• AUSSC 400 - Selected Topics in Social Sciences</li> </ul> <p><b>Additional Requirements</b></p> <p>{...no changes until...}</p> <p><b>★6 from:</b></p> <ul style="list-style-type: none"> <li>• AUCSL 361 - Community Service-Learning Practicum</li> <li>• <del>AUCSC 111 - Introduction to Computational Thinking and Problem Solving</del></li> <li>• AUCSC 204 - Computing Technology in Modern Society</li> <li>• AUENV 120 - Human Activities and the Natural Environment</li> <li>• AUENV 220 - Applications in Sustainability</li> <li>• AUENV 261 - Environmental Science Practicum</li> <li>• AUENV 324 - Resource and Environmental Management</li> <li>• AIDS 137 - Science Laboratory Experiences</li> <li>• AUSTA 153 - Introductory Applied Statistics</li> <li>• AUSTA 213 - Statistical Methods</li> </ul> <p><b>★15-18 additional in Ethics and Global Studies electives at the 200-level or higher selected from AUHIS, AUPHI, AUPOL, AUREL</b></p>	<p><b>Requirements</b></p> <ul style="list-style-type: none"> <li>• AUHIS 121 - Topics in Global History</li> <li>• AUPOL 103 - Introduction to Global and Political Studies</li> <li>• AUREL 100 - Introduction to Religion</li> <li>• AIDS 370 - Topics in Integrative Studies</li> <li>• AUSSC 400 - Selected Topics in Social Sciences</li> </ul> <p><b>Additional Requirements</b></p> <p>{...no changes until...}</p> <p><b>★6 from:</b></p> <ul style="list-style-type: none"> <li>• AUCSL 361 - Community Service-Learning Practicum</li> <li>• <u>AUCSC 113 - Foundational Introduction to Computational Thinking and Problem Solving</u></li> <li>• AUCSC 204 - Computing Technology in Modern Society</li> <li>• AUENV 120 - Human Activities and the Natural Environment</li> <li>• AUENV 220 - Applications in Sustainability</li> <li>• AUENV 261 - Environmental Science Practicum</li> <li>• AUENV 324 - Resource and Environmental Management</li> <li>• AIDS 137 - Science Laboratory Experiences</li> <li>• AUSTA 153 - Introductory Applied Statistics</li> <li>• AUSTA 213 - Statistical Methods</li> </ul> <p><b>★15-18 additional in Ethics and Global Studies electives at the 200-level or higher selected from AUHIS, AUPHI, AUPOL, AUREL</b></p>
<p><b>Minor in Chemistry [Augustana] Requirements</b></p> <ul style="list-style-type: none"> <li>• <b>★9</b> in senior level AUCHE</li> </ul>	<p><b>Minor in Chemistry [Augustana] Requirements</b></p> <ul style="list-style-type: none"> <li>• <b>★3</b> in senior level AUCHE</li> </ul>

<ul style="list-style-type: none"> <li>• 3 additional credits in AUCHE at the 300 or 400-level</li> <li>• AUCHE 110 - General Chemistry I</li> <li>• <del>AUCHE 112 - General Chemistry II</del></li> </ul>	<ul style="list-style-type: none"> <li>• 3 additional credits in AUCHE at the 300 or 400-level</li> <li>• AUCHE 110 - General Chemistry I</li> <li>• <u>AUCHE 212 - General Chemistry II</u></li> <li>• <u>AUCHE 213 - General Chemistry II Lab</u></li> <li>• <u>AUSCI 125 - General Chemistry Lab I</u></li> </ul>
<p><b>Minor in Computing Science [Augustana]</b>  <b>Requirements</b></p> <ul style="list-style-type: none"> <li>• <del>12</del> senior credits in Computing Science</li> <li>• <del>AUCSC 111 - Introduction to Computational Thinking and Problem Solving</del></li> <li>• <u>AUCSC 112 - Data Structures and Algorithms</u></li> </ul>	<p><b>Minor in Computing Science [Augustana]</b>  <b>Requirements</b></p> <ul style="list-style-type: none"> <li>• <u>9</u> senior credits in Computing Science</li> <li>• <u>AUCSC 113 - Foundational Introduction to Computational Thinking and Problem Solving</u></li> <li>• <u>AUCSC 211 - Data Structures and Algorithms</u></li> <li>• <u>AUSCI 135 - Practical Introduction to Computational Thinking and Problem Solving</u></li> </ul>
<p><b>Minor in Physics [Augustana]</b>  <b>Requirements</b></p> <ul style="list-style-type: none"> <li>• <del>AUPHY 110 - Mechanics</del></li> <li>• AUPHY 120 - Waves, Thermodynamics, and Optics</li> <li>• AUPHY 250 - Electricity and Magnetism</li> </ul> <p><b>Additional Requirements</b></p> <ul style="list-style-type: none"> <li>• An additional ★9 at the senior level in Physics.</li> </ul> <p><b>Additional information for students</b></p> <ul style="list-style-type: none"> <li>• <u>Many senior Physics courses are offered only if there is sufficient student demand.</u></li> </ul>	<p><b>Minor in Physics [Augustana]</b>  <b>Requirements</b></p> <ul style="list-style-type: none"> <li>• AUPHY 120 - Waves, Thermodynamics, and Optics</li> <li>• AUPHY 250 - Electricity and Magnetism</li> <li>• <u>AUSCI 165 - Physics Laboratory</u></li> </ul> <p><b>Additional Requirements</b></p> <ul style="list-style-type: none"> <li>• An additional ★9 at the senior level in Physics.</li> </ul>
<p><b>Certificate in Writing Studies</b></p> <p>A Writing Studies Certificate indicates a high level of achievement in written communication. Writing is a fundamental aspect of education that crosses fields, disciplines, departments and programs, and the research-teaching divide. Writing helps develop critical thinking as it allows individuals to reflect upon, understand, and</p>	<p><b>Certificate in Writing Studies</b></p> <p>A Writing Studies Certificate indicates a high level of achievement in written communication. Writing is a fundamental aspect of education that crosses fields, disciplines, departments and programs, and the research-teaching divide. Writing helps develop critical thinking as it allows individuals to reflect upon, understand, and</p>

learn complex new ideas. Writing enables the growth of insight into knowledge, and good writing skills are at the heart of clear, concise, and cogent communication.

{...no changes until...}

**★18 in additional courses designated as "writing intensive" according to the following criteria**

- at least 3,000 words of assigned writing,
- at least 50% of the course grade based on writing assignment including but not limited to essays, journals, lab manuals, and exams/quizzes that are graded and returned to the student,
- substantial revision of writing/staged writing assignments through faculty and/or peer review,
- class time devoted to instruction in writing in the discipline.

Courses eligible for inclusion from a range of disciplines in this requirement are as follows:

- AUBIO 253 - Ecological Interactions
- AUBIO 350 - Conservation Theory and Biodiversity in Tropical Systems
- AUBIO 390 - Animal Behaviour
- AUBIO 413 - Advanced Topics in Evolutionary Ecology
- AUBIO 459 - Field Studies in Tropical Ecology and Conservation
- AUCRI 453 - Women and the Law
- AUDRA 384 - Playwriting
- AUENG 205 - Children's Literature
- AUENG 207 – Aboriginal/Indigenous Literature
- AUENG 214 – Advanced Creative Writing: Poetry
- AUENG 220 – Classical Foundations

learn complex new ideas. Writing enables the growth of insight into knowledge, and good writing skills are at the heart of clear, concise, and cogent communication.

{...no changes until...}

**★18 in additional courses designated as "writing intensive" according to the following criteria**

- at least 3,000 words of assigned writing,
- at least 50% of the course grade based on writing assignment including but not limited to essays, journals, lab manuals, and exams/quizzes that are graded and returned to the student,
- substantial revision of writing/staged writing assignments through faculty and/or peer review,
- class time devoted to instruction in writing in the discipline.

Courses eligible for inclusion from a range of disciplines in this requirement are as follows:

- AUBIO 253 - Ecological Interactions
- AUBIO 350 - Conservation Theory and Biodiversity in Tropical Systems
- AUBIO 390 - Animal Behaviour
- AUBIO 413 - Advanced Topics in Evolutionary Ecology
- AUBIO 459 - Field Studies in Tropical Ecology and Conservation
- AUCRI 453 - Women and the Law
- AUDRA 384 - Playwriting
- AUENG 205 - Children's Literature
- AUENG 207 – Aboriginal/Indigenous Literature
- AUENG 214 – Advanced Creative Writing: Poetry
- AUENG 220 – Classical Foundations

<p>of Western Literature</p> <ul style="list-style-type: none"> <li>• AUENG 225 – The Middle Ages</li> <li>• AUENG 230 - The Early English Renaissance</li> <li>• AUENG 240 - Restoration and Eighteenth Century Literature and Culture</li> <li>• AUENG 270 - United States Literature and Culture to 1865</li> <li>• AUENG 271 - United States Literature since 1865</li> <li>• AUENG 280 - Canadian Literature to 1950</li> <li>• AUENG 281 - Canadian Literature since 1950</li> <li>• AUENG 305 - Children's Literature</li> <li>• AUENG 307 – Aboriginal/Indigenous Literature</li> <li>• AUENG 316 – Advanced Creative Writing: Fiction</li> <li>• AUENG 318 – Creative Writing: Memoir</li> <li>• AUENG 330 - The Early English Renaissance</li> <li>• AUENG 368 - Women and Environmental Literature</li> <li>• AUENG 380 - Canadian Literature to 1950</li> <li>• AUENG 381 - Canadian Literature since 1950</li> <li>• AUENG 382 - Postcolonial Literature and Theory</li> <li>• AUENG 392 - Feminist Critical Theory and Women's Writing</li> <li>• AUENV 350 - Conservation Theory and Biodiversity in Tropical Systems</li> <li>• AUENV 459 - Field Studies in Tropical Ecology and Conservation</li> </ul>	<p>of Western Literature</p> <ul style="list-style-type: none"> <li>• AUENG 225 – The Middle Ages</li> <li>• AUENG 230 - The Early English Renaissance</li> <li>• AUENG 240 - Restoration and Eighteenth Century Literature and Culture</li> <li>• AUENG 270 - United States Literature and Culture to 1865</li> <li>• AUENG 271 - United States Literature since 1865</li> <li>• AUENG 280 - Canadian Literature to 1950</li> <li>• AUENG 281 - Canadian Literature since 1950</li> <li>• AUENG 305 - Children's Literature</li> <li>• AUENG 307 – Aboriginal/Indigenous Literature</li> <li>• AUENG 316 – Advanced Creative Writing: Fiction</li> <li>• AUENG 318 – Creative Writing: Memoir</li> <li>• AUENG 330 - The Early English Renaissance</li> <li>• AUENG 368 - Women and Environmental Literature</li> <li>• AUENG 380 - Canadian Literature to 1950</li> <li>• AUENG 381 - Canadian Literature since 1950</li> <li>• AUENG 382 - Postcolonial Literature and Theory</li> <li>• AUENG 392 - Feminist Critical Theory and Women's Writing</li> <li>• AUENV 350 - Conservation Theory and Biodiversity in Tropical Systems</li> <li>• AUENV 459 - Field Studies in Tropical Ecology and Conservation</li> </ul>
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• ~~AUHIS 190 - The Historian's Craft:  
Research Skills and Tools~~

- AUHIS 260 - An Introduction to the Study of Canadian History to 1867
- AUHIS 261 - An Introduction to the Study of Canadian History, 1867 to the Present
- AUHIS 361 - Selected Topics in Canadian History
- AUHIS 460 - Selected Topics in Canadian History
- AUHIS 467 - The Collaborative Research Seminar: Selected Topics in Canadian History
- AUHIS 480 - The Historian's Craft: Historiography

{...no further changes...}

- AUHIS 260 - An Introduction to the Study of Canadian History to 1867
- AUHIS 261 - An Introduction to the Study of Canadian History, 1867 to the Present
- AUHIS 361 - Selected Topics in Canadian History
- AUHIS 460 - Selected Topics in Canadian History
- AUHIS 467 - The Collaborative Research Seminar: Selected Topics in Canadian History
- AUHIS 480 - The Historian's Craft: Historiography

{...no further changes...}

**Masters Program  
Course Changes  
Faculty of Business  
Effective January 2021**

CURRENT Calendar entry:	PROPOSED Calendar entry:
<p><b>Graduate Programs</b></p> <p><b>Business [Graduate]</b> Faculty of Business 323 Faculty of Business Building University of Alberta Edmonton, Alberta T6G 2R6 www.mba.net</p> <p><b>The MBA with Specialization in Natural Resources, Energy and the Environment (Business) [Graduate]</b> The MBA with specialization in Natural Resources, Energy and the Environment trains managers to develop an analytical expertise specifically focused in the areas of natural resources, energy and the environment. The program is designed for students to develop a broad understanding of the resource and energy industries, from the exploration and project development phases, through extraction and transformation, to transportation, logistics marketing and market issues. This allows students to address and analyze key strategic questions facing today's business leaders and policy makers.</p> <p><b>Program Requirements</b> <u>Students are required to complete a minimum of ★60 in coursework, including a ★3 capping exercise.</u></p> <p><b>Coursework (★57)</b></p> <ul style="list-style-type: none"> <li>• <a href="#">BUS 501</a></li> <li>• <b>MBA core courses</b> &lt;link to MBA&gt;</li> <li>• Four ★3 Natural Resources and Energy courses</li> <li>• Five ★3 approved graduate-level electives</li> </ul> <p><b>Capping Exercise (★3)</b></p> <ul style="list-style-type: none"> <li>• <del>BUEC 663 – Natural Resources and Energy Capstone – capstone course</del></li> </ul> <p><b>Ethics Requirement</b> <u>The <a href="#">FGSR Academic Integrity and Ethics Training Requirement</a> is fulfilled through registration in SMO 652.</u></p> <p><b>Professional Development Requirement</b> <u>Students in the MBA with Specialization in Natural Resources, Energy and the Environment automatically</u></p>	<p><b>Graduate Programs</b></p> <p><b>Business [Graduate]</b> Faculty of Business 323 Faculty of Business Building University of Alberta Edmonton, Alberta T6G 2R6 www.mba.net</p> <p><b>The MBA with Specialization in Natural Resources, Energy and the Environment (Business) [Graduate]</b> The MBA with specialization in Natural Resources, Energy and the Environment trains managers to develop an analytical expertise specifically focused in the areas of natural resources, energy and the environment. The program is designed for students to develop a broad understanding of the resource and energy industries, from the exploration and project development phases, through extraction and transformation, to transportation, logistics marketing and market issues. This allows students to address and analyze key strategic questions facing today's business leaders and policy makers.</p> <p><b>Program Requirements</b> <u>Students are required to complete a minimum of ★60 in coursework, including a ★3 capping exercise.</u></p> <p><b>Coursework (★57)</b></p> <ul style="list-style-type: none"> <li>• <a href="#">BUS 501</a></li> <li>• <b>MBA core courses</b> &lt;link to MBA&gt;</li> <li>• Four ★3 Natural Resources and Energy courses</li> <li>• Five ★3 approved graduate-level electives</li> </ul> <p><b>Capping Exercise (★3)</b></p> <ul style="list-style-type: none"> <li>• <b>SMO 641 – Business Strategy</b></li> </ul> <p><b>Ethics Requirement</b> <u>The <a href="#">FGSR Academic Integrity and Ethics Training Requirement</a> is fulfilled through registration in SMO 652.</u></p> <p><b>Professional Development Requirement</b> <u>Students in the MBA with Specialization in Natural Resources, Energy and the Environment automatically</u></p>

<p><u>fulfill the FGSR Professional Development Requirement through their program.</u></p> <p><b>Length of Program</b> Students enrolled in this program on a full-time basis can complete it in two calendar years however, it may be possible to accelerate studies with the completion of courses during Spring/Summer. Alternatively, this course-based MBA program may be taken on a part-time basis.</p> <p><u>The maximum time to complete the course-based MBA program as set by the Faculty of Graduate Studies and Research is six years.</u></p>	<p><u>fulfill the FGSR Professional Development Requirement through their program.</u></p> <p><b>Length of Program</b> Students enrolled in this program on a full-time basis can complete it in two calendar years however, it may be possible to accelerate studies with the completion of courses during Spring/Summer. Alternatively, this course-based MBA program may be taken on a part-time basis.</p> <p><u>The maximum time to complete the course-based MBA program as set by the Faculty of Graduate Studies and Research is six years.</u></p>
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<b>CURRENT Calendar entry:</b>	<b>PROPOSED Calendar entry:</b>
<p>FIN 673 Mergers, Restructuring, and Corporate Control *3 (fi6) (either term, 3-0-0)</p> <p><del>Financial and economic aspects of corporate mergers, restructuring, downsizing, and bankruptcy are examined. Relations between corporate structure and performance are investigated. Specific attention is paid to the roles of top management and boards of directors. Special issues relating to privatization and restructuring in former socialist economies are studied. Prerequisite: FIN 501 or FIN 503.</del></p>	<p><b>FIN 673 Mergers, Restructuring, and Corporate Control</b> *3 (fi6) (either term, 3-0-0)</p> <p>Financial and economic aspects of corporate mergers, asset restructuring, downsizing, and financial restructuring are examined. Particular attention is paid to valuation and shareholder wealth effects of mergers. Relations between corporate ownership and financial structure and performance are investigated. The course also examines anti-takeover devices and their effect on corporate performance. Finally, international mergers are examined from a strategic perspective. Prerequisite: FIN 501 or FIN 503.</p>

## NEW COURSES:

### **FIN 657 New Enterprise Finance**

\*3 (fi 6) (fall term, 3-0-0).

This course combines tools from financial theory/analysis and entrepreneurship and stakeholder theory and applies them to the analysis, valuation, and financing of new ventures. It balances learning of concepts, development of qualitative and quantitative analytical skills, and practice in decision making. It also provides opportunities to apply learning to cases & exercises as well as to learn about real world financing situations. The course is designed to help students learn about venture formation, development of a viable business model, early-stage financing, and management of massively scalable ventures through a series of close interactions with early-stage technology companies and their potential mentors and investors (“G7 Fellows and Associates”). This course is suitable for students pursuing careers in strategy, innovation, entrepreneurship, and finance. Due to the course’s special requirement to work closely with early-stage ventures: students must commit to signing a program-wide non-disclosure agreement, students must be flexible to accommodate meetings with ventures, and students must apply and be accepted into the program. Open to first or second year MBA students.

### **FIN 658 Creative Destruction Lab – Rockies**

\*3 (fi 6) (winter term, 3-0-0).

Application of financial and entrepreneurial theory and analysis to the development of new ventures, focusing on developing an effective scale up model, establishing effective governance structures, negotiating with venture capitalists, and developing an exit strategy. Course balances learning of concepts, development of analytical skills, and practice in decision-making. Opportunity to apply learning to cases, exercises and to learn about real world financing situations. This course is designed to help students learn about the formation, financing, and management of massively scalable ventures through a series of close interactions with early-stage technology companies and their potential mentors and investors (“G7 Fellows and Associates”). This course is suitable for students pursuing careers in strategy, innovation, entrepreneurship, and finance. Due to the course’s special requirement to work closely with early-stage ventures: students must commit to signing a program-wide non-disclosure agreement, students must be flexible to accommodate meetings with ventures, and students must apply and be accepted into the program. Pre-requisite: FIN 657.

### **FIN 640 Commodities Analytics and Trading**

\*3 (fi6) (either term, 3-0-0)

This course reflects the aspects of a trader development program in industry with a strong trading analytics base consistent with today’s marketplace requirements. You are expected to learn analytical concepts using the R language and become proficient in your ability to implement them with real world data. The skills set is transferable to any analytically based job, such as risk management, trading analytics, and/or quantitative trading including fundamentals. Prerequisites: FIN 501. Corequisite: FIN 654.

Approval: Business Faculty Council, October 23, 2020

**FACULTY OF EDUCATION  
CALENDAR CHANGE REQUEST FORM**

**Department:** **Field Experiences**

**Implementation:**  NORMAL  
 EARLY

**Type of Change:**  Program Regulation\*  
 New Course\*†  Course Change  
 Course Deletion  Editorial

*\*Documentation is required to verify that other units in the Faculty of Education or other Faculties impacted by the proposal have no objection to the proposed new course or course change. Please attach documentation confirming you have consent when applicable.*

**\*Applicable Attachment:**  Yes  No

**†Attachments:**  Course Outline  
 TQS/Competencies Info Sheet (Completed by course developers and instructors)


<b>CURRENT</b>	<b>PROPOSED</b>
<b>Education – Field Experience: Undergraduate</b> <i>(Use yellow highlight and strike out for all changes)</i>	<b>Education – Field Experience: Undergraduate</b> <i>(Use yellow highlight and underline all additions)</i>
<b>EDFX 498 - Field Experience in the Elementary School</b>  ★ 1-12 (variable) (variable, variable) <del>Prerequisite: permission of Professional Officer, Field Experiences. Sections may be offered in a Cost Recovery format at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students.</del>	<b>EDFX 498 - Field Experience in the Elementary School</b>  ★ 1-12 (variable) (variable, variable) <u>Pre/corequisites: A minimum of *9 in approved Education courses and/or by consent of Field Experiences. Requires payment of an additional field experience fee.</u>
<b>CURRENT</b>	<b>PROPOSED</b>
<b>Education – Field Experience: Undergraduate</b>	<b>Education – Field Experience: Undergraduate</b>
<b>EDFX 499 - Field Experience in the Secondary School</b>  ★ 1-12 (variable) (variable, variable) <del>Prerequisite: permission of Professional Officer, Field Experiences.</del>	<b>EDFX 499 - Field Experience in the Secondary School</b>  ★ 1-12 (variable) (variable, variable) <u>Pre/corequisites: A minimum of *9 in approved Education courses and/or by consent of Field Experiences. Requires</u>

	payment of an additional field experience fee.
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**Justification:** (Note: A detailed justification must be provided. If more than one change is submitted be sure to indicate the **course number** that applies to your explanation.)

EDFX 498 and 499 are for students requiring a variable credit field experience for re-certification, initial certification of internationally educated teachers, or initial certification from teachers from other provinces, special students, visiting students, or other students not enrolled in our regular BEd routes. The pre corequisite is part of previous practice. That is, these students would not be put in a field experience placement unless they were sufficiently prepared to be successful.


These sections can no longer be offered in a Cost Recovery format as this category of fees has been eliminated. However, there are additional non-regulated fees that have been approved for both EDFX 498 and 499. The wording of the additional fee is now parallel with the fees for EDFX 325, 350, 425, and 450.

Submitted by: Maryanne Doherty	Signature of Department Chair or Designee 	Date: November 5, 2020	Department Council Approval Date: UAAC October 22, 2020
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**Submit** completed, signed pdf **and** Word Versions to the UAAC Administrator at [eduaac@ualberta.ca](mailto:eduaac@ualberta.ca)

**Approval: Undergraduate Academic Affairs Council, October 22, 2020**



Submitted by: George H. Buck	Signature of Department Chair or Designee 	Date: September 17, 2020	FACULTY USE ONLY Approval Process Academic Affairs Date _____
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Approval: Undergraduate Academic Affairs Council, October 22, 2020



**FACULTY OF EDUCATION  
CALENDAR CHANGE REQUEST FORM**

**Department:**           Educational Psychology / Professional Learning Unit (PLU)          

**Implementation:**    NORMAL  
                               EARLY

**Type of Change:**    Program Regulation\*  
                               New Course\*†        Course Change  
                               Course Deletion      Editorial

*\*Documentation is required to verify that other units in the Faculty of Education or other Faculties impacted by the proposal have no objection to the proposed new course or course change. Please attach documentation confirming you have consent when applicable.*

**\*Applicable Attachment:**    Yes    No

**†Attachments:**            Course Outline  
                                   TQS/Competencies Info Sheet (Completed by course developers and instructors)

<b>CURRENT</b>	<b>PROPOSED</b>
<a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poiid=37888">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poiid=37888</a> <i>(Use yellow highlight and strike out for all changes)</i>	<a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poiid=37888">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poiid=37888</a> <i>(Use yellow highlight and underline all additions)</i>
<p><b>Certificate in Advancing Adolescent Literacy Requirements (★15)</b></p> <p><b>EDPY</b> 420 - Language Foundations and Word Reading</p> <p><b>EDPY</b> 421 - Reading Comprehension and Assessment</p> <p><b>EDPY</b> 422 - Cultural and Linguistic Diversity and Reading</p> <p><b>EDPY</b> 423 - Reading in the Disciplines</p> <p><b>EDPY</b> 424 - Data-Driven Literacy Instruction, Leadership, and Collaboration</p> <p><b>For more information</b> Contact the Professional Learning Unit in the Faculty of Education or visit <a href="http://ualberta.ca/education/professional-learning">ualberta.ca/education/professional-learning</a>.</p>	<p><b>Certificate in Advancing Adolescent Literacy Requirements (★15)</b></p> <p><b>EDU</b> 420 - Language Foundations and Word Reading</p> <p><b>EDU</b> 421 - Reading Comprehension and Assessment</p> <p><b>EDU</b> 422 - Cultural and Linguistic Diversity and Reading</p> <p><b>EDU</b> 423 - Reading in the Disciplines</p> <p><b>EDU</b> 424 - Data-Driven Literacy Instruction, Leadership, and Collaboration</p> <p><b>For more information</b> Contact the Professional Learning Unit in the Faculty of Education or visit <a href="http://ualberta.ca/education/professional-learning">ualberta.ca/education/professional-learning</a>.</p>

<p><i>*Proposed changes to the requirements for the Certificate in Digital Learning were withdrawn by the Faculty of Education.</i></p>	
	

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<b>CURRENT</b>	<b>PROPOSED</b>
<a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37895">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37895</a> (Use <del>yellow highlight and strike out</del> for all changes)	<a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37895">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37895</a> (Use <u>yellow highlight and underline</u> all additions)
<p><b>Teaching Students with Complex Communication Needs</b></p> <p><b>Requirements (★15)</b></p> <p><del>EDPY</del> 481 - Teaching Students with Complex Communication Needs: Instructional Design and Methods</p> <p><del>EDPY</del> 482 - Teaching Students with Complex Communication Needs: Augmentative and Alternative Communication</p> <p><del>EDPY</del> 483 - Teaching Students with Complex Communication Needs: Emergent Literacy</p> <p><del>EDPY</del> 484 - Teaching Students with Complex Communication Needs: Conventional Literacy</p> <p><del>EDPY</del> 485 - Teaching Students with Complex Communication Needs: Numeracy</p> <p><b>For more information</b>            Contact the Professional Learning Unit in the Faculty of Education or visit <a href="http://ualberta.ca/education/professional-learning">ualberta.ca/education/professional-learning</a>.</p>	<p><b>Teaching Students with Complex Communication Needs</b></p> <p><b>Requirements (★15)</b></p> <p><u>EDU</u> 481 - Teaching Students with Complex Communication Needs: Instructional Design and Methods</p> <p><u>EDU</u> 482 - Teaching Students with Complex Communication Needs: Augmentative and Alternative Communication</p> <p><u>EDU</u> 483 - Teaching Students with Complex Communication Needs: Emergent Literacy</p> <p><u>EDU</u> 484 - Teaching Students with Complex Communication Needs: Conventional Literacy</p> <p><u>EDU</u> 485 - Teaching Students with Complex Communication Needs: Numeracy</p> <p><b>For more information</b>            Contact the Professional Learning Unit in the Faculty of Education or visit <a href="http://ualberta.ca/education/professional-learning">ualberta.ca/education/professional-learning</a>.</p>

<b>CURRENT</b>	<b>PROPOSED</b>
<b>Course Listings</b> (Use <del>yellow highlight and strike out</del> for all changes)	<b>Course Listings</b> (Use <u>yellow highlight and underline</u> all additions)
<p><del>EDPY</del> 420 - Language Foundations and Word Reading</p> <p>★ 3 (fi 6) (either term, 3-0-0) This course will introduce students to different aspects of oral language and their importance for reading and literacy development in adolescents, and provide students with a working knowledge of normal and abnormal development of word reading and how to improve adolescents' word reading skills.</p>	<p><u>EDU</u> 420 - Language Foundations and Word Reading</p> <p>★ 3 (fi 6) (either term, 3-0-0) This course will introduce students to different aspects of oral language and their importance for reading and literacy development in adolescents, and provide students with a working knowledge of normal and abnormal development of word reading and how to improve adolescents' word reading skills.</p>

Sections may be offered **in a Cost Recovery format** at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.

**EDPY 421 - Reading Comprehension and Assessment**

★ 3 (*fi 6*) (either term, 3-0-0) This course examines the nature of reading comprehension in adolescence and the instructional strategies and approaches to assessment that support reading comprehension development across the content areas in secondary schools. Sections may be offered **in a Cost Recovery format** at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar. Restricted to students in AAL Certificate program.

**EDPY 422 - Cultural and Linguistic Diversity and Reading**

★ 3 (*fi 6*) (either term, 3-0-0) This course explores effective literacy teaching strategies for culturally and linguistically diverse adolescents. The main focus is on literacy development and improving literacy outcomes of English language learners (ELL) and First Nations, Métis, and Inuit (FNMI) students. Sections may be offered **in a Cost Recovery format** at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar. Restricted to students in AAL Certificate program.

**EDPY 423 - Reading in the Disciplines**

★ 3 (*fi 6*) (either term, 3-0-0) This course examines the specific language demands, reading challenges, and prevalent discourse structures in four core disciplines (English Language Arts, Mathematics, Sciences, and Social Studies). Sections may be offered **in a Cost Recovery format** at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar. Restricted to students in AAL Certificate program.

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**EDPY 424 - Data-Driven Literacy Instruction, Leadership, and Collaboration**

★ 3 (*fi 6*) (either term, 3-0-0) This course prepares students to collect, understand, and use literacy assessment data effectively to inform curriculum and instructional practices across disciplines and become a change agent by developing community, coaching, coconstructing understanding, and assessing impact. Sections may be offered ~~in a Cost Recovery format~~ at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar. Restricted to students in AAL Certificate program.

[no further changes until...]

**EDPY 481: Teaching Students with Complex Communication Needs: Instructional Design and Methods**

★ 3 (*fi 6*) (either term, 3-0-0) This course builds on the principles of Universal Design for Learning and provides an overview of (1) teaching approaches that support inclusive education for students with complex communication needs, (2) assessment practices and tools that are appropriate for students with complex communication needs, (3) how to use local educational standards documents to guide goal setting and instruction.

**EDPY 482: Teaching Students with Complex Communication Needs: Augmentative and Alternative Communication**

★ 3 (*fi 6*) (either term, 3-0-0) This course will introduce classroom teachers and educational professionals to the practices, issues and importance of providing augmentative and alternative communication (AAC) strategies and supports to students with complex communication needs. The course will focus on implementation of AAC systems to support students' communication, language development

**EDU 424 - Data-Driven Literacy Instruction, Leadership, and Collaboration**

★ 3 (*fi 6*) (either term, 3-0-0) This course prepares students to collect, understand, and use literacy assessment data effectively to inform curriculum and instructional practices across disciplines and become a change agent by developing community, coaching, coconstructing understanding, and assessing impact. Sections may be offered at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar. Restricted to students in AAL Certificate program.

[no further changes until...]

**EDU 481: Teaching Students with Complex Communication Needs: Instructional Design and Methods**

★ 3 (*fi 6*) (either term, 3-0-0) This course builds on the principles of Universal Design for Learning and provides an overview of (1) teaching approaches that support inclusive education for students with complex communication needs, (2) assessment practices and tools that are appropriate for students with complex communication needs, (3) how to use local educational standards documents to guide goal setting and instruction.

**EDU 482: Teaching Students with Complex Communication Needs: Augmentative and Alternative Communication**

★ 3 (*fi 6*) (either term, 3-0-0) This course will introduce classroom teachers and educational professionals to the practices, issues and importance of providing augmentative and alternative communication (AAC) strategies and supports to students with complex communication needs. The course will focus on implementation of AAC systems to support students' communication, language development

and meaningful participation in all aspects of learning experiences.

**EDPY 483: Teaching Students with Complex Communication Needs: Emergent Literacy**

★ 3 (*fi 6*) (either term, 3-0-0) This course will focus on quality, comprehensive emergent literacy instruction for students with complex communication needs. The course will emphasize the use of symbol supported communication systems and intentionally designed instruction that includes daily opportunities for developing communication and interaction skills, oral language understandings, alphabet knowledge and phonological awareness, understandings of concepts about print, and a positive disposition toward literacy.

**EDPY 484: Teaching Students with Complex Communication Needs: Conventional Literacy**

★ 3 (*fi 6*) (either term, 3-0-0) This course will focus on quality, comprehensive literacy instruction for students with complex communication needs. The course will emphasize the use of symbol and text based communication systems and systematically designed instruction that includes daily opportunities for developing conventional skills in word reading (decoding and automatic word identification), text comprehension, silent reading fluency, and writing.

**EDPY 485: Teaching Students with Complex Communication Needs: Numeracy**

★ 3 (*fi 6*) (either term, 3-0-0) This course focuses on quality instruction in mathematics (including numeracy) for students with complex communication needs. The course will emphasize the use of symbol and text based communication systems and systematically designed instruction to support understandings of number sense; spatial reasoning; principles of geometry, measurement, data, and analytic procedures; and mathematical problem solving, including algebra.

and meaningful participation in all aspects of learning experiences.

**EDU 483: Teaching Students with Complex Communication Needs: Emergent Literacy**

★ 3 (*fi 6*) (either term, 3-0-0) This course will focus on quality, comprehensive emergent literacy instruction for students with complex communication needs. The course will emphasize the use of symbol supported communication systems and intentionally designed instruction that includes daily opportunities for developing communication and interaction skills, oral language understandings, alphabet knowledge and phonological awareness, understandings of concepts about print, and a positive disposition toward literacy.

**EDU 484: Teaching Students with Complex Communication Needs: Conventional Literacy**

★ 3 (*fi 6*) (either term, 3-0-0) This course will focus on quality, comprehensive literacy instruction for students with complex communication needs. The course will emphasize the use of symbol and text based communication systems and systematically designed instruction that includes daily opportunities for developing conventional skills in word reading (decoding and automatic word identification), text comprehension, silent reading fluency, and writing.

**EDU 485: Teaching Students with Complex Communication Needs: Numeracy**

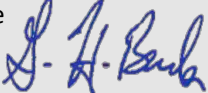
★ 3 (*fi 6*) (either term, 3-0-0) This course focuses on quality instruction in mathematics (including numeracy) for students with complex communication needs. The course will emphasize the use of symbol and text based communication systems and systematically designed instruction to support understandings of number sense; spatial reasoning; principles of geometry, measurement, data, and analytic procedures; and mathematical problem solving, including algebra.

**Justification:** (Note: A detailed justification must be provided. If more than one change is submitted be sure to indicate the **course number** that applies to your explanation.)

The following three certificates are currently administered through the Professional Learning Unit (PLU) of the Faculty of Education:

- Certificate in Advancing Adolescent Literacy
- Certificate in Digital Learning
- Teaching Students with Complex Communication Needs

The changes indicated above are intended to bring the calendar language into alignment with the current administrative reality of the courses that make up these certificates. The EDPY prefix was creating some challenges with respect to the ability of the PLU to access the online systems used to manage the courses. Additionally, since the University no longer uses the term “cost recovery” it has been deleted from the course descriptions.

Submitted by: Scott Key	Signature of Department Chair or Designee 	Date: October 22, 2020	Department Council Approval Date:
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**Submit** completed, signed pdf **and** Word Versions to the UAAC Administrator at [eduaac@ualberta.ca](mailto:eduaac@ualberta.ca)

Approval: Undergraduate Academic Affairs Council, October 22, 2020

## FACULTY OF EDUCATION CALENDAR CHANGE REQUEST FORM

**Department:**                      **Secondary Education**

**Implementation:**     NORMAL  
                                   EARLY (Note: new course offerings only)

**Type of Change:**     Program Regulation\*  
                                   New Course\*†             Course Change  
                                   Course Deletion             Editorial

*\*Documentation is required to verify that other units in the Faculty of Education or other Faculties impacted by the proposal have no objection to the proposed new course or course change.*                      Applicable:     Yes             No

†**Attachments:**     Course Outline  
                                   KSA (Knowledge, skills and Attributes) Rating Sheets  
                                  (Completed by course developers and instructors)

<b>CURRENT</b>	<b>PROPOSED</b>
Calendar Section Number (§) Education Chart 1, taken from: <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37628">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37628</a> <i>(Use strike out for <b>all</b> changes)</i>	Calendar Section Number (§) Education Chart 1, taken from: <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37628">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37628</a> <i>(Underline <b>all</b> additions)</i>
<b>Second Languages: Cree (★36) [Education] Requirements</b>  <b>Note:</b> Native or heritage speakers should consult with the Second Languages Subject Area Advisor in the Department of Secondary Education prior to course selection	<b>Second Languages: Cree (★36) [Education] Requirements</b>  <b>Note:</b> Native or heritage speakers should consult with the Second Languages Subject Area Advisor in the Department of Secondary Education prior to course selection
<del>★15 to</del> <b>★18 in Language Courses chosen from</b> <ul style="list-style-type: none"> <li>• NS 152 - Introductory Cree</li> <li>• NS 252 - Intermediate Cree</li> <li>• NS 352 - Advanced Cree</li> </ul>	<b>★18 in Language Courses chosen from</b> <ul style="list-style-type: none"> <li>• NS 152 - Introductory Cree</li> <li>• NS 252 - Intermediate Cree</li> <li>• NS 352 - Advanced Cree</li> </ul>
<del>★9 to</del> <del>★15</del> <b>in Culture chosen from</b> <ul style="list-style-type: none"> <li>• ANTHR 150 - Race and Racism</li> <li>• ANTHR 487 – Seminar in Social, Cultural and/or Linguistic Anthropology</li> <li>• EDPS 411 - Cross Cultural Studies in Education</li> <li>• EDPS 432 - The Education of Native Peoples in Canada: An Historical Study</li> <li>• EDPS 474 - Contemporary Issues in the</li> </ul>	<span style="background-color: yellow;">★12 to ★15</span> <b>in Culture chosen from</b> <ul style="list-style-type: none"> <li>• ANTHR 150 - Race and Racism</li> <li>• ANTHR 487 – Seminar in Social, Cultural and/or Linguistic Anthropology</li> <li>• EDPS 411 - Cross Cultural Studies in Education</li> <li>• EDPS 432 - The Education of Native Peoples in Canada: An Historical Study</li> <li>• EDPS 474 - Contemporary Issues in the</li> </ul>


<p>Education of Native Peoples: A Social Science Perspective</p> <ul style="list-style-type: none"> <li>• HIST 368 - History of the Native Peoples of Canada to 1867</li> <li>• HIST 369 - History of the Native Peoples of Canada Since 1867</li> <li>• NS 110 - Historical Perspectives in Native Studies</li> <li>• NS 200 <b>OR</b> NS 201 - Aboriginal Canada: Looking Forward/Looking Back</li> <li>• NS 260 - Contemporary Native Art</li> <li>• NS 280 - Selected Topics in Native Studies</li> <li>• NS 300 - Traditional Cultural Foundations I</li> <li>• NS 314 - History of Indians of Western Canada</li> <li>• NS 320 - Aboriginal Governments and Politics</li> <li>• NS 330 - Native Economic Development</li> <li>• NS 335 - Native People and the Fur Trade</li> <li>• NS 355 - Native Oral Traditions and Indigenous Knowledge</li> <li>• NS 370 - The Métis: The Emergence of a People</li> <li>• NS 372 - Métis Politics</li> <li>• NS 380 - Selected Topics in Native Studies</li> <li>• NS 403 - Selected Topics in Native Studies</li> <li>• NS 404 - Selected Topics in Native Studies</li> <li>• NS 440 - Indigenous Treaties and Agreements</li> <li>• NS 441 - Indigenous Land Claims and Agreements</li> <li>• NS 442 - Colonialism and the Criminal Justice System</li> <li>• POL S 327 - Aboriginal Peoples and Politics in Canada</li> </ul> <p><b>★6 chosen from</b></p>	<p>Education of Native Peoples: A Social Science Perspective</p> <ul style="list-style-type: none"> <li>• HIST 368 - History of the Native Peoples of Canada to 1867</li> <li>• HIST 369 - History of the Native Peoples of Canada Since 1867</li> <li>• NS 110 - Historical Perspectives in Native Studies</li> <li>• NS 200 <b>OR</b> NS 201 - Aboriginal Canada: Looking Forward/Looking Back</li> <li>• NS 260 - Contemporary Native Art</li> <li>• NS 280 - Selected Topics in Native Studies</li> <li>• NS 300 - Traditional Cultural Foundations I</li> <li>• NS 314 - History of Indians of Western Canada</li> <li>• NS 320 - Aboriginal Governments and Politics</li> <li>• NS 330 - Native Economic Development</li> <li>• NS 335 - Native People and the Fur Trade</li> <li>• NS 355 - Native Oral Traditions and Indigenous Knowledge</li> <li>• NS 370 - The Métis: The Emergence of a People</li> <li>• NS 372 - Métis Politics</li> <li>• NS 380 - Selected Topics in Native Studies</li> <li>• NS 403 - Selected Topics in Native Studies</li> <li>• NS 404 - Selected Topics in Native Studies</li> <li>• NS 440 - Indigenous Treaties and Agreements</li> <li>• NS 441 - Indigenous Land Claims and Agreements</li> <li>• NS 442 - Colonialism and the Criminal Justice System</li> <li>• POL S 327 - Aboriginal Peoples and Politics in Canada</li> </ul> <p><b>★3 to ★6 chosen from</b></p>
<ul style="list-style-type: none"> <li>• ANTHR 208 – Introduction to Linguistic Anthropology</li> <li>• LING 101 - Introduction to Linguistic Analysis</li> <li>• LING 224 - Endangered Languages</li> <li>• LING 320 - Second Language Acquisition</li> </ul> <p><b>Notes</b></p>	<ul style="list-style-type: none"> <li>• ANTHR 208 – Introduction to Linguistic Anthropology</li> <li>• LING 101 - Introduction to Linguistic Analysis</li> <li>• LING 224 - Endangered Languages</li> <li>• LING 320 - Second Language Acquisition</li> </ul> <p><b>Notes</b></p>
<p>Students must take EDSE 368 during the IPT*, which is normally offered in the Fall Term only. Students must take EDSE 451 and EDSE 468 during the APT**, which is normally offered in the Winter</p>	<p>Students must take EDSE 368 during the IPT*, which is normally offered in the Fall Term only. Students must take EDSE 451 and EDSE 468 during the APT**, which is normally offered in the Winter</p>



Term only. * Introductory Professional Term ** Advanced Professional Term	Term only. * Introductory Professional Term ** Advanced Professional Term
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**Justification:** *(Note: A detailed justification must be provided except in the case of a course deletion or editorial change). If more than one change is submitted be sure to indicate the **course number** that applies to your explanation.*

Rationale: The Language Courses are all 6 credit courses so the credit count for the language area must change to 18. As a result, the Culture area credit count will change to choose 12 to 15 credits, and the last area will change to choose 3 to 6 credits. The total for the three areas now reflects the 36 credits required for the major.

Submitted by: Dr. Jason Wallin	Signature of Department Chair or Designee 	Date: November 19, 2020	FACULTY USE ONLY	
			Approval Process <input type="checkbox"/> Academic Affairs	Date _____

Approval: Undergraduate Academic Affairs Council, November 26, 2020

## FACULTY OF EDUCATION CALENDAR CHANGE REQUEST FORM

**Department:**                      **Secondary Education**

**Implementation:**     NORMAL  
                                   EARLY (Note: new course offerings only)

**Type of Change:**     Program Regulation\*  
                                   New Course\*†             Course Change  
                                   Course Deletion             Editorial

*\*Documentation is required to verify that other units in the Faculty of Education or other Faculties impacted by the proposal have no objection to the proposed new course or course change.*                      Applicable:     Yes             No

†**Attachments:**     Course Outline  
                                   KSA (Knowledge, skills and Attributes) Rating Sheets  
                                  (Completed by course developers and instructors)

<b>CURRENT</b>	<b>PROPOSED</b>
Calendar Section Number (§) Education Chart 1, <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poiid=37544">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poiid=37544</a> <i>(Use strike out for <b>all</b> changes)</i>	Calendar Section Number (§) Education Chart 1, <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poiid=37544">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poiid=37544</a> <i>(Underline <b>all</b> additions)</i>
<b>Social Studies (★36) [Education]</b>	<b>Social Studies (★36) [Education]</b>
<b>Requirements</b>	<b>Requirements</b>
<b>★12 in Canadian Studies</b>	<b>★12 in Canadian Studies</b>
<b>a. ★9 chosen from</b>	<b>a. ★9 chosen from</b>
<ul style="list-style-type: none"> <li>• EDSE 409 – Indigenous Curriculum and Pedagogy</li> <li>• HIST 260 – Pre-Confederation Canada</li> <li>• HIST 261 – Post-Confederation Canada</li> <li>• NS 110 - Historical Perspectives in Native Studies</li> <li>• NS 111 - Contemporary Perspectives in Native Studies</li> <li>• NS 200 <b>OR</b> NS 201 - Indigenous Canada: Looking Forward/Looking Back</li> <li>• NS 300 - Traditional Cultural Foundations I</li> <li>• NS 314 - History of Indians of Western Canada</li> <li>• NS 370 - The Métis: The Emergence of a People</li> <li>• POL S 221</li> <li>• POL S 224 – Canadian Government</li> <li>• POL S 225 – Canadian Politics</li> <li>• POL S 235 – Introduction to Comparative</li> </ul>	<ul style="list-style-type: none"> <li>• EDSE 409 – Indigenous Curriculum and Pedagogy</li> <li>• HIST 260 – Pre-Confederation Canada</li> <li>• HIST 261 – Post-Confederation Canada</li> <li>• NS 110 - Historical Perspectives in Native Studies</li> <li>• NS 111 - Contemporary Perspectives in Native Studies</li> <li>• NS 200 <b>OR</b> NS 201 - Indigenous Canada: Looking Forward/Looking Back</li> <li>• NS 300 - Traditional Cultural Foundations I</li> <li>• NS 314 - History of Indians of Western Canada</li> <li>• NS 370 - The Métis: The Emergence of a People</li> <li>• POL S 221</li> <li>• POL S 224 – Canadian Government</li> <li>• POL S 225 – Canadian Politics</li> <li>• POL S 235 – Introduction to Comparative</li> </ul>

<p>Politics</p> <ul style="list-style-type: none"> <li>• POL S 299 – Citizenship for Democracy</li> </ul> <p><b>b. ★3 chosen from</b></p>	<p>Politics</p> <ul style="list-style-type: none"> <li>• POL S 299 – Citizenship for Democracy</li> </ul> <p><b>b. ★3 chosen from</b></p>
<ul style="list-style-type: none"> <li>• ANTHR 256 - Alberta Archaeology</li> <li>• ECON 101 - Introduction to Microeconomics</li> <li>• ECON 102 - Introduction to Macroeconomics</li> <li>• HIST 359 – Canadian Environmental History</li> <li>• HIST 360 - Topics in Canadian History</li> <li>• HIST 362 - History of Alberta</li> <li>• HIST 365 - The Canadian West to 1885</li> <li>• HIST 368 - History of the Native Peoples of Canada to 1867</li> <li>• HIST 369 - History of the Native Peoples of Canada Since 1867</li> <li>• HIST 370 – Making War in Canada</li> <li>• HIST 376 - Canada 1900 to 1945</li> <li>• HIST 377 - Canada Since 1945</li> <li>• NS courses</li> <li>• POL S 221</li> <li>• POL S 299 - Citizenship for Democracy</li> <li>• POL S 324 - Topics in Canadian Politics</li> <li>• POL S 325</li> <li>• SOC 251 - Population and Society</li> <li>• SOC 260 - Inequality and Social Stratification</li> <li>• SOC 363 - Sociology of Work and Industry</li> <li>• SOC 377 - Sociology of Youth</li> </ul> <p><b>★9 in World Studies chosen from</b></p>	<ul style="list-style-type: none"> <li>• ANTHR 256 - Alberta Archaeology</li> <li>• ECON 101 - Introduction to Microeconomics</li> <li>• ECON 102 - Introduction to Macroeconomics</li> <li>• HIST 359 – Canadian Environmental History</li> <li>• HIST 360 - Topics in Canadian History</li> <li>• HIST 362 - History of Alberta</li> <li>• HIST 365 - The Canadian West to 1885</li> <li>• HIST 368 - History of the Native Peoples of Canada to 1867</li> <li>• HIST 369 - History of the Native Peoples of Canada Since 1867</li> <li>• HIST 370 – Making War in Canada</li> <li>• HIST 376 - Canada 1900 to 1945</li> <li>• HIST 377 - Canada Since 1945</li> <li>• NS courses</li> <li>• POL S 221</li> <li>• POL S 299 - Citizenship for Democracy</li> <li>• POL S 324 - Topics in Canadian Politics</li> <li>• POL S 325</li> <li>• SOC 251 - Population and Society</li> <li>• SOC 260 - Inequality and Social Stratification</li> <li>• SOC 363 - Sociology of Work and Industry</li> <li>• SOC 377 - Sociology of Youth</li> </ul> <p><b>★9 in World Studies chosen from</b></p>
<ul style="list-style-type: none"> <li>• <b>★6 chosen from</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>★6 chosen from</b></li> </ul>
<ul style="list-style-type: none"> <li>• CLASS 110 – The Ancient World</li> <li>• CLASS 261 – Women, Gender and Sexuality in the Ancient World</li> <li>• HIST 110 - The Pre-Modern World</li> <li>• HIST 111 - The Early Modern World</li> <li>• HIST 112 - The Modern World</li> <li>• HIST 114 - The History of the World in the Last 10 Years</li> <li>• HIST 116 - The Emergence of the Atlantic World</li> </ul>	<ul style="list-style-type: none"> <li>• CLASS 110 – The Ancient World</li> <li>• CLASS 261 – Women, Gender and Sexuality in the Ancient World</li> <li>• HIST 110 - The Pre-Modern World</li> <li>• HIST 111 - The Early Modern World</li> <li>• HIST 112 - The Modern World</li> <li>• HIST 114 - The History of the World in the Last 10 Years</li> <li>• HIST 116 - The Emergence of the Atlantic World</li> </ul>

- HIST 121 - Topics in Global History
- HIST 123 – Plague: Disease and Epidemics in History
- HIST 124 – History of Sexuality in the Americas
- HIST 127 – Drugs in Modern Global History
- HIST 128 – War, Revolution, and Society
- HIST 130 - Democracy, War and Consumer Capitalism: The Making of Modern Europe
- HIST 134 – Global History of Alchemy: Quests for Gold, Power, and Immortality
- HIST 179 – Sex Work and Intimate Labour in Global History
- HIST 191 – Video Games, History, and Storytelling
- HIST 195 – Warfare Since 1789: From Mass Armies to Thermonuclear War
- HIST 205 – Capitalism
- HIST 206 – Women and Gender in Modern Europe
- HIST 207 - Pre-Modern Europe I
- HIST 210 - Europe in the 19th and 20th Centuries
- HIST 212 - Pre-Modern Europe II
- HIST 237 – The Pacific World Since 1500
- HIST 241 - Colonial Latin America
- HIST 242 - Modern Latin America
- HIST 243 – The Golden Age of Islam: History of the Muslim World to the 16<sup>th</sup> Century
- HIST 246 - Africa from Medieval to Modern Times
- HIST 247 - Africa in the 20th and 21st Centuries: From Colonial Rule to Modern Nations
- HIST 251 - From the End of Slavery to the Present: American History Since 1865
- HIST 252 – Slavery in the Americas
- HIST 272 – Religion in History
- HIST 280 - East Asia to 1500
- HIST 281 - East Asia from 1500
- HIST 285 - China and the West
- HIST 287 – The Chinese in Canada and Canadians in China
- HIST 291 – World War One
- HIST 293 – History of Science, Technology and Medicine: Key Moments
- HIST 294 – An Introduction to the History


- HIST 121 - Topics in Global History
- HIST 123 – Plague: Disease and Epidemics in History
- HIST 124 – History of Sexuality in the Americas
- HIST 127 – Drugs in Modern Global History
- HIST 128 – War, Revolution, and Society
- HIST 130 - Democracy, War and Consumer Capitalism: The Making of Modern Europe
- HIST 134 – Global History of Alchemy: Quests for Gold, Power, and Immortality
- HIST 179 – Sex Work and Intimate Labour in Global History
- HIST 191 – Video Games, History, and Storytelling
- HIST 195 – Warfare Since 1789: From Mass Armies to Thermonuclear War
- HIST 205 – Capitalism
- HIST 206 – Women and Gender in Modern Europe
- HIST 207 - Pre-Modern Europe I
- HIST 210 - Europe in the 19th and 20th Centuries
- HIST 212 - Pre-Modern Europe II
- **HIST 220: The Making of the Modern Middle East**
- HIST 237 – The Pacific World Since 1500
- HIST 241 - Colonial Latin America
- HIST 242 - Modern Latin America
- HIST 243 – The Golden Age of Islam: History of the Muslim World to the 16<sup>th</sup> Century
- HIST 246 - Africa from Medieval to Modern Times
- HIST 247 - Africa in the 20th and 21st Centuries: From Colonial Rule to Modern Nations
- HIST 251 - From the End of Slavery to the Present: American History Since 1865
- HIST 252 – Slavery in the Americas
- HIST 272 – Religion in History
- HIST 280 - East Asia to 1500
- HIST 281 - East Asia from 1500
- HIST 285 - China and the West
- HIST 287 – The Chinese in Canada and Canadians in China
- HIST 291 – World War One
- HIST 293 – History of Science, Technology

<ul style="list-style-type: none"> <li>of Sciences, Technology, and Medicine</li> <li>HIST 296 – World War Two</li> <li>HIST 297 - The History of Christianity</li> <li>HIST 385 - Modern China</li> </ul> <p><b>b. ★3 chosen from</b></p>	<ul style="list-style-type: none"> <li>and Medicine: Key Moments</li> <li>HIST 294 – An Introduction to the History of Sciences, Technology, and Medicine</li> <li>HIST 296 – World War Two</li> <li>HIST 297 - The History of Christianity</li> <li>HIST 385 - Modern China</li> </ul> <p><b>b. ★3 chosen from</b></p>
<ul style="list-style-type: none"> <li>Classics</li> <li>Christian Theology</li> <li>Economics</li> <li>Political Science</li> <li>Religious Studies</li> </ul> <p><b>★9 in Cultural Studies</b></p>	<ul style="list-style-type: none"> <li>Classics</li> <li>Christian Theology</li> <li>Economics</li> <li>Political Science</li> <li>Religious Studies</li> </ul> <p><b>★9 in Cultural Studies</b></p>
<p><b>a. ★3 chosen from</b></p>	<p><b>a. ★3 chosen from</b></p>
<ul style="list-style-type: none"> <li>HGP (Faculty of Arts)</li> </ul> <p><b>b. ★6 chosen from</b></p>	<ul style="list-style-type: none"> <li>HGP (Faculty of Arts)</li> </ul> <p><b>b. ★6 chosen from</b></p>
<ul style="list-style-type: none"> <li>Anthropology</li> <li>Classics</li> <li>Christian Theology</li> <li>Human Geography and Planning</li> <li>Native Studies</li> <li>Religious Studies</li> <li>Sociology</li> </ul> <p><b>★6 in General Social Studies chosen from</b></p>	<ul style="list-style-type: none"> <li>Anthropology</li> <li>Classics</li> <li>Christian Theology</li> <li>Human Geography and Planning</li> <li>Native Studies</li> <li>Religious Studies</li> <li>Sociology</li> </ul> <p><b>★6 in General Social Studies chosen from</b></p>
<ul style="list-style-type: none"> <li>Anthropology</li> <li>Christian Theology</li> <li>Classics</li> <li>History</li> <li>Human Geography and Planning</li> <li>Native Studies</li> <li>Philosophy</li> <li>Political Science</li> <li>Psychology</li> <li>Religious Studies</li> <li>Sociology</li> </ul> <p><b>Notes</b></p>	<ul style="list-style-type: none"> <li>Anthropology</li> <li>Christian Theology</li> <li>Classics</li> <li>History</li> <li>Human Geography and Planning</li> <li>Native Studies</li> <li>Philosophy</li> <li>Political Science</li> <li>Psychology</li> <li>Religious Studies</li> <li>Sociology</li> </ul> <p><b>Notes</b></p>
<p>Students must take EDSE 373 during the IPT*, which is normally offered in both the Fall and Winter Terms.</p>	<p>Students must take EDSE 373 during the IPT*, which is normally offered in both the Fall and Winter Terms.</p>

<p>Students must take EDSE 451 and EDSE 473 during the APT**, which is normally offered in both the Fall and Winter Terms.</p> <p>* Introductory Professional Term ** Advanced Professional Term</p>	<p>Students must take EDSE 451 and EDSE 473 during the APT**, which is normally offered in both the Fall and Winter Terms.</p> <p>* Introductory Professional Term ** Advanced Professional Term</p>
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**Justification:** *(Note: A detailed justification must be provided except in the case of a course deletion or editorial change). If more than one change is submitted be sure to indicate the **course number** that applies to your explanation.*

Rationale: Adding HIST 220 as an option. HIST 220 is a new course.

<p>Submitted by: Dr. Jason Wallin</p>	<p>Signature of Department Chair or Designee </p>	<p>Date: November 19, 2020</p>	<p>FACULTY USE ONLY</p> <table> <tr> <td>Approval Process</td> <td>Date</td> </tr> <tr> <td><input type="checkbox"/> Academic Affairs</td> <td>_____</td> </tr> </table>	Approval Process	Date	<input type="checkbox"/> Academic Affairs	_____
Approval Process	Date						
<input type="checkbox"/> Academic Affairs	_____						

Approval: Undergraduate Academic Affairs Council, November 26, 2020

## FACULTY OF EDUCATION CALENDAR CHANGE REQUEST FORM

**Department:**                      **Secondary Education**

**Implementation:**     NORMAL  
                                   EARLY (Note: new course offerings only)

**Type of Change:**     Program Regulation\*  
                                   New Course\*†             Course Change  
                                   Course Deletion             Editorial

*\*Documentation is required to verify that other units in the Faculty of Education or other Faculties impacted by the proposal have no objection to the proposed new course or course change.                      Applicable:     Yes             No*

†**Attachments:**     Course Outline  
                                   KSA (Knowledge, skills and Attributes) Rating Sheets  
                                  (Completed by course developers and instructors)

<b>CURRENT</b>	<b>PROPOSED</b>
Calendar Section Number (§) Education Chart 2, taken from <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37512">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37512</a> <i>(Use strike out for all changes)</i>	Calendar Section Number (§) Education Chart 2, taken from <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37512">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37512</a> <i>(Underline all additions)</i>
<b>Career and Technology Studies: Communication Arts (MDC) (★18)</b>  <b>Note:</b> See overview of Career and Technology Studies majors and minors.  <b>Requirements</b>	<b>Career and Technology Studies: Communication Arts (MDC) (★18)</b>  <b>Note:</b> See overview of Career and Technology Studies majors and minors.  <b>Requirements</b>
<ul style="list-style-type: none"> <li>• EDSE 495 - Curriculum and Teaching in Secondary School Career Education</li> <li>• EDCT 400 - Conference Seminar (Communication Technology)</li> </ul> <b>★3 to 6 chosen from</b>	<ul style="list-style-type: none"> <li>• EDSE 495 - Curriculum and Teaching in Secondary School Career Education</li> <li>• EDCT 400 - Conference Seminar (Communication Technology)</li> </ul> <b>★3 to 6 chosen from</b>
<ul style="list-style-type: none"> <li>• ART 134 - Art Fundamentals</li> <li>• DES 135 - Design Fundamentals</li> <li>• DES 302 - Introduction to Visual Presentation I</li> <li>• DES 393 - Foundations of Visual Communication Design I</li> <li>• DES 394 - Foundations of Visual Communication Design II</li> </ul> <b>★6 to 9 chosen from</b>	<ul style="list-style-type: none"> <li>• ART 134 - Art Fundamentals</li> <li>• DES 135 - Design Fundamentals</li> <li>• DES 302 - Introduction to Visual Presentation I</li> <li>• DES 393 - Foundations of Visual Communication Design I</li> <li>• DES 394 - Foundations of Visual Communication Design II</li> </ul> <b>★6 to 9 chosen from</b>
<ul style="list-style-type: none"> <li>• DRAMA 101 - Introduction to Theatre Art</li> <li>• DRAMA 149 - Dramatic Process I</li> <li>• DRAMA 208 - Theatre History I</li> </ul>	<ul style="list-style-type: none"> <li>• DRAMA 101 - Introduction to Theatre Art</li> <li>• DRAMA 149 - Dramatic Process I</li> <li>• DRAMA 208 - Theatre History I</li> </ul>

- DRAMA 209
- DRAMA 302 - Modern Canadian Theatre
- DRAMA 327 - Community-Based Theatre
- any FS course(s)
- MUSIC 140 - Choral Ensemble
- MUSIC 141 - Instrumental Ensemble
- MUSIC 143 - Indian Music Ensemble I
- MUSIC 144 - West African Music Ensemble I
- MUSIC 148 - Middle Eastern and North African Music Ensemble I

**Notes:**

Students must take EDSE 318 which is normally offered in the Fall Term only.

Advanced Standing may be granted for relevant provincial and federal journey certification, degree, or two-year certificate or diploma programs in Career and Technology minor categories. Contact the Department of Secondary Education for more information.

- DRAMA 209
- DRAMA 302 - Modern Canadian Theatre
- DRAMA 327 - Community-Based Theatre
- any FS course(s)
- MUSIC 140 - Choral Ensemble
- MUSIC 141 - Instrumental Ensemble
- MUSIC 143 - Indian Music Ensemble I
- MUSIC 144 - West African Music Ensemble I
- MUSIC 148 - Middle Eastern and North African Music Ensemble I

- **Senior level EDIT**
- **Senior level EDCT**


**Notes:**

Students must take EDSE 318 which is normally offered in the Fall Term only.

Advanced Standing may be granted for relevant provincial and federal journey certification, degree, or two-year certificate or diploma programs in Career and Technology minor categories. Contact the Department of Secondary Education for more information.

**Justification:** *(Note: A detailed justification must be provided except in the case of a course deletion or editorial change). If more than one change is submitted be sure to indicate the **course number** that applies to your explanation.*

Rationale: Adding the option of Senior Level EDIT or EDCT.

Submitted by: Dr. Jason Wallin	Signature of Department Chair or Designee 	Date: November 19, 2020	FACULTY USE ONLY Approval Process      Date <input type="checkbox"/> Academic Affairs      _____
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Approval: Undergraduate Academic Affairs Council, November 26, 2020



**FACULTY OF EDUCATION  
CALENDAR CHANGE REQUEST FORM**

**Department:**                      **Secondary Education**

**Implementation:**     NORMAL  
                                   EARLY (Note: new course offerings only)

**Type of Change:**     Program Regulation\*  
                                   New Course\*†             Course Change  
                                   Course Deletion             Editorial

*\*Documentation is required to verify that other units in the Faculty of Education or other Faculties impacted by the proposal have no objection to the proposed new course or course change.*                      Applicable:     Yes             No

†**Attachments:**     Course Outline  
                                   KSA (Knowledge, skills and Attributes) Rating Sheets  
                                  (Completed by course developers and instructors)

<b>CURRENT</b>	<b>PROPOSED</b>
Calendar Section Number (§) Education Chart 2, taken from: <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poiid=37536">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poiid=37536</a> <i>(Use strike out for all changes)</i>	Calendar Section Number (§) Education Chart 2, taken from: <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poiid=37536">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poiid=37536</a> <i>(Underline all additions)</i>
<b>Indigenous Curriculum and Pedagogy (★18)</b> <b>[Education]</b>	<b>Indigenous Curriculum and Pedagogy (★18)</b> <b>[Education]</b>
<b>Requirements</b>	<b>Requirements</b>
<b>Non-Education (★9)</b>	<b>Non-Education (★9)</b>
<b>Note:</b> A minimum of ★3 must be chosen from NS 110, NS 111, or NS 200.	<b>Note:</b> A minimum of ★3 must be chosen from NS 110, NS 111, or NS 200.
<b>★9 chosen from</b>	<b>★9 chosen from</b>
<ul style="list-style-type: none"> <li>• ANTHR 150 - Race and Racism</li> <li>• ANTHR 207 - Introduction to Social and Cultural Anthropology</li> <li>• ANTHR 323</li> <li>• ANTHR 350 - Kinship and Social Structure</li> <li>• ANTHR 385 - Topics in Social Cultural Anthropology</li> <li>• ANTHR 393 - Health and Healing</li> <li>• ANTHR 301 - Introduction to Ethnographic Methods</li> <li>• ANTHR 422</li> </ul>	<ul style="list-style-type: none"> <li>• ANTHR 150 - Race and Racism</li> <li>• ANTHR 207 - Introduction to Social and Cultural Anthropology</li> <li>• ANTHR 323</li> <li>• ANTHR 350 - Kinship and Social Structure</li> <li>• ANTHR 385 - Topics in Social Cultural Anthropology</li> <li>• ANTHR 393 - Health and Healing</li> <li>• ANTHR 301 - Introduction to Ethnographic Methods</li> <li>• ANTHR 422</li> </ul>

<ul style="list-style-type: none"> <li>• ANTHR 424 - Visual Anthropology</li> <li>• ANTHR 436</li> <li>• ANTHR 438</li> <li>• HIST 368 - History of the Native Peoples of Canada to 1867</li> <li>• HIST 369 - History of the Native Peoples of Canada Since 1867</li> <li>• NS 110 - Historical Perspectives in Indigenous Studies</li> <li>• NS 111 - Contemporary Perspectives in Indigenous Studies</li> <li>• NS 152 - Introductory Cree</li> <li>• NS 200 - Indigenous   Canada: Looking Forward/Looking Back</li> <li>• NS 260 - Contemporary Indigenous Art</li> <li>• NS 300 - Traditional Cultural Foundations I</li> <li>• NS 314 - History of First Nations of Western Canada</li> <li>• NS 320 - Indigenous Politics and Diplomacy</li> <li>• POL S 327 - Aboriginal Peoples and Politics in Canada</li> <li>• SOC 367</li> </ul>	<ul style="list-style-type: none"> <li>• ANTHR 424 - Visual Anthropology</li> <li>• ANTHR 436</li> <li>• ANTHR 438</li> <li>• HIST 368 - History of the Native Peoples of Canada to 1867</li> <li>• HIST 369 - History of the Native Peoples of Canada Since 1867</li> <li>• NS 110 - Historical Perspectives in Indigenous Studies</li> <li>• NS 111 - Contemporary Perspectives in Indigenous Studies</li> <li>• NS 152 - Introductory Cree</li> <li>• NS 200 <b>OR NS 201</b> - Indigenous   Canada: Looking Forward/Looking Back</li> <li>• NS 260 - Contemporary Indigenous Art</li> <li>• NS 300 - Traditional Cultural Foundations I</li> <li>• NS 314 - History of First Nations of Western Canada</li> <li>• NS 320 - Indigenous Politics and Diplomacy</li> <li>• <b>NS 372 – Métis Politics</b></li> <li>• POL S 327 - Aboriginal Peoples and Politics in Canada</li> <li>• SOC 367</li> </ul>
<p><b>Education (★9)</b></p>	<p><b>Education (★9)</b></p>
<p><b>★9 chosen from</b></p>	<p><b>★9 chosen from</b></p>
<ul style="list-style-type: none"> <li>• EDPS 411 - Cross Cultural Studies in Education</li> <li>• EDPS 432 - The Education of Native Peoples in Canada: An Historical Study</li> <li>• EDPS 474 - Contemporary Issues in the Education of Native Peoples: A Social Science Perspective</li> </ul>	<ul style="list-style-type: none"> <li>• EDPS 411 - Cross Cultural Studies in Education</li> <li>• EDPS 432 - The Education of Native Peoples in Canada: An Historical Study</li> <li>• EDPS 474 - Contemporary Issues in the Education of Native Peoples: A Social Science Perspective</li> </ul>
<p><b>Note:</b></p>	<p><b>Note:</b></p>
<p>Students must take EDSE 409 which is normally offered in both the Fall and Winter terms.</p>	<p>Students must take EDSE 409 which is normally offered in both the Fall and Winter terms.</p>

**Justification:** (Note: A detailed justification must be provided except in the case of a course deletion or editorial change). If more than one change is submitted be sure to indicate the **course number** that applies to your explanation.

Rationale: Adding NS 201 and NS 372 under non-Education options.

<p>Submitted by: Jason Wallin</p>	<p>Signature of Department Chair of Design</p>	<p>Date: November 19, 2020</p>	<p>FACULTY USE ONLY Approval Process _____ Date _____ <input type="checkbox"/> Academic Affairs</p>
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Approval: Undergraduate Academic Affairs Council, November 26, 2020

## FACULTY OF EDUCATION CALENDAR CHANGE REQUEST FORM

**Department:**                      **Secondary Education**

**Implementation:**     NORMAL  
                                   EARLY (Note: new course offerings only)

**Type of Change:**     Program Regulation\*  
                                   New Course\*†             Course Change  
                                   Course Deletion             Editorial

*\*Documentation is required to verify that other units in the Faculty of Education or other Faculties impacted by the proposal have no objection to the proposed new course or course change.*                      Applicable:     Yes             No

†**Attachments:**     Course Outline  
                                   KSA (Knowledge, skills and Attributes) Rating Sheets  
                                  (Completed by course developers and instructors)

<b>CURRENT</b>	<b>PROPOSED</b>
Calendar Section Number (§) Education Chart 2, <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37567">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37567</a> <i>(Use strike out for <b>all</b> changes)</i>	Calendar Section Number (§) Education Chart 2, <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37567">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37567</a> <i>(Underline <b>all</b> additions)</i>
<b>Social Studies (★18) [Education]</b>	<b>Social Studies (★18) [Education]</b>
<b>Requirements</b>	<b>Requirements</b>
<b>★6 in Canadian Studies chosen from</b>	<b>★6 in Canadian Studies chosen from</b>
<ul style="list-style-type: none"> <li>• HIST 260 – Pre-Confederation Canada</li> <li>• HIST 261 – Post-Confederation Canada</li> <li>• HIST 359 – Canadian Environmental History</li> <li>• HIST 360 - Topics in Canadian History</li> <li>• HIST 362 - History of Alberta</li> <li>• HIST 365 - The Canadian West to 1885</li> <li>• HIST 368 - History of the Native Peoples of Canada to 1867</li> <li>• HIST 369 - History of the Native Peoples of Canada Since 1867</li> <li>• HIST 370 – Making War in Canada</li> <li>• NS courses</li> <li>• POL S 221</li> <li>• POL S 224 – Canadian Government</li> <li>• POL S 225 – Canadian Politics</li> <li>• POL S 235 – Introduction to Comparative Politics</li> <li>• POL S 299 – Citizenship for Democracy</li> </ul>	<ul style="list-style-type: none"> <li>• HIST 260 – Pre-Confederation Canada</li> <li>• HIST 261 – Post-Confederation Canada</li> <li>• HIST 359 – Canadian Environmental History</li> <li>• HIST 360 - Topics in Canadian History</li> <li>• HIST 362 - History of Alberta</li> <li>• HIST 365 - The Canadian West to 1885</li> <li>• HIST 368 - History of the Native Peoples of Canada to 1867</li> <li>• HIST 369 - History of the Native Peoples of Canada Since 1867</li> <li>• HIST 370 – Making War in Canada</li> <li>• NS courses</li> <li>• POL S 221</li> <li>• POL S 224 – Canadian Government</li> <li>• POL S 225 – Canadian Politics</li> <li>• POL S 235 – Introduction to Comparative Politics</li> <li>• POL S 299 – Citizenship for Democracy</li> </ul>


★6 in World Studies chosen from	★6 in World Studies chosen from
<ul style="list-style-type: none"> <li>• CLASS 110 – The Ancient World</li> <li>• CLASS 261 – Women, Gender and Sexuality in the Ancient World</li> <li>• EDPS 425 - Global Education: Issues and Strategies for Teachers</li> <li>• HIST 110 - The Pre-Modern World</li> <li>• HIST 111 - The Early Modern World</li> <li>• HIST 112 - The Modern World</li> <li>• HIST 114 - The History of the World in the Last 10 Years</li> <li>• HIST 116 - The Emergence of the Atlantic World</li> <li>• HIST 121 - Topics in Global History</li> <li>• HIST 123 – Plague: Disease and Epidemics in History</li> <li>• HIST 124 – History of Sexuality in the Americas</li> <li>• HIST 127 – Drugs in Modern Global History</li> <li>• HIST 128 – War, Revolution, and Society</li> <li>• HIST 130 - Democracy, War and Consumer Capitalism: The Making of Modern Europe</li> <li>• HIST 134 – Global History of Alchemy: Quests for Gold, Power, and Immortality</li> <li>• HIST 179 – Sex Work and Intimate Labour in Global History</li> <li>• HIST 191 – Video Games, History, and Storytelling</li> <li>• HIST 195 – Warfare Since 1789: From Mass Armies to Thermonuclear War</li> <li>• HIST 205 – Capitalism</li> <li>• HIST 206 – Women and Gender in Modern Europe</li> <li>• HIST 207 - Pre-Modern Europe I</li> <li>• HIST 210 - Europe in the 19th and 20th Centuries</li> <li>• HIST 212 - Pre-Modern Europe II</li> <li>• HIST 237 – The Pacific World Since 1500</li> <li>• HIST 241 - Colonial Latin America</li> <li>• HIST 242 - Modern Latin America</li> <li>• HIST 243 – The Golden Age of Islam: History of the Muslim World to the 16<sup>th</sup> Century</li> <li>• HIST 246 - Africa from Medieval to Modern Times</li> <li>• HIST 247 - Africa in the 20th and 21st Centuries: From Colonial Rule to Modern</li> </ul>	<ul style="list-style-type: none"> <li>• CLASS 110 – The Ancient World</li> <li>• CLASS 261 – Women, Gender and Sexuality in the Ancient World</li> <li>• EDPS 425 - Global Education: Issues and Strategies for Teachers</li> <li>• HIST 110 - The Pre-Modern World</li> <li>• HIST 111 - The Early Modern World</li> <li>• HIST 112 - The Modern World</li> <li>• HIST 114 - The History of the World in the Last 10 Years</li> <li>• HIST 116 - The Emergence of the Atlantic World</li> <li>• HIST 121 - Topics in Global History</li> <li>• HIST 123 – Plague: Disease and Epidemics in History</li> <li>• HIST 124 – History of Sexuality in the Americas</li> <li>• HIST 127 – Drugs in Modern Global History</li> <li>• HIST 128 – War, Revolution, and Society</li> <li>• HIST 130 - Democracy, War and Consumer Capitalism: The Making of Modern Europe</li> <li>• HIST 134 – Global History of Alchemy: Quests for Gold, Power, and Immortality</li> <li>• HIST 179 – Sex Work and Intimate Labour in Global History</li> <li>• HIST 191 – Video Games, History, and Storytelling</li> <li>• HIST 195 – Warfare Since 1789: From Mass Armies to Thermonuclear War</li> <li>• HIST 205 – Capitalism</li> <li>• HIST 206 – Women and Gender in Modern Europe</li> <li>• HIST 207 - Pre-Modern Europe I</li> <li>• HIST 210 - Europe in the 19th and 20th Centuries</li> <li>• HIST 212 - Pre-Modern Europe II</li> <li>• <b>HIST 220: The Making of the Modern Middle East</b></li> <li>• HIST 237 – The Pacific World Since 1500</li> <li>• HIST 241 - Colonial Latin America</li> <li>• HIST 242 - Modern Latin America</li> <li>• HIST 243 – The Golden Age of Islam: History of the Muslim World to the 16<sup>th</sup> Century</li> <li>• HIST 246 - Africa from Medieval to Modern Times</li> </ul>

<p>Nations</p> <ul style="list-style-type: none"> <li>• HIST 251 - From the End of Slavery to the Present: American History Since 1865</li> <li>• HIST 252 – Slavery in the Americas</li> <li>• HIST 272 – Religion in History</li> <li>• HIST 280 - East Asia to 1500</li> <li>• HIST 281 - East Asia from 1500</li> <li>• HIST 285 - China and the West</li> <li>• HIST 287 – The Chinese in Canada and Canadians in China</li> <li>• HIST 291 – World War One</li> <li>• HIST 293 – History of Science, Technology and Medicine: Key Moments</li> <li>• HIST 294 – An Introduction to the History of Sciences, Technology, and Medicine</li> <li>• HIST 296 – World War Two</li> <li>• HIST 297 - The History of Christianity</li> <li>• HIST 300 – Topics in European History</li> <li>• HIST 301 – Europe in the Age of Total War, 1890-1945</li> <li>• HIST 306 – France in the 20<sup>th</sup> Century and Beyond</li> <li>• HIST 308 – Sexuality and Gender in Modern Europe</li> <li>• HIST 312 – Foundations of East European History</li> <li>• HIST 323 – The Middle East in the Making: 1300-1920</li> <li>• HIST 339 – The Modern British Empire and Commonwealth Experience</li> <li>• HIST 342 – Political and Social Revolution in Latin America</li> <li>• HIST 373 – Peasants, Slaves and Workers</li> <li>• HIST 379 – Religion in Modern Europe</li> <li>• HIST 385 - Modern China</li> <li>• HIST 391 – History of Technology</li> <li>• HIST 394 – History of Astronomy and Cosmology from Stonehenge to the Space Age</li> <li>• HIST 395 – The Early British Empire</li> <li>• HIST 397 – History of Science I</li> <li>• HIST 399 – History of Science II</li> </ul> <p><b>★6 in Cultural Studies chosen from</b></p>	<ul style="list-style-type: none"> <li>• HIST 247 - Africa in the 20<sup>th</sup> and 21<sup>st</sup> Centuries: From Colonial Rule to Modern Nations</li> <li>• HIST 251 - From the End of Slavery to the Present: American History Since 1865</li> <li>• HIST 252 – Slavery in the Americas</li> <li>• HIST 272 – Religion in History</li> <li>• HIST 280 - East Asia to 1500</li> <li>• HIST 281 - East Asia from 1500</li> <li>• HIST 285 - China and the West</li> <li>• HIST 287 – The Chinese in Canada and Canadians in China</li> <li>• HIST 291 – World War One</li> <li>• HIST 293 – History of Science, Technology and Medicine: Key Moments</li> <li>• HIST 294 – An Introduction to the History of Sciences, Technology, and Medicine</li> <li>• HIST 296 – World War Two</li> <li>• HIST 297 - The History of Christianity</li> <li>• HIST 300 – Topics in European History</li> <li>• HIST 301 – Europe in the Age of Total War, 1890-1945</li> <li>• HIST 306 – France in the 20<sup>th</sup> Century and Beyond</li> <li>• HIST 308 – Sexuality and Gender in Modern Europe</li> <li>• HIST 312 – Foundations of East European History</li> <li>• HIST 323 – The Middle East in the Making: 1300-1920</li> <li>• HIST 339 – The Modern British Empire and Commonwealth Experience</li> <li>• HIST 342 – Political and Social Revolution in Latin America</li> <li>• HIST 373 – Peasants, Slaves and Workers</li> <li>• HIST 379 – Religion in Modern Europe</li> <li>• HIST 385 - Modern China</li> <li>• HIST 391 – History of Technology</li> <li>• HIST 394 – History of Astronomy and Cosmology from Stonehenge to the Space Age</li> <li>• HIST 395 – The Early British Empire</li> <li>• HIST 397 – History of Science I</li> <li>• HIST 399 – History of Science II</li> </ul> <p><b>★6 in Cultural Studies chosen from</b></p>
<ul style="list-style-type: none"> <li>• Anthropology</li> <li>• Classics</li> </ul>	<ul style="list-style-type: none"> <li>• Anthropology</li> <li>• Classics</li> </ul>

<ul style="list-style-type: none"> <li>• Native Studies</li> <li>• Religious Studies</li> <li>• Sociology</li> <li>• Human Geography and Planning (Faculty of Arts)</li> </ul> <p><b>Notes</b></p>	<ul style="list-style-type: none"> <li>• Native Studies</li> <li>• Religious Studies</li> <li>• Sociology</li> <li>• Human Geography and Planning (Faculty of Arts)</li> </ul> <p><b>Notes</b></p>
Students must take EDSE 374 which is normally offered in both the Fall and Winter Terms.	Students must take EDSE 374 which is normally offered in both the Fall and Winter Terms.

**Justification:** *(Note: A detailed justification must be provided except in the case of a course deletion or editorial change). If more than one change is submitted be sure to indicate the **course number** that applies to your explanation.*

Rationale: Adding HIST 220 as an option. HIST 220 is a new course.

Submitted by: Dr. Jason Wallin	Signature of Department Chair or Designee 	Date: November 19, 2020	FACULTY USE ONLY Approval Process <input type="checkbox"/> Academic Affairs	Date _____
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Approval: Undergraduate Academic Affairs Council, November 26, 2020

# UNIVERSITY OF ALBERTA

Faculty of Education – Graduate Academic Affairs Council (GAAC)

## CALENDAR CHANGE REQUEST FORM

Department: Educational Psychology

Implementation Type:     Normal         Early

Implementation Calendar Year: 2021-2022

<p><b>COURSE &amp; MINOR CHANGES:</b></p> <p><input type="checkbox"/> <b>Introduce Course</b> (Attach completed <i>New Course Questionnaire</i>)</p> <p><input type="checkbox"/> <b>Delete Course</b></p> <p><input checked="" type="checkbox"/> <b>Modify Course</b> (Includes editorial changes)</p> <p><input type="checkbox"/> <b>Update Contact Info</b></p>	<p><b>PROGRAM CHANGES:</b></p> <p><input type="checkbox"/> <b>Introduce / Delete / Modify Program</b> (Attach completed <i>Program Approval Template</i>)</p> <p><input type="checkbox"/> <b>Introduce / Delete / Modify Academic Regulations:</b> Admission Requirements, Application Deadlines, Academic Standing Requirements</p> <p><input type="checkbox"/> <b>Introduce / Delete / Modify [Graduate] Sections of Calendar</b></p>
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CURRENT <i>(Use yellow highlight and strike out for all changes)</i>	PROPOSED <i>(Use yellow highlight and underline all additions)</i>
<p>EDPY 533 – <del>Basic Skills, Issues and Attitudes in Counselling I</del></p> <p>*3 (fi 6) (first term,3-3s-4). This <del>practicum course</del> focuses on the development of foundational skills, knowledge and attitudes for <del>the professional practice of counselling</del>. Restricted to students enrolled in the Counselling Psychology program.</p>	<p>EDPY 533 – <u>Foundations of Counselling Psychology: Theory and Clinical Practice I</u></p> <p>*3 (fi 6) (first term,3-3s-4). This <u>course introduces major theories used in counselling psychology and</u> focuses on the development of foundational skills, knowledge, and attitudes for <u>clinical practice with diverse populations and issues. The course includes both in-class components and a Master's-level practicum</u>. Restricted to students enrolled in the Counselling Psychology program.</p>

**Rationale:**

The course name and description are being revised to better reflect how EDPY 533 includes both counselling psychology theory and clinical practice (i.e., not just a practicum/clinical practice component).

<p>Department Chair</p> <p style="font-size: 1.2em;">George H. Buck</p>	<p>Signature</p>	<p>Date</p> <p style="font-size: 1.1em;">October 20, 2020</p>
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FACULTY USE ONLY			
Change Request Received:	Sent for Review: <input type="checkbox"/> Received	Consultation / Notice of Motion:	Motion Approved:





# UNIVERSITY OF ALBERTA

Faculty of Education

## CALENDAR CHANGE REQUEST

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CURRENT	PROPOSED
<p><b>EDSE 503 - Curriculum Foundations</b></p> <p>★ 3 (<i>fi 6</i>) (either term, 3-0-0) This course focuses on the bases of current curriculum theories and their relationship to current educational practices. May contain alternate delivery sections; refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</p>	<p><b>EDSE 503 - Curriculum Foundations</b></p> <p>★ 3 (<i>fi 6</i>) (either term, 3-0-0) This course focuses on the bases of current curriculum theories and their relationship to current educational practices. May contain alternate delivery sections; refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar. <b>EDSE 503 cannot be taken for credit if credit has already been received for EDSE 405 or EDSE 505.</b></p>

**Rationale for Proposal:**

The calendar course listing for EDSE 505 provides this information. EDSE 503 equivalency information should also be provided to ensure consistency across these courses to recognize prior credit.

**Approved:** November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)

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**2021-2022 University of Alberta Proposed Calendar Graduate Program Changes:**

<b>Current</b>	<b>Proposed</b>
<p><b>Graduate Programs</b></p> <p><b>General Information</b></p>	<p><b>Graduate Programs</b></p> <p><b>General Information</b></p>
<p>The MEd in Educational Studies offers leadership development for educators and administrators. The program is designed to provide theory, skills, and insights into practice that can be readily applied in the workplace. The program, designed for working professionals in a wide number of areas, is completed in two years through a combination of summer residencies and online courses in a cohort model.</p> <p><b>Entrance Requirements</b></p>	<p>The MEd in Educational Studies offers leadership development for educators and administrators. The program is designed to provide theory, skills, and insights into practice that can be readily applied in the workplace. The program, designed for working professionals in a wide number of areas, is completed in two years through a combination of summer residencies and online courses in a cohort model.</p> <p><b>Entrance Requirements</b></p>
<p>The Department's minimum admission requirements are an undergraduate degree with an admission GPA of at least 3.0 on the 4-point scale from the University of Alberta, or an equivalent qualification and standing from a recognized institution. The admission GPA will be calculated on the last ★60 of graded coursework completed, or on the equivalent of the last two years of full-time graded coursework. Applicants are required to have at least two years of teaching experience.</p> <p>Where applicable, applicants must provide proof of English Language Proficiency (refer to <a href="#">English Language Requirement</a>). Any one of the following is acceptable:  a TOEFL score of at least 92 (Internet-based) with a score of at least 24 on speaking and</p>	<p>The Department's minimum admission requirements are an undergraduate degree with an admission GPA of at least 3.0 on the 4-point scale from the University of Alberta, or an equivalent qualification and standing from a recognized institution. The admission GPA will be calculated on the last ★60 of graded coursework completed, or on the equivalent of the last two years of full-time graded coursework. Applicants are required to have at least two years of teaching experience.</p> <p>Where applicable, applicants must provide proof of English Language Proficiency (refer to <a href="#">English Language Requirement</a>). Any one of the following is acceptable:  a TOEFL score of at least 92 (Internet-based) with a score of at least 24 on speaking and</p>

<p>writing and 21 on reading and listening, or equivalent.  An Academic IELTS overall score of 6.5 with a minimum score of 6.5 on each band  A PTE Academic score of 63</p> <p>Applicants are also required to submit a letter of intent, a current resume, and two professional letters of recommendation.</p> <h2>Graduate Program Requirements</h2>	<p>writing and 21 on reading and listening, or equivalent.  An Academic IELTS overall score of 6.5 with a minimum score of 6.5 on each band  A PTE Academic score of 63</p> <p>Applicants are also required to submit a letter of intent, a current resume, and two professional letters of recommendation.</p> <h2><u>Laddering into the MEd in Educational Studies</u></h2>
<p><u>The Degree of MEd (Educational Studies) [Graduate]</u></p> <h2>Graduate Courses</h2>	<p><u>Students who complete the Graduate Certificate in Educational Studies, the Graduate Certificate in School Leadership or an equivalent graduate certificate from the Faculty of Education in good standing may be able to use the courses from the certificate to receive up to ★12 in advanced standing in this program.</u></p>
<p>Graduate courses can be found in <u>Course Listings</u>, under the subject heading Educational Studies (EDU)</p>	<p><u>Completion of the certificate does not guarantee admission to a master's degree program. The certificate may be used for both the basis of admission and laddered into the course-based master degree. Details on laddering can be found in the Calendar under Regulations of the Faculty of Graduate Studies and Research .</u></p> <h2>Graduate Program Requirements</h2>
<p><u>The Degree of MEd (Educational Studies) [Graduate]</u></p> <h2>Graduate Courses</h2>	<p><u>Graduate courses can be found in <u>Course Listings</u>, under the subject heading Educational Studies (EDU)</u></p>

<p><b>Justification:</b> The above <b>new</b> content has been adapted from the current calendar wording for MEd in Ed Admin and School Leadership page <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37933&amp;hl=%22master+of+education%22&amp;returnto=search">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37933&amp;hl=%22master+of+education%22&amp;returnto=search</a></p>	

**Approved:** November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)

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**2021-2022 University of Alberta Proposed Calendar Graduate Program Changes:**

Current	Proposed
<p><b>Graduate Programs</b></p> <p style="text-align: center;"><b>NEW</b></p>	<p><u>EDU 540 Facilitating Young Children's Mathematical Understanding</u>  <u>★ 3 (fi 6) (either term, 3-0-0)</u>  <u>This course examines current research, practices, policies, and curricula related to the learning and teaching of mathematics with young children. The course also emphasizes pedagogy relevant to young children's learning of mathematics, including the role of playful pedagogies, and connection to other curriculum areas.</u></p> <p><u>Sections may be offered at an increased rate of assessment, refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</u></p>
<p><b>Justification:</b> This course is part of the Early Childhood Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

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**2021-2022 University of Alberta Proposed Calendar Graduate Program Changes:**

Current	Proposed
<p><b>Graduate Programs</b></p> <p style="text-align: center;"><b>NEW</b></p>	<p><u>EDU 541 Play and the Use of Playful Pedagogies in Early Childhood Education</u></p> <p><u>★ 3 (fi 6) (either term, 3-0-0)</u></p> <p><u>This course examines the concept of play as a pedagogical approach in early childhood education settings in relation to cultural, philosophical, and historical traditions, current practices and recent research. The course examines the concept of play as a pedagogical approach in early childhood education settings in relation to cultural, philosophical, and historical traditions, current practices and recent research.</u></p> <p><u>Sections may be offered at an increased rate of assessment, refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</u></p>
<p><b>Justification:</b> This course is part of the Early Childhood Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

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**2021-2022 University of Alberta Proposed Calendar Graduate Program Changes:**

Current	Proposed
<p><b>Graduate Programs</b></p> <p style="text-align: center;"><b>NEW</b></p>	<p><u>EDU 542 Schools as Welcoming and Inclusive Environments for All Students</u>            ★ 3 (fi 6) (either term, 3-0-0)            This course explores the complex issues of diversity and ideologies of difference as they relate to multiculturalism, inclusion, and Indigenous issues in early childhood education, through a variety of theoretical perspectives. It also investigates markers of difference, the right to be different, and agentic possibilities for creating teaching and learning contexts that position concerns of social justice, care and equity as central to early childhood education.            Sections may be offered at an increased rate of assessment, refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</p>
<p><b>Justification:</b> This course is part of the Early Childhood Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

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**2021-2022 University of Alberta Proposed Calendar Graduate Program Changes:**

<b>Current</b>	<b>Proposed</b>
<p><b>Graduate Programs</b></p> <p style="text-align: center;"><b>NEW</b></p>	<p><u>EDU 543 Supporting Languages and Literacies in Early Childhood for All Students</u>  <u>★ 3 (fi 6) (either term, 3-0-0)</u>  <u>This course focuses on oral language development, and teaching and learning of language literacy in Early Childhood settings. The course explores instructional strategies, and resources for creating language and literacy rich learning environments, and the complex ways that young children develop oral language and early literacy skills.</u></p> <p><u>Sections may be offered at an increased rate of assessment, refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</u></p>
<p><b>Justification:</b> This course is part of the Early Childhood Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	



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**2021-2022 University of Alberta Proposed Calendar Graduate Program Changes:**

Current	Proposed
<p><b>Graduate Programs</b></p> <p style="text-align: center;"><b>NEW</b></p>	<p><u>EDU 545 Culturally Responsive/Regenerative Mathematics</u></p> <p><u>★ 3 (fi 6) (either term, 3-0-0)</u></p> <p><u>This course examines and develops culturally responsive teaching practices and explores regenerative mathematics in PreK-12 mathematics by drawing on perspectives and examples from Indigenous traditions and peoples, wisdom traditions, and mathematics education for social justice.</u></p> <p><u>Sections may be offered at an increased rate of assessment, refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</u></p>
<p><b>Justification:</b> This course is part of the Mathematics Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

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**2021-2022 University of Alberta Proposed Calendar Graduate Program Changes:**

Current	Proposed
<p><b>Graduate Programs</b></p> <p style="text-align: center;"><b>NEW</b></p>	<p><b>EDU 546</b>  <b>Numeracy Across the Curriculum</b>  <b>★ 3 (fi 6) (either term, 3-0-0)</b>            This course develops concepts of numeracy in content areas across the PreK-12 curriculum. Mathematics, pedagogy and learning are explored through the research and professional literature, experiential learning, and reflection. Course includes cross-curricular mathematical topics.            Sections may be offered at an increased rate of assessment, refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</p>
<p><b>Justification:</b> This course is part of the Mathematics Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

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**2021-2022 University of Alberta Proposed Calendar Graduate Program Changes:**

<b>Current</b>	<b>Proposed</b>
<p><b>Graduate Programs</b></p> <p style="text-align: center;"><b>NEW</b></p>	<p><u>EDU 547 Perspectives on Mathematics Learners and Learning</u>  <u>★ 3 (fi 6) (either term, 3-0-0)</u>  <u>This course explores how teachers’ implicit assumptions about learning influence their decisions about the tasks chosen, questions asked, tools available, classroom setup, and assessments posed. In this course, teachers will be asked to examine their assumptions about mathematics learning alongside historical and contemporary research and perspectives on learning.</u>  <u>Sections may be offered at an increased rate of assessment, refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</u></p>
<p><b>Justification:</b> This course is part of the Mathematics Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

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<p><b>Graduate Programs</b></p> <p style="text-align: center;"><b>NEW</b></p>	<p><u>EDU 548 Playful Places of Learning in Mathematics Education</u>            ★ 3 (fi 6) (either term, 3-0-0)            This course will examine and critique the design, implementation and assessment of places for learning in mathematics education with the intention of bringing forth playful (inter)actions among teachers/learners/mathematics/materiality. Exploration will include the qualities of playful engagement, and characteristics of tasks that encourage play in PreK-12 mathematics classrooms and beyond.</p> <p><u>Sections may be offered at an increased rate of assessment, refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</u></p>
<p><b>Justification:</b> This course is part of the Mathematics Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

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<p><b>Graduate Programs</b></p> <p style="text-align: center;"><b>NEW</b></p>	<p><u>EDU 550 Rural Education Issues and Advantages</u>            ★ 3 (fi 6) (either term, 3-0-0)            This course focuses on continuing and emerging educational issues and advantages unique to teaching and learning, and leadership and management in rural contexts. Students will have an opportunity to explore topics related to professional practice using empirical research and theoretical perspectives.             Sections may be offered at an increased rate of assessment, refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</p>
<p><b>Justification:</b> This course is part of the Rural Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

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<p><b>Graduate Programs</b></p> <p style="text-align: center;"><b>NEW</b></p>	<p><u>EDU 551 Working with Stakeholders in Rural Educational Contexts</u></p> <p><u>★ 3 (fi 6) (either term, 3-0-0)</u></p> <p><u>This course focuses on empirical and theoretical work concerned with stakeholder engagement. Content areas include conceptualizing stakeholder engagement in rural educational contexts, including working with community organizations, non-teaching professionals, parents, and First Nations and Métis communities. Theoretical perspectives in stakeholder engagement, collaboration, community relations, and citizen participation will be explored in relation to enduring and evolving characteristics of rural education.</u></p> <p><u>Sections may be offered at an increased rate of assessment, refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</u></p>
<p><b>Justification:</b> This course is part of the Rural Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	



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<p><b>Justification:</b> This course is part of the Rural Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	



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<p><b>Justification:</b> This course is part of the Rural Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

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<p><b>Justification:</b> This course is part of the Wellness Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

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<p><b>Graduate Programs</b></p> <p style="text-align: center;"><b>NEW</b></p>	<p><u>EDU 556 Health Promoting Schools</u>  <u>★ 3 (fi 6) (either term, 3-0-0)</u>  <u>This course examines current literature with a view to developing a critical assessment of the types of approaches used in comprehensive school health promotion strategies, identifying what works, what doesn't, and why certain approaches may or may not be effective for particular health issues.</u>  <u>Sections may be offered at an increased rate of assessment, refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</u></p>
<p><b>Justification:</b> This course is part of the Wellness Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

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<p><b>Justification:</b> This course is part of the Wellness Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

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<p><b>Justification:</b> This course is part of the Indigenous Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

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<p><b>Justification:</b> This course is part of the Indigenous Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

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<p><b>Justification:</b> This course is part of the Indigenous Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	



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<p><b>Justification:</b> This course is part of the Indigenous Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

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<p><b>Justification:</b> This course is part of the Indigenous Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	



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<p><b>Justification:</b> This course is part of the Technology in Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	



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Current	Proposed
<p><b>Graduate Programs</b></p> <p style="text-align: center;"><b>NEW</b></p>	<p><u>EDU 572 Teaching Online – Theory and Practice</u>            ★ 3 (fi 6) (either term, 3-0-0)</p> <p><u>This course addresses the theory and practice of teaching and learning in blended and fully online learning environments in both synchronous and asynchronous formats. This course explores topics such as pedagogical frameworks, instructional design, virtual learning communities, technologies to support online teaching, and approaches to online assessment. Students will investigate how to deal with changing technological environments that mediate the delivery of instruction.</u></p> <p><u>Sections may be offered at an increased rate of assessment, refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</u></p>
<p><b>Justification:</b> This course is part of the Technology in Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

Killam Centre for Advanced Studies  
 2-29 Triffo Hall Edmonton AB Canada T6G 2E1  
 Tel: 780.492.2816 / Fax: 780.492.0692  
 www.gradstudies.ualberta.ca

**2021-2022 University of Alberta Proposed Calendar Graduate Program Changes:**

Current	Proposed
<p><b>Graduate Programs</b></p> <p style="text-align: center;"><b>NEW</b></p>	<p><u>EDU 573 Computational Thinking in Teaching and Learning</u>  <u>★ 3 (fi 6) (either term, 3-0-0)</u></p> <p><u>This course explores the role of Computational Thinking (CT) to enhance teaching, learning, and problem-solving. Students will examine the historical development of the role of CT in education; the core elements of CT (e.g., abstraction, pattern recognition, decomposition, algorithms); the rationale for including CT as part of the curriculum; research-based best practices for the integration of CT within and between the curriculum across various subject areas; the multidimensional relationship between CT, computing science, coding, problem-solving approaches in the sciences and social sciences; and, the implications for educational policy, including addressing the TRC calls to action.</u></p> <p><u>Sections may be offered at an increased rate of assessment, refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</u></p>
<p><b>Justification:</b> This course is part of the Technology in Education cluster of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

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**2021-2022 University of Alberta Proposed Calendar Graduate Program Changes:**

<b>Current</b>	<b>Proposed</b>
<p><b>Graduate Programs</b></p> <p style="text-align: center;"><b>NEW</b></p>	<p><u>EDU 595 Special Topics in Educational Theory and Practice</u>  <u>★ 3 (fi 6) (either term, 3-0-0)</u>  <u>Content varies from term to term. Topics announced prior to registration period. The student's transcript carries title descriptive of content. May be repeated.</u>   <u>Sections may be offered at an increased rate of assessment, refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</u></p>
<p><b>Justification:</b> This course is part of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	

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**2021-2022 University of Alberta Proposed Calendar Graduate Program Changes:**

Current	Proposed
<p><b>Graduate Programs</b></p> <p style="text-align: center;"><b>NEW</b></p>	<p><u>EDU 598 Guided Independent Study in Educational Theory and Practice</u>            ★ 3 (fi 6) (either term, 3-0-0)  <u>Directed reading or research in an area related to educational theory and practice.</u>    <u>Sections may be offered at an increased rate of assessment, refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</u></p>
<p><b>Justification:</b> This course is part of the Graduate Certificate in Educational Studies (GCES). Consultation has taken place as per the submitted University of Alberta New Program Template. In addition, considerable consultation has taken place as per Alberta Advanced Education (with Divisional and Provincial stakeholders).</p> <p><b>Approved:</b> November 2, 2020 by the Faculty of Education Graduate Academic Affairs Council (GAAC)</p>	



## CALENDAR CHANGE REQUEST FORM

**Submission Deadlines:**

**Two weeks before APC. Program changes are subject to governance deadlines found [here](#)**

<b>Department:</b>	<b>Civil &amp; Environmental Engineering</b>
<b>Change Request:</b>	<b>Course Change</b>
<p><b>Why is this change being proposed and who was consulted?</b>  <u>Rationale:</u> The resequencing is done to streamline the delivery of courses within the department of Civil and Environmental Engineering. CivE 381 is already offered by geotechnical engineering instructors during the Fall and Winter terms. In the past, the department relied on sessionals to deliver the course in the summer. Through this change, Mining students will join the cohorts of Civil and Environmental Engineering students who already take the course in both terms.  <i>*Student Services Note:</i> This course change will go into effect for Spring/Summer 2021 which will impact both the students who were admitted into their discipline in Fall 2019 and will be an early implementation that will not show in the Calendar for the students who will be admitted into their discipline in Fall 2020.</p>	
<p><b>For early implementation</b></p>	
<p>Current Calendar URL:   <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poide=37647&amp;returnto=9981">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poide=37647&amp;returnto=9981</a></p>	
CURRENT	PROPOSED
<p><b>Mining Engineering</b>                  [...]  <b>Required Courses and Suggested Course Sequence for Traditional Mining</b>  <b>Mining [Engineering]</b>                  [...]  <b>Term 5 (Spring/Summer)</b>                  CIV E 251 - Survey School                   CIV E 330 - Introduction to Fluid Mechanics OR                  CH E 312 - Fluid Mechanics   <del>CIV E 381 - Soil Mechanics</del>                  MIN E 310 - Ore Reserve Estimation                  MIN E 323 - Rock Mechanics   <b>Year 3</b>  <b>Term 6</b></p>	<p><b>Mining Engineering</b>                  [...]  <b>Required Courses and Suggested Course Sequence for Traditional Mining</b>  <b>Mining [Engineering]</b>                  [...]  <b>Term 5 (Spring/Summer)</b>                  CIV E 251 - Survey School                   CIV E 330 - Introduction to Fluid Mechanics OR                  CH E 312 - Fluid Mechanics   <b>ENG M 310 - Engineering Economy OR</b>  <b>ENG M 401 - Financial Management for Engineers</b>                   MIN E 310 - Ore Reserve Estimation                  MIN E 323 - Rock Mechanics</p>



<p>CME 421 - Mineral Processing</p> <p><del>ENG M 310 – Engineering Economy OR</del> <del>ENG M 401 – Financial Management for Engineers</del></p> <p>ENGG 404 – Engineering Safety and Risk Management- Leadership in Risk Management Program Elective (3-0-0) (See Program and Technical Electives- Mining) STAT 235 - Introductory Statistics for Engineering [...]</p>	<p><b>Year 3</b> <b>Term 6</b> CME 421 - Mineral Processing <b>CIV E 381 - Soil Mechanics</b> ENGG 404 – Engineering Safety and Risk Management- Leadership in Risk Management Program Elective (3-0-0) (See Program and Technical Electives- Mining) STAT 235 - Introductory Statistics for Engineering [...]</p>
<p>Current Calendar URL: <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poiid=37647&amp;returnto=9981">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poiid=37647&amp;returnto=9981</a></p>	
CURRENT	PROPOSED
<p><b><u>Mining Engineering</u></b> [...] <b>Required Courses and Suggested Course Sequence for Co-op Programs</b> <b>Mining Plan I</b> <b>Mining Plan I (Co-op) [Engineering]</b> [...] <b>Winter Term 5</b> <del>CIV E 330 – Introduction to Fluid Mechanics OR</del> <del>CH E 312 – Fluid Mechanics</del></p> <p>MIN E 324 - Drilling, Blasting, and Explosives MIN E 330 - Mine Transport and Plant Engineering Complementary Studies Elective (3-0-0) Program Elective (3-0-0) (See Program and Technical Electives – Mining)</p> <p><b>Summer Term 6</b> <b>CIV E 381 – Soil Mechanics</b></p> <p>ENGG 404 - Engineering Safety and Risk Management- Leadership in Risk Management</p> <p>ENG M 310 - Engineering Economy OR ENG M 401 - Financial Management for Engineers</p> <p>MIN E 310 - Ore Reserve Estimation MIN E 323 - Rock Mechanics [...]</p>	<p><b><u>Mining Engineering</u></b> [...] <b>Required Courses and Suggested Course Sequence for Co-op Programs</b> <b>Mining Plan I</b> <b>Mining Plan I (Co-op) [Engineering]</b> [...] <b>Winter Term 5</b> <b>CIV E 381 - Soil Mechanics</b> MIN E 324 - Drilling, Blasting, and Explosives MIN E 330 - Mine Transport and Plant Engineering Complementary Studies Elective (3-0-0) Program Elective (3-0-0) (See Program and Technical Electives – Mining)</p> <p><b>Summer Term 6</b> <b>CIV E 330 – Introduction to Fluid Mechanics OR</b> <b>CH E 312 – Fluid Mechanics</b></p> <p>ENGG 404 - Engineering Safety and Risk Management- Leadership in Risk Management</p> <p>ENG M 310 - Engineering Economy OR ENG M 401 - Financial Management for Engineers</p> <p>MIN E 310 - Ore Reserve Estimation MIN E 323 - Rock Mechanics [...]</p>
<p><b>In which academic year is this change required? 2020-2021</b></p>	



<b>Department Contact</b>		Click or tap here to enter text.	
Name:		<b>Samer Adeeb</b>	
Email:		<b>Adeeb@ualberta.ca</b>	
<b>Department Chair or Designate</b>			
Name:		Click or tap here to enter text.	
<b>Date approved by Department Council:</b>	Click or tap to enter a date.	<b>Date submitted:</b>	Click or tap to enter a date.

Email an editable word version to [adppengg@ualberta.ca](mailto:adppengg@ualberta.ca) and [foedpp@ualberta.ca](mailto:foedpp@ualberta.ca)





## CALENDAR CHANGE REQUEST FORM

**Submission Deadlines:**

Two weeks before APC. Program changes are subject to governance deadlines found [here](#)

<b>Department:</b>	<b>Civil &amp; Environmental Engineering</b>
<b>Change Request:</b>	<b>Course Change</b>
<b>Why is this change being proposed and who was consulted?</b>	
Rationale: The titles of the courses CivE 295 and CivE 395 need to change to reflect the course contents and to be aligned with similar courses taught in other disciplines.	
Current Calendar URL:	
<a href="https://calendar.ualberta.ca/content.php?catoid=33&amp;catoid=33&amp;navoid=10000&amp;filter%5Bitem_type%5D=3&amp;filter%5Bonly_active%5D=1&amp;filter%5B3%5D=1&amp;filter%5Bcpage%5D=18#acalog_template_course_filter">https://calendar.ualberta.ca/content.php?catoid=33&amp;catoid=33&amp;navoid=10000&amp;filter%5Bitem_type%5D=3&amp;filter%5Bonly_active%5D=1&amp;filter%5B3%5D=1&amp;filter%5Bcpage%5D=18#acalog_template_course_filter</a>	
<b>CURRENT</b>	<b>PROPOSED</b>
Required Courses and Suggested Course Sequence for <u>Traditional</u> Programs Civil Civil [Engineering] [...] <b>Term 4</b> [...] CIV E 295 – <b>Civil Engineering Analysis II</b> [...]	Required Courses and Suggested Course Sequence for <u>Traditional</u> Programs Civil Civil [Engineering] [...] <b>Term 4</b> [...] CIV E 295 – <b>Numerical Methods for Civil Engineers</b> [...]
Current Calendar URL:	
<a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poiid=37639&amp;returnto=9981">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poiid=37639&amp;returnto=9981</a>	
<b>CURRENT</b>	<b>PROPOSED</b>
Required Courses and Suggested Course Sequence for <u>Co-op</u> Programs Civil Civil [Engineering] [...] <b>Winter Term 4</b> [...] CIV E 295 – <b>Civil Engineering Analysis II</b>	Required Courses and Suggested Course Sequence for <u>Co-op</u> Programs Civil Civil [Engineering] [...] <b>Winter Term 4</b> [...] CIV E 295 – <b>Numerical Methods for Civil Engineers</b>



[...]	[...]
Current Calendar URL: <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37639&amp;returnto=9981">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37639&amp;returnto=9981</a>	
<b>CURRENT</b>	<b>PROPOSED</b>
Required Courses and Suggested Course Sequence for <u>Traditional</u> Programs Civil: Environmental Engineering Option Civil: Environmental Engineering Option [Engineering] [...] <b>Term 4</b> [...] CIV E 295 – <b>Civil Engineering Analysis II</b> [...]	Required Courses and Suggested Course Sequence for <u>Traditional</u> Programs Civil: Environmental Engineering Option Civil: Environmental Engineering Option [Engineering] [...] <b>Term 4</b> [...] CIV E 295 – <b>Numerical Methods for Civil Engineers</b> [...]
Current Calendar URL: <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37639&amp;returnto=9981">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37639&amp;returnto=9981</a>	
<b>CURRENT</b>	<b>PROPOSED</b>
Required Courses and Suggested Course Sequence for <u>Co-op</u> Programs Civil: Environmental Engineering Option Civil: Environmental Engineering Option [Engineering] [...] <b>Winter Term 4</b> [...] CIV E 295 – <b>Civil Engineering Analysis II</b> [...]	Required Courses and Suggested Course Sequence for <u>Co-op</u> Programs Civil: Environmental Engineering Option Civil: Environmental Engineering Option [Engineering] [...] <b>Winter Term 4</b> [...] CIV E 295 – <b>Numerical Methods for Civil Engineers</b> [...]
Current Calendar URL: <a href="https://calendar.ualberta.ca/content.php?catoid=33&amp;catoid=33&amp;navoid=10000&amp;filter%5Bitem_type%5D=3&amp;filter%5Bonly_active%5D=1&amp;filter%5B3%5D=1&amp;filter%5Bcpage%5D=18#acalog_template_course_filter">https://calendar.ualberta.ca/content.php?catoid=33&amp;catoid=33&amp;navoid=10000&amp;filter%5Bitem_type%5D=3&amp;filter%5Bonly_active%5D=1&amp;filter%5B3%5D=1&amp;filter%5Bcpage%5D=18#acalog_template_course_filter</a>	
<b>CURRENT</b>	<b>PROPOSED</b>
Required Courses and Suggested Course Sequence for <u>Traditional</u> Programs Civil Civil [Engineering]	Required Courses and Suggested Course Sequence for <u>Traditional</u> Programs Civil Civil [Engineering]



<p>[...] <b>Term 5</b> [...] CIV E 395 – <b>Civil Engineering Analysis III</b> [...]</p>	<p>[...] <b>Term 5</b> [...] CIV E 395 – <b>Civil Engineering Analysis</b> [...]</p>
<p>Current Calendar URL: <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37639&amp;returnto=9981">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37639&amp;returnto=9981</a></p>	
<b>CURRENT</b>	<b>PROPOSED</b>
<p>Required Courses and Suggested Course Sequence for <u>Co-op</u> Programs Civil Civil [Engineering] [...] <b>Winter Term 5</b> [...] CIV E 395 – <b>Civil Engineering Analysis III</b></p>	<p>Required Courses and Suggested Course Sequence for <u>Co-op</u> Programs Civil Civil [Engineering] [...] <b>Winter Term 5</b> [...] CIV E 395 – <b>Civil Engineering Analysis</b></p>
<p>Current Calendar URL: <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37639&amp;returnto=9981">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37639&amp;returnto=9981</a></p>	
<b>CURRENT</b>	<b>PROPOSED</b>
<p>Required Courses and Suggested Course Sequence for <u>Traditional</u> Programs Civil: Environmental Engineering Option Civil: Environmental Engineering Option [Engineering] [...] <b>Term 5</b> [...] CIV E 395 – <b>Civil Engineering Analysis III</b> [...]</p>	<p>Required Courses and Suggested Course Sequence for <u>Traditional</u> Programs Civil: Environmental Engineering Option Civil: Environmental Engineering Option [Engineering] [...] <b>Term 5</b> [...] CIV E 395 – <b>Civil Engineering Analysis</b> [...]</p>
<p>Current Calendar URL: <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37639&amp;returnto=9981">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37639&amp;returnto=9981</a></p>	
<b>CURRENT</b>	<b>PROPOSED</b>
<p>Required Courses and Suggested Course Sequence for <u>Co-op</u> Programs Civil: Environmental Engineering Option Civil: Environmental Engineering Option</p>	<p>Required Courses and Suggested Course Sequence for <u>Co-op</u> Programs Civil: Environmental Engineering Option Civil: Environmental Engineering Option [Engineering]</p>



<p>[Engineering] [...] <b>Winter Term 5</b> [...] CIV E 395 – <b>Civil Engineering Analysis III</b> [...]</p>	<p>[...] <b>Winter Term 5</b> [...] CIV E 395 – <b>Civil Engineering Analysis</b> [...]</p>
<p><b>Course listing</b></p>	
<p><b>CURRENT</b></p>	<p><b>PROPOSED</b></p>
<p>Department of Civil and Environmental Engineering Faculty of Engineering [...] CIV E 295 – <b>Civil Engineering Analysis II</b> ★ 4 (<i>fi 8</i>) (second term, 3-0-2) Application of numerical methods to civil engineering problems. Prerequisites: ENCMP 100 and MATH 102. [...]</p>	<p>Department of Civil and Environmental Engineering Faculty of Engineering [...] CIV E 295 – <b>Numerical Methods for Civil Engineers</b> ★ 4 (<i>fi 8</i>) (second term, 3-0-2) Application of numerical methods to civil engineering problems. Prerequisites: ENCMP 100 and MATH 102. [...]</p>
<p>Current Calendar URL:</p>	
<p><a href="https://calendar.ualberta.ca/content.php?filter%5B27%5D=CIV+E&amp;filter%5B29%5D=&amp;filter%5Bcourse_type%5D=-1&amp;filter%5Bkeyword%5D=&amp;filter%5B32%5D=1&amp;filter%5Bcpage%5D=1&amp;cur_cat_oid=33&amp;expand=&amp;navoid=10000&amp;search_database=Filter&amp;filter%5Bexact_match%5D=1#acalog_template_course_filter">https://calendar.ualberta.ca/content.php?filter%5B27%5D=CIV+E&amp;filter%5B29%5D=&amp;filter%5Bcourse_type%5D=-1&amp;filter%5Bkeyword%5D=&amp;filter%5B32%5D=1&amp;filter%5Bcpage%5D=1&amp;cur_cat_oid=33&amp;expand=&amp;navoid=10000&amp;search_database=Filter&amp;filter%5Bexact_match%5D=1#acalog_template_course_filter</a></p>	
<p>Department of Civil and Environmental Engineering Faculty of Engineering [...] CIV E 395 – <b>Civil Engineering Analysis III</b> ★ 3.5 (<i>fi 8</i>) (either term, 3-0-2/2) The formulation of partial differential equations for modeling civil engineering problems. Introduction to analytical and numerical solution techniques. Prerequisites: MATH 201, MATH 209 and CIV E 295. [...]</p>	<p>Department of Civil and Environmental Engineering Faculty of Engineering [...] CIV E 395 – <b>Civil Engineering Analysis</b> ★ 3.5 (<i>fi 8</i>) (either term, 3-0-2/2) The formulation of partial differential equations for modeling civil engineering problems. Introduction to analytical and numerical solution techniques. Prerequisites: MATH 201, MATH 209 and CIV E 295. [...]</p>
<p>Current Calendar URL:</p>	
<p><a href="https://calendar.ualberta.ca/content.php?filter%5B27%5D=CIV+E&amp;filter%5B29%5D=&amp;filter%5Bcourse_type%5D=-1&amp;filter%5Bkeyword%5D=&amp;filter%5B32%5D=1&amp;filter%5Bcpage%5D=1&amp;cur_cat_oid=33&amp;expand=&amp;navoid=10000&amp;search_database=Filter&amp;filter%5Bexact_match%5D=1#acalog_template_course_filter">https://calendar.ualberta.ca/content.php?filter%5B27%5D=CIV+E&amp;filter%5B29%5D=&amp;filter%5Bcourse_type%5D=-1&amp;filter%5Bkeyword%5D=&amp;filter%5B32%5D=1&amp;filter%5Bcpage%5D=1&amp;cur_cat_oid=33&amp;expand=&amp;navoid=10000&amp;search_database=Filter&amp;filter%5Bexact_match%5D=1#acalog_template_course_filter</a></p>	



<b>In which academic year is this change required? 2020-2021</b>			
<b>Department Contact</b>		Click or tap here to enter text.	
Name:		<b>Samer Adeeb</b>	
Email:		<b>Adeeb@ualberta.ca</b>	
<b>Department Chair or Designate</b>			
Name:		Click or tap here to enter text.	
<b>Date approved by Department Council:</b>		Click or tap to enter a date.	<b>Date submitted:</b>
			Click or tap to enter a date.

Email an editable word version to [adppengg@ualberta.ca](mailto:adppengg@ualberta.ca) and [foedpp@ualberta.ca](mailto:foedpp@ualberta.ca)



## CALENDAR CHANGE REQUEST FORM

**Submission Deadlines:**

**Two weeks before APC. Program changes are subject to governance deadlines found [here](#)**

<b>Department:</b>	<b>Civil &amp; Environmental Engineering</b>
<b>Change Request:</b>	<b>Course Change</b>
<b>Why is this change being proposed and who was consulted?</b>	
Rationale: The current title "Ice Engineering" is misleading as it suggests contents such as glacier and frozen ground, which are not covered in the course. The title of the courses CivE 636 needs to change to reflect the course contents which focus on engineering problems related to river ice.	
Course listings	
<b>CURRENT</b>	<b>PROPOSED</b>
[...] CIV E 636 – <b>Ice Engineering</b> ★ 3.5 (fi 6) (either term, 3-0-1) Elementary heat transfer analysis. Ice formation processes. Ice hydraulics. Ice mechanics. Interaction of ice and engineering structures. [...]	[...] CIV E 636 – <b>River Ice Engineering</b> ★ 3.5 (fi 6) (either term, 3-0-1) Elementary heat transfer analysis. Ice formation processes. Ice hydraulics. Ice mechanics. Interaction of ice and engineering structures. [...]
Current Calendar URL:  <a href="https://calendar.ualberta.ca/content.php?filter%5B27%5D=CIV+E&amp;filter%5B29%5D=636&amp;filter%5Bcourse_type%5D=-1&amp;filter%5Bkeyword%5D=&amp;filter%5B32%5D=1&amp;filter%5Bcpage%5D=1&amp;cur_cat_oid=33&amp;expand=&amp;navoid=10000&amp;search_database=Filter&amp;filter%5Bexact_match%5D=1#">https://calendar.ualberta.ca/content.php?filter%5B27%5D=CIV+E&amp;filter%5B29%5D=636&amp;filter%5Bcourse_type%5D=-1&amp;filter%5Bkeyword%5D=&amp;filter%5B32%5D=1&amp;filter%5Bcpage%5D=1&amp;cur_cat_oid=33&amp;expand=&amp;navoid=10000&amp;search_database=Filter&amp;filter%5Bexact_match%5D=1#</a>	
<b>In which academic year is this change required?    2020-2021</b>	
<b>Department Contact</b>	Click or tap here to enter text.
Name:	<b>Samer Adeeb</b>
Email:	<b>adeeb@ualberat.ca</b>
<b>Department Chair or Designate</b>	
Name:	Click or tap here to enter text.



<b>Date approved by Department Council: April 15 2020</b>	Click or tap to enter a date.	<b>Date submitted: April 20 2020</b>	Click or tap to enter a date.
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Email an editable word version to [adppengg@ualberta.ca](mailto:adppengg@ualberta.ca) and [foedpp@ualberta.ca](mailto:foedpp@ualberta.ca)

## CALENDAR CHANGE REQUEST FORM

**Submission Deadlines:**
**Two weeks before APC. Program changes are subject to governance deadlines found [here](#)**

<b>Department:</b>	<b>Mechanical Engineering</b>		
<b>Change Request:</b>	<b>Course Change</b>		
<b>Why is this change being proposed and who was consulted?</b>			
This new course was prepared upon the request from the Department chair based on the ME Department needs. Dept. APC and Dept. Council approved this new course.			
<b>Current Calendar URL:</b> N/A			
<b>CURRENT</b>		<b>PROPOSED</b>	
<b>*** NEW COURSE***</b>		<b>MEC E 442 - Vehicle Propulsion Systems</b> ★ 3 (fi 8) (either term, 3-0-0) Analysis and design of vehicle propulsion systems including vehicles with different electrification levels (electric, hybrid electric, and internal combustion engine) and vehicles with different levels of autonomy (partial to full automation). Prerequisites: MATH 201. Restricted to year 4 or 5 engineering students.	
<b>In which academic year is this change required?</b> 2020-2021			
<b>Department Contact</b>		<b>Associate Chair - Undergraduate</b>	
Name:		<b>Pierre Mertiny</b>	
Email:		<b>pmertiny@ualberta.ca</b>	
<b>Department Chair or Designate</b>			
Name:		<b>John Doucette</b>	
<b>Date approved by Department Council:</b>	<b>8/11/2020</b>	<b>Date submitted:</b>	<b>8/11/2020</b>

 Email an editable word version to [adpp@ualberta.ca](mailto:adpp@ualberta.ca) and [foe\\_dpp@ualberta.ca](mailto:foe_dpp@ualberta.ca)
**Faculty of Engineering New Course**



## CALENDAR CHANGE REQUEST FORM

**Submission Deadlines:**

Two weeks before APC or GPC, subject to faculty approval pathway. Program changes are subject to governance deadlines found [here](#)

<b>Department:</b>	Chemical & Materials Engineering		
<b>Change Request:</b>	Course Change		
<b>Why is this change being proposed and who was consulted (include dates of faculty and PST reviews below)?</b>			
<p><b>MAT E 202: Course modification.</b> A seminar component will be added to the course. Instead of solely problem-solving, the seminars will include also demonstrations, discussions and case studies. Proposed changes approved unanimously by the Department on Nov ??, 2020.</p>			
<b>Current Calendar URL:</b>			
<b>Current</b>		<b>Proposed</b>	
<p>★ <b>3-8</b> (fi 8) (either term or Spring/Summer, <b>3-0-3/2</b>)</p> <p>An introduction to the science of materials relating their mechanical, thermal, electronic, and chemical properties to atomic, molecular, and crystal structure. Ceramic and metallic crystals, glasses, polymers, and composite materials. Multi-phase materials, phase transformations, and strengthening processes. Laboratories include mechanical properties of materials, microstructure, heat treatment of steel, and hands on design experiments. Prerequisite: CHEM 105 or consent of Department.</p>		<p>★ <b>3.5</b> (fi 8) (either term or Spring/Summer, <b>3-1.5s/2-1/3</b>)</p> <p>An introduction to the science of materials relating their mechanical, thermal, electronic, and chemical properties to atomic, molecular, and crystal structure. Ceramic and metallic crystals, glasses, polymers, and composite materials. Multi-phase materials, phase transformations, and strengthening processes. Laboratories <b>and seminars</b> include mechanical properties of materials, microstructure, heat treatment of steel, and hands on design experiments. Prerequisite: CHEM 105 or consent of Department.</p>	
<b>In which academic year is this change required?</b>		2021-2022	
<b>Department Contact</b>		Click or tap here to enter text.	
Name:		Tony Yeung	

Email:		tony.yeung@ualberta.ca	
<b>Department Chair or Designate</b>			
Name:		Ken Cadien	
<b>Date approved by Department Council:</b>	Click or tap to enter a date.	<b>Date submitted:</b>	Click or tap to enter a date.
<b>Consultation process and dates</b> <ul style="list-style-type: none"> <li>• Faculty of Engineering Academic lead</li> <li>• Program Support Team committee</li> </ul>			
<b>Approval pathway and dates</b> <ul style="list-style-type: none"> <li>• Department (APC, GPC, Council)</li> <li>• Faculty GPC (if appropriate)</li> <li>• Faculty APC</li> <li>• Faculty ECC</li> </ul>			

Email an editable word version to [adppengg@ualberta.ca](mailto:adppengg@ualberta.ca) and [foedpp@ualberta.ca](mailto:foedpp@ualberta.ca)

## CALENDAR CHANGE REQUEST FORM

**Submission Deadlines:**

Two weeks before APC or GPC, subject to faculty approval pathway. Program changes are subject to governance deadlines found [here](#)

<b>Department:</b>	Chemical & Materials Engineering	
<b>Change Request:</b>	Course Change	
<b>Why is this change being proposed and who was consulted (include dates of faculty and PST reviews below)?</b> <b>CME 660 (Advanced Process Data Analytics): New course.</b> This graduate course had been offered three times under a generic course number (CME 694), with increasing enrolment each time. It is felt that we should have a dedicated course listed in the Calendar. The proposed new course was approved by GPC on Sept 29, 2020, and unanimously by the Department (through an online vote) on Oct 03, 2020.		
<b>Current Calendar URL:</b> New course		
<b>Current</b>	<b>Proposed</b>	
New course	<b>CME 660 – Advanced Process Data Analytics 3.0 (fi 6) (either term, 3-0-0)</b>  <b>Multivariate statistics. Process systems engineering objectives: modeling, estimation, monitoring, control, optimization, and their relationship to data analytics. Feature extraction and dimension reduction, clustering, classification, regression. Nonlinear techniques and analysis of dynamic data. Applications of advanced data analytics in chemical process engineering.</b>	
<b>In which academic year is this change required?</b> 2021-2022		
<b>Department Contact</b>		
Name:	Tony Yeung	
Email:	tony.yeung@ualberta.ca	



<b>Department Chair or Designate</b>			
Name:		Ken Cadien	
<b>Date approved by Department Council:</b>	10/3/2020	<b>Date submitted:</b>	10/5/2020
<b>Consultation process and dates</b> <ul style="list-style-type: none"><li>• Faculty of Engineering Academic lead</li><li>• Program Support Team committee</li></ul>			
<b>Approval pathway and dates</b> <ul style="list-style-type: none"><li>• Department (APC, GPC, Council)</li><li>• Faculty GPC (if appropriate)</li><li>• Faculty APC</li><li>• Faculty ECC</li></ul>			

Email an editable word version to [adppengg@ualberta.ca](mailto:adppengg@ualberta.ca) and [foedpp@ualberta.ca](mailto:foedpp@ualberta.ca)

PROPOSAL FOR A NEW GRADUATE COURSE IN CHEMICAL AND MATERIALS  
ENGINEERING:

**ADVANCED PROCESS DATA ANALYTICS**

Vinay Prasad

Department of Chemical and Materials Engineering, University of Alberta

**COURSE DESCRIPTION:** CME 660 (3-0-0) Advanced Process Data Analytics

Multivariate statistics. Process systems engineering objectives: modeling, estimation, monitoring, control, optimization, and their relationship to data analytics. Feature extraction and dimension reduction, clustering, classification, regression. Nonlinear techniques and analysis of dynamic data. Applications of advanced data analytics in chemical process engineering.

**JUSTIFICATION:**

Data analytics, which includes the application of many multivariate statistical and machine learning techniques, is transforming the analysis of chemical processes. In particular, it has become a very important enabling tool for process systems engineering, which involves process modeling, estimation, optimization and control. The CME department has a strong research focus on process systems engineering and a large number of graduate students work in this area of research. This course fills a gap in that there is currently no other course that addresses data analysis and machine learning in the context of process data analytics and process systems engineering. Versions of the course have been offered three times previously under ‘Advanced topics in chemical engineering’, and it has had wide subscription (>35 graduate students in each offering) and positive feedback based on student comments.

**NEED FOR ADDITIONAL STAFFING OR RESOURCES:**

None.

**PREREQUISITES AND CO-REQUISITES:**

None, though a background in undergraduate statistics would be highly beneficial.

**TARGET ENROLLMENT:** 30 +

Potential sources of students include all research groups in the department, but especially students with areas of research in process systems engineering and chemical engineering. Students from mechanical engineering may also be interested in the course.

**COURSE OUTLINE:**

1. Introduction (and review): probability and statistics, probability distributions, multidimensional random variables, models of discrete and continuous random variables, hypothesis testing, simple regression, estimation

2. Nature of process data (dynamics vs steady state, high dimensionality, big data and sparse data situations); data preparation for analysis
3. Nature of process (systems) objectives, i.e. modeling, monitoring, estimation, control, optimization, and their relationship to common data analytic problems/techniques
4. Types of data analytic problems: classification/clustering, regression, feature extraction:
  - a. Basics of feature extraction (PCA, factor analysis, PLS)
  - b. Basics of clustering; similarity measures, hierarchical/nonhierarchical methods
  - c. Basics of classification and discrimination
  - d. Basics of (multivariate) regression
5. How to evaluate if your data analytic technique works well (i.e. validating your methods and results)
6. Analysis with categorical variables (logistic regression, correspondence analysis)
7. Introduction to machine learning: neural networks, support vector regression, semi-supervised learning, causality
8. Approaches specific to the analysis of dynamic data
9. Discussion on stochastic vs deterministic approaches

### **LEARNING OUTCOMES:**

By the end of this course, students should be able to:

1. Formulate data analytic problems for processes in the context of process objectives
2. Identify the appropriate statistics/machine learning/analytic technique(s) based on the process objective and data available.
3. Evaluate the performance of the data analytic technique

### **COURSE IMPLEMENTATION:**

Course delivery will be in standard lecture based format with students taking their own lecture notes, supplemented by additional material (including programming resources) and notes from the instructor. Assignments and a course project that requires application of the techniques learnt to a real world process engineering problem are used for assessment.

### **EVALUATION:**

Assignment 1: 20%

Assignment 2: 20%

Assignment 3: 20%

Project: 40%

### **TEXT AND REFERENCES:**

No textbook will be required. The following reference texts will be recommended:

- The Elements of Statistical Learning: Data Mining, Inference, and Prediction (Hastie, Friedman, and Tibshirani).
- Data Analytics: Models and Algorithm for Intelligent Data Analysis (Runkler)
- Applied Multivariate Statistical Analysis (6th Edition), by R.A. Johnson and D.W. Wichern, Pearson, 2007.

## **RELATIONSHIP TO OTHER COURSES OFFERED AT THE GRADUATE LEVEL**

The current graduate courses at the University of Alberta with potential similarity/complementarity are listed below.

### ***CMPUT 466 - Machine Learning***

★ 3 (fi 6) (either term, 3-0-3) *Learning is essential for many real-world tasks, including adaptive control, recognition, diagnosis, forecasting and data-mining. This course covers a variety of learning scenarios (supervised, unsupervised and partially supervised), as well as foundational methods for regression, classification, dimensionality reduction and clustering. Modeling techniques such as kernels, Gaussian processes and probabilistic graphical models will typically be introduced. It will also provide the formal foundations for understanding when learning is possible and practical. Prerequisite: one of CMPUT 340, 418 or equivalent knowledge; one of STAT 141, 151, 235 or 265 or SCI 151; or consent of Instructor.*

This course is complementary in terms of the various machine learning methods covered, and provides more in-depth knowledge about more advanced techniques. The proposed course differs from it in terms of being focused on the application of data analytic techniques in the context of process systems engineering.

### ***ECE 626 - Advanced Neural Networks***

★ 3 (fi 6) (either term, 3-0-0) *Introductory and advanced topics in neural networks and connectionist systems. Fast backpropagation techniques including Levenberg-Marquardt and conjugate-gradient algorithms. Regularization theory. Information-theoretic learning, statistical learning, dynamic programming, neurodynamics, complex-valued neural networks.*

This course focuses entirely on neural networks, and not on other data analytics/machine learning techniques. It would be a good follow-up course to the proposed course for students interested in more in-depth knowledge of neural networks.

### ***ECE 623 - Data Exploration and Evolutionary Computing***

★ 3 (fi 6) (either term, 3-0-0) *Learning, adaptation, self-organization and evolution. Data preprocessing, feature selection and generation. Exploratory data analysis. Optimization methods, genetic algorithms, evolutionary programming, evolution strategies, genetic programming. Alternative paradigms, artificial immune systems, swarm intelligence. Applications.*

The focus of this course is more on optimization and evolutionary programming, though some aspects of feature extraction are covered.

### ***ECE 625 - Data Analysis and Knowledge Discovery***

★ 3 (fi 6) (either term, 3-1s-0) *Approaches, techniques and tools for data analysis and knowledge discovery. Introduction to machine learning, data mining, and the knowledge discovery process; data storage including database management systems, data warehousing, and OLAP; testing and verification methodologies; data preprocessing including missing data imputation and discretization; supervised learning including decision trees, Bayesian classification and networks,*

*support vector machines, and ensemble methods; unsupervised learning methods including association mining and clustering; information retrieval.*

The focus of this course is on more advanced machine learning techniques and also on data management, making it complementary to the proposed course.

***CIV E 654 - Artificial Intelligence and Automation in Construction***

**★ 3 (fi 6) (either term, 3-0-0) Prototyping techniques applied to the design and development of systems based on artificial intelligence techniques for use in construction.**

The application area is focused completely on construction, making it different from the proposed course. In addition, automation is not a focus of the proposed course.





## CALENDAR CHANGE REQUEST FORM

### Submission Deadlines:

Two weeks before APC. Program changes are subject to governance deadlines found [here](#)

<b>Department:</b>	<b>Mechanical Engineering</b>		
<b>Change Request:</b>	<b>Course Change</b>		
<b>Why is this change being proposed and who was consulted?</b> MEC E 330 – Fluid Mechanics I is listed as a prerequisite but is no longer offered (and removed from the University Calendar) and was replaced by MEC E 331 - Fluid Mechanics I.			
<b>Current Calendar URL:</b>			
<b>CURRENT</b>		<b>PROPOSED</b>	
MEC E 539 - Applied Computational Fluid Dynamics  ★ 4.5 (fi 6) (either term or Spring/Summer, 3-0-3) Model selection and simplification, grid generation and grid independence, transient and advection terms treatment, turbulence modeling, verification and validation, best practices. Hands-on experience with commercial CFD codes to demonstrate the application of: theory, proper setup and analysis. Prerequisites: MEC E 390, and <b>330</b> or equivalent.		MEC E 539 - Applied Computational Fluid Dynamics  ★ 4.5 (fi 6) (either term or Spring/Summer, 3-0-3) Model selection and simplification, grid generation and grid independence, transient and advection terms treatment, turbulence modeling, verification and validation, best practices. Hands-on experience with commercial CFD codes to demonstrate the application of: theory, proper setup and analysis. Prerequisites: MEC E 390, and <b>331</b> or equivalent.	
<b>In which academic year is this change required?</b> <b>2021-2022</b>			
<b>Department Contact</b>		<b>Associate Chair - Undergraduate</b>	
Name:		<b>Pierre Mertiny</b>	
Email:		<b>pmertiny@ualberta.ca</b>	
<b>Department Chair or Designate</b>			
Name:		<b>John Doucette</b>	
<b>Date approved by Department Council:</b>	<b>8/11/2020</b>	<b>Date submitted:</b>	<b>8/10/2020</b>



## CALENDAR CHANGE REQUEST FORM

**Submission Deadlines:**

**Two weeks before APC. Program changes are subject to governance deadlines found [here](#)**

<b>Department:</b>	<b>Mechanical Engineering</b>	
<b>Change Request:</b>	<b>Course Change</b>	
<p><b>Why is this change being proposed and who was consulted?</b>          Computational intelligence plays a vital role in the fourth industrial revolution by combining science and engineering to develop agents or systems capable of intelligent behavior/ decision making. In the past recent years, various computational intelligence techniques have been developed to address engineering problems such as system identification, intelligent controller design, intelligent decision support system design, transportation or wireless network design, optimal CAD design, etc. As such, engineering students must be equipped with the fundamental knowledge of various computational intelligence techniques to be able to understand its capabilities and applications in real-world engineering problems. Therefore, this course aims to equip engineering graduate students with an inclusive skill set on the fundamentals of computational intelligence. The students will learn the following topics in this course: (1) How to define an intelligent agent and required procedure for building an intelligent agent. (2) How to formulate an engineering problem as a search problem. (3) How to apply various search strategies to solve an engineering problem. (4) How to select the best subset of features from a set of measurements. (5) How to apply supervised/ unsupervised classification techniques to engineering problems. (6) How to model time-series data. (7) How to models an engineering problem with fuzzy logic and fuzzy inference systems. Dept. APC and Dept. Council approved this change.</p>		
<b>Current Calendar URL:</b> N/A		
	<b>CURRENT</b>	<b>PROPOSED</b>
	*NEW COURSE*	MEC E 694 - Applied Computational Intelligence for Engineers  ★3.0 (fi 6) (either term, 3-0-0) Introduction to intelligent agents & environments. Examples of application of computational intelligence in engineering. Solving problems by searching. Learning through optimization. Feature selection & dimension reduction for managing real-world data. Application of learning in classification & function approximation. Data clustering. Fuzzy logic and fuzzy inference systems



<b>In which academic year is this change required? 2021-2022</b>			
<b>Department Contact</b>		<b>Associate Chair - Undergraduate</b>	
Name:		<b>Pierre Mertiny</b>	
Email:		<b>pmertiny@ualberta.ca</b>	
<b>Department Chair or Designate</b>			
Name:		<b>John Doucette</b>	
<b>Date approved by Department Council:</b>	<b>1/29/2020</b>	<b>Date submitted:</b>	<b>2/13/2020</b>

Email an editable word version to [adpp@ualberta.ca](mailto:adpp@ualberta.ca) and [foe\\_dpp@ualberta.ca](mailto:foe_dpp@ualberta.ca)

## New Course

### Department OF MECHANICAL ENGINEERING (Request adoption 20XX)

#### Current

(No existing course).

#### Proposed New Course

MECE 694 [Applied Computational Intelligence for Engineers]

\*3.0 (*fi 6*) (either term, 3-0-0).

[Introduction to intelligent agents & environments. Examples of application of computational intelligence in engineering. Solving problems by searching. Learning through optimization. Feature selection & dimension reduction for managing real-world data. Application of learning in classification & function approximation. Data clustering. Fuzzy logic and fuzzy inference systems]

#### Detailed New Course Outline:

The purpose of this course is to teach computational intelligence methods and their application in engineering. The tentative schedule is as follows:

<b>Week #</b>	<b>Topic</b>
1	Introduction to intelligent agents & environments
2	Solving engineering problems by searching
3	Learning through optimization
4	Learning through optimization (Cont.)
5	Feature selection
6	Dimension reduction
7	Supervised learning in classification & function approximation
8	Supervised learning in classification & function approximation (Cont.)
9	Unsupervised classification: c-means clustering & Fuzzy logic and fuzzy inference systems
10	Fuzzy logic & fuzzy inference systems (Cont.)
11	Fuzzy logic & fuzzy inference systems (Cont.)
12	Final Project Presentation
13	Final Project Presentation

**Justification:**

The primary objectives of this course are to expand graduate students' knowledge and practical expertise in the field of computational intelligence. Course-specific learning outcomes are as follows:

1. Understanding the fundamentals of various computational intelligence techniques.
2. Acquiring hands-on skills in the implementation of these techniques in engineering problems.

Computational intelligence plays a vital role in the fourth industrial revolution by combining science and engineering to develop agents or systems capable of intelligent behavior/ decision making. In the past recent years, various computational intelligence techniques have been developed to address engineering problems such as system identification, intelligent controller design, intelligent decision support system design, transportation or wireless network design, optimal CAD design, etc. As such, engineering students must be equipped with the fundamental knowledge of various computational intelligence techniques to be able to understand its capabilities and applications in real-world engineering problems. Therefore, this course aims to equip engineering graduate students with an inclusive skill set on the fundamentals of computational intelligence. The students will learn the following topics in this course:

1. How to define an intelligent agent and required procedure for building an intelligent agent.
2. How to formulate an engineering problem as a search problem.
3. How to apply various search strategies to solve an engineering problem.
4. How to select the best subset of features from a set of measurements.
5. How to apply supervised/ unsupervised classification techniques to engineering problems.
6. How to model time-series data.
7. How to model an engineering problem with fuzzy logic and fuzzy inference systems.

Complementary courses within the university include the following:

ENG M540 – [Introduction to Optimization Models and Algorithms]

ENG M540 provides an introduction to optimization methods in solving engineering management problems. While both modeling techniques and algorithms will be covered, the material does not cover optimization-based learning and computational intelligence techniques. The topic of the proposed course does not have any overlap with ENG M540.

ENG M646 – [Engineering Optimization]

ENG M646 focuses on the applications of optimization techniques in solving engineering problems via linear programming, non-linear programming, dynamic programming, integer programming, stochastic programming, genetic algorithms, and heuristic methods. However, the material does not cover optimization-based learning and computational intelligence techniques, particularly multi-objective optimization.

ECE626 – [Advanced Neural Networks]

ECE626 focuses on advanced topics in neural networks and connectionist systems such as fast backpropagation techniques, including Levenberg-Marquardt and conjugate-gradient algorithms. An in-depth analysis of these techniques is only suitable for students who conduct research in this field, and not appropriate for engineering students in general. Therefore, the proposed course

focuses on the fundamentals of neural networks and their application in engineering fields.

CIV E654 – [Artificial Intelligence and Automation in Construction]

CIV E654 focuses on prototyping techniques applied to the design and development of systems based on artificial intelligence techniques, fuzzy logic and system + neural networks, for use in construction. However, the proposed course includes other tools such as search, feature extraction and dimension reduction, and unsupervised learning which are for applications in mechanical, biomedical, and electrical engineering.

CMPUT 466 – [Machine Learning]

CMPUT 466 focuses on the theoretical basis for a range of learning scenarios (supervised, unsupervised, and partially supervised) for classification and regression. Such an approach requires a knowledge background in computer science and mathematics beyond the common knowledge background of engineering students. In contrast, our proposed course introduces these learning scenarios only in an applied level. Also, our proposed course discusses other tools such as uninformed/informed/heuristic search strategies, single/multi-objective optimization, and fuzzy logic which are necessary tools for solving many engineering problems. These other tools are not a main focus of CMPUT 466.

The course content, assignments, and final project are designed to familiarize students with potential applications of computational intelligence in various engineering fields including, but not limited to:

- Mechanical Engineering:
  - Prediction and estimation of sensor output in a mechanical system
  - Optimal truss structure design
  - Pressure analysis of crude oil pipeline
- Engineering Management:
  - Solving transportation, hub allocation, traveling salesman, and knapsack problems
  - Estimating the property cost in a specific neighborhood
  - Predicting oil and gas price
- Biomedical Engineering:
  - Breast cancer tumor classification
  - Walking event detection using inertial measurement unit data
  - Fall detection in the elderly population

### **Course Implementation:**

The course would be a blended-course, meaning theoretical aspects of the course will be provided during lectures, while hands-on experience including programming computational intelligence will be delivered through online videos. Therefore, students would have the opportunity to go through the online material several times while doing their assignments or the final project. These videos are in-house videos prepared specifically for the course to enhance and further support the learning experience in the implementation part (programming), and all the theoretical concepts will be covered during lectures.

Moreover, as the course content covers complex algorithms that were originally developed

for implementation by computers, the ability of the students in solving real-life engineering problems through computer programming was considered as the primary criterion for evaluation and marking. Therefore, a written midterm/ final exam would not be suitable for this course.

### **Grading**

- i) Assignments – 60% (4 reports)
- ii) Final project report – 30%
- iii) Final project presentation – 10%

### **Additional Staffing, Operating Costs and Space Implementation:**

No additional space is required. No additional staff is required.

### **Text and References:**

1. Computational Intelligence: An Introduction, By Andries P. Engelbrecht, (2nd edition).  
John Wiley & Sons Ltd.  
Link to the eBook: <https://search.library.ualberta.ca/catalog/4666178>
2. Pattern Recognition, By Konstantinos Koutroumbas, Sergios Theodoridis, (4th edition).  
Academic Press.  
Link to the eBook: <https://search.library.ualberta.ca/catalog/4670531>



## MEC E 694

### Applied Computational Intelligence for Engineers

Winter 2020 – January ... to April ...

Instructor: Hossein Rouhani, Ph.D., P.Eng. (DICE 10-368, hrouhani@ualberta.ca)

Office Hours: ...

Class time: ...

Location: MEC x-x

Students can reach out to the instructor by email or during office hours. All emails must contain the course name “MEC E 6xx Applied Computational Intelligence for Engineers,” in the subject heading. Also, general announcements, course materials, assignment solutions & grades will be posted on eClass. **Please contact the course instructor within the first week of class if you are not able to access the eClass.**

### Course Description

“Applied Computational Intelligence for Engineers” is aimed at providing theoretical knowledge and hands-on experience regarding computational intelligence techniques. This is a blended course, including lectures on theoretical knowledge of various computational intelligence techniques and online videos on the practical applications + programming computational intelligence techniques. The course content, assignments, and final project are designed to familiarize students with potential applications of computational intelligence in real-world engineering data analysis. The course content is designed based on academic background of graduate students in engineering.

### Prerequisites

No formal prerequisite is required for this course; however, general knowledge in engineering mechanics, control engineering, signal processing, computational methods to solve partial differential equations (e.g., finite element method and computational fluid dynamics), and design of experiments is required for understanding the practical engineering applications of computational intelligence discussed in the lectures and assignments.

### Textbooks

1. Computational Intelligence: An Introduction, By Andries P. Engelbrecht, (2nd edition). John Wiley & Sons Ltd.  
Link to the eBook: <https://search.library.ualberta.ca/catalog/4666178>
2. Pattern Recognition, By Konstantinos Koutroumbas, Sergios Theodoridis, (4th edition). Academic Press.  
Link to the eBook: <https://search.library.ualberta.ca/catalog/4670531>

### Course Objectives



Develop and deepen your theoretical knowledge and hands-on experience regarding:

- The building blocks and features of intelligent agents.
- How to formulate an engineering problem as a search (optimization) problem and available tools for solving the problem.
- The building blocks and features of supervised/ unsupervised classification techniques.
- How to apply fuzzy logic to engineering problems.

Also, this course provides you the chance to observe the application of computational intelligence techniques in various engineering problems.

## Course Outcomes

By the end of this course, you should be able to:

1. Define an intelligent agent and describe the procedure for building an intelligent agent.
2. Formulate an engineering problem as a search problem.
3. Apply various search strategies to solve an engineering problem.
4. Apply various feature selection/ reduction techniques to a dataset with a high dimension.
5. Apply supervised/ unsupervised classification techniques to engineering problems.
6. Understand the fundamentals of fuzzy logic and its application in engineering.

## Approach

1. **Lectures:** Describing the fundamentals of computational intelligence techniques + discussing their application in your field of interest.
2. **Online lab videos:** To equip the students with hands-on skills in programming computational intelligence techniques to solve engineering problems, online videos will be provided. These videos are in-house videos prepared specifically for the course to enhance and further support the learning experience in the implementation part (programming) while all the theoretical concepts will be covered during lectures.

## Course Evaluations

- Assignments: 60% (4 reports. The due date will be 2 weeks after their initial distribution)
- Final Project Presentation: 10%
- Final Project Report: 30%

## Evaluation Details:

**Assignments:** There are four assignments, which can be downloaded from eClass. The learning outcome of each assignment is the implementation of the taught concepts on a real-world engineering dataset. The dataset can be related to the student's own research project (approved by the instructor), a publicly available dataset (approved by the instructor), or provided by the instructor.

Assignments Due at 4:00 PM on Friday and should be uploaded on eClass. No late assignments will be accepted. Assignment grade can be deducted to any solution which (1) is not written clearly and concisely & (2) does not demonstrate a clear and logical approach used to solve the problem. Note that completing assignments is not only an exercise in solving real-life problems with computational intelligence techniques; it is also an exercise in developing clear, logical, and concise engineering presentation skills.

**Final Project:** Students will present an engineering problem of their interest (approved by the instructor) or selected by the instructor which is not covered in the lectures. Each student has 15 minutes to introduce the problem, an example of its practical application, the computational intelligence technique used to solve it, and the results. Each student is required to submit a report, including the presented material.

## University Policies

Plagiarism (using the words/ideas/codes of another without giving credit to the real author through appropriate citation) will not be tolerated. Students in this course will need to work in groups. However, all data analysis and written materials must be completed by every student, and the copying of other group members' numbers or text is not permitted. Refer to the **Code of Student Behaviour** (posted on eClass) for details on plagiarism and academic sanctions. Students are particularly urged to familiarize themselves with the provisions of the **Code of Student Behaviour** (online at [www.governance.ualberta.ca](http://www.governance.ualberta.ca)) and avoid any behavior which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offense — more on this in the first lecture of the course.

Audio or video recording of lectures and seminars or any other teaching environment by students is allowed only with the prior written consent of the instructor or as a part of an approved accommodation plan. Recorded material is to be used solely for personal study, and is not to be used or distributed for any other purpose without prior written consent from the instructor — more on this in the first lecture of the course.

## Course Policies

Attendance is not mandatory in this course. However, students are responsible for the course material and assignments regardless of their attendance.

Furthermore, while constructive participation in discussions is encouraged, disruptive behaviors in the classroom will be responded by disciplinary actions according to **Student Conduct and Accountability Code**. Please note that using electronic devices for purposes that are not legitimate for the classroom environment can be considered as a disruptive behavior if they cause a distraction for other students in the class.

## Calculator Policy

Only approved non-programmable calculators are permitted in examinations. Any calculator taken into an examination must have a sticker identifying it as an acceptable non-programmable calculator (gold sticker). Students can purchase calculators at the University Bookstore with the stickers already affixed.

Calculators purchased elsewhere can be brought to the Dean's Office where the appropriate sticker will be affixed to the calculator.

## **Missed Assignments & Exams**

"Approval for an excused absence from term work (e.g., classes, labs, quizzes, term papers, reports or term examinations) is at the discretion of the instructor" (see Calendar §23.3.1).

The instructor must be notified within two business days of a missed assignment, final project, or exam. If the student has missed an assignment, final project, or exam for reasons other than illness, appropriate documentation may be requested. In cases where a student becomes incapacitated because of illness or receives word of domestic affliction during an exam, he or she should report at once to the examination proctor, hand in the unfinished paper, and request that it be canceled (see Calendar §23.5.1). In such cases, if a student is to sit a deferred exam, he or she must follow university regulations, including providing appropriate documentation, to his or her own faculty office within two days of the original exam date. For more information, please consult the *Office of the Registrar's webpage: Examinations Regulations and Information, What to do if you are sick.*

## **Student Accessibility Services**

Students registered with Student Accessibility Services (SAS) who will be using accommodations in the classroom, or who will be writing exams through SAS, are required to provide a "Letter of Introduction" to the course instructor during the first week of classes. If you are not already registered with SAS and require special accommodations, contact their office immediately (1-80 SUB, sasrec@ualberta.ca; phone 780-492-3381; Web <http://www.ssds.ualberta.ca>).

## **Registration Status**

It is the student's responsibility to confirm that they are registered in the course. Students attending the course who are not properly registered for it will not receive credit for the work completed. Should you wish to withdraw from the class, it is your responsibility to ensure that you have formally withdrawn before the deadline. Failure to properly withdrawal from the course may result in your grade being assigned based on partial or no coursework.

## MEC E 6xx: Applied Computational Intelligence for Engineers

### Tentative Lecture Schedule

Week	Topic	Assignments
1 (date)	<i>Introduction to intelligent agents &amp; environments</i> <ul style="list-style-type: none"> <li>• What is computational intelligence (CI)</li> <li>• The foundations of CI</li> <li>• State of the art in CI</li> <li>• Examples of engineering applications of CI</li> <li>• The structure of agents and the nature of environments</li> </ul>	
2 (date)	<i>Solving engineering problems by searching</i> <ul style="list-style-type: none"> <li>• Uninformed search strategies</li> <li>• Informed (heuristic) search strategies</li> <li>• Heuristic functions</li> </ul>	
3 (date)	<i>Learning through optimization</i> <ul style="list-style-type: none"> <li>• Gradient-descent learning rule</li> <li>• Widrow-Hoff learning</li> <li>• The generalized delta-learning rule</li> <li>• Single-objective Genetic Algorithm-based learning rule for discrete and continuous problems</li> </ul>	
4 (date)	<i>Learning through optimization</i> <ul style="list-style-type: none"> <li>• Multi-objective Genetic Algorithm-based learning rule by “Non-dominated Sorting Genetic Algorithm”</li> <li>• Multi-objective Genetic Algorithm-based learning rule by “Strength Pareto Evolutionary Algorithm”</li> </ul>	Assignment 1: <b>Announced</b>
5 (date)	<i>Feature selection</i> <ul style="list-style-type: none"> <li>• Curse of dimensionality and the importance of feature selection</li> <li>• Best individual d features</li> <li>• Sequential forward search</li> <li>• Sequential backward search</li> </ul>	
6 (date)	<i>Dimension reduction</i> <ul style="list-style-type: none"> <li>• Feature selection vs. dimension reduction</li> <li>• Principal component analysis (PCA)</li> <li>• Singular value decomposition (SVD)</li> <li>• Kernel/nonlinear principal component analysis</li> </ul>	Assignment 1: <b>Due</b> Assignment 2: <b>Announced</b> Final Project: <b>Announced</b>
	Reading Week	
7 (date)	<i>Supervised learning in classification &amp; function approximation</i> <ul style="list-style-type: none"> <li>• The artificial neuron</li> </ul>	Final Project: <b>Finalizing the topic</b>

	<ul style="list-style-type: none"> <li>Artificial neuron learning</li> <li>The supervised learning problem</li> <li>MLP: Multi-Layer Perceptron</li> <li>Function approximation</li> <li>RBF: Radial Basis Function network</li> </ul>	
8 (date)	<i>Supervised learning in classification &amp; function approximation</i> <ul style="list-style-type: none"> <li>SVM: Support Vector Machine</li> <li>Reinforcement learning (optional)</li> </ul>	Assignment 2: <b>Due</b> Assignment 3: <b>Announced</b>
9 (date)	<i>Unsupervised classification: c-means clustering</i> <ul style="list-style-type: none"> <li>Distance and similarity indices</li> <li>Sequential algorithms</li> <li>Function optimization: c-means</li> </ul> <i>Fuzzy logic and fuzzy inference systems</i> <ul style="list-style-type: none"> <li>Linguistic variables</li> <li>Fuzzy rules</li> </ul>	
10 (date)	<i>Fuzzy logic and fuzzy inference systems</i> <ul style="list-style-type: none"> <li>Mamdani fuzzy systems</li> <li>Takagi–Sugeno–Kang (TSK) fuzzy systems</li> </ul>	
11 (date)	<i>Fuzzy logic and fuzzy inference systems</i> <ul style="list-style-type: none"> <li>Fuzzy system design: lookup table approach</li> <li>Fuzzy c-means clustering</li> </ul>	Assignment 3: <b>Due</b> Assignment 4: <b>Announced</b>
12 (date)	<b>Final Project Presentation (~20 to 25 minutes per student)</b>	Final Project: <b>Due</b>
13 (date)	<b>Final Project Presentation</b>	Assignment 4: <b>Due</b>

## CALENDAR CHANGE REQUEST FORM

**Submission Deadlines:**
**Two weeks before APC. Program changes are subject to governance deadlines found [here](#)**

<b>Department:</b>	<b>Mechanical Engineering</b>		
<b>Change Request:</b>	<b>Course Change</b>		
<b>Why is this change being proposed and who was consulted?</b>			
<p>According to my observations, many of our graduate students have substantial deficiencies in metrology. This affects their ability to conduct high-level experimental research. The areas that most urgently need improvement are data processing and statistics, and understanding of advanced analytical techniques, e.g. those available in the nanoFAB laboratory.</p>			
<b>Current Calendar URL:</b>			
<b>CURRENT</b>	<b>PROPOSED</b>		
NEW COURSE	MEC E 684 - Advanced Metrology for Micro- or Nanosystems  *(3.0) (fi 6) (either term, 3-0-0).  Advanced data processing techniques. Statistics for data analysis. Measurement techniques based on electromagnetic interactions and other transduction methods.		
<b>In which academic year is this change required?    2021-2022</b>			
<b>Department Contact</b>		<b>Associate Chair – Undergraduate / Graduate</b>	
Name:		<b>Pierre Mertiny / Chris Dennison</b>	
Email:		<a href="mailto:pmertiny@ualberta.ca">pmertiny@ualberta.ca</a> / <a href="mailto:cdenniso@ualberta.ca">cdenniso@ualberta.ca</a>	
<b>Department Chair or Designate</b>			
Name:		<b>John Doucette</b>	
<b>Date approved by Department Council:</b>	<b>10/30/2019</b>	<b>Date submitted:</b>	<b>10/30/2019</b>

 Email an editable word version to [adpp@ualberta.ca](mailto:adpp@ualberta.ca) and [foe\\_dpp@ualberta.ca](mailto:foe_dpp@ualberta.ca)

## MECE E 684 Advanced Metrology for Micro- or Nanosystems

**Home department:** Mechanical Engineering

**Intended audience:** Graduate students from all engineering departments, especially those working experimentally.

Proposed catalogue description: \*(3.0) (fi 6) (either term, 3-0-0).

Advanced data processing techniques. Statistics for data analysis. Measurement techniques based on electromagnetic interactions and other transduction methods.

**Course justification:**

According to my observations, many of our graduate students have substantial deficiencies in metrology. This affects their ability to conduct high-level experimental research. The areas that most urgently need improvement are data processing and statistics, and understanding of advanced analytical techniques, e.g. those available in the nanoFAB laboratory.

I plan to address these topics in a series of graduate courses on advanced metrology, the one proposed here being the first one. The course does not repeat material already taught in MecE 300 / 301 but will only briefly review basic concepts to guide independent remedial study if required.

I verified with Dr. V. Prasad that the material does not overlap substantially with his courses. Email conversation is attached separately.

**Additional staffing, operating costs and space implementation:** None requested.

**Course content please see separate syllabus document.**

*Pre-requisite:* None.

*Course material:* No textbook. The instructor will provide lecture notes. Statistics and data analysis will be demonstrated and practiced using Microcal Origin 2018 (Available for 30 \$ on OnTheHub). Problems and data sets for independent practice will be provided.

*Examinations:* Midterm exam (40 %), Final exam (60%). Both are closed book with a provided formula sheet.



## Syllabus: MECE E 684 Advanced Metrology for Micro- or Nanosystems

**Instructor:** Dr. Reinhard Vehring

**Content:** Advanced data processing techniques. Statistics for data analysis. Measurement techniques based on electromagnetic interactions.

### *Course topics:*

- Statistics / distributions: Lognormal distribution, Poisson distribution.
- Statistics / descriptive: higher moments
- Statistics / goodness of fit: Regression analysis, Kolmogorov-Smirnov test
- Statistics / uncertainty analysis: propagation of uncertainty for large errors, covariance, methods for the assessment of bias uncertainty.
  
- Data analysis: Nonlinear curve fitting, peak analysis.
- Data analysis: Spectrum processing, e.g. smoothing, baseline detection, background subtraction, deconvolution.
  
- Measurement physics / classical: Maxwell's equations and wave model, electromagnetic material properties
- Measurement physics / optics: diffraction, dispersion, scattering, polarization
- Measurement physics / quantum theory: Particle model, photon energy (classical and relativistic), de Broglie hypothesis, uncertainty principle, quantum tunneling.
  
- Measurement technology / sources: Introduction to Lasers and electron beam sources.
- Measurement technology / beam control: Elements of light and electron beam optics.
- Measurement technology / detectors: CCD sensor, Everhart-Thornley detector, X-ray detectors
  
- Measurement techniques: Light microscopy (confocal and polarized), electron microscopy (SEM and TEM), helium ion microscopy, ion beam milling, Energy dispersive X-ray spectroscopy, X-ray photoelectron spectroscopy, molecular spectroscopy, near field optical microscopy.

*Pre-requisite:* None.

*Course material:* No textbook. The instructor will provide lecture notes. Statistics and data analysis will be demonstrated and practiced using Microcal Origin 2018. Problems and data sets for independent practice will be provided.

*Examinations:* Midterm exam (40 %), Final exam (60%). Both are closed book with a provided formula sheet.

Approval: KSR Graduate Program Committee: May 21, 2020  
 KSR Faculty Council: May 27th, 2020

Faculty of Kinesiology, Sport, and Recreation  
 Proposed Changes to the **2021-2022** University Calendar

<b>CURRENT</b>	<b>PROPOSED</b>
<p>Current Course Description            as it appears in the current Calendar (including prefix, number, title, hours, description, prerequisites, etc.):</p>	<p>Proposed Course Description            as it should appear in the Calendar (including prefix, number, title, hours, description, prerequisites, etc.):</p> <p><b><u>KSR 531 Critical Survey of Key Topics in Adapted Physical Activity (★ 3)</u></b></p> <p>A critical survey of topics and issues that are foundational to research, theory, and practice within adapted physical activity. Topics may include models of disability, social justice and intersectionality, and constraints and affordances that influence participation in physical activity and leisure by persons with impairments.</p> <p>Approved Hours = 3-0-0            Fee Index: 6            Term: Either</p> <p><b><u>KSR 532 Program Evaluation and Assessment (★ 3)</u></b></p> <p>An examination of strategies, approaches, and practices for assessing programs, and their impacts, within adapted physical activity and other related settings (e.g., rehabilitation). Quantitative, qualitative, mixed, and alternative (e.g., arts-based) assessment methods will be introduced and critically analysed, with an emphasis on disability-affirming approaches to each. This course will explore how to conduct various types of program evaluation (e.g., formative, summative, accountability-based) in a way that meaningfully engages stakeholders and shares learnings in an accessible, inclusive, and impactful way.</p> <p>Approved Hours = 3-0-0            Fee Index: 6            Term: Either</p> <p><b><u>KSR 533 Being a Reflexive Practitioner (★ 3)</u></b></p>

Approval: KSR Graduate Program Committee: May 21, 2020  
KSR Faculty Council: May 27th, 2020

	<p>A reflexivity-centered approach to supporting course participants in making complex, ethical and theoretical decisions in practice contexts. Course participants will examine the taken for granted assumptions that underpin our practices as adapted physical activity professionals and explore practice-oriented tools and knowledges that can be used to support the development of a theoretically and ethically reflexive praxis.</p> <p>Approved Hours = 3-0-0 Fee Index: 6 Term: Either</p> <p><b><u>KSR 534 Accessible Design for APA (★ 3)</u></b></p> <p>An overview of key concepts, issues related to accessible and universal design, as well as specific, actionable tools for assessing and creating more accessible physical spaces, online spaces, physical activity programs, media and communications, and well as learning experiences. This course will engage with access issues faced by a wide range of people, and be applied to contexts most relevant to course participants. They will also learn how to develop key organizational policies to support the creation of more accessible, inclusive, and equitable spaces.</p> <p>Approved Hours = 3-0-0 Fee Index: 6 Term: Either</p> <p><b><u>KSR 535 Instructional Approaches &amp; Programming Models (★ 3)</u></b></p> <p>An exploration of the various instructional approaches and programming models that are used within adapted physical activity settings, to promote innovative and cooperative service delivery. This course will include opportunities to apply theory in a real-life setting, which may involve acquiring practice oriented tools to provide supports as needed and empower individuals. This course can either be fulfilled through an on-campus learning environment at the University of Alberta's</p>
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Approval: KSR Graduate Program Committee: May 21, 2020  
KSR Faculty Council: May 27th, 2020

	<p>Steadward Centre for Personal and Physical Achievement, or through a pre-approved practice context negotiated by the course participant.</p> <p>Approved Hours = 3-0-0 Fee Index: 6 Term: Either</p> <p><b><u>KSR 536 Coaching Athletes Experiencing Disability (★ 3)</u></b></p> <p>An examination of current topics relating to coaching athletes experiencing disability across the stages of Long Term Development (LTD). The course will cover a range of sports for various different impairment groups, and will discuss structural, inter-relational, and individual considerations.</p> <p>Approved Hours = 3-0-0 Fee Index: 6 Term: Either</p> <p><b><u>KSR 537 Integrating Disability Perspectives into APA Practice (★ 3)</u></b></p> <p>Disability-affirming practice requires an engagement with knowledges produced by thinkers and leaders who experience disability, as well as an understanding of the immense diversity of disability experience. Course participants will learn about how scholars, activists, and self-advocacy leaders who self-identify as Deaf, disabled, Mad, sick, and neurodivergent conceptualize their own bodies, minds, lives, and physical activities of meaning. Emphasis will be placed on how disabled and neurodivergent people's lives are always impacted by equity issues relating to culture, religion, Indigeneity, race, gender, sexuality, newcomer status, class, and caste.</p> <p>Approved Hours = 3-0-0 Fee Index: 6 Term: Either</p>
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**Approval: KSR Graduate Program Committee: May 21, 2020**  
**KSR Faculty Council: May 27th, 2020**

	<p><b><u>KSR 538 Trauma Informed Practice (★ 3)</u></b></p> <p>Linking trauma-informed pedagogy with strength-based instructional approaches promotes a safer and more relational instructional context - one that minimizes actions that may trigger or retraumatize learners. With the aim of acknowledging and supporting learner resilience, choice, control over one's body and mind, and autonomy, course participants will learn the meaning and applications of trauma-informed pedagogy and practice, using instructional strategies typical of adapted physical activity as points for critical reflexion.</p> <p>Approved Hours = 3-0-0 Fee Index: 6 Term: Either</p>
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Rationale – These courses will be offered as part of the new Graduate Certificate in Adapted Physical Activity. The 700 level will be for Certificate students to ensure the correct fees are associated with the student. The corresponding 500 levels (where available) will be for MA students to take as electives.

NB: where possible, the 500 level will coordinate with the 700 level. If the corresponding number is not available, we will find an available number at that level.

Approval: KSR Graduate Program Committee: May 21, 2020  
 KSR Faculty Council: May 27th, 2020

Faculty of Kinesiology, Sport, and Recreation  
 Proposed Changes to the **2021-2022** University Calendar

<b>CURRENT</b>	<b>PROPOSED</b>
<p>Current Course Description            as it appears in the current Calendar (including prefix, number, title, hours, description, prerequisites, etc.):</p>	<p>Proposed Course Description            as it should appear in the Calendar (including prefix, number, title, hours, description, prerequisites, etc.):</p> <p><b><u>KSR 717 Critical Survey of Key Topics in Adapted Physical Activity (★ 3)</u></b></p> <p>A critical survey of topics and issues that are foundational to research, theory, and practice within adapted physical activity. Topics may include models of disability, social justice and intersectionality, and constraints and affordances that influence participation in physical activity and leisure by persons with impairments.            Note: this course provides foundation content used throughout the APA certificate courses, therefore it is strongly recommended that students take KSR 717 as their first course.</p> <p>Approved Hours = 3-0-0            Fee Index: 6            Term: Either</p> <p><b><u>KSR 718 Program Evaluation and Assessment (★ 3)</u></b></p> <p>An examination of strategies, approaches, and practices for assessing programs, and their impacts, within adapted physical activity and other related settings (e.g., rehabilitation). Quantitative, qualitative, mixed, and alternative (e.g., arts-based) assessment methods will be introduced and critically analysed, with an emphasis on disability-affirming approaches to each. This course will explore how to conduct various types of program evaluation (e.g., formative, summative, accountability-based) in a way that meaningfully engages stakeholders and shares learnings in an accessible, inclusive, and impactful way.</p> <p>Approved Hours = 3-0-0            Fee Index: 6            Term: Either</p>

Approval: KSR Graduate Program Committee: May 21, 2020  
KSR Faculty Council: May 27th, 2020

	<p><b><u>KSR 719 Being a Reflexive Practitioner</u></b> <b>(★ 3)</b></p> <p>A reflexivity-centered approach to supporting course participants in making complex, ethical and theoretical decisions in practice contexts. Course participants will examine the taken for granted assumptions that underpin our practices as adapted physical activity professionals and explore practice-oriented tools and knowledges that can be used to support the development of a theoretically and ethically reflexive praxis.</p> <p>Approved Hours = 3-0-0 Fee Index: 6 Term: Either</p> <p><b><u>KSR 720 Accessible Design for APA (★ 3)</u></b></p> <p>An overview of key concepts, issues related to accessible and universal design, as well as specific, actionable tools for assessing and creating more accessible physical spaces, online spaces, physical activity programs, media and communications, and well as learning experiences. This course will engage with access issues faced by a wide range of people, and be applied to contexts most relevant to course participants. They will also learn how to develop key organizational policies to support the creation of more accessible, inclusive, and equitable spaces.</p> <p>Approved Hours = 3-0-0 Fee Index: 6 Term: Either</p> <p><b><u>KSR 721 Instructional Approaches &amp; Programming Models (★ 3)</u></b></p> <p>An exploration of the various instructional approaches and programming models that are used within adapted physical activity settings, to promote innovative and cooperative service delivery. This course will include opportunities to apply theory in a real-life setting, which may involve acquiring practice oriented tools to provide</p>
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Approval: KSR Graduate Program Committee: May 21, 2020  
KSR Faculty Council: May 27th, 2020

	<p>supports as needed and empower individuals. This course can either be fulfilled through an on-campus learning environment at the University of Alberta's Steadward Centre for Personal and Physical Achievement, or through a pre-approved practice context negotiated by the course participant.</p> <p>Approved Hours = 3-0-0 Fee Index: 6 Term: Either</p> <p><b><u>KSR 722 Coaching Athletes Experiencing Disability (★ 3)</u></b></p> <p>An examination of current topics relating to coaching athletes experiencing disability across the stages of Long Term Development (LTD). The course will cover a range of sports for various different impairment groups, and will discuss structural, inter-relational, and individual considerations.</p> <p>Approved Hours = 3-0-0 Fee Index: 6 Term: Either</p> <p><b><u>KSR 723 Integrating Disability Perspectives into APA Practice (★ 3)</u></b></p> <p>Disability-affirming practice requires an engagement with knowledges produced by thinkers and leaders who experience disability, as well as an understanding of the immense diversity of disability experience. Course participants will learn about how scholars, activists, and self-advocacy leaders who self-identify as Deaf, disabled, Mad, sick, and neurodivergent conceptualize their own bodies, minds, lives, and physical activities of meaning. Emphasis will be placed on how disabled and neurodivergent people's lives are always impacted by equity issues relating to culture, religion, Indigeneity, race, gender, sexuality, newcomer status, class, and caste.</p> <p>Approved Hours = 3-0-0 Fee Index: 6</p>
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Approval: KSR Graduate Program Committee: May 21, 2020  
KSR Faculty Council: May 27th, 2020

	<p>Term: Either</p> <p><b><u>KSR 724 Trauma Informed Practice (★ 3)</u></b></p> <p>Linking trauma-informed pedagogy with strength-based instructional approaches promotes a safer and more relational instructional context - one that minimizes actions that may trigger or retraumatize learners. With the aim of acknowledging and supporting learner resilience, choice, control over one's body and mind, and autonomy, course participants will learn the meaning and applications of trauma-informed pedagogy and practice, using instructional strategies typical of adapted physical activity as points for critical reflexion.</p> <p>Approved Hours = 3-0-0 Fee Index: 6 Term: Either</p>
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Rationale – These courses will be offered as part of the new Graduate Certificate in Adapted Physical Activity. The 700 level will be for Certificate students to ensure the correct fees are associated with the student. The corresponding 500 levels (where available) will be for MA students to take as electives.

NB: where possible, the 500 level will coordinate with the 700 level. If the corresponding number is not available, we will find an available number at that level.

**LAW FACULTY COUNCIL**  
**MOTION: REVISED CONTENT FOR FOUNDATIONS TO LAW (LAW 401)**

**Date Submitted: November 3, 2020**  
**Meeting Date: November 24, 2020**

**WHEREAS:**

- (a) The Faculty of Law has publicly committed to stand against racial injustice within our justice system, within the broader society, and within the walls of our own institution;
- (b) The Law Faculty Council Policy Manual asserts the Faculty's commitment to equality and respect and encourages members of faculty to include materials in their courses exploring matters of race, gender and disadvantage;
- (c) The Supreme Court of Canada, in cases such as *R v Williams*, has recognized the existence of systemic racism in the justice system;
- (d) The impacts of racism and bias in the justice system have been extensively documented in the TRC final report, the MMIWG final report and numerous other inquiries and commissions' reports in Canada;
- (e) We should prepare our students for a career in law by ensuring that issues of racism and bias and the implications of racism and bias in the justice system and the legal profession are addressed through mandatory components of our curriculum.

**IT IS HEREBY MOVED THAT** the calendar descriptions for Foundations to Law (Law 401) be amended to read as follows, as indicated in Schedule A.

An introduction to the institutions and processes of the Canadian legal system, and its underlying values and systems of thought. Also introduced are the history, structure and function of the modern system, and the role of law and the legal profession in society. This will include learning about racism, sexism and bias in the Canadian justice system through topics such as legal history, legal theory, cultural difference, individual and systemic biases and contemporary cases and legal issues.

Mover: Tamara Buckwold

Seconder: Cameron Jefferies

**Approved at LFC Meeting on November 24, 2020**

**Schedule A – Calendar Amendment Form- Approved on November 24, 2020 at Law Faculty Council Meeting**

**For the 2021-2022 Calendar**

<b>Current Calendar Description</b>	<b>Proposed Calendar Description</b>
<p><b>LAW 401: Foundations to Law</b></p> <p>An introduction to the institutions and processes of the Canadian legal system, and its underlying values and systems of thought. Also introduced are the history, structure and function of the modern system, and the role of law and the legal profession in society.</p>	<p><b>LAW 401: Foundations to Law</b></p> <p>An introduction to the institutions and processes of the Canadian legal system, and its underlying values and systems of thought. Also introduced are the history, structure and function of the modern system, and the role of law and the legal profession in society. <u>This will include learning about racism, sexism and bias in the Canadian justice system through topics such as legal history, legal theory, cultural difference, individual and systemic biases and contemporary cases and legal issues.</u></p>

**LAW FACULTY COUNCIL**  
**MOTION: REVISED CONTENT FOR AND PROFESSIONAL RESPONSIBILITY**  
**(LAW 456)**

**Date Submitted: November 3, 2020**  
**Meeting Date: November 24, 2020**

**WHEREAS:**

- (a) The Faculty of Law has publicly committed to stand against racial injustice within our justice system, within the broader society, and within the walls of our own institution;
- (b) The Law Faculty Council Policy Manual asserts the Faculty's commitment to equality and respect and encourages members of faculty to include materials in their courses exploring matters of race, gender and disadvantage;
- (c) The Supreme Court of Canada, in cases such as *R v Williams*, has recognized the existence of systemic racism in the justice system;
- (d) The impacts of racism and bias in the justice system have been extensively documented in the TRC final report, the MMIWG final report and numerous other inquiries and commissions' reports in Canada;
- (e) We should prepare our students for a career in law by ensuring that issues of racism and bias and the implications of racism and bias in the justice system and the legal profession are addressed through mandatory components of our curriculum.

**IT IS HEREBY MOVED THAT** the calendar description for Professional Responsibility (Law 456) be amended to read as follows, as indicated in Schedule A.

An examination of the organization of the legal profession in Canada and the professional conduct of lawyers as determined by law, ethical codes of conduct and service to the public interest. Specifically, the course will address civility in communication and conduct, common ethical issues in practice, the fiduciary nature of the lawyer's work, conflicts of interest, confidentiality, lawyer professionalism, and the lawyer's role in the administration of justice including access to the legal system. This will include learning about racism, sexism and bias in the Canadian justice system and the legal profession through topics such as individual and systemic biases, cultural difference, contemporary cases and regulatory approaches.

Mover: Tamara Buckwold

Seconded: Cameron Jefferies

## Schedule A – Calendar Amendment Form

<b>Current Calendar Description</b>	<b>Proposed Calendar Description</b>
<p><b>LAW 456: Professional Responsibility</b></p> <p>An examination of the organization of the legal profession in Canada and the professional conduct of lawyers as determined by law, ethical codes of conduct and service to the public interest. Specifically, the course will address civility in communication and conduct, common ethical issues in practice, the fiduciary nature of the lawyer’s work, conflicts of interest, confidentiality, lawyer professionalism, and the lawyer’s role in the administration of justice including access to the legal system.</p>	<p><b>Law 456: Professional Responsibility</b></p> <p>An examination of the organization of the legal profession in Canada and the professional conduct of lawyers as determined by law, ethical codes of conduct and service to the public interest. Specifically, the course will address civility in communication and conduct, common ethical issues in practice, the fiduciary nature of the lawyer’s work, conflicts of interest, confidentiality, lawyer professionalism, and the lawyer’s role in the administration of justice including access to the legal system. <u>This will include learning about racism, sexism and bias in the Canadian justice system and the legal profession through topics such as individual and systemic biases, cultural difference, contemporary cases and regulatory approaches.</u></p>

Killam Centre for Advanced Studies  
2-29 Triffo Hall Edmonton AB Canada T6G 2E1  
Tel: 780.492.2816 / Fax: 780.492.0692  
www.gradstudies.ualberta.ca

**2020-2021 University of Alberta Proposed Calendar Graduate Program Changes:**

<b>Current</b>	<b>Proposed</b>
<p>The Faculties/FoMD/Admission/Combined Program for the Degrees of MD and PhD <a href="https://calendar.ualberta.ca/content.php?catoid=33&amp;navoid=10088#Admission">https://calendar.ualberta.ca/content.php?catoid=33&amp;navoid=10088#Admission</a></p>	<p><b>The Faculties/FoMD/Combined Program for the Degrees of MD and PhD</b> <b>[NEW PROGRAM PAGE]</b></p>
<p><b>Combined Program for the Degrees of MD and PhD</b></p> <p>Highly qualified students wanting to pursue a career of teaching and research in basic medical science or clinical medicine may enrol in a program of approximately six to eight years leading to the acquisition of both an MD and a PhD degree.</p> <p>Students in the first year of the MD program may apply to the Combined Program. If acceptable to the appropriate department, to the Faculty of Medicine and Dentistry, and to the Faculty of Graduate Studies and Research, the student is admitted to the PhD program. Normally, on completion of two years of the MD program, the student registers in the PhD program. The time needed to complete the requirements for the PhD depends on the applicant's previous training and the nature of the research. On completion of the PhD program, the student reenters the Faculty of Medicine and Dentistry and completes the requirements for the MD degree.</p>	<p><b>Combined Program for the Degrees of MD and PhD</b></p> <p><b>General Information</b></p> <p>Highly qualified students wanting to pursue a career of teaching and research, as well as clinical medicine, may enrol in a program leading to the acquisition of both an MD and a PhD degree.</p> <p><b>Eligibility</b></p> <p>Students within the first two years of the MD program at the University of Alberta may apply to the combined degree program, as well as current University of Alberta graduate students who have gained admission to the MD program. Both the MD and PhD degrees must be completed at the University of Alberta.</p> <p><b>Admission</b></p> <p>Students are admitted to the combined degree program on the recommendation of the MD/PhD Committee through 2 potential paths:</p> <p>(1) Current medical students should apply to the MD/PhD program prior to completion of their second year and must be admitted to an approved graduate program through the regular application procedure for that program.</p> <p>(2) Current University of Alberta graduate students who gain admission to the MD program are eligible to enrol immediately in the MD/PhD program. In collaboration with Undergraduate Medical Education, students have the option to defer their MD admission and continue full time graduate registration. Alternatively, students who are nearing completion of</p>

<p>Students interested in <u>such a</u> program may obtain further information from the Office of Research, Faculty of Medicine and Dentistry, 2-13 Heritage Medical Research Centre.</p>	<p>their doctoral program have the option to transition into the MD program.</p> <p><b>Registration</b>  For the duration of the MD/PhD program, students must maintain full-time registration. Students will be registered as an 'MD/PhD undergraduate student' during their MD training and as an 'MD/PhD graduate student' during their PhD training. In both cases, students are assessed the same MD/PhD program tuition fee. In rare cases, it may be necessary to maintain dual registration whereupon students will be assessed fees for both MD and graduate studies. The Office of Research, Faculty of Medicine &amp; Dentistry, works with the Undergraduate Medical Education Office and FGSR to ensure the correct registration is applied on behalf of the host graduate program.</p> <p><b>Program Requirements</b>  The program requirements for the Combined MD/PhD Program are the same as each of the individual programs.  See MD Degree for MD program requirements.  See Graduate Programs to find specific PhD program requirements</p> <p><b>Time to completion</b>  Time to completion is calculated from when students are formally admitted to the MD program and will be influenced by program path. If entering a graduate program after MD year 2 (Path 1), completion time is typically 8 years. For students entering from a current graduate program (Path 2), completion times may range from 4-6 years. During the PhD portion, students must meet all FGSR requirements, as well as any additional conditions required by the graduate program in which they are enrolled. For all MD/PhD students, the PhD must be completed prior to commencing year 3 of the MD program.</p> <p><b>Contact Information</b>  Students interested in <u>the</u> program may obtain further information from the Office of Research, Faculty of Medicine and Dentistry, 2-13 Heritage Medical Research Centre, <a href="mailto:fmdgrd@ualberta.ca">fmdgrd@ualberta.ca</a>, or (780) 492-9721.</p>
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Current	Proposed
Graduate Policy and Regulations/Regulations of the Faculty of Graduate Studies and Research/Doctoral Degrees/Combined Program for the Degrees of MD and PhD <a href="https://calendar.ualberta.ca/content.php?catoid=33&amp;navoid=9848#doctoral-degrees">https://calendar.ualberta.ca/content.php?catoid=33&amp;navoid=9848#doctoral-degrees</a>	
<p><b>Combined Program for the Degrees of MD and PhD</b></p> <p>The MD/PhD combined program is intended for exceptional students who are seriously committed to a career in medical research. Highly qualified students wishing to pursue a career of teaching and research in either basic medical science or in clinical medicine may enrol in a program of approximately six years' duration leading to the acquisition of both an MD and a PhD degree from the University of Alberta. To be eligible for the combined program, students must already have been admitted to the MD program. Students are admitted to the combined program on the recommendation of the MD/PhD Committee.</p> <p>Students entering the MD program from a preprofessional medical or a bachelor's program, and who are interested in applying to the MD/PhD program, should do so in their first year of medical school. For these students, admission into the program begins after completion of the second year of the MD program. Alternately, students who are transferring from a University of Alberta graduate program to the MD program are eligible to enrol immediately in the combined program. The most common route is for students to complete the first two years of the MD program, apply for and be admitted into the PhD program, and when the PhD is completed, return to the final two years of the MD program. Students pursuing the combined program will be assessed fees for both the MD and the PhD programs.</p>	<p><b>Combined Program for the Degrees of MD and PhD</b></p> <p>Highly qualified students wanting to pursue a career of teaching and research, as well as clinical medicine, may enrol in a program leading to the acquisition of both an MD and a PhD degree.</p> <p>See the <b>Combined Program for the Degrees of MD and PhD for more information.</b></p>

Current	Proposed
<p>The Faculties/FoMD/Programs of Study/Combined Program for the Degrees of MD and PhD  <a href="https://calendar.ualberta.ca/content.php?catoid=33&amp;navoid=9894#combined-program-for-the-degrees-of-md-and-phd">https://calendar.ualberta.ca/content.php?catoid=33&amp;navoid=9894#combined-program-for-the-degrees-of-md-and-phd</a></p>	
<p><b>Combined Program for the Degrees of MD and PhD</b></p> <p>The MD/PhD combined program is intended for exceptional students who are seriously committed to a career in medical research. Highly qualified students wishing to pursue a career of teaching and research in either basic medical science or in clinical medicine may enrol in a program of approximately six years' duration leading to the acquisition of both an MD and a PhD degree from the University of Alberta. To be eligible for the combined program, students must already have been admitted to the MD program. Students are admitted to the combined program on the recommendation of the MD/PhD Committee.</p> <p>Students entering the MD program from a preprofessional medical or a bachelor's program, and who are interested in applying to the MD/PhD program, should do so in their first year of medical school. For these students, admission into the program begins after completion of the second year of the MD program. Alternately, students who are transferring from a University of Alberta graduate program to the MD program are eligible to enrol immediately in the combined program. The most common route is for students to complete the first two years of the MD program, apply for and be admitted into the PhD program, and when the PhD is completed, return to the final two years of the MD program. Students pursuing the combined program will be assessed fees for both the MD and the PhD programs.</p> <p>Students interested in such a program may obtain further information from the Office of Research, Faculty of Medicine and Dentistry, 2-13 Heritage Medical Research Centre, University of Alberta, (780) 492-9721, <a href="mailto:janis.davis@ualberta.ca">janis.davis@ualberta.ca</a>.</p>	<p><b>Combined Program for the Degrees of MD and PhD</b></p> <p>Highly qualified students wanting to pursue a career of teaching and research, as well as clinical medicine, may enrol in a program leading to the acquisition of both an MD and a PhD degree.</p> <p>See the <b>Combined Program for the Degrees of MD and PhD for more information.</b></p>
<p>Justification: Include more detailed and up to date information about program; consolidate information from numerous entries into one cohesive entry, in three different areas of the Calendar.</p> <p>Approved by: FoMD Graduate Programs Committee, June 29, 2020.</p>	

FoMD Faculty Learning Committee (Faculty Council Delegated Approver): July 17, 2020  
FoMD Faculty Council (Review): August 25, 2020

Faculty: Medicine and Dentistry
Submitted by: (on behalf of Joanne Rodger)
Type of change request: <input type="checkbox"/> Editorial <input checked="" type="checkbox"/> Minor Program <input type="checkbox"/> Major Program <input type="checkbox"/> Regulation
For which term will this change take effect? Fall 2020/Winter 2021, Fall 2021/Winter 2022
Which Calendar will this change be published in? 2020/2021 [as addendum], 2021/2022

## Calendar Copy

URL in current Calendar (or leave blank if it is a new page): <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37595&amp;returnto=9983">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37595&amp;returnto=9983</a>
To indicate requested changes, you can use track changes or comparative table formats below
...
<b>Year 3</b>
<b>MED 553: Principles of Medicine III</b>
★49 (fi 98) (two term)
An introduction to the practice of medicine. This integrated interdisciplinary course is primarily delivered in a clinical setting. It emphasizes clinical decision-making and safe evidence-based practice. MED 553 normally constitutes the third year of studies toward the MD degree. Prerequisites: MED 551; MED 552.
A portion of the class may complete this course as an Integrated Community Clerkship in a rural setting.
Components Include:
<ul style="list-style-type: none"><li>• Internal Medicine</li><li>• Obstetrics &amp; Gynaecology</li><li>• Pediatrics</li><li>• Psychiatry</li><li>• General Surgery</li><li>• Family Medicine</li><li>• <del>Geriatrics</del></li><li>• <del>Emergency Medicine</del></li><li>• Selectives</li><li>• Clinical Skills (physical exam, communication skills, longitudinal clinical experience, clinical decision making etc.)</li><li>• Interprofessionalism and Professionalism</li></ul>

## Rationale

These two components were included erroneously in the version of the course/program change that was previously approved/submitted. These two components can already be found in MED 554, which is correct. This change is to remove them from MED 553.

**Reviewed/Approved by:**

As per discussion with:  
Joanne Rodger  
Curriculum Specialist  
MD Program  
Faculty of Medicine & Dentistry

**Notes:**

- Multiple Calendar pages can be submitted on one form by copying the Calendar Copy (and Rationale) sections
- When sending requests to [calendar@ualberta.ca](mailto:calendar@ualberta.ca), please leave this form in .docx format
- To make a course change request, see the [Calendar Guide](#) for the course change form



## Faculty of Medicine & Dentistry

Proposed University Calendar Changes for 2021/2022

### Department of Paediatrics

CURRENT	PROPOSED
<p><b>New Course</b></p> <p><b>Rationale:</b> A course on knowledge translation methodology provides important skills and knowledge for students in the health sciences learning about evidence-based medicine. A one-credit module will allow for greater flexibility and availability for trainees with various scheduling considerations.</p>	<p><b>PAED 603: Overview of Knowledge Translation</b></p> <p>★1 (fi 2) (Either Term, 1-0-0)</p> <p>An overview course designed to provide students with an introduction to and understanding of methods used in the field of knowledge translation and their role in evidence-based medicine in child health. Instruction will be provided on theories, models, and frameworks; change management; implementation planning; stakeholder engagement and capacity-building; and evaluation and reporting.</p> <p>Prerequisites: Permission of the instructor.</p>
CURRENT	PROPOSED
<p><b>New Course</b></p> <p><b>Rationale:</b> A course on randomized controlled trial methodology provides important skills and knowledge for students in the health sciences learning about evidence-based medicine. A one-credit module will allow for greater flexibility and availability for trainees with various scheduling considerations.</p>	<p><b>PAED 601: Overview of Randomized Controlled Trial Methodology</b></p> <p>★1 (fi 2) (Either Term, 1-0-0)</p> <p>An overview course designed to provide students with an understanding of randomized controlled trial methodology and its application to the design, conduct, and reporting of trials evaluating interventions relevant to outcomes in child health. Instruction will be provided on evidence-based methods, including developing a research question, participant selection, sample size considerations, outcome measurement, data collection and analysis, internal and external validity, ethical considerations, different trial designs, and current guidelines and standards for trial conduct and reporting.</p> <p>Prerequisites: SPH 596 or equivalent and SPH 519 or equivalent, or permission of the instructor.</p>

Approved/Reviewed by:

FoMD Faculty Learning Committee (Faculty Council Delegated Approver): July 2, 2020

FoMD Faculty Council (Review): July 20, 2020

## Faculty of Medicine & Dentistry

Proposed University Calendar Changes for 2021/2022  
Department of Paediatrics

CURRENT	PROPOSED
<p><b>New Course</b></p>	<p><b>PAED 605: Practical Epidemiology I: From Idea to Identifying Relevant Study Cohort Data</b></p> <p><b>★3 (fi 6) (First Term, 3-0-0)</b></p> <p>This half-year course provides a practical approach to clinical epidemiology with a focus on the cohort study design. Students will develop a hypothesis (ideally related to their area of study) and identify cohort data to help them answer their hypothesis.</p> <p>Topics include developing a research question, ethical considerations, accessing cohort data, data collection (Redcap)</p> <p>Prerequisites: SPH 519 or equivalent which can be done concurrently in first term, or permission of the instructor.</p>
<p><b>New Course</b></p>	<p><b>PAED 606: Practical Epidemiology II: From Cohort Data to Manuscript</b></p> <p><b>★3 (fi 6) (Second Term, 0-3-0)</b></p> <p>This half-year course provides an applied approach to clinical epidemiology with a focus on analyzing cohort data. Students will use the cohort data to take develop a manuscript from idea (ideally related to their area of study) to submission.</p> <p>Topics include: cohort data analysis including power and sample size calculations, and presenting the results (abstracts, posters, manuscripts).</p> <p>Prerequisites: SPH 519 or equivalent and PAED 605 or permission of the instructor.</p>

**Rationale:** Courses on developing an idea from hypothesis to manuscript using existing longitudinal cohort data provides important skills and knowledge for students in the health sciences learning about evidence-based medicine, and currently, this is not offered by any department in the Faculty of Medicine and Dentistry.

Approved/Reviewed by:

FoMD Faculty Learning Committee (Faculty Council Delegated Approver): July 2, 2020

FoMD Faculty Council (Review): July 20, 2020



## Faculty of Medicine & Dentistry

Proposed University Calendar Changes for 2021/2022

CURRENT	PROPOSED
	<p><b>PHYSL 510 – Clinical &amp; Translational Physiology</b> <i>*3 (fi 6) (Spring term, 3-0-0)</i> Innovative online course featuring unique systems approach to learning fundamental concepts in physiology and biomedical research. Real-world cases in clinical medicine highlighting each major organ system are presented in a problem-based learning format. Essential themes in physiology and pathophysiology including complex inter-relationships between organ and control systems are used to unravel each clinical case. Gaps in clinical knowledge and practice are linked to current scientific and translational research strategies. Enriches preparation for careers in medicine, biomedical research and health- related fields. Prerequisites: PHYSL 212 and 214 (or 210) or equivalent and consent of Department. This course may not be taken for credit if credit has already been obtained in PHYSL 410.</p>

**Rationale:**

A gap in fundamental preclinical integrative physiology education and research has emerged in recent decades due to emphasis on other integration levels in physiology such as cellular and molecular biology.

As a result, many basic scientists have no patient contact or robust physiology knowledge, yet continue to focus on these specialized disciplines without extrapolating their findings to a higher integration level. Similarly, many students entering medical professions have limited integrative physiology background, which may impair their utilization and application of systems physiology to the ultimate detriment of medical education, patient care, and research.

This course aims to address this gap in physiology education by facilitating an intellectual link between “real-world” clinical medical practice, fundamental physiology concepts and the progression of related scientific research, touching if necessary, on cellular and molecular biology, thereby using the whole spectrum of translation.

The addition of the scientific research component is essential to describe the transfer of knowledge and methods developed in physiology to clinical practice in healthcare as well as the identification of key limitations in clinical medicine that stimulate further scientific research.

Throughout presentation of course material, a solid comprehension of physiology and pathophysiology will be emphasized and harnessed to derive correct conclusions drawn from clinical case presentations. Students will be guided in an understanding of integrative physiology concepts underlying popular medical case presentations.

This course is designed to be complementary to the existing Physiology curriculum at the University of Alberta. Clinical case presentations and discussion of physiology concepts and research approaches are intended to reinforce and extend concepts presented in 300 and 400- level physiology courses. Incorporation of clinical medicine and biomedical research problems in the context of traditionally presented physiology concepts will aid student retention of course material. The problem-based learning approach with a well-defined clinical context aims to improve knowledge consolidation and ability of students to apply physiological principles.

Approved/Reviewed by:

FoMD Faculty Learning Committee (Faculty Council Delegated Approver): October 6, 2020

FoMD Faculty Council (Review) – October 20, 2020

Killam Centre for Advanced Studies  
 2-29 Triffo Hall Edmonton AB Canada T6G 2E1  
 Tel: 780.492.2816 / Fax: 780.492.0692  
 www.gradstudies.ualberta.ca

**2021-2022 University of Alberta Proposed Calendar Graduate Program Changes:**

Current	Proposed
<p><b>New Course</b></p>	<p><b><u>INT D 575 Introduction to Qualitative Research Methods in Health Care and Education</u></b></p> <p><b><u>★3 (fi 6) (either term, 39 hours) [Dentistry]</u></b></p> <p><b><u>Course Description</u></b>  <u>Qualitative research is increasingly used to describe and understand a wide range of social phenomena, gain input from stakeholders, develop tools (e.g., questionnaires), and further explain quantitative findings. The overarching objective of the course is to prepare graduate students for designing, conducting, reporting, and critically appraising qualitative research related to health and health education. Issues that will be discussed include ontological and epistemological underpinnings of qualitative research, phases of a qualitative research project, methodological rigor, report writing, and knowledge translation.</u></p>
<p><b>Justification:</b> Qualitative research is increasingly used to understand social phenomena impacting health and health education. Courses on qualitative research offered at the University of Alberta tend to be discipline-specific; therefore, there is a need for more courses on qualitative research methods applied to health and health education, especially courses in which qualitative research is approached and conducted from a multidisciplinary perspective.</p>	

**Reviewed/Approved by:**

1. School of Dentistry Graduate Studies Committee – November 10, 2020
2. Dentistry Executive Committee – November 16, 2020
3. Dentistry Department Council – November 18, 2020
4. FoMD Faculty Learning Committee (Faculty Council delegated approver) - November 25, 2020

**Faculty of Medicine & Dentistry**  
**Proposed University Calendar Changes**  
**2021-2022**

\*\*Early Implementation/Consideration as candidate for Calendar Addenda (Fall 2021 Implementation)

<p><b>Laboratory Medicine and Pathology [Graduate]</b></p> <p><b>Entrance Requirements</b></p> <p><b>For MSc (course based) with specialization in Pathologists' Assistant</b></p> <p>...</p> <p>Applicants are required to submit the following</p> <ul style="list-style-type: none"> <li>• Curriculum Vitae or Resume</li> <li>• Letter of intent</li> <li>• Three references submitted via the online application system</li> </ul> <p>The application deadline is <b>May 15</b> for Fall admission.</p> <p>Inquiries regarding these requirements should be directed to the Graduate Program Advisor of the Department of Laboratory Medicine and Pathology.</p>	<p><b>Laboratory Medicine and Pathology [Graduate]</b></p> <p><b>Entrance Requirements</b></p> <p><b>For MSc (course based) with specialization in Pathologists' Assistant</b></p> <p>...</p> <p>Applicants are required to submit the following</p> <ul style="list-style-type: none"> <li>• Curriculum Vitae or Resume</li> <li>• Letter of intent</li> <li>• Three references submitted via the online application system</li> </ul> <p>The application deadline is <b>April 1</b> for Fall admission.</p> <p>Inquiries regarding these requirements should be directed to the Graduate Program Advisor of the Department of Laboratory Medicine and Pathology.</p>
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Rationale: To make the program more competitive by aligning the application deadline with other Pathologists' Assistant programs in Canada. The proposed timeline for implementation of this change is for applicants beginning their admission process in Fall 2021, with a deadline of April 1, 2022.

**Reviewed/Approved by:**

FoMD Faculty Learning Committee (Faculty Council delegated approver) - December 14, 2020

## Calendar Change Request Form

**Implementation Type:** *Normal Early*    **Implementation Calendar Year:** *2021-20*

**Type of Change:** *Program Regulations New Course Course Deletion Course Change Editorial*

Current	Proposed
<p><b>Course Listings</b></p> <p><b>PHARM 344 - Pharmacotherapy 3</b> ★ 3 (fi 6) (second term, 3-1s-0) Students will develop fundamental knowledge of cardiovascular <b>risk factors and diseases</b> and will apply therapeutic and pharmaceutical science knowledge to various patient care scenarios. Students will further develop their critical thinking and self-directed learning skills, along with their breadth and depth of therapeutic knowledge, as they incorporate principles of evidence-based therapeutic decision making within the patient care process framework. (Restricted to Pharmacy students.)</p>	<p><b>PHARM 344 - Pharmacotherapy 3</b> ★ 3 (fi 6) (second term, 3-1s-0) Students will develop fundamental knowledge of cardiovascular <b>and hematology conditions</b> and will apply therapeutic and pharmaceutical science knowledge to various patient care scenarios. Students will further develop their critical thinking and self-directed learning skills, along with their breadth and depth of therapeutic knowledge, as they incorporate principles of evidence-based therapeutic decision making within the patient care process framework. (Restricted to Pharmacy students.)</p>

**Rationale:** Changes to better reflect course content developed and delivered in new PharmD curriculum.

**Notes:** For the 2021-20 Calendar

<p><b>Submitted by:</b> Jill Hall Assistant Dean, Professional Programs</p>		
<p><b>Faculty Approval:</b></p>	<p><b>Curriculum Committee Original</b> Date: <b>October 21, 2020</b></p>	<p><b>Faculty Council</b> Date: <b>October 29, 2020</b></p>

## **2020-2021 Calendar Changes - School of Public Health**

Approved by the Committee on Educational Policy and Programs on October 22, 2020.

Approved by Faculty Council on November 24, 2020.

2020-2021 Calendar Changes  
School of Public Health  
Implementation – Spring 2021

Current	Proposed
<p><b>EXT 496 Topics in Community Engagement</b> <b>*1-3 (<i>variable</i>) (either term, <u>variable</u>). An elective course on selected topics in community engagement.</b></p>	<p><b>MACE 496 Topics in Community Engagement</b> <b>*1-3 (<i>variable</i>) (either term, <u>variable</u>). An elective course on selected topics in community engagement.</b></p>
<p><b>Justification:</b> This change reflects this course’s ongoing relationship to the discipline of Community Engagement now that the MA in Community Engagement has transitioned to its new home within the School of Public Health</p> <p><b>Resource Implications:</b> No implications. This course is taught by faculty members within the MACE program in the School of Public Health</p> <p>Approved by the Committee on Educational Policy and Programs on October 22, 2020.</p> <p>Approved by Faculty Council on November 24, 2020.</p>	

2020-2021 Calendar Changes  
School of Public Health

Current	Proposed
<p><b>NEW COURSE</b></p>	<p><b>SPH 415- Investigation of Foodborne Illness</b>  <b>★ 3 (fi 6) (either term, 3-0-0) Students taking this course will develop an understanding of the food safety system in Canada from the perspective of public health, including the complex regulatory and industry controls, epidemiology and surveillance for foodborne illness, and emergency outbreak investigation and response to detection of a foodborne hazard. The course includes a hands on simulation of a foodborne illness outbreak where students will be put into an Incident Command System (ICS) to manage the outbreak and develop these critical skills for outbreak investigation. Students taking this course will have the opportunity to obtain their ICS 100 certification level. Credit will only be given for one of SPH 415 or SPH 515.</b></p>
<p><b>Justification:</b> The intention of this class is to introduce senior undergraduate students to the food safety system in Canada from the perspective of Public Health. It is a practical course with applicable elements (e.g. ICS simulation) that are greatly appreciated by the students. This course will facilitate awareness of the School of Public Health across this university, and will serve as a feeder course for more advanced SPH courses and research programs.</p> <p>Approved by the Committee on Educational Policy and Programs on October 22, 2020.</p> <p>Approved by Faculty Council on November 24, 2020.</p>	



2020-2021 Calendar Changes  
School of Public Health

Current	Proposed
<p><b>SPH 416 - One-Health</b></p> <p>★ 3 (fi 6) (second term, 3-0-0) “One Health” is an emerging paradigm in public and veterinary health which recognizes that human, animal and environmental health are interlinked. The course will address food and water safety, the increase in prevalence of antibiotic resistant organisms, emerging infectious zoonotic diseases, environmental protection and environmental sustainability, emphasizing the interaction of these diverse yet interconnected disciplines in protecting the health of populations. Graduate students may not register for credit (see SPH 516). Credit will only be given for one of AFNS 416, 516 or SPH 416, 516. Prerequisite: <b>AN SC 310, PHYSL 210 or ZOOL 241/242.</b></p>	<p><b>SPH 416 - One-Health</b></p> <p>★ 3 (fi 6) (second term, 3-0-0) “One Health” is an emerging paradigm in public and veterinary health which recognizes that human, animal and environmental health are interlinked. The course will address food and water safety, the increase in prevalence of antibiotic resistant organisms, emerging infectious zoonotic diseases, environmental protection and environmental sustainability, emphasizing the interaction of these diverse yet interconnected disciplines in protecting the health of populations. Graduate students may not register for credit (see SPH 516). Credit will only be given for one of AFNS 416, 516 or SPH 416, 516. Prerequisites: <b>*3 MICRB or *3 PHYSL.</b></p>
<p><b>Justification:</b> The changes are based on the current content of this course.</p> <p>Approved by the Committee on Educational Policy and Programs on October 22, 2020.</p> <p>Approved by Faculty Council on November 24, 2020.</p>	

## **2020-2021 Calendar Changes - School of Public Health**

Approved by the Committee on Educational Policy and Programs on October 22, 2020.

Approved by Faculty Council on November 24, 2020.

2020-2021 Calendar Changes  
School of Public Health  
Implementation – Spring 2021

Current	Proposed
<p><b>EXT 541 CBRE Experience</b> ★ 3 (fi 6) (variable, unassigned) Students will participate in a supervised field experience and demonstrate the integration of concepts, principles and approaches learned in INT D 500 Introduction to Community-Based Research and evaluation. Students will prepare a knowledge-sharing activity appropriate to the field experience setting. Normally students will be expected to complete all of their CBRE Graduate Certificate course requirements prior to enrolling in EXT 541. Open to students in the CBRE Graduate Certificate only.</p>	<p><b>INT D 541 CBRE Experience</b> ★ 3 (fi 6) (variable, unassigned) Students will participate in a supervised field experience and demonstrate the integration of concepts, principles and approaches learned in INT D 500 Introduction to Community-Based Research. Students will prepare a knowledge-sharing activity appropriate to the field experience setting. Normally students will be expected to complete all of their CBRE Graduate Certificate course requirements prior to enrolling in INT D 541. Open to students in the CBRE Graduate <b>Embedded</b> Certificate only.</p>
<p><b>Justification:</b> Changing this course name to the INT D prefix aligns with the other required course in the CBRE Graduate Embedded Certificate, INT D 500 Introduction to Community-Based Research.</p> <p>Approved by the Committee on Educational Policy and Programs on October 22, 2020.</p> <p>Approved by Faculty Council on November 24, 2020.</p>	

2020-2021 Calendar Changes  
School of Public Health

Current	Proposed
<p><b>SPH 504 - Health Promotion Planning and Evaluation</b></p> <p>★ 3 (fi 6) (either term, 0-3s-0) This course is designed to provide students with knowledge of the basic concepts, principles, facts and theories which relate to health program planning and program evaluation. Emphasis is on understanding the interface between and among planning principles, evaluation processes and organizational structures. The course also stresses the importance of analytical and communication skills as they apply to these processes. Prerequisites: SPH 501 and 503. Not to be taken by students with credit in INT D 504. Note: Credit may not be obtained for both HPS 504 and SPH 504. <del>May contain alternate delivery sections; refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</del></p>	<p><b>SPH 504 - Health Promotion Planning and Evaluation</b></p> <p>★ 3 (fi 6) (either term, 0-3s-0) This course is designed to provide students with knowledge of the basic concepts, principles, facts and theories which relate to health program planning and program evaluation. Emphasis is on understanding the interface between and among planning principles, evaluation processes and organizational structures. The course also stresses the importance of analytical and communication skills as they apply to these processes. Prerequisites: SPH 501. Not to be taken by students with credit in INT D 504. Note: Credit may not be obtained for both HPS 504 and SPH 504.</p>
<p><b>Justification:</b> The changes are based on the current content of this course.</p> <p>Approved by the Committee on Educational Policy and Programs on November 12, 2020.</p> <p>Approved by Faculty Council on November 24, 2020.</p>	

2020-2021 Calendar Changes  
School of Public Health

Current	Proposed
<p><b>NEW COURSE</b></p>	<p><b>SPH 515- Investigation of Foodborne Illness</b>  <b>★ 3 (fi 6) (either term, 3-0-0) Students taking this course will develop an understanding of the food safety system in Canada from the perspective of public health, including the complex regulatory and industry controls, epidemiology and surveillance for foodborne illness, and emergency outbreak investigation and response to detection of a foodborne hazard. The course includes a hands on simulation of a foodborne illness outbreak where students will be put into an Incident Command System (ICS) to manage the outbreak and develop these critical skills for outbreak investigation. Students taking this course will have the opportunity to obtain their ICS 100 certification level. Credit will only be given for one of SPH 415 or SPH 515.</b></p>
<p><b>Justification:</b> This course was offered as SPH 566 Special Seminars: Epidemiology, Surveillance and Investigation of Foodborne Illness for two consecutive years, and since has been approved for a permanent course number by SPH.</p> <p>Approved by the Committee on Educational Policy and Programs on October 22, 2020.</p> <p>Approved by Faculty Council on November 24, 2020.</p>	

2020-2021 Calendar Changes  
School of Public Health

Current	Proposed
<p><b>SPH 600 - Health Policy Development</b></p> <p>★ 3 (fi 6) (either term, 0-3s-0) An overview of the principles and methods underlying the analysis of health policy. Application of health policy principles to selected issues and problems in health policy. Prerequisite: SPH <del>500</del> or consent of Instructor. Note: Credit may not be obtained for both PHS 600 and SPH 600.</p>	<p><b>SPH 600 - Health Policy Development</b></p> <p>★ 3 (fi 6) (either term, 0-3s-0) An overview of the principles and methods underlying the analysis of health policy. Application of health policy principles to selected issues and problems in <b>Canadian</b> health policy <b>and systems</b>. Prerequisite: consent of Instructor. Note: Credit may not be obtained for both PHS 600 and SPH 600.</p>
<p><b>Justification:</b> The changes are based on the current content of this course. Both SPH 500 and 600 cover similar topics.</p> <p>Approved by the Committee on Educational Policy and Programs on October 22, 2020.</p> <p>Approved by Faculty Council on November 24, 2020.</p>	

2021-2022 Calendar Changes  
Immediate Implementation  
School of Public Health

Current	Proposed
<p><b>SPH 766 - Advanced Epidemiology Methods</b></p> <p>★ 3 (fi 6) (either term, 0-3s-0) This is an advanced epidemiology methods course, designed primarily for doctoral students intending to conduct epidemiological research. Topics covered include advanced conceptual, methodological and practical issues in observational study designs and causal modeling; theoretical issues and practices in surveillance, primary data collection and use of administrative databases, advanced issues in assessing and controlling confounding, and unique challenges in doing epidemiological research in various topic areas. The overall goal of this course is to help prepare its graduates to conduct independent epidemiological research. Prerequisites: SPH 619 and 696 or consent of Instructor. Note: Credit may not be obtained for both PHS 766 and SPH 766.</p>	<p><b>SPH 766 – Advanced Epidemiology Methods</b></p> <p>★ 3 (fi 6) (either term, 0-3s-0) This is an advanced epidemiology methods course with emphasis on causal inference. Topics covered include causal inference in observational studies, causal diagrams, effect modification, interaction, selection and measurement bias in causal modelling, propensity score analysis, inverse probability weighting and marginal structural models, standardization and the parametric g-formula, instrumental variable estimation, and mediation analysis. The overall goal of this course is to provide an understanding of concepts and practical applications of causal inference and prepare graduates to understand and apply these concepts in epidemiological research. Prerequisites: SPH 619 and 696 or consent of Instructor. Note: Credit may not be obtained for both PHS 766 and SPH 766.</p>
<p><b>Justification:</b> The changes are based on the current content of this course.</p> <p>Approved by the Committee on Educational Policy and Programs on March 10, 2020</p> <p>Approved by Faculty Council on November 24, 2020.</p>	

**Centre Collégial de l'Alberta (CCA)  
Faculté Saint-Jean**

**2021-2022 Calendar Changes**

<b>CURRENT</b>	<b>PROPOSED</b>
<p>EPE 201 <b>Les relations interpersonnelles</b></p> <p>*3 (fi 6)( un semestre ou l'autre, 3-0-0) Ce cours permet d'analyser la structure organisationnelle du milieu de la petite enfance. L'étudiant explorera les politiques et les procédures propres au milieu tout en tenant compte des besoins des enfants, du personnel, des parents et de la communauté. A la fin de ce cours, les étudiants comprendront mieux le rôle d'un dirigeant dans le contexte de la petite enfance en milieu linguistique minoritaire.</p> <p>Préalables : EPE 101, EPE 120, EPE 121 et EPE 202</p>	<p>EPE 201 <b>L'organisation d'un service de garde</b></p> <p>*3(fi 6) (un semestre ou l'autre, 3-0-0) Ce cours permet d'analyser la structure organisationnelle du milieu de la petite enfance. L'étudiant explorera les politiques et les procédures propres au milieu tout en tenant compte des besoins des enfants, du personnel, des parents et de la communauté. A la fin de ce cours, les étudiants comprendront mieux le rôle d'un dirigeant dans le contexte de la petite enfance en milieu linguistique minoritaire.</p> <p>Préalables : EPE 101, EPE 120, EPE 121 et EPE 202</p>

**Proposed by:** Catherine Dandonneau, Director, CCA

**Approved:** November 19, 2020 (e-Vote) by Centre Collégial de l'Alberta Executive Committee (for recommendation with delegate authority from FSJ Counsel)

**Rationale:** The name of the course is being revised to better differentiate it from the EPE 202 course, which has the same course name.





## CALENDAR CHANGE REQUEST FORM

**Department: Earth And Atmospheric Sciences**

Highlight type of change request below:

1. **Course Change** (new course, change to existing course, course deletion)      2. **Editorial Change** (basic editing)      3. **Admission Requirement**      4. **Program Change**

CURRENT <span style="color: red; font-size: small;">Enter the Calendar URL here</span>	PROPOSED
<p><b>PALEO 418 - Paleobiology of the Vertebrates I</b></p> <p>★ 3 (fi 6) (first term, 3-0-3) Paleontology, evolution and paleoecology of <del>early vertebrates, fishes, and amphibians</del>, with emphasis on osteology, systematics, major adaptive shifts and subsequent radiations. Prerequisites: ZOOL 325 and any 300 level EAS or Biological Sciences course. Not available to students with credit in PALEO 318. [Faculty of Science]</p> <p><b>PALEO 419 - Paleobiology of the Higher Vertebrates</b></p> <p>★ 3 (fi 6) (second term, 3-0-3) Paleontology, evolution and paleoecology of Synapsida (e.g. therapsids and mammals) and <del>Reptilia (e.g. snakes, lizards,</del> dinosaurs, and birds) with emphasis on osteology, systematics, major adaptive shifts and subsequent radiations. Prerequisites: ZOOL 325 and any 300 level EAS or Biological Sciences course. Not available to students with credit in PALEO 319. [Faculty of Science]</p> <p><b>EAS 207 - Mass Extinctions and Dinosaurs</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Mass extinctions <del>that have affected the biosphere and their possible causes.</del> Overview of vertebrate evolution. Classification, behaviour, and ecology of dinosaurs. Origins of birds and mammals. Prerequisite: Any 100-level Science course. [Faculty of Science]</p>	<p><b>PALEO 418 - Paleobiology of the Vertebrates I</b></p> <p>★ 3 (fi 6) (first term, 3-0-3) Paleontology, evolution and paleoecology of <b>early chordates, jawless and jawed vertebrates and all non-amniote and amniote tetrapods except synapsids, crocodylomorphs, dinosaurs, and birds</b>, with emphasis on osteology, systematics, major adaptive shifts and subsequent radiations. Prerequisites: ZOOL 325 and any 300 level EAS or Biological Sciences course. Not available to students with credit in PALEO 318. [Faculty of Science]</p> <p><b>PALEO 419 - Paleobiology of the Vertebrates II</b></p> <p>★ 3 (fi 6) (second term, 3-0-3) Paleontology, evolution and paleoecology of Synapsida (e.g. therapsids and mammals) and <b>archosaurs (e.g. crocodiles,</b> dinosaurs, and birds) with emphasis on osteology, systematics, major adaptive shifts and subsequent radiations. Prerequisites: ZOOL 325 and any 300 level EAS or Biological Sciences course. Not available to students with credit in PALEO 319. [Faculty of Science]</p> <p><b>EAS 207 – Mass Extinctions and Vertebrate Evolution</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Mass extinctions, <b>their possible causes and influence on vertebrate evolution.</b> Prerequisite: Any 100-level Science course. [Faculty of Science]</p>

**Rationale for change:** (Not required for course deletion or editorial changes)  
(Include documentation that other departments or Faculties offering similar courses support this proposal. In the case of substantial program changes you must also include evidence of consultation with students.)

This reflects what is actually being taught in those classes as they evolved over time.

<b>Department Contact</b> Name: Nancy Thompson	<b>Department Chair or Designate</b> Name: Murray Gingras	<b>Date approved by Dept Council:</b> 09/Nov/20
Email: nancy.thompson@ualberta.ca		<b>Date submitted to FoS:</b>

Upload this form to the FoS Calendar Google Site.

## CALENDAR CHANGE REQUEST FORM

**Department:**

Highlight type of change request below:

1. **Course Change** (new course, change to existing course, course deletion)      2. **Editorial Change** (basic editing)      3. **Admission Requirement**      4. **Program Change**

<b>CURRENT</b> <span style="color: red; font-size: small;">Enter the Calendar URL here</span>	<b>PROPOSED</b>
<p><span style="background-color: yellow;">Strike through and highlight</span> deletions</p> <p><b>BIOL 343 - Techniques for Macromolecular Characterization</b></p> <p>★ 3 (fi 6) (second term, 0-<span style="background-color: yellow;">1</span>5-6) Critical discussion and use of techniques for characterizing macromolecules from prokaryotic and eukaryotic systems. This course provides the theoretical and hands-on experience required to use classic and cutting-edge technologies to characterize the properties of these macromolecules. Prerequisite: BIOL 207 and consent of instructor. Credit can only be obtained for one of BIOL 343 or 543 or MICRB 343 or 345.</p>	<p><span style="background-color: yellow;">Underline and highlight</span> additions</p> <p><b>BIOL 343 - Techniques for Macromolecular Characterization</b></p> <p>★ 3 (fi 6) (second term, 0-<span style="background-color: yellow;">0</span>-6) Critical discussion and use of techniques for characterizing macromolecules from prokaryotic and eukaryotic systems. This course provides the theoretical and hands-on experience required to use classic and cutting-edge technologies to characterize the properties of these macromolecules. Prerequisite: BIOL 207 and consent of instructor. Credit can only be obtained for one of BIOL 343 or 543 or MICRB 343 or 345.</p>
<p><b>BIOL 543 - Advanced Techniques for Macromolecular Characterization</b></p> <p>★ 3 (fi 6) (second term, 0-<span style="background-color: yellow;">1</span>5-6) Critical discussion and use of techniques for characterizing macromolecules from prokaryotic and eukaryotic systems. This course provides the theoretical and hands-on experience required to use classic and cutting-edge technologies to characterize the properties of these macromolecules. Prerequisite: consent of instructor. Lectures, assignments and exams are the same as BIOL 343 with additional assignments and evaluation appropriate to graduate studies. Credit can only be obtained for one of BIOL 343 or 543 or MICRB 343 or 345.</p>	<p><b>BIOL 543 - Advanced Techniques for Macromolecular Characterization</b></p> <p>★ 3 (fi 6) (second term, 0-<span style="background-color: yellow;">0</span>-6) Critical discussion and use of techniques for characterizing macromolecules from prokaryotic and eukaryotic systems. This course provides the theoretical and hands-on experience required to use classic and cutting-edge technologies to characterize the properties of these macromolecules. Prerequisite: consent of instructor. Lectures, assignments and exams are the same as BIOL 343 with additional assignments and evaluation appropriate to graduate studies. Credit can only be obtained for one of BIOL 343 or 543 or MICRB 343 or 345.</p>

**Rationale for change:** (Not required for course deletion or editorial changes)  
(Include documentation that other departments or Faculties offering similar courses support this proposal. In the case of substantial program changes you must also include evidence of consultation with students.)

Change is to reflect how the course is actually taught.

<b>Department Contact</b> Name: Brenda Fryza	<b>Department Chair or Designate</b> Name: Jocelyn Hall	<b>Date approved by Dept Council:</b> September 29, 2020
Email: <a href="mailto:biocal@ualberta.ca">biocal@ualberta.ca</a>	<a href="mailto:Bioacu@ualberta.ca">Bioacu@ualberta.ca</a>	<b>Date submitted to FoS:</b> <b>November 11, 2020</b>

## CALENDAR CHANGE REQUEST FORM

**Department: Computing Science**

**Course Changes 2021-22**

Highlight type of change request below:

- |   |   |  |                                 |
|---|---|--|---------------------------------|
| <p><b>1. Course Change</b><br/>(new course, change to existing course, course deletion)</p> | <p><b>2. Editorial Change</b><br/>(basic editing)</p> | <p><b>3. Admission Requirement</b></p> | <p><b>4. Program Change</b></p> |
|---|---|--|---------------------------------|

CURRENT (2020-21)	PROPOSED (2021-22)
<p><b>CMPUT 175 - Introduction to the Foundations of Computation II</b> *3 (fi 6) (either term, 3-0-3)</p> <p>A continuation of CMPUT 174, revisiting topics of greater depth and complexity. More sophisticated notions such as objects, functional programming, time and memory consumption, and user interface building are explored. Upon completion of this two course sequence, students from any discipline should be able to build programs to solve basic problems in their area, and will be prepared to take more advanced Computing Science courses. Prerequisite: CMPUT 174 or SCI 100. Credit cannot be obtained for CMPUT 175 if credit has been obtained for CMPUT 275, except with permission of the Department.</p>	<p><b>CMPUT 175 - Introduction to the Foundations of Computation II</b> *3 (fi 6) (either term, 3-0-3)</p> <p>A continuation of CMPUT 174, revisiting topics of greater depth and complexity. More sophisticated notions such as objects, functional programming, and Abstract Data Types are explored. Various algorithms, including popular searching and sorting algorithms, are studied and compared in terms of time and space efficiency. Upon completion of this two course sequence, students from any discipline should be able to build programs to solve basic problems in their area, and will be prepared to take more advanced Computing Science courses. Prerequisite: CMPUT 174 or SCI 100. Credit cannot be obtained for CMPUT 175 if one already has credit for CMPUT 275, except with permission of the Department.</p>
<p><b>CMPUT 201 - Practical Programming Methodology</b> *3 (fi 6) (either term, 3-0-3)</p> <p>Introduction to the principles, methods, tools, and practices of the professional programmer. The lectures focus on the fundamental principles of software engineering based on abstract data types and their implementations. The laboratories offer an intensive apprenticeship to the aspiring software developer. Students use C and C++ and software development tools of the Unix environment. Prerequisite: CMPUT 175. Credit cannot be obtained for CMPUT 201 if credit has been obtained for CMPUT 275, except with permission of the Department.</p>	<p><b>CMPUT 201 - Practical Programming Methodology</b> *3 (fi 6) (either term, 3-0-3)</p> <p>Introduction to the principles, methods, tools, and practices of the professional programmer. The lectures focus on the fundamental principles of software engineering based on abstract data types and their implementations. The laboratories offer an intensive apprenticeship to the aspiring software developer. Students use C and software development tools of the Unix environment. Prerequisite: CMPUT 175. Credit cannot be obtained for CMPUT 201 if credit has been obtained for CMPUT 275, except with permission of the Department.</p>
<p><b>CMPUT 206 - Introduction to Digital Image Processing</b> *3 (fi 6) (either term, 3-0-3)</p> <p>An introduction to basic digital image processing theory, and the tools that make advanced image manipulation possible for ordinary users. Image processing is important in many applications: editing and processing photographs, special effects for movies, drawing animated characters starting with photographs, analyzing and enhancing images captured by the Mars Rover or the Hubble telescope, and detecting suspects from surveillance cameras. Image processing concepts are introduced using tools like Photoshop and GIMP. Exposure to simple image processing programming with Java and MATLAB. This course is preparation for more advanced courses in the Digital Media area. Prerequisites: Any 100-level Computing Science course, plus knowledge of first-year level MATH; STAT; and introductory Java, C, or similar programming experience; or consent of the instructor or SCI 100. Open to students in the Faculty of Arts, Engineering and Sciences; others require consent of the instructor.</p>	<p><b>CMPUT 206 - Introduction to Digital Image Processing</b> *3 (fi 6) (either term, 3-0-3)</p> <p>An introduction to basic digital image processing theory, and the tools that make advanced image manipulation possible for ordinary users. Image processing is important in many applications: editing and processing photographs, special effects for movies, drawing animated characters starting with photographs, analyzing and enhancing remote imagery, and detecting suspects from surveillance cameras. Image processing concepts are introduced using tools like Photoshop and GIMP. Exposure to simple image processing programming with Java and MATLAB. This course is preparation for more advanced courses in the Digital Media area. Prerequisites: Any introductory-level Computing Science course, plus knowledge of introductory-level MATH and STAT; or consent of the instructor or SCI 100. Open to students in the Faculty of Arts, Engineering and Sciences; others require consent of the instructor.</p>
<p><b>NEW COURSE</b></p>	<p><b>CMPUT 267 - Basics of Machine Learning</b> *3 (fi 6) (either term, 3-0-0)</p> <p>This course introduces the fundamental statistical, mathematical, and computational concepts in analyzing data. The goal for this introductory course is to provide a solid foundation in the mathematics of machine learning, in preparation for more advanced machine learning concepts. The learning outcomes are to become more comfortable with underlying concepts in machine learning, including how to formalize learning problems using probability and statistics; how models can be estimated from data; what sound estimation principles look like; how generalization is</p>

	<p>achieved, and how to evaluate the performance of learned models. Specific topics include: basic probability and optimization concepts, maximum likelihood, linear regression and polynomial regression, classification with logistic regression and regularization. Prerequisites: CMPUT 174 or 274; one of MATH 100, 114, 117, 134, 144, or 154. Corequisites: CMPUT 175 or 275; CMPUT 272; MATH 125 or 127; one of STAT 141, 151, 235, or 265, or SCI 151.</p>
<p><b>CMPUT 291 - Introduction to File and Database Management</b> *3 (fi 6) (either term, 3-0-1.5)</p> <p>Basic concepts in computer data organization and information processing; entity-relationship model; relational model; SQL and other relational query languages; storage architecture; physical organization of data; access methods for relational data. Programming experience (e.g. Java or Python) is required for the course project. Prerequisite: one of CMPUT 175 or 275.</p>	<p><b>CMPUT 291 - Introduction to File and Database Management</b> *3 (fi 6) (either term, 3-0-1.5)</p> <p>Basic concepts in computer data organization and information processing; entity-relationship model; relational model; SQL and other relational query languages; storage architecture; physical organization of data; access methods for relational data. Programming experience (e.g., Python) is required for the course project. Prerequisites: CMPUT 175 or 274, and 272. Corequisite: one of CMPUT 201 or 275.</p>
<p><b>CMPUT 297 - Topics in Computing Science</b> *3 (fi 6) (either term, 3-0-3); See Note (3) above.</p>	<p><b>CMPUT 297 - Topics in Computing Science</b> *3 (fi 6) (variable, variable) This topics course is designed for new course offerings that may be offered in a given term. Prerequisites are determined by the instructor in the course outline.</p> <p>See Note (3) above.</p>
<p><b>CMPUT 298 - Topics in Computing Science</b> *3 (fi 6) (either term, 3-0-3); See Note (3) above.</p>	<p><b>CMPUT 298 - Topics in Computing Science</b> *3 (fi 6) (variable, variable) This topics course is designed for new course offerings that may be offered in a given term. Prerequisites are determined by the instructor in the course outline.</p> <p>See Note (3) above.</p>
<p><b>CMPUT 300 - Computers and Society</b> *3 (fi 6) (either term, 3-1s-0)</p> <p>Social, ethical, professional, economic, and legal issues in the development and deployment of computer technology in society. Prerequisites: CMPUT course or SCI 100, and any 200-level course.</p>	<p><b>CMPUT 300 - Computers and Society</b> *3 (fi 6) (either term, 3-1s-0)</p> <p>Social, ethical, professional, economic, and legal issues in the development and deployment of computer technology in society. Prerequisites: Any introductory-level Computing Science course or SCI 100, and any 200-level course.</p>
<p><b>CMPUT 301 - Introduction to Software Engineering</b> *3 (fi 6) (either term, 3-0-3)</p> <p>Object-oriented design and analysis, with interactive applications as the primary example. Topics include: software process; revision control; Unified Modeling Language (UML); requirements; software architecture, design patterns, frameworks, design guidelines; unit testing; refactoring; software tools. Prerequisite: CMPUT 201 or 275.</p>	<p><b>CMPUT 301 - Introduction to Software Engineering</b> *3 (fi 6) (either term, 3-0-3)</p> <p>Object-oriented design and analysis, with interactive applications as the primary example. Topics include: software process; revision control; Unified Modeling Language (UML); requirements; software architecture, design patterns, frameworks, design guidelines; unit testing; refactoring; software tools. Prerequisite: CMPUT 201 or 275. This course may not be taken for credit if credit has been obtained in MIS 419.</p>
<p><b>CMPUT 304 - Algorithms II</b> *3 (fi 6) (either term, 3-1s-0)</p> <p>The second course of a two-course sequence on algorithm design. Emphasis on principles of algorithm design. Categories of algorithms such as divide-and-conquer, greedy algorithms, dynamic programming; analysis of algorithms; limits of algorithm design; NP-completeness; heuristic algorithms. Prerequisites: CMPUT 204; one of STAT 141, 151, 235 or 265 or SCI 151; one of MATH 225, 227, 228 or consent of the instructor.</p>	<p><b>CMPUT 304 - Algorithms II</b> *3 (fi 6) (either term, 3-1s-0)</p> <p>The second course of a two-course sequence on algorithm design. Emphasis on principles of algorithm design. Categories of algorithms such as divide-and-conquer, greedy algorithms, dynamic programming; analysis of algorithms; limits of algorithm design; NP-completeness; heuristic algorithms. Prerequisites: CMPUT 204; one of STAT 141, 151, 235 or 265 or SCI 151; one of MATH 225, 227, 228 or consent of the instructor.</p>
<p><b>CMPUT 307 - 3D Modeling and Animation</b> *3 (fi 6) (either term, 3-0-3)</p> <p>An introductory course on the theory and applications of computer based 3D modeling and animation. The course will cover a selection of topics from overview of tools supporting modeling and animation, automatically generating 3D models, and animation of skeleton based models through algorithms and software. Applications of 3D modeling and animation in games, virtual/augmented environments, movies, and emerging video transmission algorithms will be discussed. Prerequisites: Some background in image processing or graphics, e.g., CMPUT 206 or CMPUT 311, knowledge of first or preferably second-year level MATH/STAT, e.g., STAT 141/151/252 or 266, and MATH 214 or 225; experience in programming, e.g., CMPUT 174 or 100. Consent of the instructor needed if some background courses are lacking.</p>	<p><b>CMPUT 307 - 3D Modeling and Animation</b> *3 (fi 6) (either term, 3-0-3)</p> <p>An introductory course on the theory and applications of computer based 3D modeling and animation. The course will cover a selection of topics from overview of tools supporting modeling and animation, automatically generating 3D models, and animation of skeleton based models through algorithms and software. Applications of 3D modeling and animation in games, virtual/augmented environments, movies, and emerging video transmission algorithms will be discussed. Prerequisites: one of CMPUT 206, 308, or 411; or consent of the instructor.</p>
<p><b>CMPUT 312 - Introduction to Robotics and Mechatronics</b> *3 (fi 6) (either term, 3-0-3)</p> <p>Algorithms and software paradigms for robot programming; mathematical modeling of robot arms and rovers including</p>	<p><b>CMPUT 312 - Introduction to Robotics and Mechatronics</b> *3 (fi 6) (either term, 3-0-3)</p> <p>Algorithms and software paradigms for robot programming; mathematical modeling of robot arms and rovers including</p>

<p>kinematics, and an introduction to dynamics and control; sensors, motors and their modeling; basics of image processing and machine vision; vision-guided motion control. Prerequisites: CMPUT 275, <del>CMPUT 340 or CMPUT 418 (CMPUT 340 may be taken concurrently)</del>. Students having CMPUT 174, 175, 201, 204 may seek <del>individual approval by</del> instructor.</p>	<p>kinematics, and an introduction to dynamics and control; sensors, motors and their modeling; basics of image processing and machine vision; vision-guided motion control. Prerequisite: CMPUT 275. <del>Corequisite: CMPUT 340 or 418.</del> Students having CMPUT 174, 175, 201, 204 may seek <del>consent of the</del> instructor.</p>
<p><b>CMPUT 313 - Computer Networks</b> *3 (fi 6) (either term, 3-0-3)</p> <p>Introduction to computer communication networks; protocols for error and flow control; wired and wireless medium access protocols; routing and congestion control; internet architecture and protocols; multimedia transmission; recent advances in networking. Prerequisites: CMPUT 201 and 204 or 275; one of CMPUT 229, E E 380 or ECE 212 and STAT 252 or 266.</p>	<p><b>CMPUT 313 - Computer Networks</b> *3 (fi 6) (either term, 3-0-3)</p> <p>Introduction to computer communication networks; protocols for error and flow control; wired and wireless medium access protocols; routing and congestion control; internet architecture and protocols; multimedia transmission; recent advances in networking. Prerequisites: CMPUT 201 and 204 or 275; one of CMPUT 229, E E 380 or ECE 212; and STAT 252 or 266.</p>
<p><b>CMPUT 331 Computational Cryptography</b> *3 (fi 6) (either term,3-0-0)</p> <p>Cryptography is the science of secure communications. This course is an introduction to computational methods for encrypting and deciphering messages, with an emphasis on computer implementation. Prerequisites: CMPUT 201 and CMPUT 272.</p>	<p><b>CMPUT 331 Computational Cryptography</b> *3 (fi 6) (either term,3-0-0)</p> <p>Cryptography is the science of secure communications. This course is an introduction to computational methods for encrypting and deciphering messages, with an emphasis on computer implementation. Prerequisites: CMPUT 201 <del>or 275</del> and CMPUT 272.</p>
<p><b>CMPUT 333 - Security in a Networked World</b> *3 (fi 6) (either term, 3-0-3)</p> <p><del>Authentication protocols, passwords, shared and public key cryptography, network protocol and network services security, firewalls, malicious code, vulnerability identification, intrusion detection, wireless security.</del> Prerequisite: CMPUT 201 or 275.</p>	<p><b>CMPUT 333 - Security in a Networked World</b> *3 (fi 6) (either term, 3-0-3)</p> <p><del>Introduction to the concepts and components involved in secure, networked, systems. The concepts of confidentiality, integrity, availability; shared and public key cryptography; authentication protocols; third-party authentication services; key agreement protocols; strong password protocols; digital signature schemes; non-repudiation; certificate authorities; random number generation; proof-of-work; network protocol and network services vulnerabilities; firewalls; malicious code; computer viruses and worms; intrusion detection.</del> Prerequisite: CMPUT 201 or 275.</p>
<p><b>CMPUT 350 - Advanced Games Programming</b> *3 (fi 6) (either term, 3-0-3)</p> <p>This course focuses on state-of-the-art AI and graphics programming for video games. Part 1 introduces C++, the language of choice for video game engines, emphasizing efficiency, safety, the Standard Template Library, and OpenGL. Part 2 on real time strategy deals with efficient pathfinding algorithms, planning, and scripting AI systems. Student projects give hands-on experience directly applicable to the video games industry. Prerequisites: CMPUT 201 or 275, and 204. <del>May not be offered every year.</del></p>	<p><b>CMPUT 350 - Advanced Games Programming</b> *3 (fi 6) (either term, 3-0-3)</p> <p>This course focuses on state-of-the-art AI and graphics programming for video games. Part 1 introduces C++, the language of choice for video game engines, emphasizing efficiency, safety, the Standard Template Library, and OpenGL. Part 2 on real time strategy deals with efficient pathfinding algorithms, planning, and scripting AI systems. Student projects give hands-on experience directly applicable to the video games industry. Prerequisites: CMPUT 201 or 275, and 204.</p>
<p><b>CMPUT 355 - Games, Puzzles, Algorithms</b> *3 (fi 6) (either term, 3-0-0)</p> <p>An introduction to algorithms and theory behind computer programs that solve puzzles (mazes, peg solitaire, etc.) or play games (chess, Go, Hex, etc.). This course is intended for a general audience. Prerequisite: any 200-level <del>CMPUT</del>.</p>	<p><b>CMPUT 355 - Games, Puzzles, Algorithms</b> *3 (fi 6) (either term, 3-0-0)</p> <p>An introduction to algorithms and theory behind computer programs that solve puzzles (mazes, peg solitaire, etc.) or play games (chess, Go, Hex, etc.). This course is intended for a general audience. Prerequisite: any 200-level <del>Computing Science course</del>.</p>
<p><b>CMPUT 361 - Introduction to Information Retrieval</b> *3 (fi 6) (either term, 3-0-0)</p> <p><del>Most of the knowledge we acquire, use, and share is expressed in natural language, and preserved as primarily textual documents. This course introduces the fundamental algorithms and data structures for organizing and searching through large collections of documents, and the techniques for evaluating the quality of search results. The course also covers practical machine learning algorithms for text and foundational technologies used by Web search engines. Prerequisites: CMPUT 201 and CMPUT 204 or 275; MATH 125 or equivalent is strongly recommended.</del></p>	<p><b>CMPUT 361 - Introduction to Information Retrieval</b> *3 (fi 6) (either term, 3-0-0)</p> <p><del>Introduction to information retrieval focusing on algorithms and data structures for organizing and searching through large collections of documents, and techniques for evaluating the quality of search results. Topics include boolean retrieval, keyword and phrase queries, ranking, index optimization, practical machine-learning algorithms for text, and optimizations used by Web search engines. Prerequisites: CMPUT 201 and CMPUT 204, or 275. One of MATH 102, 125, or 127 is strongly recommended.</del></p>
<p><b>NEW COURSE</b></p>	<p><b>CMPUT 365 Introduction to Reinforcement Learning</b> *3 (fi 6) (either term, 3-0-0)</p> <p><del>This course provides an introduction to reinforcement learning intelligence, which focuses on the study and design of learning agents that interact with a complex, uncertain world to achieve a goal. Topics include multi-armed bandits, Markov decision processes, reinforcement learning, planning, and function approximation (online supervised learning). The course takes an information-processing approach to the concept of mind and briefly touches on perspectives from psychology, neuroscience, and philosophy. The course uses a recently created MOOC on Reinforcement Learning. Prerequisites: CMPUT 175 or CMPUT 275; CMPUT 267 or consent of the instructor.</del></p>
<p><b>CMPUT 379 - Operating System Concepts</b> *3 (fi 6) (either term, 3-0-3)</p> <p><del>Processes; process state transitions; operations on processes;</del></p>	<p><b>CMPUT 379 - Operating System Concepts</b> *3 (fi 6) (either term, 3-0-3)</p> <p><del>Introduction to the structure, components, and concepts behind</del></p>



<p>interrupt processing; multiprocessor considerations; resource allocation; synchronization; critical sections and events; semaphores; deadlock; avoidance, detection, and recovery; memory management; virtual memory; paging and segmentation; page replacement strategies; working sets; demand paging; process scheduling; scheduling algorithms; file system functions; file organization; space allocation; elements of operating systems security; virtual machines. Prerequisites: CMPUT 201 and 204 or 275; one of CMPUT 229, E E 380 or ECE 212.</p>	<p>modern general-purpose operating systems. Processes; process state transitions; operations on processes; interrupt processing; multiprocessor considerations; resource allocation; synchronization; critical sections and events; semaphores; deadlock; avoidance, detection, and recovery; memory management; virtual memory; paging and segmentation; page replacement strategies; working sets; demand paging; process scheduling; scheduling algorithms; file system functions; file organization; space allocation; virtual machines. Prerequisites: CMPUT 201 and 204, or 275; one of CMPUT 229, E E 380 or ECE 212.</p>
<p><b>CMPUT 391 - Database Management Systems</b> *3 (fi 6) (either term, 3-0-3)</p> <p>Database design and normalization theory, transaction management, query processing and optimization; support for special data types such as multimedia, spatial data, and XML documents; support for complex applications and data analysis such as data mining, data warehousing, and information retrieval. Prerequisites: CMPUT 201 and CMPUT 204 or 275, and CMPUT 291.</p>	<p><b>CMPUT 391 - Database Management Systems</b> *3 (fi 6) (either term, 3-0-3)</p> <p>This course covers the implementation of RDBMSs and some non-relational data models, along with their query languages. Topics: compilation, execution, and optimization of SQL queries; concurrent execution of transactions; indexing; advanced constructs in SQL; semi-structured data models and query languages; distributed and parallel databases; NoSQL and cloud-based database systems. Prerequisites: CMPUT 201 and 204, or 275, and CMPUT 291.</p>
<p><b>CMPUT 404 - Web Applications and Architecture</b> *3 (fi 6) (either term, 3-0-3)</p> <p>Introduction to modern web architecture, from user-facing applications to machine-facing web-services. Topics include: the evolution of the Internet, relevant technologies and protocols, the architecture of modern web-based information systems, web data exchange and serialization, and service-oriented middleware. Prerequisites: CMPUT 301 and 394, or consent of the instructor.</p>	<p><b>CMPUT 404 - Web Applications and Architecture</b> *3 (fi 6) (either term, 3-0-3)</p> <p>Introduction to modern web architecture, from user-facing applications to machine-facing web-services. Topics include: the evolution of the Internet, relevant technologies and protocols, the architecture of modern web-based information systems, web data exchange and serialization, and service-oriented middleware. Prerequisites: CMPUT 301 and 291, or consent of the instructor.</p>
<p><b>CMPUT 412 - Experimental Mobile Robotics</b> *3 (fi 6) (either term, 3-0-3)</p> <p>A project-based course dealing with the design and implementation of mobile robots to accomplish specific tasks. Students work in groups and are introduced to concepts in sensor technologies, sensor data processing, motion control based on feedback and real-time programming. Prerequisites: CMPUT 201 and 204, or 275; one of CMPUT 340, 418 or equivalent knowledge; MATH 214 and STAT 252 or 266.</p>	<p><b>CMPUT 412 - Experimental Mobile Robotics</b> *3 (fi 6) (either term, 3-0-3)</p> <p>A project-based course dealing with the design and implementation of mobile robots to accomplish specific tasks. Students work in groups and are introduced to concepts in sensor technologies, sensor data processing, motion control based on feedback and real-time programming. Prerequisites: CMPUT 201 and 204, or 275; one of CMPUT 340, 418 or equivalent knowledge; MATH 214.</p>
<p><b>CMPUT 414 - Introduction to Multimedia Technology</b> *3 (fi 6) (either term, 3-0-3)</p> <p>Introduction to basic principles and algorithms used in multimedia systems. Students obtain hands-on experience in issues relating to multimedia data representation, compression, processing, and animation. Topics will be selected from image and video coding and transmission, animation, human perceptual issues associated to multimedia technologies. Prerequisites: CMPUT 206 or 306, CMPUT 307 or 411, knowledge of second-year level MATH/STAT; Java, C, or equivalent programming or consent of instructor.</p>	<p><b>CMPUT 414 - Introduction to Multimedia Technology</b> *3 (fi 6) (either term, 3-0-3)</p> <p>Introduction to basic principles and algorithms used in multimedia systems. Students obtain hands-on experience in issues relating to multimedia data representation, compression, processing, and animation. Topics will be selected from image and video coding and transmission, animation, human perceptual issues associated to multimedia technologies. Prerequisites: one of CMPUT 306, CMPUT 307 or CMPUT 411, or consent of the instructor.</p>
<p><b>CMPUT 415 - Compiler Design</b> *3 (fi 6) (either term, 3-0-3)</p> <p>Compilers, interpreters, lexical analysis, syntax analysis, syntax directed translation, code generation, code optimization. Prerequisites: one of CMPUT 229, E E 380 or ECE 212, and a 300-level Computing Science course or consent of the instructor.</p>	<p><b>CMPUT 415 - Compiler Design</b> *3 (fi 6) (either term, 3-0-3)</p> <p>Compilers, interpreters, lexical analysis, syntax analysis, syntax directed translation, symbol tables, type checking, flow analysis, code generation, code optimization. Prerequisites: one of CMPUT 229, E E 380 or ECE 212, and a 300-level Computing Science course or consent of the instructor.</p>
<p><b>CMPUT 416 (Foundations of Program Analysis)</b> *3 (fi 6) (either term, 3-0-0)</p> <p>Introduction to the main concepts of program analysis such as intermediate representations, inter-procedural and intra-procedural analysis techniques, call graphs, pointer analysis, and analysis frameworks. The course will also include relevant research papers that introduce both classical and state-of-the-art research in the field. The course will give an overview of the program analyses that work and those that do not work in practice and how to design program analyses for modern software systems. Prerequisites: CMPUT 201 or 275, and CMPUT 272.</p>	<p><b>CMPUT 416 (Foundations of Program Analysis)</b> *3 (fi 6) (either term, 3-0-0)</p> <p>Introduction to the main concepts of program analysis such as intermediate representations, inter-procedural and intra-procedural analysis techniques, call graphs, pointer analysis, and analysis frameworks. The course will also include relevant research papers that introduce both classical and state-of-the-art research in the field. The course will give an overview of the program analyses that work and those that do not work in practice and how to design program analyses for modern software systems. Prerequisites: CMPUT 201 or 275, and CMPUT 272. Knowledge of grammars and automata, regular expressions, and finite state machines is recommended.</p>
<p><b>CMPUT 429 - Computer Systems and Architecture</b> *3 (fi 6) (either term, 3-0-3)</p> <p>A discussion of computer system design concepts with stress on modern ideas that have shaped the high-performance architecture of contemporary systems. Instruction sets, pipelining, instruction-level parallelism, register reuse, branch prediction, CPU control, and</p>	<p><b>CMPUT 429 - Computer Systems and Architecture</b> *3 (fi 6) (either term, 3-0-3)</p> <p>A discussion of computer system design concepts with stress on modern ideas that have shaped the high-performance architecture of contemporary systems. Instruction sets, pipelining, instruction-level parallelism, register reuse, branch prediction, CPU control, cache.</p>

related concepts. Memory technologies, caches, I/O, high-performance <b>backplanes and buses</b> . Prerequisites: CMPUT 201 or 275; one of CMPUT 229, E E 380 or ECE 212. Credit may be obtained in only one of CMPUT 429 or CMPE 382.	<b>coherence, accelerators</b> , and related concepts. Memory technologies, caches, I/O, high-performance <b>networks</b> . Prerequisites: CMPUT 201 or 275; one of CMPUT 229, E E 380 or ECE 212. Credit may be obtained in only one of CMPUT 429 or CMPE 382.
<b>CMPUT 455 - Search, Knowledge and Simulation</b> *3 (fi 6) (either term, 3-0-3)  When making decisions in games, computers rely on three main ideas: search, knowledge and simulations. Knowledge can be created by machine learning techniques and encoded in deep neural networks. Search and simulations help to understand the short and long-term consequences of possible actions. This course leads from basic concepts to state-of-the-art decision-making algorithms. Prerequisite: any 300-level <b>CMPUT</b> .	<b>CMPUT 455 - Search, Knowledge and Simulation</b> *3 (fi 6) (either term, 3-0-3)  When making decisions in games, computers rely on three main ideas: search, knowledge and simulations. Knowledge can be created by machine learning techniques and encoded in deep neural networks. Search and simulations help to understand the short and long-term consequences of possible actions. This course leads from basic concepts to state-of-the-art decision-making algorithms. Prerequisite: any 300-level <b>Computing Science course</b> .

<b>CMPUT 481 - Parallel and Distributed Systems</b> *3 (fi 6) (either term, 3-0-0)  This course provides an undergraduate-level introduction to parallel programming, parallel and distributed systems, and high-performance computing in science and engineering. Both shared-memory parallel computers and distributed-memory multi computers (e.g., clusters) will be studied. Aspects of the practice of, and (some) research issues in, parallelism will be covered. There will be an emphasis on thread programming, data-parallel programming, and performance evaluation. Prerequisites: CMPUT 201, CMPUT 379, or consent of the instructor. <b>May not be offered every year.</b>	<b>CMPUT 481 - Parallel and Distributed Systems</b> *3 (fi 6) (either term, 3-0-0)  This course provides an undergraduate-level introduction to parallel programming, parallel and distributed systems, and high-performance computing in science and engineering. Both shared-memory parallel computers and distributed-memory multi computers (e.g., clusters) will be studied. Aspects of the practice of, and (some) research issues in, parallelism will be covered. There will be an emphasis on thread programming, data-parallel programming, and performance evaluation. Prerequisites: CMPUT 201, CMPUT 379, or consent of the instructor.
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<b>CMPUT 498 - Topics in Computing Science</b> *3 (fi 6) (either term, 3-0-3)  See Note (3) above.	<b>CMPUT 498 - Topics in Computing Science</b> *3 (fi 6) <b>(variable, variable)</b>  <b>This topics course is designed for new course offerings that may be offered in a given term. Prerequisites are determined by the instructor in the course outline.</b>  See Note (3) above.
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<b>CMPUT 500 - Topics in Computing Science</b> *3 (fi 6) <b>(either term, 3-0-3)</b>	<b>CMPUT 500 - Topics in Computing Science</b> *3 (fi 6) <b>(variable, variable)</b>
<b>CMPUT 501 - Topics in Computing Science</b> *3 (fi 6) <b>(either term, 3-0-3)</b>	<b>CMPUT 501 - Topics in Computing Science</b> *3 (fi 6) <b>(variable, variable)</b>
<b>CMPUT 503 - Topics in Computing Science</b> *3 (fi 6) <b>(either term, 3-0-3)</b>	<b>CMPUT 503 - Topics in Computing Science</b> *3 (fi 6) <b>(variable, variable)</b>
<b>CMPUT 504 - Topics in Computing Science</b> *3 (fi 6) <b>(either term, 3-0-3)</b>	<b>CMPUT 504 - Topics in Computing Science</b> *3 (fi 6) <b>(variable, variable)</b>
<b>CMPUT 511 - Topics In Computer Graphics</b> *3 (fi 6) <b>(either term, 3-0-3)</b>	<b>CMPUT 511 - Topics in Computing Science</b> *3 (fi 6) <b>(variable, variable)</b>
<b>CMPUT 530 - Topics in Computer Architecture</b> *3 (fi 6) <b>(either term, 3-0-3)</b>	<b>CMPUT 530 - Topics in Computing Science</b> *3 (fi 6) <b>(variable, variable)</b>
<b>CMPUT 551 - Topics in Artificial Intelligence</b> *3 (fi 6) <b>(either term, 3-0-3)</b>	<b>CMPUT 551 - Topics in Computing Science</b> *3 (fi 6) <b>(variable, variable)</b>
<b>CMPUT 563 - Topics in Probabilistic Graphical Models</b> *3 (fi 6) <b>(either term, 3-0-3)</b>	<b>CMPUT 563 - Topics in Computing Science</b> *3 (fi 6) <b>(variable, variable)</b>
<b>CMPUT 566 - Topics in Machine Learning</b> *3 (fi 6) <b>(either term, 3-0-3)</b>	<b>CMPUT 566 - Topics in Computing Science</b> *3 (fi 6) <b>(variable, variable)</b>
<b>CMPUT 603 - Teaching and Research Methods</b> *3 (fi 6) (first term, <b>2-1s-0</b> )  This course provides information and resources on teaching and research methods in computing science, and also gives an overview of the research done by faculty in the department. Ethics and professional development are included in this course. Required for all graduate students.	<b>CMPUT 603 - Teaching and Research Methods</b> *3 (fi 6) (first term, <b>3-0-0</b> )  This course provides information and resources on teaching and research methods in computing science, and also gives an overview of the research done by faculty in the department. Ethics and professional development are included in this course. Required for all graduate students.
<b>CMPUT <del>620</del> - Topics in Programming Languages</b> *3 (fi 6) (either term,3-0-0)	<b>CMPUT <del>620</del> - Topics in Programming Languages</b> *3 (fi 6) (either term,3-0-0)
<b>NEW COURSE</b>	<b>CMPUT <del>621</del> - Topics in Machine Learning</b> *3 (fi 6) (either term,3-0-0)
<b>NEW COURSE</b>	<b>CMPUT <del>622</del> - Topics in Machine Learning</b> *3 (fi 6) (either term,3-0-0)

<b>NEW COURSE</b>	<b>CMPUT 623 - Topics in Machine Learning</b> *3 (fi 6) (either term,3-0-0)
<b>NEW COURSE</b>	<b>CMPUT 624 - Topics in Machine Learning</b> *3 (fi 6) (either term,3-0-0)
<b>NEW COURSE</b>	<b>CMPUT 625 - Topics in Machine Learning</b> *3 (fi 6) (either term,3-0-0)
<b>NEW COURSE</b>	<b>CMPUT 626 - Topics in Machine Learning</b> *3 (fi 6) (either term,3-0-0)
<b>NEW COURSE</b>	<b>CMPUT 627 - Topics in Machine Learning</b> *3 (fi 6) (either term,3-0-0)
<b>NEW COURSE</b>	<b>CMPUT 628 - Topics in Machine Learning</b> *3 (fi 6) (either term,3-0-0)
<b>NEW COURSE</b>	<b>CMPUT 629 - Topics in Machine Learning</b> *3 (fi 6) (either term,3-0-0)

<p><b>MM 804 - Graphics and Animation</b> *3 (fi 6) (variable, variable)</p> <p>Developing appealing graphics and animations has become a requirement in many industrial applications like entertainment, advertising and online education. Animation is effective in explaining abstract concepts in biology, physics and medicine. 3D graphics and simulation is also beneficial in surgical training and planning. This course is intended to provide <b>in-depth</b> discussions on graphics and animation techniques, <b>in particular relating to</b> 3D data acquisition, processing, transmission and rendering. Students will have the opportunity to understand and compare various state-of-the-art techniques in 3D modeling, animation and special effects. Sections offered in a Cost Recovery format at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students.</p>	<p><b>MM 804 - Graphics and Animation</b> *3 (fi 6) (variable, variable)</p> <p>Developing appealing graphics and animations has become a requirement in many industrial applications like entertainment, advertising and online education. Animation is effective in explaining abstract concepts in biology, physics and medicine. 3D graphics and simulation is also beneficial in surgical training and planning. This course is intended to provide discussions on graphics and animation techniques, <b>including</b> 3D data acquisition, processing, transmission and rendering. Students will have the opportunity to understand and compare various state-of-the-art techniques in 3D modeling, animation and special effects. Sections offered in a Cost Recovery format at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students.</p>
<p><b>MM 805 - Computer Vision and 3DTV</b> *3 (fi 6) (variable, variable)</p> <p>While traditional image and video remain at the core of multimedia content, 3D video is perceived as the next generation in video technology. 3D video incorporates the depth perspective which enables viewers to feel immersed in a more realistic environment. This course provides students with the latest 3D video developments and in particular relating to stereoscopic and multi-view with or without special eye-wear. Many of the techniques proposed on 3D video inherit much of the strengths from 2D video methods and computer vision techniques. The 3D component is also included in the latest HEVC standard. This course will focus on literature review and survey of these techniques. Group studies, discussions and presentations constitute the main thrust of the course. Sections offered in a Cost Recovery format at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students.</p>	<p><b>MM 805 - Computer Vision and 3DTV</b> *3 (fi 6) (variable, variable)</p> <p>While traditional image and video remain at the core of multimedia content, 3D video is perceived as the next generation in video technology. 3D video incorporates the depth perspective which enables viewers to feel immersed in a more realistic environment. This course provides students with the latest <b>2D and</b> 3D video developments and in particular relating to stereoscopic and multi-view with or without special eye-wear. Many of the techniques proposed on 3D video inherit much of the strengths from 2D video methods and computer vision techniques. The 3D component is also included in the latest HEVC standard. This course will focus on literature review and survey of these techniques. Group studies, discussions and presentations constitute the main thrust of the course. Sections offered in a Cost Recovery format at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students.</p>
<p><b>MM 811 - AI in Multimedia</b> *3 (fi 6) (variable, variable)</p> <p>Artificial Intelligence (AI) covers a wide range of topics. In general, it means simulating human intelligence using computer algorithms. This course introduces a high level understanding of machine learning/deep learning, which is a branch of AI. The instructor may decide to include reinforcement learning and other aspects of neural networks, as well as natural language processing depending on the course schedule. Sections offered in a Cost Recovery format at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students.</p>	<p><b>MM 811 - AI in Multimedia</b> *3 (fi 6) (variable, variable)</p> <p>Artificial Intelligence (AI) <b>in multimedia</b> covers a wide range of topics. In general, it means simulating human intelligence using computer algorithms. This course introduces a high level understanding of machine learning/deep learning, which is a branch of AI. The instructor may decide to include reinforcement learning and other aspects of neural networks, as well as natural language processing depending on the course schedule. Sections offered in a Cost Recovery format at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students.</p>
<p><b>MINT 725 - SDN and NFV Concepts Architecture</b> *3 (fi 6) (variable, 36 hours)</p> <p>This course explains and analyzes the disruptive and promising technologies of Software Defined Networking (SDN) and Network Function Virtualization (NFV) that offer many benefits over the current approach and practices related to data network design and management. These benefits include optimization and simplification resulting from control and data plane separation, and orchestration of high value functions. The course will start with SDN and NFV basics and architecture, move to advanced topics including SDN controller design and deployment, SDN and NFV use cases discussion and deployment, and then finish with discussion of the next steps in the evolution of the SDN / NFV ecosystem in the data networking industry. The course will provide the knowledge and skills required for many engaging, challenging, and industry relevant capstone projects on advanced topics in SDN and NFV customization and development, which students may further wish to undertake as part of their program.</p>	<p><b>DELETE COURSE</b></p>



**Rationale for change:** (Not required for course deletion or editorial changes)

(Include documentation that other departments or Faculties offering similar courses support this proposal. In the case of substantial program changes you must also include evidence of consultation with students.)

:

<b>Department Contact</b> Name: Sharon Gannon	<b>Department Chair or Designate</b> Name: Kenny Wong	<b>Date approved by Dept Council:</b> 2020-09-18
Email: sgannon@ualberta.ca	csacu@ualberta.ca	<b>Date submitted to FoS:</b> 2020-09-22

Upload this form to the FoS Calendar Google Site.

Include one form for each grouping of changes. ie, all course changes can go in one document if they were approved at the same department council.

## CALENDAR CHANGE REQUEST FORM

**Department: Computing Science**

**Program Changes 2021-22**

Highlight type of change request below:

1. **Course Change** (new course, change to existing course, course deletion)      2. **Editorial Change** (basic editing)      3. **Admission Requirement**      4. **Program Change**

CURRENT	PROPOSED
<p><b>Honors in Computing Science [Science]</b></p> <p><b>Notes</b></p> <ol style="list-style-type: none"> <li>Students can take a maximum of ★42 in 100-level courses.</li> <li>Each Fall and Winter term throughout their program, all Honors students must register in the Honors seminar <a href="#">CMPUT 495</a> (★0, 1hr/week). This seminar provides honors students with the opportunity to interact with faculty members and honors students from all years of the program to explore topics of interest.</li> <li>At least ★12 in CMPUT must be at the 400-level.</li> <li>Credit in SCI 100 will be considered equivalent to <a href="#">CMPUT 174</a> and ★24 Science options (see <a href="#">details of courses</a>). Credit in <a href="#">SCI 151</a> will be considered equivalent to ★6 Science options.</li> <li><del>MATH 114, MATH 115, MATH 125</del> or the Honors versions <del>117, 118, 127</del>; STAT 141, <a href="#">STAT 151</a> or <a href="#">STAT 265</a>, <a href="#">STAT 252</a> or <a href="#">STAT 266</a> are recommended as Science options because they are prerequisites for some advanced CMPUT courses.</li> </ol>	<p><b>Notes</b></p> <ol style="list-style-type: none"> <li>Students can take a maximum of ★42 in 100-level courses.</li> <li>Each Fall and Winter term throughout their program, all Honors students must register in the Honors seminar <a href="#">CMPUT 495</a> (★0, 1hr/week). This seminar provides honors students with the opportunity to interact with faculty members and honors students from all years of the program to explore topics of interest.</li> <li>At least ★12 in CMPUT must be at the 400-level.</li> <li>Credit in SCI 100 will be considered equivalent to <a href="#">CMPUT 174</a> and ★24 Science options (see <a href="#">details of courses</a>). Credit in <a href="#">SCI 151</a> will be considered equivalent to ★6 Science options.</li> <li><b>One of MATH 134, 144, 154, or 117; one of MATH 136, 146, 156, or 118; MATH 125 or 127; STAT 141, <a href="#">STAT 151</a> or <a href="#">STAT 265</a>, and <a href="#">STAT 252</a> or <a href="#">STAT 266</a> are recommended as Science options because they are prerequisites for some advanced CMPUT courses.</b></li> </ol>
<p><b>Computing Science Honors Stream in Bioinformatics [Science]</b></p> <p><del>Effective September 2016, there will be no further admissions to BSc Honors or BSc Specialization in Bioinformatics. Students who entered one of these programs prior to September 2016 must complete all program requirements by April 30, 2020. Refer to the <a href="#">Calendar in effect</a> at the time you were admitted or readmitted for the regulations governing the degree program requirements. The last BSc Honors or BSc Specialization in Bioinformatics will be granted at Spring Convocation 2020.</del></p>	<p><del>DELETE</del></p>
<p><b>Specialization in Computing Science [Science]</b></p> <p><b>Year 1</b></p> <ul style="list-style-type: none"> <li><a href="#">CMPUT 174 - Introduction to the Foundations of Computation I</a> (See Note 5)</li> <li><a href="#">CMPUT 175 - Introduction to the Foundations of Computation II</a></li> <li><del>MATH 114 - Elementary Calculus I</del> (See Note 5)</li> <li><del>MATH 115 - Elementary Calculus II</del> (See Note 5)</li> <li>★6 in junior ENGL or ★3 in junior ENGL and ★3 junior WRS</li> <li>★12 in options (see Notes 1, 2, 5)</li> </ul>	<p><b>Year 1</b></p> <ul style="list-style-type: none"> <li><a href="#">CMPUT 174 - Introduction to the Foundations of Computation I</a> (See Note 5)</li> <li><a href="#">CMPUT 175 - Introduction to the Foundations of Computation II</a></li> <li><b>One of MATH 117 - Honors Calculus I, MATH 134 - Calculus for the Life Sciences I, MATH 144 - Calculus for the Physical Sciences I, or MATH 154 - Calculus for Business and Economics I</b> (See Note 5)</li> <li><b>One of MATH 118 - Honors Calculus II, MATH 136 - Calculus for the Life Sciences II, MATH 146 - Calculus for the Physical Sciences II, or MATH 156 - Calculus for Business and Economics II</b> (See Note 5)</li> <li>★6 in junior ENGL or ★3 in junior ENGL and ★3 junior WRS</li> <li>★12 in options (see Notes 1, 2, 5)</li> </ul>
<p><b>Specialization in Computing Science—Minor in Business [Science]</b></p> <p><b>Year 1</b></p> <ul style="list-style-type: none"> <li><a href="#">CMPUT 174 - Introduction to the Foundations of Computation I</a></li> <li><a href="#">CMPUT 175 - Introduction to the Foundations of Computation II</a></li> <li><del>MATH 114 - Elementary Calculus I</del></li> </ul>	<p><b>Year 1</b></p> <ul style="list-style-type: none"> <li><a href="#">CMPUT 174 - Introduction to the Foundations of Computation I</a></li> <li><a href="#">CMPUT 175 - Introduction to the Foundations of Computation II</a></li> <li><b>One of MATH 117 - Honors Calculus I, MATH 134 - Calculus for the Life Sciences I, MATH 144 - Calculus for the Physical</b></li> </ul>

<ul style="list-style-type: none"> <li>● <del>MATH 115 - Elementary Calculus II</del></li> <li>● <a href="#">ECON 101 - Introduction to Microeconomics</a></li> <li>● <a href="#">ECON 102 - Introduction to Macroeconomics</a></li> <li>● ★6 junior ENGL or ★3 junior ENGL and ★3 junior WRS</li> <li>● ★6 in options (See Notes 1, 5, and 6)</li> </ul>	<p><a href="#">Sciences I, or MATH 154 - Calculus for Business and Economics I</a> (See Note 5)</p> <ul style="list-style-type: none"> <li>● <del>One of MATH 118 - Honors Calculus II, MATH 136 - Calculus for the Life Sciences II, MATH 146 - Calculus for the Physical Sciences II, or MATH 156 - Calculus for Business and Economics II</del> (See Note 5)</li> <li>● <a href="#">ECON 101 - Introduction to Microeconomics</a></li> <li>● <a href="#">ECON 102 - Introduction to Macroeconomics</a></li> <li>● ★6 junior ENGL or ★3 junior ENGL and ★3 junior WRS</li> <li>● ★6 in options (See Notes 1, 5, and 6)</li> </ul>
<p><b>Notes</b></p> <ol style="list-style-type: none"> <li>Options consist of Science options (see <a href="#">details of courses</a>), Arts options, Business options, and approved options from any Faculty. The options must satisfy at least ★12 from Science (see <a href="#">details of courses</a>) and ★6 from Arts, and an additional ★12 that may be chosen from Science (see <a href="#">details of courses</a>), Arts or another Faculty. Higher level CMPUT courses may require specific CMPUT, MATH or STAT courses as prerequisites. Therefore, prerequisites for higher level CMPUT courses must be considered when choosing options.</li> <li>Students must have ★6 in introductory statistics and probability. This can be satisfied by selecting (<a href="#">STAT 151</a> or <a href="#">STAT 235</a>) and <a href="#">STAT 252</a>, or the more advanced sequence of <a href="#">STAT 265</a> and <a href="#">STAT 266</a>.</li> <li>Students must take ★3 in Group A courses which include <a href="#">CMPUT 304</a>, <a href="#">CMPUT 325</a>, <a href="#">CMPUT 340</a> and <a href="#">CMPUT 474</a>. A complete list of Group A courses to be offered in a given year is available from the department.</li> <li>Students must take ★3 in Group B project courses which include <a href="#">CMPUT 404</a>, <a href="#">CMPUT 401</a>, CMPUT 410, <a href="#">CMPUT 412</a>, <a href="#">CMPUT 414</a>, <a href="#">CMPUT 415</a>, CMPUT 422, and <a href="#">CMPUT 466</a>. The department may approve variations in the above requirement on application.</li> <li>Credit in SCI 100 will be considered equivalent to <a href="#">CMPUT 174</a>, <a href="#">MATH 114</a>, <a href="#">MATH 115</a> and ★18 options (see <a href="#">details of courses</a>).</li> <li>Credit cannot be obtained for <a href="#">MIS 311</a>, <a href="#">MIS 415</a>, <a href="#">MIS 419</a>, MIS 435 and <a href="#">MGTSC 312</a>.</li> <li>Credit in <a href="#">SCI 151</a> will be considered equivalent to <a href="#">STAT 151</a> and ★3 Science option (see <a href="#">details of courses</a>).</li> </ol>	<p><b>Notes</b></p> <ol style="list-style-type: none"> <li>Options consist of Science options (see <a href="#">details of courses</a>), Arts options, Business options, and approved options from any Faculty. The options must satisfy at least ★12 from Science (see <a href="#">details of courses</a>) and ★6 from Arts, and an additional ★12 that may be chosen from Science (see <a href="#">details of courses</a>), Arts or another Faculty. Higher level CMPUT courses may require specific CMPUT, MATH or STAT courses as prerequisites. Therefore, prerequisites for higher level CMPUT courses must be considered when choosing options.</li> <li>Students must have ★6 in introductory statistics and probability. This can be satisfied by selecting (<a href="#">STAT 151</a> or <a href="#">STAT 235</a>) and <a href="#">STAT 252</a>, or the more advanced sequence of <a href="#">STAT 265</a> and <a href="#">STAT 266</a>.</li> <li>Students must take ★3 in Group A courses which include <a href="#">CMPUT 304</a>, <a href="#">CMPUT 325</a>, <a href="#">CMPUT 340</a> and <a href="#">CMPUT 474</a>. A complete list of Group A courses to be offered in a given year is available from the department.</li> <li>Students must take ★3 in Group B project courses which include <a href="#">CMPUT 404</a>, <a href="#">CMPUT 401</a>, CMPUT 410, <a href="#">CMPUT 412</a>, <a href="#">CMPUT 414</a>, <a href="#">CMPUT 415</a>, CMPUT 422, and <a href="#">CMPUT 466</a>. The department may approve variations in the above requirement on application.</li> <li>Credit in SCI 100 will be considered equivalent to <a href="#">CMPUT 174</a>, <a href="#">MATH 114</a>, <a href="#">MATH 115</a> and ★18 options (see <a href="#">details of courses</a>).</li> <li>Credit cannot be obtained <a href="#">in business and approved options</a> for <a href="#">MIS 311</a>, <a href="#">MIS 415</a>, <a href="#">MIS 419</a>, MIS 435 and <a href="#">MGTSC 312</a>.</li> <li>Credit in <a href="#">SCI 151</a> will be considered equivalent to <a href="#">STAT 151</a> and ★3 Science option (see <a href="#">details of courses</a>).</li> </ol>
<p><b>Computing Science Specialization in Software Practice [Science]</b></p> <p><b>Year 1</b></p> <ul style="list-style-type: none"> <li>● <a href="#">CMPUT 174 - Introduction to the Foundations of Computation I</a> (See Note 5)</li> <li>● <a href="#">CMPUT 175 - Introduction to the Foundations of Computation II</a></li> <li>● <a href="#">CMPUT 272 - Formal Systems and Logic in Computing Science</a> (See Note 1)</li> <li>● <del>MATH 114 - Elementary Calculus I</del> (See Note 5)</li> <li>● <del>MATH 115 - Elementary Calculus II</del> (See Note 5)</li> <li>● ★6 in junior ENGL or ★3 in junior ENGL and ★3 junior WRS</li> <li>● ★6 in Science options (see <a href="#">details of courses</a>) (See Notes 5 and 7)</li> <li>● ★3 in an approved option (see Note 6)</li> </ul>	<p><b>Year 1</b></p> <ul style="list-style-type: none"> <li>● <a href="#">CMPUT 174 - Introduction to the Foundations of Computation I</a> (See Note 5)</li> <li>● <a href="#">CMPUT 175 - Introduction to the Foundations of Computation II</a></li> <li>● <a href="#">CMPUT 272 - Formal Systems and Logic in Computing Science</a> (See Note 1)</li> <li>● <del>One of MATH 117 - Honors Calculus I, MATH 134 - Calculus for the Life Sciences I, MATH 144 - Calculus for the Physical Sciences I, or MATH 154 - Calculus for Business and Economics I</del> (See Note 5)</li> <li>● <del>One of MATH 118 - Honors Calculus II, MATH 136 - Calculus for the Life Sciences II, MATH 146 - Calculus for the Physical Sciences II, or MATH 156 - Calculus for Business and Economics II</del> (See Note 5)</li> <li>● ★6 in junior ENGL or ★3 in junior ENGL and ★3 junior WRS</li> <li>● ★6 in Science options (see <a href="#">details of courses</a>) (See Notes 5 and 7)</li> <li>● ★3 in an approved option (see Note 6)</li> </ul>
<p><b>Year 5</b></p> <ul style="list-style-type: none"> <li>● <a href="#">CMPUT 325 - Non-Procedural Programming Languages</a></li> <li>● <a href="#">CMPUT 401 - Software Process and Product Management</a></li> <li>● <a href="#">CMPUT 402 - Software Quality</a></li> <li>● <del>INT-D 400 - Science Internship Capstone</del></li> <li>● ★3 in CMPUT at the 300-level or higher (see Note 4)</li> <li>● ★6 in Business electives (see Note 2)</li> <li>● ★3 in an approved option (see Note 6)</li> <li>● ★3 in a Science option (see <a href="#">details of courses</a>)</li> <li>● ★3 in an Arts option</li> </ul>	<p><b>Year 5</b></p> <ul style="list-style-type: none"> <li>● <a href="#">CMPUT 325 - Non-Procedural Programming Languages</a></li> <li>● <a href="#">CMPUT 401 - Software Process and Product Management</a></li> <li>● <a href="#">CMPUT 402 - Software Quality</a></li> <li>● ★3 in CMPUT at the 300-level or higher (see Note 4)</li> <li>● ★6 in Business electives (see Note 2)</li> <li>● ★3 in an approved option (see Note 6)</li> <li>● ★3 in a Science option (see <a href="#">details of courses</a>)</li> <li>● ★3 in an Arts option</li> </ul>
<p><b>Computing Science Specialization Stream in Bioinformatics [Science]</b></p> <p><del>Effective September 2016, there will be no further admissions to BSc Honors or BSc Specialization in Bioinformatics. Students who entered one of these programs prior to September 2016 must complete all program requirements by April 30, 2020. Refer to the <a href="#">Calendar in effect</a> at the time you were admitted or readmitted for the regulations governing the degree program requirements. The last BSc Honors or BSc Specialization in Bioinformatics will be granted at Spring Convocation 2020.</del></p>	<p><del>DELETE</del></p>

**Rationale for change:** (Not required for course deletion or editorial changes)

Updated with current introductory Math course numbers; removal of INT D 400 requirement (deleted course); removal of text about an already deleted program.

(Include documentation that other departments or Faculties offering similar courses support this proposal. In the case of substantial program changes you must also include evidence of consultation with students.)

:

<b>Department Contact</b> Name: Sharon Gannon	<b>Department Chair or Designate</b> Name: Kenny Wong	<b>Date approved by Dept Council:</b> 2020-09-18
Email: sgannon@ualberta.ca	csacu@ualberta.ca	<b>Date submitted to FoS:</b> <b>2020-09-22</b>

Upload this form to the FoS Calendar Google Site.

Include one form for each grouping of changes. ie, all course changes can go in one document if they were approved at the same department council.

**Department of Mathematical and Statistical Sciences**

Course Changes  
October 13, 2020

**Course Changes**

Current	Proposed
<p><b>MATH 447 - Elementary Topology</b> ★ 3 (<i>fi</i> 6) (either term, 3-0-0) General point-set topology. Compactness, Tychonoff's theorem, connectedness. Metric spaces, completeness, Baire's theorem. Urysohn's lemma. Topological manifolds. Homotopy theory, fundamental group, covering spaces. Prerequisite : MATH 216 or 217. Corequisites: MATH 328. Offered in alternate years. It may be offered in intervening years if demand is sufficient.</p>	<p><b>MATH 447 - Elementary Topology ★</b> 3 (<i>fi</i> 6) (either term, 3-0-0) General point-set topology. Compactness, Tychonoff's theorem, connectedness. Metric spaces, completeness, Baire's theorem. Urysohn's lemma. Topological manifolds. Homotopy theory, fundamental group, covering spaces. Prerequisite : MATH 216 or 217. Corequisites: MATH 328 or <b>MA PH 464</b>. Offered in alternate years. It may be offered in intervening years if demand is sufficient.</p>

Rationale : MA PH 464 covers the basics of group theory needed for MATH 447.

Current	Proposed
<p><b>MATH 216 - Introduction to Analysis</b> ★ 3 (<i>fi</i> 6) (either term, 3-0-0) Sets and functions. Induction. Axiomatic introduction of the real numbers. Sequences and series. Continuity and properties of continuous functions. Differentiation. Riemann integral. <b>Prerequisite</b>: One of MATH 101, 115, 136, 146, 156 or SCI 100. Note: This course may not be taken for credit if credit has already been obtained in MATH 118. Credit can only be obtained in one of MATH 216 and MATH 314.</p>	<p><b>MATH 216 - Introduction to Analysis</b> ★ 3 (<i>fi</i> 6) (either term, 3-0-0) Sets and functions. Induction. Axiomatic introduction of the real numbers. Sequences and series. Continuity and properties of continuous functions. Differentiation. Riemann integral. <b>Corequisite</b> : One of MATH 101, 115, 136, 146, 156 or SCI 100. Note: This course may not be taken for credit if credit has already been obtained in MATH 118. Credit can only be obtained in one of MATH 216 and MATH 314.</p>

Rationale : Calculus I exposes students to the basic ideas explored in MATH 216, so Calculus II does not need to be a prerequisite for this course.

Current	Proposed
<p><b>MATH 300 - Advanced Boundary Value Problems I</b> ★ 3 (<i>fi 6</i>) (either term or Spring/Summer, 3-0-0) Derivation of the classical partial differential equations of applied mathematics, solutions using separation of variables. Fourier expansions and their applications to boundary value problems. Introduction to Fourier Transforms. Emphasis on building an appropriate mathematical model from a physical problem, solving the mathematical problem, and carefully interpreting the mathematical results in the context of the original physical problem. Prerequisites: MATH 201 and 209. Notes: (1) Open only to students in Engineering, Specialization Physics, and Specialization Geophysics. (2) Credit can be obtained in at most one of MATH 300 and 337.</p>	<p><b>MATH 300 - Advanced Boundary Value Problems I</b> ★ 3 (<i>fi 6</i>) (either term or Spring/Summer, 3-0-0) Derivation of the classical partial differential equations of applied mathematics, solutions using separation of variables. Fourier expansions and their applications to boundary value problems. Introduction to Fourier Transforms. Emphasis on building an appropriate mathematical model from a physical problem, solving the mathematical problem, and carefully interpreting the mathematical results in the context of the original physical problem. Prerequisites: MATH 201 and 209. Notes: (1) Open only to students in Engineering, Specialization Physics, and Specialization Geophysics. (2) Credit can be obtained in at most one of MATH 300 and 337. (3) Course cannot be taken for credit if credit has been obtained in ECE 341</p>

Current	Proposed
<p><b>MATH 337 - Introduction to Partial Differential Equations</b></p> <p>★ 3 (<i>fi 6</i>) (either term, 3-0-0) Boundary value problems of classical Math Physics, orthogonal expansions, classical special functions. Advanced transform techniques. Prerequisites: One of MATH 209, 215, or 317, and one of MATH 201, 334 or 336. <b>Note:</b> Credit can be obtained in at most one of MATH 300 or 337.</p>	<p><b>MATH 337 - Introduction to Partial Differential Equations</b></p> <p>★ 3 (<i>fi 6</i>) (either term, 3-0-0) Boundary value problems of classical Math Physics, orthogonal expansions, classical special functions. Advanced transform techniques. Prerequisites: One of MATH 209, 215, or 217, and one of MATH 201, 334 or 336. <b>Notes:</b> (1) Credit can be obtained in at most one of MATH 300 or 337. (2) Course cannot be taken for credit if credit has been obtained in ECE 341</p>

Rationale : a) ECE 341 essentially shares the same material as MATH 300/337 (V. Poutkaradze), so student presenting it should not be allowed to double dip.  
 b) We currently treat MATH 217 as meeting the MATH 209 requirement for Engineers. As such, it should be allowed to meet the calculus prerequisite for MATH 337.

Current	Proposed
<p><b>STAT 151 - Introduction to Applied Statistics I</b> ★ 3 (fi 6) (either term, 3-0-0)            Data collection and presentation, descriptive statistics. Probability distributions, sampling distributions and the central limit theorem. Point estimation and hypothesis testing. Correlation and regression analysis. Goodness of fit and contingency table. Prerequisite: Mathematics 30-1 or 30-2. Note : This course may not be taken for credit if credit has been obtained in any STAT course, or in PEDS 109, PSYCO 211, SCI 151 or SOC 210.</p>	<p><b>STAT 151 - Introduction to Applied Statistics I</b> ★ 3 (fi 6) (either term, 3-0-0)            Data collection and presentation, descriptive statistics. Probability distributions, sampling distributions and the central limit theorem. Point estimation and hypothesis testing. Correlation and regression analysis. Goodness of fit and contingency table. Prerequisite: Mathematics 30-1 or 30-2. Note : This course may not be taken for credit if credit has been obtained in any STAT course, or in <b>KIN 109</b>, PEDS 109, PSYCO 211, <b>PThER 352</b>, SCI 151 or SOC 210.</p>

Current	Proposed
<p><b>STAT 161 - Introductory Statistics for Business and Economics</b> ★ 3 (fi 6) (either term, 3-0-0) Data collection and presentation, descriptive statistics. Probability distributions, sampling distributions and the central limit theorem. Point estimation and hypothesis testing. Correlation and regression analysis. Goodness of fit and contingency table. Use of a microcomputer software package for statistical analyses in business and economics. Prerequisite: Mathematics 30-1 or 30-2. This course may not be taken for credit if credit has been obtained in any STAT course, or in PEDS 109, PSYCO 211, SCI 151 or SOC 210.</p>	<p><b>STAT 161 - Introductory Statistics for Business and Economics</b> ★ 3 (fi 6) (either term, 3-0-0) Data collection and presentation, descriptive statistics. Probability distributions, sampling distributions and the central limit theorem. Point estimation and hypothesis testing. Correlation and regression analysis. Goodness of fit and contingency table. Use of a microcomputer software package for statistical analyses in business and economics. Prerequisite: Mathematics 30-1 or 30-2. This course may not be taken for credit if credit has been obtained in any STAT course, or in <b>KIN 109</b>, PEDS 109, PSYCO 211, <b>PThER 352</b>, SCI 151 or SOC 210.</p>

Rartionale : PEDS 109 was renamed KIN 109 a few years ago. PThER 352, introduced in 2018, shares about 9 weeks of content with STAT 151. Such a large overlap suggests



that students should not be able to obtain STAT 151 credit if credit has already been obtained in PTher 352.

Current	Proposed
<p><b>STAT 252 - Introduction to Applied Statistics II</b> ★ 3 (<i>fi 6</i>) (either term, 3-0-2)            Methods in applied statistics including regression techniques, analysis of variance and covariance, and methods of data analysis. Applications are taken from Biological, Physical and Social Sciences, and Business. Prerequisite: One of STAT 141, 151, 161, 135 or SCI 151. Notes: (1) Credit can be obtained in at most one of STAT 252, 319, 337 or 341. (2) This course may not be taken for credit if credit has already been obtained in STAT 368 or 378.</p>	<p><b>STAT 252 - Introduction to Applied Statistics II</b> ★ 3 (<i>fi 6</i>) (either term, 3-0-2)            Methods in applied statistics including regression techniques, analysis of variance and covariance, and methods of data analysis. Applications are taken from Biological, Physical and Social Sciences, and Business. Prerequisite: One of STAT 141, 151, 161, 235 or SCI 151. Notes: (1) Credit can be obtained in at most one of STAT 252, 319, 337 or 341, or AREC 313. (2) This course may not be taken for credit if credit has already been obtained in STAT 368 or 378.</p>

Current	Proposed
<p><b>STAT 337 - Biostatistics</b> ★ 3 (<i>fi 6</i>)            (first term, 3-0-2) Methods of data analysis useful in Biostatistics including analysis of variance and covariance and nested designs, multiple regression, logistic regression and log-linear models. The concepts will be motivated by problems in the life sciences. Applications to real data will be emphasized through the use of a computer package. Prerequisite: STAT 151 or SCI 151 and a 200-level Biological Science course. <b>Note:</b> This course may not be taken for credit if credit has already been obtained in STAT 252, 368 or 378.</p>	<p><b>STAT 337 - Biostatistics</b> ★ 3 (<i>fi 6</i>) (first term, 3-0-2) Methods of data analysis useful in Biostatistics including analysis of variance and covariance and nested designs, multiple regression, logistic regression and log-linear models. The concepts will be motivated by problems in the life sciences. Applications to real data will be emphasized through the use of a computer package. Prerequisite: STAT 151, STAT 161, or SCI 151 and a 200-level Biological Science course. <b>Notes :</b> (1) Credit can be obtained in at most one of STAT 252, STAT 337, and AREC 313. (2) This course may not be taken for credit if credit has already been obtained in STAT 368 or 378.</p>

Rationale : (1) Mike Kowalski comments AREC 313 is similar enough to STAT 252 that students should not be allowed to obtain credit in both. (2) STAT 161 should be an acceptable prerequisite for STAT 337.



## EARLY IMPLEMENTATION FALL 2020

**Department: Earth & Atmospheric Sciences**

Highlight type of change request below:

1. **Course Change** (new course, change to existing course, course deletion)      2. **Editorial Change** (basic editing)      3. **Admission Requirement**      4. **Program Change**

CURRENT <i>Enter the Calendar URL here</i>	PROPOSED
<p><b>EAS 541 - Topics in <del>Structural Geology and</del> Tectonics</b></p> <hr/> <p>★ 3 (fi 6) (either term, 3-0-0) Topics in tectonics and structural geology, from microscopic to macroscopic scale, including present-day tectonic processes and the development of ancient orogens</p>	<p><b>EAS 541 Topics in <b>Tectonics</b></b></p> <hr/> <p>★ 3 (fi 6) (either term, 3-0-0) Topics in tectonics and the structure of the Earth, from microscopic to global scale, including present-day tectonic processes and the development of ancient orogens.</p>

**Rationale for change:** (Not required for course deletion or editorial changes)  
 (Include documentation that other departments or Faculties offering similar courses support this proposal. In the case of substantial program changes you must also include evidence of consultation with students.)

<b>Department Contact</b> Name: Melissa Dhillon	<b>Department Chair or Designate</b> Name: Tara McGee	<b>Date approved by Dept Council:</b> February 25, 2020
Email: dhillon2@ualberta.ca	tmgee@ualberta.ca	<b>Date submitted to FoS:</b> May 12, 2020

Upload this form to the FoS Calendar Google Site.  
 Include one form for each grouping of changes. ie, all course changes can go in one document if they were approved at the same department council.

## CALENDAR CHANGE REQUEST FORM

**Department: Earth And Atmospheric Sciences**

Highlight type of change request below:

1. **Course Change** (new course, change to existing course, course deletion)      2. **Editorial Change** (basic editing)      3. **Admission Requirement**      4. **Program Change**

<b>CURRENT</b> Enter the Calendar URL here	<b>PROPOSED</b>
<p><del>Strike through and highlight</del> deletions</p> <p><b>HGP 100 - Introduction to Human Geography and Planning</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) The spatial organization of human landscapes, and significance of the distribution of human activity. Not available to students with credit in <del>EAS 192.</del></p> <p><b>HGP 240 - Cities and Urbanism</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Introduction to urban geography and planning emphasizing interactions between the built environment and processes of social and economic change. Topics include urban form, housing and diversity in North American cities. Prerequisite: Any *3 course. Not available to students with credit in <del>EAS 293.</del></p> <p><b>HGP 250 - <del>Natural Resources</del> and Environmental Management</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) An introduction to sustainable development approaches to dealing with environmental issues <del>including renewable and non-renewable natural resources.</del> Prerequisite: Any *3 course. Not available to students with credit in <del>EAS 294.</del></p> <p><b>HGP 252 - Human Dimensions of Environmental Hazards</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Interactions between environmental hazards, individuals and communities; risk reduction strategies by members of the public and management agencies. Prerequisite: Any *3 course. Not available to students with credit in <del>EAS 295.</del></p> <p><b>HGP 341 - Social and Cultural Geography</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Connections between space, society and culture at multiple scales. Formation and significance of cultural landscapes, and shaping of social life by spatial arrangements. Prerequisite: <del>EAS 192 or HGP 100 and any one EAS 29X or HGP 2XX course.</del> Not available to students with credit in <del>EAS 393.</del></p> <p><b>HGP 342 - The Spatial Economy</b></p>	<p><u>Underline and highlight</u> additions</p> <p><b>HGEO 100 - Introduction to Human Geography and Planning</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) The spatial organization of human landscapes, and significance of the distribution of human activity. Not available to students with credit in <u>HGP 100.</u></p> <p><b>HGEO 240 - Cities and Urbanism</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Introduction to urban geography and planning emphasizing interactions between the built environment and processes of social and economic change. Topics include urban form, housing and diversity in North American cities. Prerequisite: Any *3 course. Not available for students with credit in <u>HGP 240.</u></p> <p><b>HGEO 250 – <u>Sustainable Development</u> and Environmental Management</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) An introduction to sustainable development approaches to dealing with environmental issues. Prerequisite: Any *3 course. Not available for students with credit in <u>HGP 250.</u></p> <p><b>HGEO 252 - Human Dimensions of Environmental Hazards</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Interactions between environmental hazards, individuals and communities; risk reduction strategies by members of the public and management agencies. Prerequisite: Any *3 course. Not available for students with credit in <u>HGP 252.</u></p> <p><b>HGEO 341 - Social and Cultural Geography</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Connections between space, society and culture at multiple scales. Formation and significance of cultural landscapes, and shaping of social life by spatial arrangements. Prerequisite: <u>HGP 100, HGEO 100, and HGEO 240 or HGP 240.</u> Not available for students with credit in <u>HGP 341.</u></p> <p><b>HGEO 342 - The Spatial Economy</b></p>

★ 3 (fi 6) (either term, 3-0-0) Introduction to the study of the location, distribution and spatial organization of economic activities on both the local and the international scale. Prerequisite: EAS 192 or HGP 100, and any one EAS 29X or HGP 2XX course. Not available to students with credit in EAS 396.

### **HGP 343 - Geographies of Health and Health Care**

★ 3 (fi 6) (either term, 2-1s-0) Geographic research on health and health care, including environmental, social, individual and institutional factors. Prerequisites: EAS 192 or HGP 100, and any one EAS 29X or HGP 2XX course. Not available to students with credit in EAS 395.

### **HGP 381 - Topics In Human Geography and Planning**

★ 3 (fi 6) (either term, 3-0-0) Theory and application of contemporary issues in human geography and/or planning. Prerequisite: EAS 192 or HGP 100, and one EAS 29X or HGP 2XX course. Topics vary; may be taken more than once for credit provided no topic is repeated.

### **HGP 382 - Topics in Regional Geography**

★ 3 (fi 6) (either term, 3-0-0) Selected regions are studied in a regional or topical format. Topics vary; may be taken more than once for credit provided no topic is repeated.

### **HGP 399 - Research Methods in Human Geography and Planning**

★ 3 (fi 6) (either term, 3-0-0) Collection and analysis of data for social research in planning and human geography. Research design and sampling procedures. Both qualitative and quantitative methods are explored. Fieldwork required. Prerequisites: Any three HGP courses or any three EAS X9X courses. Not available to students with credit in EAS 392.

### **HGP 401 - HGP Work Experience Practicum**

★ 3 (fi 6) (either term, 3-0-0) Required of all students who have recently completed an HGP Work Experience Practicum. This course must be completed during the first academic year following their return to full-time studies in order to graduate in the HGP Work Experience Practicum. Grade is determined based on the employer evaluation of the student's job performance and the performance on written assignments and oral presentations during the course. Prerequisite: WKEXP 801 and WKEXP 802.

### **HGP 443 - Environment and Health**

★ 3 (fi 6) (either term, 3-0-0) An examination of relations between human health and environmental issues, particularly those related to the natural, built, and social environments. Prerequisite: EAS 395 or HGP 343 or consent of Instructor. Not available to students with credit in EAS 494.

★ 3 (fi 6) (either term, 3-0-0) Introduction to the study of the location, distribution and spatial organization of economic activities on both the local and the international scale. Prerequisites: HGEO 100 or HGP 100 and any HGEO 2XX or PLAN 2XX course. Not available for students with credit in HGP 342.

### **HGEO 343 – Geographies of Health and Health Care**

★ 3 (fi 6) (either term, 2-1s-0) Geographic research on health and health care, including environmental, social, individual and institutional factors. Prerequisites: HGEO 100 or HGP 100 and any HGP 2XX, HGEO 2XX or PLAN 2XX course. Not available for students with credit in HGP 343.

### **HGEO 381 - Topics in Human Geography**

★ 3 (fi 6) (either term, 3-0-0) Theory and application of contemporary issues in human geography. Prerequisite: HGP 100 or HGEO 100. Topics vary; may be taken more than once for credit provided no topic is repeated.

### **HGEO 382 - Topics in Regional Geography**

★ 3 (fi 6) (either term, 3-0-0) Selected regions are studied in a regional or topical format. Topics vary; may be taken more than once for credit provided no topic is repeated.

### **HGEO 399 - Research Methods in Human Geography**

★ 3 (fi 6) (either term, 3-0-0) Collection and analysis of data for social research in human geography. Research design and sampling procedures. Both qualitative and quantitative methods are explored. Fieldwork required. Prerequisites: HGEO 100 or HGP 100 and any HGEO 2XX, PLAN 2XX, or HGP 2XX course. Not available for students with credit in HGP 399.

### **HGEO 443 - Environment and Health**

★ 3 (fi 6) (either term, 3-0-0) An examination of relations between human health and environmental issues, particularly those related to the natural, built, and social environments. Prerequisite: HGEO 343, HGP 343 or consent of Instructor. Not available for students with credit in HGP 443.

**HGP 450 - Resource Management and Environmental Policy**

★ 3 (fi 6) (either term, 3-0-0) Roles of governmental and nongovernmental organizations, industry and private enterprise, and advocacy organizations in addressing issues of resource scarcity and environmental policy. Institutions, policies, and strategies for resource and environmental management at the provincial/state, national, and international levels. Prerequisites: **EAS 294** or HGP 250. Not available to students with credit in **EAS 491**.

**HGP 452 - Human Dimensions of Environmental Change**

★ 3 (fi 6) (either term, 3-0-0) Examination of the human dimensions of climate change. Topics include climate change politics, public perceptions and impacts, vulnerability and resilience, mitigation and adaptation. **Classes concurrent with HGP 552**. Prerequisite: Any 300-level EAS or HGP course or Consent of Instructor. Not available to students with credit in **EAS 493**.

**HGP 470 - Geographical Information Systems and Advanced Cartography for Social Science**

★ 3 (fi 6) (either term, 2-0-1) The application of spatial analytic tools to social science topics. Assignments impart technical aspects through hands-on experience with commercial and in-house spatial analysis software. Prerequisite: EAS 221. Not available to students with credit in **EAS 492**.

**HGP 481 - Advanced Topics in Human Geography**

★ 3 (fi 6) (either term, 3-0-0) Prerequisite: **EAS 492** or HGP 100, and any ~~one EAS 29X~~ or HGP 2XX course. Topics vary; may be taken more than once for credit provided no topic is repeated. **Students cannot repeat topics that have been taken previously in EAS 495**.

**HGP 496 - Undergraduate Thesis**

★ 6 (fi 12) (variable, 3-0-0) Required for Honors students in their final year. Restricted to honors students in Human Geography. Prerequisite: Any 300 level HGP course and approval of the Department.

**HGP 497 - Directed Study in Human Geography or Planning I**

★ 3-6 (variable) (variable, 3-0-0) Prerequisite: Consent of Instructor. May be taken more than once for credit provided no topic is repeated.

**HGP 498 - Directed Study in Human Geography or Planning II**

★ 3 (fi 6) (either term, 3-0-0) Prerequisite: **EAS 497** or HGP 497 and Consent of Instructor. May be taken more than once for credit provided no topic is repeated.

**HGP 499 - Practical Study in Human Geography and Planning**

★ 3 (fi 6) (variable, 10 - 15 days) Intensive field or practical study in Human Geography and Planning, typically as part of a team working off-campus. Details

**HGEO 450 - Resource Management and Environmental Policy**

★ 3 (fi 6) (either term, 3-0-0) Roles of governmental and nongovernmental organizations, industry and private enterprise, and advocacy organizations in addressing issues of resource scarcity and environmental policy. Institutions, policies, and strategies for resource and environmental management at the provincial/state, national, and international levels. Prerequisites: **HGEO 250** or HGP 250. Not available for students with credit in **HGP 450**.

**HGEO 452 - Human Dimensions of Environmental Change**

★ 3 (fi 6) (either term, 3-0-0) Examination of the human dimensions of climate change. Topics include climate change politics, public perceptions and impacts, vulnerability and resilience, mitigation and adaptation. Prerequisite: Any 300-level EAS, HGP or **HGEO** course or Consent of Instructor. Not available for students with credit in **HGP 452**.

**HGEO 470 - Geographical Information Systems for Social Science**

★ 3 (fi 6) (either term, 2-0-1) The application of spatial analytic tools to social science topics. Assignments impart technical aspects through hands-on experience with commercial and in-house spatial analysis software. Prerequisite: EAS 221. Not available for students with credit in **HGP 470 or PLAN 470**.

**HGEO 481 - Advanced Topics in Human Geography**

★ 3 (fi 6) (either term, 3-0-0) Prerequisites: **HGEO 100 or HGP 100**, and any one **HGEO 2XX** or HGP 2XX course. Topics vary; may be taken more than once for credit provided no topic is repeated.

**HGEO 496 - Undergraduate Thesis**

★ 6 (fi 12) (variable, 3-0-0) Required for Honors students in their final year. Restricted to honors students in Human Geography. Prerequisite: Any 300 level HGP or **HGEO** course and approval of the Department.

**HGEO 497 - Directed Study in Human Geography**

★ 3-6 (variable) (variable, 3-0-0) Prerequisite: Consent of Instructor. May be taken more than once for credit provided no topic is repeated.

**HGEO 499 - Human Geography Field School**

★ 3 (fi 6) (variable, 10 - 15 days) Intensive field or practical study in Human Geography, typically as part of a team working off-campus. Details and areas of study may vary from year to year; consult the department

and areas of study may vary from year to year; consult the department about current offerings, fees and timing. Prerequisite: Any **EAS 29X** or HGP 2XX course and Consent of Instructor. ~~Students cannot repeat topics that have been taken previously in EAS 499.~~ This course may require the payment of additional fees. Refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.

### Human Geography **and Planning**: Graduate

#### **HGP 550 - Advanced Resource Management and Environmental Policy**

★ 3 (fi 6) (either term, 3-0-0) Roles of governmental and nongovernmental organizations, industry and private enterprise, and advocacy organizations in addressing issues of resource scarcity and environmental policy. Institutions, policies, and strategies for resource and environmental management at the provincial/state, national, and international levels. Prerequisite: Consent of Instructor. **Research project. Classes concurrent with HGP 450.** Not available to students with credit in **EAS 491, 591** or HGP 450.

#### **HGP 552 - Advanced Human Dimensions of Global Change**

★ 3 (fi 6) (either term, 3-0-0) Examination of the human dimensions of climate change. Topics include climate change politics, public perceptions and impacts, vulnerability and resilience, mitigation and adaptation. **Research project. Classes concurrent with HGP 452.** Not available to students with credit in **EAS 493, 593** or HGP 452.

#### **HGP 570 - Advanced Geographical Information Systems for Social Science**

★ 3 (fi 6) (either term, 2-0-1) Provides spatial analytic tools to social geographers and provides a social science perspective to geoprocessing students. Examples arise from marketing, operations research, sociology, and urban and economic geography. Assignments impart technical aspects through hands-on experience with commercial and in-house spatial analysis software. Prerequisite: Consent of Instructor. **Research project. Classes concurrent with HGP 470.** Not available to students with credit in **EAS 492, 592** or **HGP 470.**

#### **HGP 599 - Advanced **Practical Study in Human Geography****

★ 3 (fi 6) (variable, 10 - 15 days) Intensive field or practical study in Human Geography, typically as part of a team working off-campus. Details and areas of study may vary from year to year; consult the department about current offerings, fees and timing. Topics vary; may be taken more than once for credit provided no topic is repeated. **Classes concurrent with HGP 499.** This course may require the payment of additional fees. Refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.

about current offerings, fees and timing. Prerequisites: Any **HGEO 2XX**, **HGP 2XX** or **PLAN 2XX** course and Consent of Instructor. **Topics vary; may be taken more than once for credit provided no topic is repeated.** This course may require the payment of additional fees. Refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.

### Human Geography: Graduate

#### **HGEO 550 - Advanced Resource Management and Environmental Policy**

★ 3 (fi 6) (either term, 3-0-0) Roles of governmental and nongovernmental organizations, industry and private enterprise, and advocacy organizations in addressing issues of resource scarcity and environmental policy. Institutions, policies, and strategies for resource and environmental management at the provincial/state, national, and international levels. Prerequisite: Consent of Instructor. Not available to students with credit in **HGEO 450** or HGP 450.

#### **HGEO 552 - Advanced Human Dimensions of Global Change**

★ 3 (fi 6) (either term, 3-0-0) Examination of the human dimensions of climate change. Topics include climate change politics, public perceptions and impacts, vulnerability and resilience, mitigation and adaptation. Not available to students with credit in **HGEO 452** or HGP 452.

#### **HGEO 570 - Advanced Geographical Information Systems for Social Science**

★ 3 (fi 6) (either term, 2-0-1) Provides spatial analytic tools to social geographers and provides a social science perspective to geoprocessing students. Examples arise from marketing, operations research, sociology, and urban and economic geography. Assignments impart technical aspects through hands-on experience with commercial and in-house spatial analysis software. Prerequisite: Consent of Instructor. Not available to students with credit in **HGEO 470** or HGP 470.

#### **HGEO 599 - **Advanced Human Geography Field School****

★ 3 (fi 6) (variable, 10 - 15 days) Intensive field or practical study in Human Geography, typically as part of a team working off-campus. Details and areas of study may vary from year to year; consult the department about current offerings, fees and timing. Topics vary; may be taken more than once for credit provided no topic is repeated. This course may require the payment of additional fees. Refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.



## Planning Courses

### **HGP 210 - Introductory Planning History and Practice**

★ 3 (fi 6) (either term, 3-0-0) Prerequisite: **HGP 100 or EAS 192**. Not available to students with credit in **EAS 296**.

### **HGP 211 - Introduction to Design Fundamentals for Planners**

★ 3 (fi 6) (either term, 3-0-0) Prerequisites: **HGP 100 or EAS 192 and consent of Department**.

### **HGP 310 - Land Use Planning and Policy**

★ 3 (fi 6) (either term, 3-0-0) The development and interpretation of plans, zoning, policy, and bylaws. Prerequisite: **HGP 210 or EAS 296, and HGP 211**.

### **HGP 315 - Community Planning and Engagement**

★ 3 (fi 6) (either term, 3-0-0) Planning in the community context, including methods of public consultation and community-based development are examined. Prerequisite: **HGP 210 or EAS 296**.

### **HGP 316 - Planning Law**

★ 3 (fi 6) (either term, 3-0-0) Includes an introduction to the legal basis for planning in Alberta and other provinces. Prerequisite: **HGP 210 or EAS 296**.

### **HGP 317 - Planning Theory**

★ 3 (fi 6) (either term, 3-0-0) Historical and contemporary planning theory and its influence on the practice of planning. Prerequisite: **HGP 210 or EAS 296**.

### **HGP 355 - Environmental Planning**

★ 3 (fi 6) (either term, 2-1s-0) Introduction to issues in policy making, planning and management related to human interaction with the physical environment. Prerequisite: **EAS 192 or HGP 100 or any EAS 29X or HGP 2XX course**. Not available to students with credit in **EAS 394**.

## Planning Courses

### **PLAN 210 - Introductory Planning History and Practice**

★ 3 (fi 6) (either term, 3-0-0). Not available to students with credit in **HGP 210**.

### **PLAN 211 - Introduction to Design Fundamentals for Planners**

★ 3 (fi 6) (either term, 3-0-0) Prerequisites: **HGEO 100 or HGP 100**. Not available for students with credit in **HGP 211**.

### **PLAN 310 - Land Use Planning and Policy**

★ 3 (fi 6) (either term, 3-0-0) The development and interpretation of plans, zoning, policy, and bylaws. Prerequisites: **PLAN 210 or HGP 210 and PLAN 211 or HGP 211**. Not available for students with credit in **HGP 310**. Restricted to Planning Major and Planning Specialization students.

### **PLAN 315 - Community Planning and Engagement**

★ 3 (fi 6) (either term, 3-0-0) Planning in the community context, including methods of public consultation and community-based development are examined. Prerequisites: **PLAN 210 or HGP 210**. Not available for students with credit in **HGP 315**.

### **PLAN 316 - Planning Law**

★ 3 (fi 6) (either term, 3-0-0) Includes an introduction to the legal basis for planning in Alberta and other provinces. Prerequisites: **PLAN 210 or HGP 210**. Not available for students with credit in **HGP 316**. Restricted to Planning Major and Planning Specialization students.

### **PLAN 317 - Planning Theory**

★ 3 (fi 6) (either term, 3-0-0) Historical and contemporary planning theory and its influence on the practice of planning. Prerequisites: **PLAN 210 or HGP 210**. Not available for students with credit in **HGP 317**. Restricted to Planning Major and Planning Specialization students.

### **PLAN 355 - Environmental Planning**

★ 3 (fi 6) (either term, 2-1s-0) Introduction to issues in policy making, planning and management related to human interaction with the physical environment. Prerequisites: **PLAN 210 or HGP 210**. Not available to students with credit in **HGP 355**.

#### **HGP 410 - Professional Planning Practice and Ethics**

★ 3 (fi 6) (either term, 3-0-0) The professional practice of planning is covered including the role of planners in society and professional ethics for planners. Prerequisite: **HGP 310**. Restricted to Planning Major and Planning Specialization students.

#### **HGP 412 - Finance for Planners**

★ 3 (fi 6) (either term, 3-0-0) An introduction to municipal finances and the development process as it relates to the Planning profession. Prerequisite: ECON 101. Restricted to Planning Major and Planning Specialization students.

#### **HGP 485 - Advanced Topics in Planning**

★ 3 (fi 6) (either term, 3-0-0) Exploring planning theories in the context of contemporary events phenomena. Prerequisite: **HGP 210 and consent of the department**. Variable content course which may be repeated if topic(s) vary.

#### **HGP 495 - Planning Studio**

★ 3 (fi 6) (either term, 3-0-0) Practical study of community planning processes, development or redevelopment projects, or other relevant case studies. Field Work Required. Prerequisites: HGP 310 **and consent of Department**. Restricted to Planning Major and Planning Specialization students.

#### **PLAN 399 - Research Methods in Planning**

★ 3 (fi 6) (either term, 3-0-0) Collection and analysis of data for social research in urban and regional planning. Research design and sampling procedures. Both qualitative and quantitative methods are explored. Fieldwork required. Prerequisites: PLAN 210 or HGP 210. Not available for students with credit in HGP 399. Restricted to Planning Major and Planning Specialization students.

#### **PLAN 410 - Professional Planning Practice and Ethics**

★ 3 (fi 6) (either term, 3-0-0) The professional practice of planning is covered including the role of planners in society and professional ethics for planners. Prerequisite: **PLAN 310 or HGP 310**. Not available for students with credit in HGP 410. Restricted to Planning Major and Planning Specialization students.

#### **PLAN 412 - Finance for Planners**

★ 3 (fi 6) (either term, 3-0-0) An introduction to municipal finances and the development process as it relates to the Planning profession. Prerequisite: ECON 101. **Not available for students with credit in HGP 412**. Restricted to Planning Major and Planning Specialization students.

#### **PLAN 470 - Geographical Information Systems for Planning**

★ 3 (fi 6) (either term, 2-0-1) The application of spatial analytic tools for the purposes of urban and regional planning. Prerequisite: EAS 221. Not available for students with credit in HGP 470 or HGEO 470.

#### **PLAN 485 - Advanced Topics in Planning**

★ 3 (fi 6) (either term, 3-0-0) Exploring planning theories in the context of contemporary events phenomena. Prerequisite **or Corequisite: PLAN 310 or HGP 310**. Variable content course which may be repeated if topic(s) vary.

#### **PLAN 495 - Planning Studio**

★ 3 (fi 6) (either term, 3-0-0) Practical study of community planning processes, development or redevelopment projects, or other relevant case studies. Field Work Required. Prerequisites: **PLAN 310 or HGP 310**. Restricted to Planning Major and Planning Specialization students. **Not available for students with credit in HGP 495**. Restricted to Planning Major and Planning Specialization students.

	<p><b>PLAN 499 – Planning Field School</b></p> <p>★ 3 (fi 6) (variable, 10 - 15 days) Intensive field or practical study in Urban and Regional Planning, typically as part of a team working off-campus. Details and areas of study may vary from year to year; consult the department about current offerings, fees and timing. Prerequisite: PLAN 210 or HGP 210 and Consent of Instructor. Topics vary; may be taken more than once for credit provided no topic is repeated. This course may require the payment of additional fees. Refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.</p>
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**Rationale for change:** (Not required for course deletion or editorial changes)  
 (Include documentation that other departments or Faculties offering similar courses support this proposal. In the case of substantial program changes you must also include evidence of consultation with students.)

There are two primary reasons behind the proposal to introduce a HGEO designator and to make use of the existing PLAN designator to distinguish between Human Geography and Planning Courses.

First, when the School of Urban and Regional Planning undergraduate program went through its accreditation review by the Professional Standards Board of Canada (the PSB, which undertakes accreditation for the Alberta Professional Planners Institute in Alberta), it was specifically indicated that a separate designator for Planning courses should be established to distinguish planning courses from Geography courses. All other accredited programs in Canada have a designator that is specific to the degree program. In order to achieve a successful re-accreditation, it will be necessary to have a designator specifically for planning courses.

Second, planning and geography, while sharing some synergies are distinctly different disciplines. Planning is a professional degree program and Human Geography is a traditional social science discipline. The difference is akin to the difference between business and economics. The programs have faced challenges in creating identifies and there has been confusion by some students who have thought that because they were in HGP courses, that they were in the Planning degree program. Separate designators will help to distinguish the identities of the two programs.

Some important key points:

- There is no proliferation of designators here with HGP being retired and HGEO being introduced.
- Courses are listed as either PLAN or HGEO depending upon the academic/professional traditions of the courses, clearly distinguishing between those that are Human Geography and those that are Planning courses.
- Course numbering has been retained to make the transition easy for students and staff.
- Affected calendar changes elsewhere in the calendar have been identified and all affected departments will be notified of the change and proposed editorial calendar changes will be recommended to the RO.

Note: changes have also been submitted to Faculty of Arts for approval Oct 5, 2020

<b>Department Contact</b> Name: Nancy Thompson	<b>Department Chair or Designate</b> Name: Murray Gingras	<b>Date approved by Dept Council:</b> 04/15/19
Email: nancy.thompson@ualberta.ca		<b>Date submitted to FoS:</b>

Upload this form to the FoS Calendar Google Site.  
 Include one form for each grouping of changes. ie, all course changes can go in one document if they were approved at the same department council.



## CALENDAR CHANGE REQUEST FORM

**Department: EAS**

Highlight type of change request below:

1. **Course Change** (new course, change to existing course, course deletion)      2. **Editorial Change** (basic editing)      3. **Admission Requirement**      4. **Program Change**

<b>CURRENT</b>	<b>PROPOSED</b>
<p style="text-align: center; color: red;"><a href="https://calendar.ualberta.ca/preview_program.php?catoid=29&amp;poid=27858">https://calendar.ualberta.ca/preview_program.php?catoid=29&amp;poid=27858</a></p>	
<p><b>Specialization in Environmental Earth Sciences [Science]</b></p> <p>Earth and Atmospheric Sciences encompass the study of the atmosphere, surface and interior of the earth. The Department administers 10 academic programs: Honors and Specialization in Environmental Earth Sciences, Honors and Specialization in Geology, Honors and Specialization in Paleontology, BSc Specialization in Planning, BA Major and Minor in Human Geography, and BA Major in Planning. For details on the Major and Minor in Human Geography and on the BA Major in Planning, see Faculty of Arts listing.</p> <p>Specialization in Environmental Earth Sciences Continuation in the Specialization in Environmental Earth Sciences program requires successful completion of at least ★18 with a minimum 2.3 GPA in the previous Fall/Winter. In addition, graduation requires a minimum 2.3 GPA on the last ★60 credited to the degree.</p> <p>A student enrolling in the Specialization program should confer with the Environmental Earth Sciences Program student advisor before registration.</p> <p>Year 1            CHEM 101 - Introductory University Chemistry I            CHEM 102 - Introductory University Chemistry II            EAS 100 - Planet Earth            EAS 105 - The Dynamic Earth Through Time            MATH 114 - Elementary Calculus I OR            MATH 117 - Honors Calculus I OR            MATH 144 - Calculus for the Physical Sciences I            MATH 115 - Elementary Calculus II OR            MATH 118 - Honors Calculus II OR            MATH 146 - Calculus for the Physical Sciences II            PHYS 124 - Particles and Waves AND            PHYS 126 - Fluids, Fields, and Radiation            OR            PHYS 144 - Newtonian Mechanics and Relativity AND            PHYS 146 - Fluids and Waves            ★6 junior ENGL or ★3 junior ENGL and ★3 junior WRS</p>	<p><b>Specialization in Environmental Earth Sciences [Science]</b></p> <p>Earth and Atmospheric Sciences encompass the study of the atmosphere, surface and interior of the earth. The Department administers 10 academic programs: Honors and Specialization in Environmental Earth Sciences, Honors and Specialization in Geology, Honors and Specialization in Paleontology, BSc Specialization in Planning, BA Major and Minor in Human Geography, and BA Major in Planning. For details on the Major and Minor in Human Geography and on the BA Major in Planning, see Faculty of Arts listing.</p> <p>Specialization in Environmental Earth Sciences Continuation in the Specialization in Environmental Earth Sciences program requires successful completion of at least ★18 with a minimum 2.3 GPA in the previous Fall/Winter. In addition, graduation requires a minimum 2.3 GPA on the last ★60 credited to the degree.</p> <p>A student enrolling in the Specialization program should confer with the Environmental Earth Sciences Program student advisor before registration.</p> <p>Year 1            CHEM 101 - Introductory University Chemistry I            CHEM 102 - Introductory University Chemistry II            EAS 100 - Planet Earth            EAS 105 - The Dynamic Earth Through Time            MATH 114 - Elementary Calculus I OR            MATH 117 - Honors Calculus I OR            MATH 144 - Calculus for the Physical Sciences I            MATH 115 - Elementary Calculus II OR            MATH 118 - Honors Calculus II OR            MATH 146 - Calculus for the Physical Sciences II            PHYS 124 - Particles and Waves AND            PHYS 126 - Fluids, Fields, and Radiation            OR            PHYS 144 - Newtonian Mechanics and Relativity AND            PHYS 146 - Fluids and Waves            ★6 junior ENGL or ★3 junior ENGL and ★3 junior WRS</p>

<p>Year 2  BIOL 108 - Introduction to Biological Diversity  EAS 221 - Introduction to Geographical Information Systems and Remote Sensing  EAS 222 - Stratigraphy and Sedimentation  EAS 224 - Mineralogy I  EAS 225 - Earth Surface Processes and Landforms  EAS 233 - Geologic Structures  EAS 234 - Geology Field School  <del>HGP 250 - Natural Resources and Environmental Management</del>  STAT 151 - Introduction to Applied Statistics I  EAS 212 - The Oceans OR  EAS 270 - The Atmosphere</p> <p>Year 3  BIOL 208 - Principles of Ecology  EAS 250 - Biogeography  EAS 320 - Geochemistry I  EAS 323 - Introduction to Hydrogeology  EAS 324 - Quaternary Geoscience and Terrain Analysis  EAS 354 - Environmental Earth Science Field School  GEOPH 223 - Environmental Geophysics  ★6 from  EAS 327 - Environmental Instrumentation  EAS 351 - Environmental Applications of Geographical Information Systems  EAS 451 - Digital Remote Sensing  Options  ★3 in an Arts option</p> <p>Year 4  EAS 425 - Contaminant Hydrogeology OR  EAS 468 - Geochemical Processes  ★6 from  EAS 457 - Global Change  EAS 458 - Cold Regions Geoscience  Options  ★6 in Arts options  ★15 Science (see details of courses) and related options  Notes  EAS 458 may be taken more than once for credit. Science and related options require the approval of the Environmental Earth Sciences advisor.  For students entering Environmental Earth Science Specialization, credit in SCI 100 will be considered equivalent to BIOL 108, CHEM 101, CHEM 102, EAS 100, EAS 105, MATH 114, MATH 115, PHYS 144 and PHYS 146. Credit in SCI 151 will be considered equivalent to STAT 151 and ★3 Science option.</p>	<p>Year 2  BIOL 108 - Introduction to Biological Diversity  EAS 221 - Introduction to Geographical Information Systems and Remote Sensing  EAS 222 - Stratigraphy and Sedimentation  EAS 224 - Mineralogy I  EAS 225 - Earth Surface Processes and Landforms  EAS 233 - Geologic Structures  EAS 234 - Geology Field School  HGEO 250 – Sustainable Development and Environmental Management  STAT 151 - Introduction to Applied Statistics I  EAS 212 - The Oceans OR  EAS 270 - The Atmosphere</p> <p>Year 3  BIOL 208 - Principles of Ecology  EAS 250 - Biogeography  EAS 320 - Geochemistry I  EAS 323 - Introduction to Hydrogeology  EAS 324 - Quaternary Geoscience and Terrain Analysis  EAS 354 - Environmental Earth Science Field School  GEOPH 223 - Environmental Geophysics  ★6 from  EAS 327 - Environmental Instrumentation  EAS 351 - Environmental Applications of Geographical Information Systems  EAS 451 - Digital Remote Sensing  Options  ★3 in an Arts option</p> <p>Year 4  EAS 425 - Contaminant Hydrogeology OR  EAS 468 - Geochemical Processes  ★6 from  EAS 457 - Global Change  EAS 458 - Cold Regions Geoscience  Options  ★6 in Arts options  ★15 Science (see details of courses) and related options  Notes  EAS 458 may be taken more than once for credit. Science and related options require the approval of the Environmental Earth Sciences advisor.  For students entering Environmental Earth Science Specialization, credit in SCI 100 will be considered equivalent to BIOL 108, CHEM 101, CHEM 102, EAS 100, EAS 105, MATH 114, MATH 115, PHYS 144 and PHYS 146. Credit in SCI 151 will be considered equivalent to STAT 151 and ★3 Science option.</p>
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<p style="text-align: center;"><b>CURRENT</b></p> <p style="text-align: center;"><a href="https://calendar.ualberta.ca/preview_program.php?catoid=29&amp;poid=27858">https://calendar.ualberta.ca/preview_program.php?catoid=29&amp;poid=27858</a></p>	<p style="text-align: center;"><b>PROPOSED</b></p>
<p><b>Specialization in Atmospheric Sciences [Science]</b></p> <p>Specialization in Atmospheric Sciences</p> <p>Effective September 2019, there will be no further admissions into BSc Honors or BSc Specialization in Atmospheric Sciences. Students who entered one of these programs prior to September 2019 must complete all program requirements by April 2026. Refer</p>	<p><b>Specialization in Atmospheric Sciences [Science]</b></p> <p>Specialization in Atmospheric Sciences</p> <p>Effective September 2019, there will be no further admissions into BSc Honors or BSc Specialization in Atmospheric Sciences. Students who entered one of these programs prior to September 2019 must complete all program requirements by April 2026. Refer</p>

to the Calendar in effect at the time you were admitted or readmitted for the regulations governing the degree program requirements. The last BSc Honors or BSc Specialization in Atmospheric Sciences will be granted Spring Convocation 2026.

Year 1

CMPUT 174 - Introduction to the Foundations of Computation I

EAS 100 - Planet Earth

MATH 114 - Elementary Calculus I OR

MATH 117 - Honors Calculus I OR

MATH 144 - Calculus for the Physical Sciences I

MATH 115 - Elementary Calculus II OR

MATH 118 - Honors Calculus II OR

MATH 146 - Calculus for the Physical Sciences II

MATH 125 - Linear Algebra I OR

MATH 127 - Honors Linear Algebra I

PHYS 144 - Newtonian Mechanics and Relativity

PHYS 146 - Fluids and Waves

STAT 151 - Introduction to Applied Statistics I

★6 junior ENGL or ★3 junior ENGL and ★3 junior WRS

Year 2

EAS 212 - The Oceans

EAS 221 - Introduction to Geographical Information Systems and Remote Sensing

EAS 270 - The Atmosphere

EAS 294 OR

HGP 250 – Natural Resources and Environmental Management

MATH 214 - Intermediate Calculus I

MATH 215 - Intermediate Calculus II

PHYS 244 - Mechanics

PHYS 281 - Electricity and Magnetism

★3 in an Arts option

★3 in a Science option (details of courses)

Year 3

EAS 327 - Environmental Instrumentation

EAS 370 - Applied Atmospheric Physics

EAS 371 - Dynamics of the Atmosphere and Ocean I

EAS 372 - Weather Analysis and Forecasting

EAS 373 - The Climate System

PHYS 234 - Introductory Computational Physics

★6 in Arts options

★3 in Science option (see Note 1 below) (see details of courses)

to the Calendar in effect at the time you were admitted or readmitted for the regulations governing the degree program requirements. The last BSc Honors or BSc Specialization in Atmospheric Sciences will be granted Spring Convocation 2026.

Year 1

CMPUT 174 - Introduction to the Foundations of Computation I

EAS 100 - Planet Earth

MATH 114 - Elementary Calculus I OR

MATH 117 - Honors Calculus I OR

MATH 144 - Calculus for the Physical Sciences I

MATH 115 - Elementary Calculus II OR

MATH 118 - Honors Calculus II OR

MATH 146 - Calculus for the Physical Sciences II

MATH 125 - Linear Algebra I OR

MATH 127 - Honors Linear Algebra I

PHYS 144 - Newtonian Mechanics and Relativity

PHYS 146 - Fluids and Waves

STAT 151 - Introduction to Applied Statistics I

★6 junior ENGL or ★3 junior ENGL and ★3 junior WRS

Year 2

EAS 212 - The Oceans

EAS 221 - Introduction to Geographical Information Systems and Remote Sensing

EAS 270 - The Atmosphere

EAS 294 OR

HGEO 250 – Sustainable Development and Environmental Management

MATH 214 - Intermediate Calculus I

MATH 215 - Intermediate Calculus II

PHYS 244 - Mechanics

PHYS 281 - Electricity and Magnetism

★3 in an Arts option

★3 in a Science option (details of courses)

Year 3

EAS 327 - Environmental Instrumentation

EAS 370 - Applied Atmospheric Physics

EAS 371 - Dynamics of the Atmosphere and Ocean I

EAS 372 - Weather Analysis and Forecasting

EAS 373 - The Climate System

PHYS 234 - Introductory Computational Physics

★6 in Arts options

★3 in Science option (see Note 1 below) (see details of courses)

<p>★3 in Open option (see Note 2 below)</p> <p>Year 4</p> <p>EAS 470 - Clouds and Storms</p> <p>EAS 471 - Atmospheric Modelling</p> <p>EAS 475 - Dynamics of the Atmosphere and Ocean II</p> <p>★18 in Science options (see Note 1 below) (see details of courses)</p> <p>★3 in Open option (see Note 2 below)</p> <p>Notes</p> <p>Students are recommended to consult Advisor for approved Science options.</p> <p>Open option – Chosen from any credit course offered by the University of Alberta.</p> <p>Recommended Arts options include any <b>HGP</b> courses.</p> <p>For students entering Atmospheric Science Specialization, credit in SCI 100 will be considered equivalent to CMPUT 174, EAS 100, MATH 114, MATH 115, PHYS 144, PHYS 146 and ★9 Science options (see details of courses) equivalent to CHEM 101, CHEM 102 and EAS 105. Credit in SCI 151 will be considered equivalent to STAT 151 and ★3 Science option.</p>	<p>★3 in Open option (see Note 2 below)</p> <p>Year 4</p> <p>EAS 470 - Clouds and Storms</p> <p>EAS 471 - Atmospheric Modelling</p> <p>EAS 475 - Dynamics of the Atmosphere and Ocean II</p> <p>★18 in Science options (see Note 1 below) (see details of courses)</p> <p>★3 in Open option (see Note 2 below)</p> <p>Notes</p> <p>Students are recommended to consult Advisor for approved Science options.</p> <p>Open option – Chosen from any credit course offered by the University of Alberta.</p> <p>Recommended Arts options include any <b>HGEO</b> courses.</p> <p>For students entering Atmospheric Science Specialization, credit in SCI 100 will be considered equivalent to CMPUT 174, EAS 100, MATH 114, MATH 115, PHYS 144, PHYS 146 and ★9 Science options (see details of courses) equivalent to CHEM 101, CHEM 102 and EAS 105. Credit in SCI 151 will be considered equivalent to STAT 151 and ★3 Science option.</p>
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<p><b>Specialization in Planning [Science]</b></p> <p>Earth and Atmospheric Sciences encompass the study of the atmosphere, surface and interior of the earth. The Department administers 10 academic programs: Honors and Specialization in Environmental Earth Sciences, Honors and Specialization in Geology, Honors and Specialization in Paleontology, BSc Specialization in Planning, BA Major and Minor in Human Geography, and BA Major in Planning. For details on the Major and Minor in Human Geography and on the BA Major in Planning, see Faculty of Arts listing.</p> <p>Specialization in Planning</p> <p>The School of Urban and Regional Planning educates students in the scientific, aesthetic, and orderly disposition of land, resources, facilities and services with a view to securing the physical, economic and social efficiency, health and well-being of communities. Planners work for all levels of government and in professional planning consultancies The School of Urban and Regional Planning in the Department of Earth and Atmospheric Sciences offers a BA major in Planning and a BSc Specialization in Planning. Students interested in focusing on natural science elements of planning, including environmental management and the use of geographic information sciences, should consider the BSc program and those interested in the aesthetic, economic, and social issues of planning should consider the BA program (see Planning of the Calendar).</p> <p>Continuation in the Specialization in Planning program requires a minimum 2.3 GPA on at least ★18 in the</p>	<p><b>Specialization in Planning [Science]</b></p> <p>Earth and Atmospheric Sciences encompass the study of the atmosphere, surface and interior of the earth. The Department administers 10 academic programs: Honors and Specialization in Environmental Earth Sciences, Honors and Specialization in Geology, Honors and Specialization in Paleontology, BSc Specialization in Planning, BA Major and Minor in Human Geography, and BA Major in Planning. For details on the Major and Minor in Human Geography and on the BA Major in Planning, see Faculty of Arts listing.</p> <p>Specialization in Planning</p> <p>The School of Urban and Regional Planning educates students in the scientific, aesthetic, and orderly disposition of land, resources, facilities and services with a view to securing the physical, economic and social efficiency, health and well-being of communities. Planners work for all levels of government and in professional planning consultancies The School of Urban and Regional Planning in the Department of Earth and Atmospheric Sciences offers a BA major in Planning and a BSc Specialization in Planning. Students interested in focusing on natural science elements of planning, including environmental management and the use of geographic information sciences, should consider the BSc program and those interested in the aesthetic, economic, and social issues of planning should consider the BA program (see Planning of the Calendar).</p> <p>Continuation in the Specialization in Planning program requires a minimum 2.3 GPA on at least ★18 in the</p>

previous Fall/Winter. To graduate in four years, a student needs ★30 per year.

Graduation requires a minimum 2.3 GPA on the last ★60 credited to the degree. A student enrolling in the Specialization program should confer with the Planning program student advisor before registration.

#### Year 1

BIOL 108 - Introduction to Biological Diversity  
EAS 100 - Planet Earth  
EAS 105 - The Dynamic Earth Through Time  
ECON 101 - Introduction to Microeconomics  
HGP 100 - Introduction to Human Geography and Planning  
MATH 113 - Elementary Calculus I OR  
MATH 114 - Elementary Calculus I OR  
MATH 117 - Honors Calculus I OR  
MATH 144 - Calculus for the Physical Sciences I OR  
MATH 120  
STAT 141 OR  
STAT 151 - Introduction to Applied Statistics I  
★3 Science options (see details of courses)  
★6 junior ENGL/WRS

#### Year 2

BIOL 208 - Principles of Ecology  
EAS 221 - Introduction to Geographical Information Systems and Remote Sensing  
EAS 225 - Earth Surface Processes and Landforms  
EAS 250 - Biogeography  
HGP 210 - Introductory Planning History and Practice  
HGP 211 - Introduction to Design Fundamentals for Planners  
HGP 240 - Cities and Urbanism  
HGP 250 - Natural Resources and Environmental Management  
★3 Science option and ★3 Open option (see details of courses)

#### Year 3

EAS 351 - Environmental Applications of Geographical Information Systems  
HGP 310 - Land Use Planning and Policy  
HGP 315 - Community Planning and Engagement  
HGP 316 - Planning Law  
HGP 317 - Planning Theory  
HGP 355 - Environmental Planning (see Note 3)  
HGP 399 - Research Methods in Human Geography and Planning  
★6 Approved courses (see Note 1 below)  
★3 Science options (see Note 3) (see details of courses)

#### Year 4

HGP 410 - Professional Planning Practice and Ethics  
HGP 412 - Finance for Planners

previous Fall/Winter. To graduate in four years, a student needs ★30 per year.

Graduation requires a minimum 2.3 GPA on the last ★60 credited to the degree. A student enrolling in the Specialization program should confer with the Planning program student advisor before registration.

Special Note: Prior to the 2020/21 Calendar, the Course Designation of HGP was used for HGEO and PLAN courses. HGP courses can be used in place of HGEO or PLAN courses provided they have the same course numbers, for example HGP 399 can be used in place of either HGEO 399 or PLAN 399. Similarly, HGEO or PLAN courses of the same number can be used in place of HGP courses for those following earlier versions of the Calendar.

#### Year 1

BIOL 108 - Introduction to Biological Diversity  
EAS 100 - Planet Earth  
EAS 105 - The Dynamic Earth Through Time  
ECON 101 - Introduction to Microeconomics  
HGEO 100 - Introduction to Human Geography and Planning  
MATH 113 - Elementary Calculus I OR  
MATH 114 - Elementary Calculus I OR  
MATH 117 - Honors Calculus I OR  
MATH 144 - Calculus for the Physical Sciences I OR  
MATH 120  
STAT 141 OR  
STAT 151 - Introduction to Applied Statistics I  
★3 Science options (see details of courses)  
★6 junior ENGL/WRS

#### Year 2

BIOL 208 - Principles of Ecology  
EAS 221 - Introduction to Geographical Information Systems and Remote Sensing  
EAS 225 - Earth Surface Processes and Landforms  
EAS 250 - Biogeography  
PLAN 210 - Introductory Planning History and Practice  
PLAN 211 - Introduction to Design Fundamentals for Planners  
HGEO 240 - Cities and Urbanism  
HGEO 250 - Sustainable Development and Environmental Management  
★3 Science option and ★3 Open option (see details of courses)

#### Year 3

EAS 351 - Environmental Applications of Geographical Information Systems  
PLAN 310 - Land Use Planning and Policy  
PLAN 315 - Community Planning and Engagement  
PLAN 316 - Planning Law  
PLAN 317 - Planning Theory  
PLAN 355 - Environmental Planning (see Note 3)  
PLAN 399 - Research Methods in Human Geography and Planning  
★6 List A courses (see Note 1 below)  
★3 Science options (see Note 3)

#### Year 4

PLAN 410 - Professional Planning Practice and Ethics  
PLAN 412 - Finance for Planners



<p><b>HGP 470</b> - Geographical Information Systems and Advanced Cartography for <b>Social Science</b> (see Note 3)</p> <p><b>HGP 495</b> - Planning Studio</p> <p>★9 from List A (see Note 1 below)</p> <p>★6 Science option and ★3 Open option (see Note 3 below) (see details of courses)</p> <p>Notes</p> <p>List A courses include: BIOL 299, BIOL 330, BIOL 331, BIOL 332, BIOL 333, BIOL 364, BIOL 365, BIOL 366, BIOL 381, BIOL 464 and BIOL 470; EAS 323, EAS 324, EAS 327, EAS 401, EAS 425, EAS 427, EAS 428, EAS 451, EAS 452, EAS 457, EAS 458.</p> <p>For students entering the Science Internship Program: <b>EAS 401</b>, WKEXP 955, WKEXP 956 are required. <b>HGP 355</b>, <b>HGP 381</b>, <b>HGP 470</b> and <b>HGP 485</b> may be used as a Science courses by students in the BSc Specialization in Planning program.</p> <p><del>For students entering Planning Specialization, credit in SCI 100 will be considered equivalent to BIOL 108, CHEM 101, CHEM 102, EAS 100, EAS 105, MATH 113, MATH 115, PHYS 144 and PHYS 146. Credit in SCI 151 will be considered equivalent to STAT 151 and ★3 Science option.</del></p>	<p><b>PLAN 470</b> - Geographical Information Systems and Advanced Cartography for <b>Planning</b> (see Note 3)</p> <p><b>PLAN 495</b> - Planning Studio</p> <p>★9 from List A (see Note 1 below)</p> <p>★6 Science option and ★3 Open option (see Note 3 below) (see details of courses)</p> <p>Notes</p> <p>List A courses include: BIOL 299, BIOL 330, BIOL 331, BIOL 332, BIOL 333, BIOL 364, BIOL 365, BIOL 366, BIOL 381, BIOL 464 and BIOL 470; EAS 323, EAS 324, EAS 327, EAS 401, EAS 425, EAS 427, EAS 428, EAS 451, EAS 452, EAS 457, EAS 458.</p> <p>For students entering the Science Internship Program: <b>INT D 401</b>, WKEXP 955, WKEXP 956 are required. <b>PLAN 355</b>, <b>HGEO 381</b>, <b>PLAN 470</b> and <b>PLAN 485</b> may be used as a Science courses by students in the BSc Specialization in Planning program.</p>
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<p><b>Honors in Environmental Earth Sciences [Science]</b></p> <p>Earth and Atmospheric Sciences encompass the study of the atmosphere, surface and interior of the earth. The Department administers 10 academic programs: Honors and Specialization in Environmental Earth Sciences, Honors and Specialization in Geology, Honors and Specialization in Paleontology, BSc Specialization in Planning, BA Major and Minor in Human Geography, and BA Major in Planning. For details on the Major and Minor in Human Geography and on the BA Major in Planning, see Faculty of Arts listing.</p> <p>Honors in Environmental Earth Sciences Environmental Earth Science is the study of interactions between humans and Earth's natural environment. It encompasses the influence of human activities on the local and global environment, as well as how our actions are shaped and controlled by the geologic and geomorphic processes occurring around us. Environmental Earth Scientists are typically employed by consulting companies, large resource and industrial firms, and government organizations.</p> <p>Continuation in the Honors in Environmental Earth Sciences program requires successful completion of at least ★24 with a minimum 3.0 GPA in the previous Fall/Winter. In addition, graduation requires a minimum 3.0 GPA on the last ★60 credited to the degree.</p> <p>A student enrolling in the Honors program should confer with the Environmental Earth Sciences Program student advisor before registration each year.</p> <p>Year 1 CHEM 101 - Introductory University Chemistry I AND</p>	<p><b>Honors in Environmental Earth Sciences [Science]</b></p> <p>Earth and Atmospheric Sciences encompass the study of the atmosphere, surface and interior of the earth. The Department administers 10 academic programs: Honors and Specialization in Environmental Earth Sciences, Honors and Specialization in Geology, Honors and Specialization in Paleontology, BSc Specialization in Planning, BA Major and Minor in Human Geography, and BA Major in Planning. For details on the Major and Minor in Human Geography and on the BA Major in Planning, see Faculty of Arts listing.</p> <p>Honors in Environmental Earth Sciences Environmental Earth Science is the study of interactions between humans and Earth's natural environment. It encompasses the influence of human activities on the local and global environment, as well as how our actions are shaped and controlled by the geologic and geomorphic processes occurring around us. Environmental Earth Scientists are typically employed by consulting companies, large resource and industrial firms, and government organizations.</p> <p>Continuation in the Honors in Environmental Earth Sciences program requires successful completion of at least ★24 with a minimum 3.0 GPA in the previous Fall/Winter. In addition, graduation requires a minimum 3.0 GPA on the last ★60 credited to the degree.</p> <p>A student enrolling in the Honors program should confer with the Environmental Earth Sciences Program student advisor before registration each year.</p> <p>Year 1 CHEM 101 - Introductory University Chemistry I AND</p>

<p>CHEM 102 - Introductory University Chemistry II  EAS 100 - Planet Earth AND  EAS 105 - The Dynamic Earth Through Time  MATH 114 - Elementary Calculus I OR  MATH 117 - Honors Calculus I OR  MATH 144 - Calculus for the Physical Sciences I  MATH 115 - Elementary Calculus II OR  MATH 118 - Honors Calculus II OR  MATH 146 - Calculus for the Physical Sciences II  PHYS 124 - Particles and Waves AND  PHYS 126 - Fluids, Fields, and Radiation  OR</p> <p>PHYS 144 - Newtonian Mechanics and Relativity AND  PHYS 146 - Fluids and Waves  ★6 junior ENGL OR ★3 junior ENGL AND ★3 junior WRS</p> <p>Year 2  BIOL 108 - Introduction to Biological Diversity  EAS 221 - Introduction to Geographical Information  Systems and Remote Sensing  EAS 222 - Stratigraphy and Sedimentation  EAS 224 - Mineralogy I  EAS 225 - Earth Surface Processes and Landforms  EAS 233 - Geologic Structures  EAS 234 - Geology Field School  EAS 212 - The Oceans OR  EAS 270 - The Atmosphere  EAS 294 OR  HGP 250 – Natural Resources and Environmental  Management  STAT 151 - Introduction to Applied Statistics I</p> <p>Year 3  BIOL 208 - Principles of Ecology  EAS 250 - Biogeography  EAS 320 - Geochemistry I  EAS 323 - Introduction to Hydrogeology  EAS 324 - Quaternary Geoscience and Terrain Analysis  EAS 354 - Environmental Earth Science Field School  GEOPH 223 - Environmental Geophysics  ★6 of  EAS 327 - Environmental Instrumentation  EAS 351 - Environmental Applications of Geographical  Information Systems  EAS 451 - Digital Remote Sensing  Options  ★3 Arts option</p> <p>Year 4  EAS 425 - Contaminant Hydrogeology OR  EAS 468 - Geochemical Processes  EAS 426 - Undergraduate Thesis  ★6 of  EAS 457 - Global Change  EAS 458 - Cold Regions Geoscience  Options  ★6 Arts options  ★9 Science (see details of courses) and related options  Notes  EAS 458 may be taken more than once for credit.  Science and related options require the approval of the  Environmental Earth Sciences advisor.  For students entering Environmental Earth Science  Honors, credit in SCI 100 will be considered equivalent  to BIOL 108, CHEM 101, CHEM 102, EAS 100, EAS 105,  MATH 114, MATH 115, PHYS 144 and PHYS 146. Credit  in SCI 151 will be considered equivalent to STAT 151  and ★3 Science option.</p>	<p>CHEM 102 - Introductory University Chemistry II  EAS 100 - Planet Earth AND  EAS 105 - The Dynamic Earth Through Time  MATH 114 - Elementary Calculus I OR  MATH 117 - Honors Calculus I OR  MATH 144 - Calculus for the Physical Sciences I  MATH 115 - Elementary Calculus II OR  MATH 118 - Honors Calculus II OR  MATH 146 - Calculus for the Physical Sciences II  PHYS 124 - Particles and Waves AND  PHYS 126 - Fluids, Fields, and Radiation  OR</p> <p>PHYS 144 - Newtonian Mechanics and Relativity AND  PHYS 146 - Fluids and Waves  ★6 junior ENGL OR ★3 junior ENGL AND ★3 junior WRS</p> <p>Year 2  BIOL 108 - Introduction to Biological Diversity  EAS 221 - Introduction to Geographical Information  Systems and Remote Sensing  EAS 222 - Stratigraphy and Sedimentation  EAS 224 - Mineralogy I  EAS 225 - Earth Surface Processes and Landforms  EAS 233 - Geologic Structures  EAS 234 - Geology Field School  EAS 212 - The Oceans OR  EAS 270 - The Atmosphere  EAS 294 OR  HGEO 250 – Sustainable Development and  Environmental Management  STAT 151 - Introduction to Applied Statistics I</p> <p>Year 3  BIOL 208 - Principles of Ecology  EAS 250 - Biogeography  EAS 320 - Geochemistry I  EAS 323 - Introduction to Hydrogeology  EAS 324 - Quaternary Geoscience and Terrain Analysis  EAS 354 - Environmental Earth Science Field School  GEOPH 223 - Environmental Geophysics  ★6 of  EAS 327 - Environmental Instrumentation  EAS 351 - Environmental Applications of Geographical  Information Systems  EAS 451 - Digital Remote Sensing  Options  ★3 Arts option</p> <p>Year 4  EAS 425 - Contaminant Hydrogeology OR  EAS 468 - Geochemical Processes  EAS 426 - Undergraduate Thesis  ★6 of  EAS 457 - Global Change  EAS 458 - Cold Regions Geoscience  Options  ★6 Arts options  ★9 Science (see details of courses) and related options  Notes  EAS 458 may be taken more than once for credit.  Science and related options require the approval of the  Environmental Earth Sciences advisor.  For students entering Environmental Earth Science  Honors, credit in SCI 100 will be considered equivalent  to BIOL 108, CHEM 101, CHEM 102, EAS 100, EAS 105,  MATH 114, MATH 115, PHYS 144 and PHYS 146. Credit  in SCI 151 will be considered equivalent to STAT 151  and ★3 Science option.</p>
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<p><b>Honors in Atmospheric Sciences [Science]</b></p> <p>Honors in Atmospheric Sciences Effective September 2019, there will be no further admissions into BSc Honors or BSc Specialization in Atmospheric Sciences. Students who entered one of these programs prior to September 2019 must complete all program requirements by April 2026. Refer to the Calendar in effect at the time you were admitted or readmitted for the regulations governing the degree program requirements. The last BSc Honors or BSc Specialization in Atmospheric Sciences will be granted Spring Convocation 2026.</p> <p>Year 1            COMPUT 174 - Introduction to the Foundations of Computation I            EAS 100 - Planet Earth            MATH 114 - Elementary Calculus I OR            MATH 117 - Honors Calculus I OR            MATH 144 - Calculus for the Physical Sciences I            MATH 115 - Elementary Calculus II OR            MATH 118 - Honors Calculus II OR            MATH 146 - Calculus for the Physical Sciences II            MATH 125 - Linear Algebra I OR            MATH 127 - Honors Linear Algebra I            PHYS 144 - Newtonian Mechanics and Relativity            PHYS 146 - Fluids and Waves            STAT 151 - Introduction to Applied Statistics I            ★6 junior ENGL or ★3 junior ENGL and ★3 junior WRS</p> <p>Year 2            EAS 212 - The Oceans            EAS 221 - Introduction to Geographical Information Systems and Remote Sensing            EAS 270 - The Atmosphere  <del>HGP 250 – Natural Resources and Environmental Management</del>            MATH 214 - Intermediate Calculus I            MATH 215 - Intermediate Calculus II            PHYS 244 - Mechanics            PHYS 281 - Electricity and Magnetism            ★3 Science option (see details of courses)            ★3 Arts option</p> <p>Year 3            EAS 327 - Environmental Instrumentation            EAS 370 - Applied Atmospheric Physics            EAS 371 - Dynamics of the Atmosphere and Ocean I            EAS 372 - Weather Analysis and Forecasting            EAS 373 - The Climate System            PHYS 234 - Introductory Computational Physics            ★6 in Arts options</p>	<p><b>Honors in Atmospheric Sciences [Science]</b></p> <p>Honors in Atmospheric Sciences Effective September 2019, there will be no further admissions into BSc Honors or BSc Specialization in Atmospheric Sciences. Students who entered one of these programs prior to September 2019 must complete all program requirements by April 2026. Refer to the Calendar in effect at the time you were admitted or readmitted for the regulations governing the degree program requirements. The last BSc Honors or BSc Specialization in Atmospheric Sciences will be granted Spring Convocation 2026.</p> <p>Year 1            COMPUT 174 - Introduction to the Foundations of Computation I            EAS 100 - Planet Earth            MATH 114 - Elementary Calculus I OR            MATH 117 - Honors Calculus I OR            MATH 144 - Calculus for the Physical Sciences I            MATH 115 - Elementary Calculus II OR            MATH 118 - Honors Calculus II OR            MATH 146 - Calculus for the Physical Sciences II            MATH 125 - Linear Algebra I OR            MATH 127 - Honors Linear Algebra I            PHYS 144 - Newtonian Mechanics and Relativity            PHYS 146 - Fluids and Waves            STAT 151 - Introduction to Applied Statistics I            ★6 junior ENGL or ★3 junior ENGL and ★3 junior WRS</p> <p>Year 2            EAS 212 - The Oceans            EAS 221 - Introduction to Geographical Information Systems and Remote Sensing            EAS 270 - The Atmosphere            HGEO 250 – Sustainable Development and Environmental Management            MATH 214 - Intermediate Calculus I            MATH 215 - Intermediate Calculus II            PHYS 244 - Mechanics            PHYS 281 - Electricity and Magnetism            ★3 Science option (see details of courses)            ★3 Arts option</p> <p>Year 3            EAS 327 - Environmental Instrumentation            EAS 370 - Applied Atmospheric Physics            EAS 371 - Dynamics of the Atmosphere and Ocean I            EAS 372 - Weather Analysis and Forecasting            EAS 373 - The Climate System            PHYS 234 - Introductory Computational Physics            ★6 in Arts options</p>



<p>★3 in Science options (see Note 1 below) (see details of courses) ★3 in Open option (see Note 2 below)</p> <p>Year 4 EAS 426 - Undergraduate Thesis EAS 470 - Clouds and Storms EAS 471 - Atmospheric Modelling EAS 475 - Dynamics of the Atmosphere and Ocean II ★12 in Science options (see Note 1 below) ★3 in Open option (see Note 2 below)</p> <p>Notes Students are recommended to consult Advisor for approved Science options. Open option – Chosen from any credit course offered by the University of Alberta. Recommended Arts options include any <b>HGP</b> courses. For students entering Atmospheric Science Honors, credit in SCI 100 will be considered equivalent to CMPUT 174, EAS 100, MATH 114, MATH 115, PHYS 144, PHYS 146 and ★9 Science (see details of courses) options equivalent to CHEM 101, CHEM 102 and EAS 105. Credit in SCI 151 will be considered equivalent to STAT 151 and ★3 Science option.</p>	<p>★3 in Science options (see Note 1 below) (see details of courses) ★3 in Open option (see Note 2 below)</p> <p>Year 4 EAS 426 - Undergraduate Thesis EAS 470 - Clouds and Storms EAS 471 - Atmospheric Modelling EAS 475 - Dynamics of the Atmosphere and Ocean II ★12 in Science options (see Note 1 below) ★3 in Open option (see Note 2 below)</p> <p>Notes Students are recommended to consult Advisor for approved Science options. Open option – Chosen from any credit course offered by the University of Alberta. Recommended Arts options include any <b>HGEO</b> courses. For students entering Atmospheric Science Honors, credit in SCI 100 will be considered equivalent to CMPUT 174, EAS 100, MATH 114, MATH 115, PHYS 144, PHYS 146 and ★9 Science (see details of courses) options equivalent to CHEM 101, CHEM 102 and EAS 105. Credit in SCI 151 will be considered equivalent to STAT 151 and ★3 Science option.</p>
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<b>CURRENT</b> <a href="https://calendar.ualberta.ca/preview_program.php?catoid=29&amp;poid=27859">https://calendar.ualberta.ca/preview_program.php?catoid=29&amp;poid=27859</a>	<b>PROPOSED</b>
<p><b>Honors in Geology [Science]</b></p> <p>Earth and Atmospheric Sciences encompass the study of the atmosphere, surface and interior of the earth. The Department administers 10 academic programs: Honors and Specialization in Environmental Earth Sciences, Honors and Specialization in Geology, Honors and Specialization in Paleontology, BSc Specialization in Planning, BA Major and Minor in Human Geography, and BA Major in Planning. For details on the Major and Minor in Human Geography and on the BA Major in Planning, see Faculty of Arts listing.</p> <p>Honors in Geology Geology is the study of the planet Earth—the materials it is made of, the processes which affect these materials, and the origin and evolution of life. Geologists are employed by companies engaged in exploration for and production of minerals and fuels, by government agencies, by companies engaged in engineering and environmental projects, and by universities.</p> <p>Continuation in the Honors in Geology program requires successful completion of at least ★24 with a minimum 3.0 GPA in the previous Fall/Winter. In addition, graduation requires a minimum 3.0 GPA on the last ★60 credited to the degree.</p> <p>A student enrolling in the Honors program should consult the Geology program student advisor before registration each year.</p> <p>Year 1 CHEM 101 - Introductory University Chemistry I CHEM 102 - Introductory University Chemistry II</p>	<p><b>Honors in Geology [Science]</b></p> <p>Earth and Atmospheric Sciences encompass the study of the atmosphere, surface and interior of the earth. The Department administers 10 academic programs: Honors and Specialization in Environmental Earth Sciences, Honors and Specialization in Geology, Honors and Specialization in Paleontology, BSc Specialization in Planning, BA Major and Minor in Human Geography, and BA Major in Planning. For details on the Major and Minor in Human Geography and on the BA Major in Planning, see Faculty of Arts listing.</p> <p>Honors in Geology Geology is the study of the planet Earth—the materials it is made of, the processes which affect these materials, and the origin and evolution of life. Geologists are employed by companies engaged in exploration for and production of minerals and fuels, by government agencies, by companies engaged in engineering and environmental projects, and by universities.</p> <p>Continuation in the Honors in Geology program requires successful completion of at least ★24 with a minimum 3.0 GPA in the previous Fall/Winter. In addition, graduation requires a minimum 3.0 GPA on the last ★60 credited to the degree.</p> <p>A student enrolling in the Honors program should consult the Geology program student advisor before registration each year.</p> <p>Year 1 CHEM 101 - Introductory University Chemistry I CHEM 102 - Introductory University Chemistry II</p>

<p>EAS 100 - Planet Earth  EAS 105 - The Dynamic Earth Through Time  MATH 114 - Elementary Calculus I OR  MATH 117 - Honors Calculus I OR  MATH 144 - Calculus for the Physical Sciences I  MATH 115 - Elementary Calculus II OR  MATH 118 - Honors Calculus II OR  MATH 146 - Calculus for the Physical Sciences II  PHYS 124 - Particles and Waves AND  PHYS 126 - Fluids, Fields, and Radiation  OR  PHYS 144 - Newtonian Mechanics and Relativity AND  PHYS 146 - Fluids and Waves  ★6 junior ENGL or ★3 junior ENGL and ★3 junior WRS</p> <p>Year 2  EAS 221 - Introduction to Geographical Information Systems and Remote Sensing  EAS 222 - Stratigraphy and Sedimentation  EAS 224 - Mineralogy I  EAS 225 - Earth Surface Processes and Landforms  EAS 230 - Introduction to Invertebrate Paleontology  EAS 232 - Mineralogy II  EAS 233 - Geologic Structures  EAS 234 - Geology Field School  ★3 Arts option  ★3 Option</p> <p>Year 3  EAS 320 - Geochemistry I  EAS 323 - Introduction to Hydrogeology  EAS 331 - Igneous Petrology  EAS 332 - Metamorphic Petrology  EAS 333 - Advanced Geology Field School  EAS 336 - Sedimentary Systems  EAS 364 - Petroleum Geology and Subsurface Methods  OR  EAS 368 - Ore Deposits Geology  GEOPH 210 - Physics of the Earth OR  GEOPH 223 - Environmental Geophysics OR  GEOPH 224 - Geophysical Exploration Techniques  ★3 Arts option  ★3 Science option (see details of courses)</p> <p>Year 4  EAS 426 - Undergraduate Thesis  GEOPH 210 - Physics of the Earth OR  GEOPH 223 - Environmental Geophysics OR  GEOPH 224 - Geophysical Exploration Techniques  ★6 Arts option  ★12 EAS Science courses numbered 300 or higher  ★3 Science option (see details of courses)</p> <p>Notes  Recommended Arts options include any <b>HGP</b> courses.  For students entering Geology Honors, credit in SCI 100 will be considered equivalent to BIOL 108, CHEM 101, CHEM 102, EAS 100, EAS 105, MATH 114, MATH 115, PHYS 144 and PHYS 146. Credit in SCI 151 will be considered equivalent to ★6 Science options.</p>	<p>EAS 100 - Planet Earth  EAS 105 - The Dynamic Earth Through Time  MATH 114 - Elementary Calculus I OR  MATH 117 - Honors Calculus I OR  MATH 144 - Calculus for the Physical Sciences I  MATH 115 - Elementary Calculus II OR  MATH 118 - Honors Calculus II OR  MATH 146 - Calculus for the Physical Sciences II  PHYS 124 - Particles and Waves AND  PHYS 126 - Fluids, Fields, and Radiation  OR  PHYS 144 - Newtonian Mechanics and Relativity AND  PHYS 146 - Fluids and Waves  ★6 junior ENGL or ★3 junior ENGL and ★3 junior WRS  Year 2  EAS 221 - Introduction to Geographical Information Systems and Remote Sensing  EAS 222 - Stratigraphy and Sedimentation  EAS 224 - Mineralogy I  EAS 225 - Earth Surface Processes and Landforms  EAS 230 - Introduction to Invertebrate Paleontology  EAS 232 - Mineralogy II  EAS 233 - Geologic Structures  EAS 234 - Geology Field School  ★3 Arts option  ★3 Option</p> <p>Year 3  EAS 320 - Geochemistry I  EAS 323 - Introduction to Hydrogeology  EAS 331 - Igneous Petrology  EAS 332 - Metamorphic Petrology  EAS 333 - Advanced Geology Field School  EAS 336 - Sedimentary Systems  EAS 364 - Petroleum Geology and Subsurface Methods  OR  EAS 368 - Ore Deposits Geology  GEOPH 210 - Physics of the Earth OR  GEOPH 223 - Environmental Geophysics OR  GEOPH 224 - Geophysical Exploration Techniques  ★3 Arts option  ★3 Science option (see details of courses)</p> <p>Year 4  EAS 426 - Undergraduate Thesis  GEOPH 210 - Physics of the Earth OR  GEOPH 223 - Environmental Geophysics OR  GEOPH 224 - Geophysical Exploration Techniques  ★6 Arts option  ★12 EAS Science courses numbered 300 or higher  ★3 Science option (see details of courses)</p> <p>Notes  Recommended Arts options include any <b>HGEO</b> courses.  For students entering Geology Honors, credit in SCI 100 will be considered equivalent to BIOL 108, CHEM 101, CHEM 102, EAS 100, EAS 105, MATH 114, MATH 115, PHYS 144 and PHYS 146. Credit in SCI 151 will be considered equivalent to ★6 Science options.</p>
<p style="text-align: center;"><b>CURRENT</b></p> <p style="text-align: center;"><a href="https://calendar.ualberta.ca/preview_program.php?catoid=29&amp;poid=28057&amp;returnto=7442">https://calendar.ualberta.ca/preview_program.php?catoid=29&amp;poid=28057&amp;returnto=7442</a></p>	<p style="text-align: center;"><b>PROPOSED</b></p>

## **Earth and Atmospheric Sciences [Graduate]**

Department of Earth and Atmospheric Sciences  
1-26 Earth Sciences Building  
University of Alberta  
Edmonton, Alberta T6G 2E3  
E-mail: [EAS.Inquiries@ualberta.ca](mailto:EAS.Inquiries@ualberta.ca)  
[www.ualberta.ca/EAS](http://www.ualberta.ca/EAS)

### **General Information**

The Department offers the following graduate degree programs:

Master of Science (MSc) in Earth and Atmospheric Sciences

Doctor of Philosophy (PhD) in Earth and Atmospheric Sciences

Master of Science (MSc) in Integrated Petroleum Geosciences (in conjunction with the Department of Physics)

Master of Arts (MA) in Earth and Atmospheric Sciences with specialization in Human Geography

Doctor of Philosophy (PhD) in Earth and Atmospheric Sciences with specialization in Human Geography

Doctor of Philosophy (PhD) in Earth and Atmospheric Sciences with specialization in Urban and Regional Planning

Master of Science in Urban and Regional Planning

Active research fields, which are listed on the Department's website ([www.ualberta.ca/eas](http://www.ualberta.ca/eas)), include aqueous and sedimentary geochemistry; Arctic environments; atmosphere and ocean modelling; basin analysis; biogeography; carbonate sedimentology; clastic sedimentology; climatology; community engagement; community, health and environment; community planning; diamond geology; economic geology; environmental values, attitudes and behaviors; environmental chemistry; environmental geology; experimental petrology; fluvial and glacial geomorphology; geochemistry; geochronology; geographic information systems; geomicrobiology; geotectonics; glaciology, glacier hydrology and glacier chemistry; global change; hot-springs; human-environment interactions; human dimensions of environmental hazards; hydrogeology; ichnology; igneous, sedimentary and metamorphic petrology; invertebrate and vertebrate paleontology; isotope geology; land-use planning; marine icing; meso-scale meteorology; metalliferous mineral deposits; microclimatology; micrometeorology; micropaleontology; mineralogy; paleolimnology; paleoecology of siliceous microfossils; periglacial geomorphology; petroleum geology; physical oceanography, paleoceanography and numerical model development; planetary geology; Precambrian palaeoenvironments; qualitative research methods; Quaternary palaeoenvironments; regional planning; remote sensing; resilience; sedimentology; stratigraphy; structural geology; transportation planning; urban design; urban planning; tectonics; volcanology; winter city planning and design.

For thesis based programs the Department will approve only thesis topics which lie within the research expertise of one or more of its Faculty members.

## **Earth and Atmospheric Sciences [Graduate]**

Department of Earth and Atmospheric Sciences  
1-26 Earth Sciences Building  
University of Alberta  
Edmonton, Alberta T6G 2E3  
E-mail: [EAS.Inquiries@ualberta.ca](mailto:EAS.Inquiries@ualberta.ca)  
[www.ualberta.ca/EAS](http://www.ualberta.ca/EAS)

### **General Information**

The Department offers the following graduate degree programs:

Master of Science (MSc) in Earth and Atmospheric Sciences

Doctor of Philosophy (PhD) in Earth and Atmospheric Sciences

Master of Science (MSc) in Integrated Petroleum Geosciences (in conjunction with the Department of Physics)

Master of Arts (MA) in Earth and Atmospheric Sciences with specialization in Human Geography

Doctor of Philosophy (PhD) in Earth and Atmospheric Sciences with specialization in Human Geography

Doctor of Philosophy (PhD) in Earth and Atmospheric Sciences with specialization in Urban and Regional Planning

Master of Science in Urban and Regional Planning

Active research fields, which are listed on the Department's website ([www.ualberta.ca/eas](http://www.ualberta.ca/eas)), include aqueous and sedimentary geochemistry; Arctic environments; atmosphere and ocean modelling; basin analysis; biogeography; carbonate sedimentology; clastic sedimentology; climatology; community engagement; community, health and environment; community planning; diamond geology; economic geology; environmental values, attitudes and behaviors; environmental chemistry; environmental geology; experimental petrology; fluvial and glacial geomorphology; geochemistry; geochronology; geographic information systems; geomicrobiology; geotectonics; glaciology, glacier hydrology and glacier chemistry; global change; hot-springs; human-environment interactions; human dimensions of environmental hazards; hydrogeology; ichnology; igneous, sedimentary and metamorphic petrology; invertebrate and vertebrate paleontology; isotope geology; land-use planning; marine icing; meso-scale meteorology; metalliferous mineral deposits; microclimatology; micrometeorology; micropaleontology; mineralogy; paleolimnology; paleoecology of siliceous microfossils; periglacial geomorphology; petroleum geology; physical oceanography, paleoceanography and numerical model development; planetary geology; Precambrian palaeoenvironments; qualitative research methods; Quaternary palaeoenvironments; regional planning; remote sensing; resilience; sedimentology; stratigraphy; structural geology; transportation planning; urban design; urban planning; tectonics; volcanology; winter city planning and design.

For thesis based programs the Department will approve only thesis topics which lie within the research expertise of one or more of its Faculty members.

<p>The Department of Earth and Atmospheric Sciences has a planning studio, digital imaging and printing facilities, research laboratories, instructional facilities, and technical support for numerous graduate students.</p> <p><b>Entrance Requirements</b> The Department's minimum admission requirements are a relevant undergraduate degree with an average of 3.0 in the last two years of undergraduate work (or graduate work) at the University of Alberta, or an equivalent qualification from a recognized institution, and a TOEFL score of 550 (paper-based) or 88 (Internet-based), where applicable (see English Language Requirement).</p> <p>Note that the Master of Science in Urban and Regional Planning has additional requirements see The Degrees of MSc in Urban and Regional Planning (2 year) or The Degrees of MSc in Urban and Regional Planning (Accelerated 1 year) .</p> <p><b>Financial Assistance</b> In addition to scholarships administered by the University, a number of graduate assistantships and discipline specific scholarships are awarded by the Department.</p> <p><b>Graduate Program Requirements</b> The Degrees of MSc in Urban and Regional Planning (2 year) The Degrees of MSc in Urban and Regional Planning (Accelerated 1 year) The Degrees of MA and MSc The Degrees of MSc in Integrated Petroleum Geosciences The Degree of PhD Graduate Courses Graduate course descriptions can be found in Course Listings, under the following subject headings:</p> <p>Earth and Atmospheric Sciences (EAS) Human Geography and Planning (HGP) Integrated Petroleum Geosciences (IPG) Paleontology (PALEO)</p>	<p>The Department of Earth and Atmospheric Sciences has a planning studio, digital imaging and printing facilities, research laboratories, instructional facilities, and technical support for numerous graduate students.</p> <p><b>Entrance Requirements</b> The Department's minimum admission requirements are a relevant undergraduate degree with an average of 3.0 in the last two years of undergraduate work (or graduate work) at the University of Alberta, or an equivalent qualification from a recognized institution, and a TOEFL score of 550 (paper-based) or 88 (Internet-based), where applicable (see English Language Requirement).</p> <p>Note that the Master of Science in Urban and Regional Planning has additional requirements see The Degrees of MSc in Urban and Regional Planning (2 year) or The Degrees of MSc in Urban and Regional Planning (Accelerated 1 year) .</p> <p><b>Financial Assistance</b> In addition to scholarships administered by the University, a number of graduate assistantships and discipline specific scholarships are awarded by the Department.</p> <p><b>Graduate Program Requirements</b> The Degrees of MSc in Urban and Regional Planning (2 year) The Degrees of MSc in Urban and Regional Planning (Accelerated 1 year) The Degrees of MA and MSc The Degrees of MSc in Integrated Petroleum Geosciences The Degree of PhD Graduate Courses Graduate course descriptions can be found in Course Listings, under the following subject headings:</p> <p>Earth and Atmospheric Sciences (EAS) Human Geography (HGEO) Integrated Petroleum Geosciences (IPG) Paleontology (PALEO) Planning (PLAN)</p>
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<p style="text-align: center;"><b>CURRENT</b></p> <p style="text-align: center;"><a href="https://calendar.ualberta.ca/content.php?catoid=29&amp;navoid=7267">https://calendar.ualberta.ca/content.php?catoid=29&amp;navoid=7267</a></p>	<p style="text-align: center;"><b>PROPOSED</b></p>
<p><b>Details of Courses</b></p> <p>Course Listings Prerequisites Course Exceptions Graduate Courses</p> <p>Course Listings Science courses can be found in Course Listings, under the following subject headings:</p> <p>Astronomy (ASTRO) Biochemistry (taught by the Faculty of Medicine and Dentistry) (BIOCH) Biochimie (BIOCM) (Faculté Saint-Jean) Biological Science - Biology (BIOL)</p>	<p><b>Details of Courses</b></p> <p>Course Listings Prerequisites Course Exceptions Graduate Courses</p> <p>Course Listings Science courses can be found in Course Listings, under the following subject headings:</p> <p>Astronomy (ASTRO) Biochemistry (taught by the Faculty of Medicine and Dentistry) (BIOCH) Biochimie (BIOCM) (Faculté Saint-Jean) Biological Science - Biology (BIOL)</p>

<p>Biological Science - Botany (BOT)  Biological Science - Entomology (ENT)  Biological Science - Genetics (GENET)  Biological Science - Microbiology (MICRB)  Biological Science - Zoology (ZOOL)  Biologie (BIOLE) (Faculté Saint-Jean)  Cell Biology (taught by the Faculty of Medicine and Dentistry) (CELL)  Chemistry (CHEM)  Chimie (CHIM) (Faculté Saint-Jean)  Computing Science (CMPUT)  Earth and Atmospheric Sciences [formerly Geography and Geology (EAS)]  Environmental Physical Sciences (ENVPS)  Geophysics (GEOPH)  Immunology and Infection (IMIN)  Interdisciplinary Courses offered by the Faculty of Science (INT D)  Laboratory Animal Management (LB AN)  Marine Science (MA SC)  Mathematical Physics (MA PH)  Mathematics (MATH)  Mathématiques (MATHQ) (Faculté Saint-Jean)  Neuroscience (taught by the Faculty of Medicine and Dentistry) (NEURO)  Paleontology (PALEO)  Pharmacology (taught by the Faculty of Medicine and Dentistry) (PMCOL)  Physiology (taught by the Faculty of Medicine and Dentistry) (PHYSL)  Physics (PHYS)  Physique (PHYSQ) (Faculté Saint-Jean)  Psychology (PSYCO)  Science (SCI)  Sciences de la Terre et de l'atmosphère (SCTA) (Faculté Saint-Jean)  Statistics (STAT)  Statistique (STATQ) (Faculté Saint-Jean)</p> <p>Prerequisites  Where a prerequisite is stated in a course description, it is understood that equivalent courses may satisfy the requirement. Also, the department offering a course with prerequisite requirements may waive the prerequisite in writing. (Prerequisite waiver forms are available from the Faculty of Science office and the Department offices.)</p> <p>Course Exceptions  Biochemistry Courses  All BIOCH courses can be used by students in the Faculty of Science as science courses.</p> <p>Cell Biology Courses  All CELL courses can be used by students in the Faculty of Science as science courses.</p> <p>Food Science Courses  NU FS 363 may be used by students in the Faculty of Science as a science course in Microbiology.</p> <p>Human Geography/Planning Courses  HGP 470 may be used by students in the Faculty of Science as a science course.</p> <p>Medical Microbiology Courses  All MMI courses, with the exception of MMI 133, may be used by students in the Faculty of Science as science courses.</p>	<p>Biological Science - Botany (BOT)  Biological Science - Entomology (ENT)  Biological Science - Genetics (GENET)  Biological Science - Microbiology (MICRB)  Biological Science - Zoology (ZOOL)  Biologie (BIOLE) (Faculté Saint-Jean)  Cell Biology (taught by the Faculty of Medicine and Dentistry) (CELL)  Chemistry (CHEM)  Chimie (CHIM) (Faculté Saint-Jean)  Computing Science (CMPUT)  Earth and Atmospheric Sciences [formerly Geography and Geology (EAS)]  Environmental Physical Sciences (ENVPS)  Geophysics (GEOPH)  Immunology and Infection (IMIN)  Interdisciplinary Courses offered by the Faculty of Science (INT D)  Laboratory Animal Management (LB AN)  Marine Science (MA SC)  Mathematical Physics (MA PH)  Mathematics (MATH)  Mathématiques (MATHQ) (Faculté Saint-Jean)  Neuroscience (taught by the Faculty of Medicine and Dentistry) (NEURO)  Paleontology (PALEO)  Pharmacology (taught by the Faculty of Medicine and Dentistry) (PMCOL)  Physiology (taught by the Faculty of Medicine and Dentistry) (PHYSL)  Physics (PHYS)  Physique (PHYSQ) (Faculté Saint-Jean)  Psychology (PSYCO)  Science (SCI)  Sciences de la Terre et de l'atmosphère (SCTA) (Faculté Saint-Jean)  Statistics (STAT)  Statistique (STATQ) (Faculté Saint-Jean)</p> <p>Prerequisites  Where a prerequisite is stated in a course description, it is understood that equivalent courses may satisfy the requirement. Also, the department offering a course with prerequisite requirements may waive the prerequisite in writing. (Prerequisite waiver forms are available from the Faculty of Science office and the Department offices.)</p> <p>Course Exceptions  Biochemistry Courses  All BIOCH courses can be used by students in the Faculty of Science as science courses.</p> <p>Cell Biology Courses  All CELL courses can be used by students in the Faculty of Science as science courses.</p> <p>Food Science Courses  NU FS 363 may be used by students in the Faculty of Science as a science course in Microbiology.</p> <p>Human Geography/Planning Courses  HGE0 470 or PLAN 470 may be used by students in the Faculty of Science as a science course.</p> <p>Medical Microbiology Courses  All MMI courses, with the exception of MMI 133, may be used by students in the Faculty of Science as science courses.</p>
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<p><b>Neuroscience Courses</b> All NEURO courses may be used by students in the Faculty of Science as science courses.</p> <p><b>Pharmacology Courses</b> All PMCOL courses, with the exception of PMCOL 300, may be used by students in the Faculty of Science as science courses.</p> <p><b>Physiology Courses</b> All PHYSL courses, with the exception of PHYSL 600, may be used by students in the Faculty of Science as science courses.</p> <p><b>Graduate Courses</b> Courses numbered 500 and up are restricted to graduate students and normally may not be taken for credit by undergraduate science students without prior written permission by the Associate Dean, Undergraduate or designate</p>	<p><b>Neuroscience Courses</b> All NEURO courses may be used by students in the Faculty of Science as science courses.</p> <p><b>Pharmacology Courses</b> All PMCOL courses, with the exception of PMCOL 300, may be used by students in the Faculty of Science as science courses.</p> <p><b>Physiology Courses</b> All PHYSL courses, with the exception of PHYSL 600, may be used by students in the Faculty of Science as science courses.</p> <p><b>Graduate Courses</b> Courses numbered 500 and up are restricted to graduate students and normally may not be taken for credit by undergraduate science students without prior written permission by the Associate Dean, Undergraduate or designate</p>
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**Rationale for change:** (Not required for course deletion or editorial changes)  
(Include documentation that other departments or Faculties offering similar courses support this proposal. In the case of substantial program changes you must also include evidence of consultation with students.)

Change of course subject code (HGP to HGEO or PLAN) and change of some course titles

:

<b>Department Contact</b> Name: Nancy Thompson	<b>Department Chair or Designate</b> Name: Murray Gingras	<b>Date approved by Dept Council:</b> 04/15/19
Email: nancy.thompson@ualberta.ca		<b>Date submitted to FoS:</b>

Upload this form to the FoS Calendar Google Site.  
Include one form for each grouping of changes. ie, all course changes can go in one document if they were approved at the same department council.



Current:	Proposed:
<p><b>INT D 406 - Capstone Course in Leadership</b></p> <p>★ 3 (fi 6) (either term, variable) Investigation of the nature and use of evidence and models of scientific inquiry as they apply to theory and research in leadership. Students will work in teams to conduct an interdisciplinary leadership project that involves designing an innovative solution to a collectively identified problem. Prerequisite: INT D 301. Counts toward the Certificate in Interdisciplinary Leadership Studies offered by the School of Business in collaboration with the Peter Lougheed Leadership College. [Faculty of Science]</p>	<p><b>INT D 406 - Capstone Course in Leadership</b></p> <p>★ 3 (fi 6) (either term, variable) Investigation of the nature and use of evidence and models of scientific inquiry as they apply to theory and research in leadership. Students will work in teams to conduct an interdisciplinary leadership project that involves designing an innovative solution to a collectively identified problem. Prerequisite: INT D 301. Counts toward the Certificate in Interdisciplinary Leadership Studies offered by the Peter Lougheed Leadership College. [Faculty of Science]</p>

## CALENDAR CHANGE REQUEST FORM

**Department: Faculty of Science**

Highlight type of change request below:

1. **Course Change**      2. **Editorial Change**      3. **Admission Requirement**      4. **Program Regulation**

<b>CURRENT</b>	<b>PROPOSED</b>
<a href="https://calendar.ualberta.ca/content.php?catoid=33&amp;navoid=9843#science-internship-program">https://calendar.ualberta.ca/content.php?catoid=33&amp;navoid=9843#science-internship-program</a>	<a href="https://calendar.ualberta.ca/content.php?catoid=33&amp;navoid=9843#science-internship-program">https://calendar.ualberta.ca/content.php?catoid=33&amp;navoid=9843#science-internship-program</a>
<p>Science Internship Program The Science Internship Program (SIP) offers science undergraduate students work experience opportunities in addition to their academic courses.</p> <p>To be eligible to register in this program a student must:</p> <p>Have successfully completed a minimum of ★48, and not more than ★105, of a Science General, Honors or Specialization degree program with a declared major. Be in good standing and have a minimum 2.3 GPA in the previous Fall/Winter Terms.</p> <p>Students accepted into the program will receive access to approved position descriptions from employers wishing to hire SIP students. Employers are responsible for interviewing and selecting students for the positions. The internship may begin in May, September or January and must be of at least 8 months duration, but may extend to up to 16 months.</p> <p>Students are limited to one 8 (may consist of two separate 4 month placements), 12 (continuous) or 16 (continuous) month internship placement during their undergraduate degree. Work during the internship period is full time, for which the student is paid by the employer at competitive rates. The student, employer and the Faculty must agree to terms of the internship. During the period of the internship, the student registers in a work experience (WKEXP) course each term and is considered a full-time student at the University of Alberta. All students must register in a minimum of two WKEXP courses that have associated fees.</p> <p>To successfully complete the SIP, students must complete a minimum of eight months of the following WKEXP courses: WKEXP 955, WKEXP 956, WKEXP 957 and WKEXP 958 <b>and complete INT D 400</b>. An eight month placement may be comprised of two four month placements. Students who have completed one four month WKEXP and are not able to secure a second will receive acknowledgment of one WKEXP course on their transcript but will not receive the SIP designation <b>and are not eligible to take INT D 400</b>. The ultimate responsibility for securing work rests with the student and there is no guarantee that all qualified students will be placed.</p> <p>Work experience courses are assigned no units of course weight and are graded credit/no credit. Grades are determined by the student's job performance as evaluated by the employer, and/or by the successful completion of assignments as assigned by the Faculty or designate.</p> <p>The Science Internship Program Coordinator maintains contact at approximately four-month intervals with the student and the person designated by the employer to</p>	<p>Science Internship Program The Science Internship Program (SIP) offers science undergraduate students work experience opportunities in addition to their academic courses.</p> <p>To be eligible to register in this program a student must:</p> <p>Have successfully completed a minimum of ★48, and not more than ★105, of a Science General, Honors or Specialization degree program with a declared major. Be in good standing and have a minimum 2.3 GPA in the previous Fall/Winter Terms.</p> <p>Students accepted into the program will receive access to approved position descriptions from employers wishing to hire SIP students. 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All students must register in a minimum of two WKEXP courses that have associated fees.</p> <p>To successfully complete the SIP, students must complete a minimum of eight months of the following WKEXP courses: WKEXP 955, WKEXP 956, WKEXP 957 and WKEXP 958. An eight month placement may be comprised of two four month placements. Students who have completed one four month WKEXP and are not able to secure a second will receive acknowledgment of one WKEXP course on their transcript but will not receive the SIP designation. The ultimate responsibility for securing work rests with the student and there is no guarantee that all qualified students will be placed.</p> <p>Work experience courses are assigned no units of course weight and are graded credit/no credit. Grades are determined by the student's job performance as evaluated by the employer, and/or by the successful completion of assignments as assigned by the Faculty or designate.</p> <p>The Science Internship Program Coordinator maintains contact at approximately four-month intervals with the student and the person designated by the employer to be responsible for the student's progress. During this</p>



be responsible for the student's progress. During this time if the student's performance is not satisfactory as evaluated by the employer, the internship may be terminated and the student would then return to classes at the next available opportunity. Following completion of the work experience students return to the university to complete their degree program of studies.

Students should be aware that under the Protection for Persons in Care Act, all new employees, volunteers and other people engaged for services by designated agencies (hospitals, nursing homes, lodges, group homes, etc.) must complete a Police Information Check (also known as a Criminal Record Check, Security Clearance Check, or Police Clearance), which must include a Vulnerable Sector Check. In addition, certain other agencies, organizations, and educational facilities may require students to present a Police Information Check prior to entering a practicum, work placement term, internship, or field experience placement. Students who have concerns related to their ability to provide a clear Police Information Check should consult with the Associate Dean, Undergraduate. Students will be informed of the need for a Police Information Check prior to specific practicum (field experience) placement. See Requirement for Police Information Checks for more information on the general requirements concerning Police Information Checks and the fees associated with them.

Detailed information about the Science Internship Program is available at [uab.ca/ScienceInternship](http://uab.ca/ScienceInternship).

time if the student's performance is not satisfactory as evaluated by the employer, the internship may be terminated and the student would then return to classes at the next available opportunity. Following completion of the work experience students return to the university to complete their degree program of studies.

Students should be aware that under the Protection for Persons in Care Act, all new employees, volunteers and other people engaged for services by designated agencies (hospitals, nursing homes, lodges, group homes, etc.) must complete a Police Information Check (also known as a Criminal Record Check, Security Clearance Check, or Police Clearance), which must include a Vulnerable Sector Check. In addition, certain other agencies, organizations, and educational facilities may require students to present a Police Information Check prior to entering a practicum, work placement term, internship, or field experience placement. Students who have concerns related to their ability to provide a clear Police Information Check should consult with the Associate Dean, Undergraduate. Students will be informed of the need for a Police Information Check prior to specific practicum (field experience) placement. See Requirement for Police Information Checks for more information on the general requirements concerning Police Information Checks and the fees associated with them.

Detailed information about the Science Internship Program is available at [uab.ca/ScienceInternship](http://uab.ca/ScienceInternship).

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37368](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37368)

## Honors in Statistics

### Science Internship Program

A Science Internship Program, similar to a co-op program, is offered to students in the General, Specialization or Honors programs in Mathematical and Statistical Sciences (see [Science Internship Program](#) for guidelines to the program). The Science Internship designation will appear on the degree parchments of students who have participated in the program and who have also successfully completed INT-D 400.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37117](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37117)

## Honors in Chemistry

Honors students in Chemistry must take a core of Chemistry and auxiliary courses. The core consists of ★45 in Chemistry courses, ★12 in Mathematics courses, ★6 in Physics courses, ★3 in [BIOCH 200](#), ★3 in [CHEM 401](#), ★6 in a junior ENGL or ★3 in

## Honors in Chemistry

Honors students in Chemistry must take a core of Chemistry and auxiliary courses. The core consists of ★45 in Chemistry courses, ★12 in Mathematics courses, ★6 in Physics courses, ★3 in [BIOCH 200](#), ★3 in [CHEM 401](#), ★6 in a junior ENGL or ★3 in

ENGL and ★3 in Arts option, and ★12 in Arts options. In addition to the core courses, honors students must complete at least ★18 in senior courses in Chemistry from the courses listed below, with ★6 of these taken at the 400-level. If a student participates in the Science Internship Program, this student may choose to complete ★18 in senior courses in Chemistry as given in the previous statement, or to complete senior courses from Chemistry as follows: ★15 in senior courses in Chemistry from the courses listed below, with ★6 of these taken at the 400-level and INT D 400.

Nothing until;

## Notes

Credit in SCI 100 will be considered equivalent to CHEM 101, CHEM 102, CHEM 164, MATH 114, MATH 115, PHYS 144, PHYS 146, BIOL 107 and ★3 Science option (see details of courses).

Credit in SCI 151 will be considered equivalent to STAT 151 and ★3 Science option.

Students in the Science Internship Program may take ★15 in senior chemistry courses (with at least ★6 taken at the 400-level) and INT D 400.

ENGL and ★3 in Arts option, and ★12 in Arts options. In addition to the core courses, honors students must complete at least ★18 in senior courses in Chemistry from the courses listed below, with ★6 of these taken at the 400-level. If a student participates in the Science Internship Program, this student may choose to complete ★18 in senior courses in Chemistry as given in the previous statement, or to complete senior courses from Chemistry as follows: ★15 in senior courses in Chemistry from the courses listed below, with ★6 of these taken at the 400-level.

[https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=37442&hl=%22science+internship+program%22&returnto=search](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=37442&hl=%22science+internship+program%22&returnto=search)

## Science Internship Program

A Science Internship Program, is offered to students in the General, Specialization or Honors programs in Biological Sciences (see Science Internship Program for guidelines to the program). The Science Internship designation will appear on the degree parchments of students who have participated in the program and who have also successfully completed BIOL 400.

## Science Internship Program

A Science Internship Program, is offered to students in the General, Specialization or Honors programs in Biological Sciences (see Science Internship Program for guidelines to the program).

<p><a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37469&amp;hl=%22science+internship+program%22&amp;returnto=search">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37469&amp;hl=%22science+internship+program%22&amp;returnto=search</a></p> <p><b>Specialization in Planning [Science]</b></p> <p><b>No changes until:</b></p> <p><b>Notes</b></p> <p>List A courses include: <a href="#">BIOL 299</a>, <a href="#">BIOL 330</a>, <a href="#">BIOL 331</a>, <a href="#">BIOL 332</a>, <a href="#">BIOL 333</a>, <a href="#">BIOL 364</a>, <a href="#">BIOL 365</a>, <a href="#">BIOL 366</a>, <a href="#">BIOL 381</a>, BIOL 464 and BIOL 470; <a href="#">EAS 323</a>, <a href="#">EAS 324</a>, <a href="#">EAS 327</a>, EAS 401, <a href="#">EAS 425</a>, <a href="#">EAS 427</a>, <a href="#">EAS 428</a>, <a href="#">EAS 451</a>, EAS 452, <a href="#">EAS 457</a>, <a href="#">EAS 458</a>. For students entering the Science Internship Program: <a href="#">EAS 401</a>, <a href="#">WKEXP 955</a>, <a href="#">WKEXP 956</a> are required.</p>	<p><b>Specialization in Planning [Science]</b></p> <p><b>No changes until:</b></p> <p><b>Notes</b></p> <p>3. List A courses include: <a href="#">BIOL 299</a>, <a href="#">BIOL 330</a>, <a href="#">BIOL 331</a>, <a href="#">BIOL 332</a>, <a href="#">BIOL 333</a>, <a href="#">BIOL 364</a>, <a href="#">BIOL 365</a>, <a href="#">BIOL 366</a>, <a href="#">BIOL 381</a>, BIOL 464 and BIOL 470; <a href="#">EAS 323</a>, <a href="#">EAS 324</a>, <a href="#">EAS 327</a>, EAS 401, <a href="#">EAS 425</a>, <a href="#">EAS 427</a>, <a href="#">EAS 428</a>, <a href="#">EAS 451</a>, EAS 452, <a href="#">EAS 457</a>, <a href="#">EAS 458</a>. For students entering the Science Internship Program: <a href="#">WKEXP 955</a>, <a href="#">WKEXP 956</a> are required.</p>

**Rationale for change:** (Not required for course deletion or editorial changes)  
 (Include documentation that other departments or Faculties offering similar courses support this proposal. In the case of substantial program changes you must also include evidence of consultation with students.)

<b>Department Contact</b> Name:	<b>Department Chair or Designate</b> Name:	<b>Date approved by Dept Council:</b>
Email:		<b>Date submitted to FoS:</b>

## CALENDAR CHANGE REQUEST FORM

**Department: Faculty of Science**

Highlight type of change request below:

1. **Course Change**      2. Editorial Change      3. Admission Requirement      4. Program Regulation

CURRENT	PROPOSED
<p>https://calendar.ualberta.ca/content.php?filter%5B27%5D=INT+D&amp;filter%5B29%5D=&amp;filter%5Bcourse_type%5D=-1&amp;filter%5Bkeyword%5D=&amp;filter%5B32%5D=1&amp;filter%5Bcpage%5D=1&amp;cur_cat_oid=33&amp;expand=&amp;navoid=10000&amp;search_database=Filter&amp;filter%5Bexact_match%5D=1#acalog_template_course_filter</p>	
<p><b>INT D 400 – Science Internship Capstone</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Required by all students who have just completed the on-site work experience portion of the Science Internship Program. Must be completed during the first fall or winter academic term following return to full-time studies. The course focuses on professional development, including skills in written and verbal communication and the ability to make contributions in a team environment. Students will be assigned both individual and team-based projects. Grades will be determined by performance on written assignments and oral presentations given in class. Taught in conjunction with INT D 401. This class may not be taken for credit if credit has already been obtained in a Science Internship Practicum course. Prerequisites: WKEXP 956 or WKEXP 932. [Faculty of Science]</p>	<p><u>Delete course</u></p>

**Rationale for change:** (Not required for course deletion or editorial changes)  
 (Include documentation that other departments or Faculties offering similar courses support this proposal. In the case of substantial program changes you must also include evidence of consultation with students.)

<b>Department Contact</b> Name: Julie Naylor	<b>Department Chair or Designate</b> Name: Julie Naylor	<b>Date approved by Dept Council:</b>
Email:		<b>Date submitted to FoS:</b>

Upload this form to the FoS Calendar Google Site.



## CALENDAR CHANGE REQUEST FORM

Department: Psychology

1. Course Change (new course, change to existing course, course deletion)      2. Editorial Change (basic editing)      3. Admission Requirement      4. Program Change

CURRENT	PROPOSED
Honors in Psychology [Science] <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37126&amp;hl=%22psychology+honors%22&amp;returnto=search">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37126&amp;hl=%22psychology+honors%22&amp;returnto=search</a>	Honors in Psychology [Science] <a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37126&amp;hl=%22psychology+honors%22&amp;returnto=search">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37126&amp;hl=%22psychology+honors%22&amp;returnto=search</a>
... <b>A minimum of ★48 at the senior level in PSYCO including:</b> ... PSYCO 390 - Honors Thesis I: Research Apprenticeship (normally taken in the third year) ... PSYCO 499 - Honors Thesis II: Thesis Research (taken in the fourth year)	... <b>A minimum of ★48 at the senior level in PSYCO including:</b> ... PSYCO 390 - Honors Thesis I: Research Apprenticeship (normally taken in the third year; <b>to be taken twice</b> ) ... PSYCO 499 - Honors Thesis II: Thesis Research (taken in the fourth year; <b>to be taken twice</b> )

**Rationale for change:** To indicate that the course should be taken twice.

<b>Department Contact</b> Name: Jan Boulter	<b>Department Chair or Designate</b> Name: Cor Baerveldt	<b>Date approved by Dept Council:</b> 8 Sept 2020
Email: <a href="mailto:jannie@ualberta.ca">jannie@ualberta.ca</a>	<a href="mailto:cor@ualberta.ca">cor@ualberta.ca</a> 	<b>Date submitted to FoS:</b> 9 Sept 2020



## CALENDAR CHANGE REQUEST FORM

Department: Psychology

1. Course Change  
 (new course, change  
 to existing course,  
 course deletion)

2. Editorial Change  
 (basic editing)

3. Admission  
 Requirement

4. Program Change

CURRENT	PROPOSED
<p><b>PSYCO 258 - Cognitive Psychology</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) A survey of findings of theoretical issues in the study of cognition, such as perception, attention, knowledge representation, memory, learning, language, reasoning, and problem solving. Prerequisites: PSYCO 104 or SCI 100, and STAT 141 or 151 or SCI 151. [Faculty of Science]</p> <p><b>PSYCO 354 - Foundations of Cognitive Science</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) An introduction to the theories and research practices of cognitive science by examining contributions of cognitive psychology, artificial intelligence, linguistics, and neuroscience to a variety of research areas. Prerequisites: STAT 141 or 151 or SCI 151 and PSYCO 258. [Faculty of Science]</p> <p><b>PSYCO 372 - Behavior in Relation to Genetics</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) An examination of the influence of genetic variations on behavioral differences in infra-human and human populations. Prerequisites: PSYCO 104 or SCI 100 and PSYCO 105 and STAT 141 or 151 or SCI 151 and BIOL 207. [Faculty of Science]</p> <p><b>PSYCO 381 - Principles of Learning</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Principles and processes of learning including a consideration of classical conditioning, instrumental learning, and memory. Research involving non-human animals will be emphasized. Prerequisites: STAT 141 or 151 or SCI 151 and PSYCO 281 or 282. [Faculty of Science]</p> <p><b>PSYCO 403 - Recent Advances in Experimental Psychology: Models and Theories</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Discussion of advanced concepts and theories developed by selected fields within experimental psychology. The course will examine the relation between theory and data in these fields. Prerequisites: STAT 141 or 151 or SCI 151 and a 300-level PSYCO course. Students must check with the Department</p>	<p><b>PSYCO 258 - Cognitive Psychology</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) A survey of findings of theoretical issues in the study of cognition, such as perception, attention, knowledge representation, memory, learning, language, reasoning, and problem solving. Prerequisites: PSYCO 104 or SCI 100, and STAT 141 or 151 <b>or 161</b> or SCI 151. [Faculty of Science]</p> <p><b>PSYCO 354 - Foundations of Cognitive Science</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) An introduction to the theories and research practices of cognitive science by examining contributions of cognitive psychology, artificial intelligence, linguistics, and neuroscience to a variety of research areas. Prerequisites: STAT 141 or 151 <b>or 161</b> or SCI 151 and PSYCO 258. [Faculty of Science]</p> <p><b>PSYCO 372 - Behavior in Relation to Genetics</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) An examination of the influence of genetic variations on behavioral differences in infra-human and human populations. Prerequisites: PSYCO 104 or SCI 100 and PSYCO 105 and STAT 141 or 151 <b>or 161</b> or SCI 151 and BIOL 207. [Faculty of Science]</p> <p><b>PSYCO 381 - Principles of Learning</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Principles and processes of learning including a consideration of classical conditioning, instrumental learning, and memory. Research involving non-human animals will be emphasized. Prerequisites: STAT 141 or 151 <b>or 161</b> or SCI 151 and PSYCO 281 or 282. [Faculty of Science]</p> <p><b>PSYCO 403 - Recent Advances in Experimental Psychology: Models and Theories</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) Discussion of advanced concepts and theories developed by selected fields within experimental psychology. The course will examine the relation between theory and data in these fields. Prerequisites: STAT 141 or 151 <b>or 161</b> or SCI 151 and a 300-level PSYCO course. Students must check with the</p>

<p>for the topics for the year and any additional prerequisites. [Faculty of Science]</p> <p><b>PSYCO 413 - Design and Analysis of Experiments in Psychology</b></p> <p>★ 3 (fi 6) (either term, 3-0-3) Provides the background necessary to design and analyze data in any area of experimental psychology and prepares students to conduct original research. Topics include sampling distributions and hypothesis testing; issues in and analysis of between-subjects, within-subjects, and mixed designs; trend analysis; planned and post hoc comparisons; fixed and random effects factors; and efficiency and power of various experimental designs. Prerequisite: STAT 141 or 151 or SCI 151 and any 300-level PSYCO. [Faculty of Science]</p> <p><b>PSYCO 421 - Advanced Topics in Human Development</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) An in-depth review and analysis of research in an area of human development. Prerequisites: STAT 141 or 151 or SCI 151, and PSYCO 323 or PSYCO 327 or PSYCO 329. Note: Consult with the Department for the specific topic offered each year and any additional prerequisites. [Faculty of Science]</p> <p><b>PSYCO 457 - Embodied Cognitive Science</b></p> <p>★ 3 (fi 6) (either term, 0-3s-0) Introduction to theory and practice of embodied cognitive science, focusing on phenomena that emerge from agent-environment, including how even simple agents can produce apparently complex behavior. Prerequisites: STAT 141 or 151 or SCI 151, PSYCO 354 and one other 300-level psychology course. [Faculty of Science]</p>	<p>Department for the topics for the year and any additional prerequisites. [Faculty of Science]</p> <p><b>PSYCO 413 - Design and Analysis of Experiments in Psychology</b></p> <p>★ 3 (fi 6) (either term, 3-0-3) Provides the background necessary to design and analyze data in any area of experimental psychology and prepares students to conduct original research. Topics include sampling distributions and hypothesis testing; issues in and analysis of between-subjects, within-subjects, and mixed designs; trend analysis; planned and post hoc comparisons; fixed and random effects factors; and efficiency and power of various experimental designs. Prerequisite: STAT 141 or 151 <b>or 161</b> or SCI 151 and any 300-level PSYCO. [Faculty of Science]</p> <p><b>PSYCO 421 - Advanced Topics in Human Development</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) An in-depth review and analysis of research in an area of human development. Prerequisites: STAT 141 or 151 <b>or 161</b> or SCI 151, and PSYCO 323 or PSYCO 327 or PSYCO 329. Note: Consult with the Department for the specific topic offered each year and any additional prerequisites. [Faculty of Science]</p> <p><b>PSYCO 457 - Embodied Cognitive Science</b></p> <p>★ 3 (fi 6) (either term, 0-3s-0) Introduction to theory and practice of embodied cognitive science, focusing on phenomena that emerge from agent-environment, including how even simple agents can produce apparently complex behavior. Prerequisites: STAT 141 or 151 <b>or 161</b> or SCI 151, PSYCO 354 and one other 300-level psychology course. [Faculty of Science]</p>
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**Rationale for change:**

STAT 161 is a new course that is considered equivalent to STAT 151.

<p><b>Department Contact</b> Name: Jan Boulter</p>	<p><b>Department Chair or Designate</b> Name: Cor Baerveldt, AC Undergrad</p>	<p><b>Date approved by Dept Council:</b></p>
<p>Email: jannie@ulberta.ca</p>	<p>cor@ualberta.ca</p>	<p><b>Date submitted to FoS:</b> 9 September 2020</p>



## CALENDAR CHANGE REQUEST FORM

Department: Psychology

1. Course Change  
(new course, change  
to existing course,  
course deletion)

2. Editorial Change  
(basic editing)

3. Admission  
Requirement

4. Program Change

CURRENT	PROPOSED
<p><a href="https://calendar.ualberta.ca/preview_program.php?catoid=29&amp;poid=27858">https://calendar.ualberta.ca/preview_program.php?catoid=29&amp;poid=27858</a></p> <h3>Specialization in Psychology [Science]</h3> <p>Specialization in Psychology [Science]</p> <p>Continuation in the Specialization in Psychology program requires the successful completion of ★24 with a minimum GPA of 2.3 in the preceding Fall/Winter. Graduation requires a minimum GPA of 2.3 on all courses credited to the degree.</p> <p>Year 1</p> <ul style="list-style-type: none"> <li>BIOL 107 - Introduction to Cell Biology</li> <li>BIOL 108 - Introduction to Biological Diversity</li> <li>PSYCO 104 - Basic Psychological Processes</li> <li>PSYCO 105 - Individual and Social Behavior</li> </ul> <p>★6 in junior ENGL or ★3 junior ENGL and ★3 junior WRS</p> <p>★6 from junior courses offered in the departments of Computing Science and Mathematics</p> <p>★6 from junior courses offered in the departments of Chemistry and Physics</p> <p>Year 2</p> <p><del>STAT 151 - Introduction to Applied Statistics I</del></p>	<h3>Specialization in Psychology [Science]</h3> <p>Specialization in Psychology [Science]</p> <p>Continuation in the Specialization in Psychology program requires the successful completion of ★24 with a minimum GPA of 2.3 in the preceding Fall/Winter. Graduation requires a minimum GPA of 2.3 on all courses credited to the degree.</p> <p>Year 1</p> <ul style="list-style-type: none"> <li>BIOL 107 - Introduction to Cell Biology</li> <li>BIOL 108 - Introduction to Biological Diversity</li> <li>PSYCO 104 - Basic Psychological Processes</li> <li>PSYCO 105 - Individual and Social Behavior</li> <li><b>STAT 151 - Introduction to Applied Statistics I</b></li> </ul> <p>★6 in junior ENGL or ★3 junior ENGL and ★3 junior WRS</p> <p>★3 from junior courses offered in the departments of Computing Science and Mathematics</p> <p>★6 from junior courses offered in the departments of Chemistry and Physics</p> <p>Year 2</p>

**Rationale for change:** When STAT 151 was added to the requirements, the calendar listed a required ★6 in junior MATH/CMPUT *plus* ★3 in STAT 151, for a total of ★9 in junior MATH/CMPUT. This is meant to be a total of ★6 (as it is in the General BSc or Honours programs). STAT 151 is to count as one of the ★6 in junior MATH/CMPUT, leaving only a remaining ★3 in junior MATH/CMPUT to be completed.

Department Contact	Department Chair or Designate	Date approved by Dept Council:
--------------------	-------------------------------	--------------------------------



Name: Kerry Ann Berrisford	Name: Cor Baerveldt	
Email: <a href="mailto:psyscien@ualberta.ca">psyscien@ualberta.ca</a>	cor@ualberta.ca	<b>Date submitted to FoS:</b>



## CALENDAR CHANGE REQUEST FORM

Department: Psychology

1. Course Change  
(new course, change  
to existing course,  
course deletion)

2. Editorial Change  
(basic editing)

3. Admission Requirement  
4. Program Change

CURRENT	PROPOSED
<a href="https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37406">https://calendar.ualberta.ca/preview_program.php?catoid=33&amp;poid=37406</a>	
<p><b>PSYCO 390 - Honors Thesis I: Research Apprenticeship</b></p> <p>★ 3 (fi 6) (two term, 0-0-6) Under the direction of a Faculty member, students pursue a topic of interest leading to the development of a thesis proposal and, during their fourth year, the thesis research. The work normally involves both directed readings and empirical research experience. Restricted to, and required of, third-year students in the Honors Psychology program. [Faculty of Science]</p>	<p><b>PSYCO 390 - Honors Thesis I: Research Apprenticeship</b></p> <p>★ 3 (fi 6) (either term, 0-0-6) Under the direction of a Faculty member, students pursue a topic of interest leading to the development of a thesis proposal and, during their fourth year, the thesis research. The work normally involves both directed readings and empirical research experience. Restricted to, and required of, third-year students in the Honors Psychology program. [Faculty of Science]</p>
<p><b>PSYCO 499 - Honors Thesis II: Thesis Research</b></p> <p>★ 3 (fi 6) (two term, 0-0-6) Under the direction of a faculty member, students conduct an empirical research project culminating in the Honors Thesis. Prerequisite: PSYCO 390. Restricted to, and required of, fourth-year students in the Science Honors psychology program. [Faculty of Science]</p>	<p><b>PSYCO 499 - Honors Thesis II: Thesis Research</b></p> <p>★ 3 (fi 6) (either term, 0-0-6) Under the direction of a faculty member, students conduct an empirical research project culminating in the Honors Thesis. Prerequisite: PSYCO 390. Restricted to, and required of, fourth-year students in the Science Honors psychology program. [Faculty of Science]</p>
<p><b>PSYCO 309 - Honors Seminar I</b></p> <p>★ 3 (fi 6) (two term, 3-0-0) A range of conceptual and methodological issues in psychology are considered, and students receive intensive training and practice in both written and oral communications. The seminar meets once a week for the full Fall/Winter period. Prerequisite: A committed Thesis Supervisor and approval of the Psychology Honors Advisors. Restricted to, and required of, third-year students in the Science Honors Psychology program. [Faculty of Science]</p>	<p><b>PSYCO 309 - Honors Seminar I</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) A range of conceptual and methodological issues in psychology are considered, and students receive intensive training and practice in both written and oral communications. The seminar meets once a week for the full Fall/Winter period. Prerequisite: A committed Thesis Supervisor and approval of the Psychology Honors Advisors. Restricted to, and required of, third-year students in the Science Honors Psychology program. [Faculty of Science]</p>
<p><b>PSYCO 409 - Honors Seminar II</b></p> <p>★ 3 (fi 6) (two term, 3-0-0) A continuation of PSYCO 309, with an emphasis on the development of professional skills. Topics include the new information technologies, the publication process, ethical issues, and the application of research findings to real-world problems. The seminar meets once a week for the full Fall/Winter period. Prerequisite: PSYCO 309 and a committed Thesis Supervisor and approval of the Psychology Honors Advisor. Restricted to, and required of, fourth-year students in the Science Honors Psychology program. [Faculty of Science]</p>	<p><b>PSYCO 409 - Honors Seminar II</b></p> <p>★ 3 (fi 6) (either term, 3-0-0) A continuation of PSYCO 309, with an emphasis on the development of professional skills. Topics include the new information technologies, the publication process, ethical issues, and the application of research findings to real-world problems. The seminar meets once a week for the full Fall/Winter period. Prerequisite: PSYCO 309 and a committed Thesis Supervisor and approval of the Psychology Honors Advisor. Restricted to, and required of, fourth-year students in the Science Honors Psychology program. [Faculty of Science]</p>

**Rationale for change:** The intention is to change PSYCO 390 and PSYCO 499 from a ★ 3 two-term course to two sections of ★ 3 each, so that students could receive ★ 6 if they complete both sections. The idea is that students would be graded for each section separately.

For PSYCO 309 and PSYCO 409, the intention is to change the Honors seminar courses from a two-term three-credit courses to a one-term three-credit courses.

<b>Department Contact</b> Name: Jan Boulter	<b>Department Chair or Designate</b> Name: Cor Baerveldt	<b>Date approved by Dept Council:</b> 8 Sept 2020
Email: <a href="mailto:jannie@ualberta.ca">jannie@ualberta.ca</a>	cor@ualberta.ca 	<b>Date submitted to FoS:</b> 9 Sept 2020

FINAL Item No. 5

**Governance Executive Summary  
Action Item**

<b>Agenda Title</b>	<b>Items Deemed Minor or Editorial</b>  A. Ancient and Medieval History Program Name Change B. BFA (Acting) Entrance Requirements C. Faculté Saint-Jean Admissions Deadlines and Entrance Requirements D. Faculty of Science Undergraduate Admissions Deadlines E. Oncology Graduate Entrance Requirements F. Oral Biology Graduate Entrance and Program Requirements G. Dentistry Graduate Entrance and Program Requirements H. Communication Sciences & Disorders Graduate Entrance Requirements I. Physical Therapy Graduate Entrance Requirements
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**Item**

Action Requested	<input checked="" type="checkbox"/> Approval <input type="checkbox"/> Recommendation
Proposed by	Steve Patten, Interim Dean, Faculty of Arts Pierre-Yves Mocquais, Dean, Faculté Saint-Jean Matina Kalcounis-Rueppell, Dean, Faculty of Science Brenda Hemmelgarn, Dean, Faculty of Medicine and Dentistry Bob Haennel, Dean, Faculty of Rehabilitation Medicine Brooke Milne, Vice-Provost and Dean, FGSR
Presenter(s)	Tammy Hopper, Vice-Provost (Programs) and Chair, GFC

**Details**

Office of Administrative Responsibility	Provost and Vice-President (Academic)
The Purpose of the Proposal is <i>(please be specific)</i>	See individual item for detail on proposed changes submitted by Faculties and the Office of the Registrar.
Executive Summary <i>(outline the specific item – and remember your audience)</i>	The Office of the Provost and Vice-President (Academic) has determined that the proposed changes are routine or editorial in nature.  PC's Terms of Reference provide that "‘Routine and/or Editorial’ - refers to proposals which do not involve or affect other Faculties or units and do not form part of a proposal for a new program. Editorial or routine changes include any and all changes to the wording of faculty or program specific admissions or academic standing regulations."
Supplementary Notes and context	<This section is for use by University Governance only to outline governance process.>

**Engagement and Routing** (Include meeting dates)

	<u>Those who are actively participating:</u>
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Item No. 5

Consultation and Stakeholder Participation (parties who have seen the proposal and in what capacity)	<ul style="list-style-type: none"> <li>• Vice-Provost (Programs) and Chair, GFC Academic Standards Committee</li> <li>• Faculty Councils</li> <li>• Representatives of the Office of the Registrar</li> </ul>
<For information on the protocol see the <a href="#">Governance Resources section Student Participation Protocol</a> >	<u><i>Those who have been consulted:</i></u>
	<u><i>Those who have been informed:</i></u>
Approval Route (Governance) (including meeting dates)	See individual item for Faculty approval information GFC PC January 14, 2021

**Strategic Alignment**

Alignment with <i>For the Public Good</i>	Objective 21											
Alignment with Core Risk Area	Please note below the specific institutional risk(s) this proposal is addressing.											
	<table border="0"> <tr> <td><input checked="" type="checkbox"/> Enrolment Management</td> <td><input type="checkbox"/> Relationship with Stakeholders</td> </tr> <tr> <td><input type="checkbox"/> Faculty and Staff</td> <td><input type="checkbox"/> Reputation</td> </tr> <tr> <td><input type="checkbox"/> Funding and Resource Management</td> <td><input type="checkbox"/> Research Enterprise</td> </tr> <tr> <td><input type="checkbox"/> IT Services, Software and Hardware</td> <td><input type="checkbox"/> Safety</td> </tr> <tr> <td><input type="checkbox"/> Leadership and Change</td> <td><input checked="" type="checkbox"/> Student Success</td> </tr> <tr> <td><input type="checkbox"/> Physical Infrastructure</td> <td></td> </tr> </table>	<input checked="" type="checkbox"/> Enrolment Management	<input type="checkbox"/> Relationship with Stakeholders	<input type="checkbox"/> Faculty and Staff	<input type="checkbox"/> Reputation	<input type="checkbox"/> Funding and Resource Management	<input type="checkbox"/> Research Enterprise	<input type="checkbox"/> IT Services, Software and Hardware	<input type="checkbox"/> Safety	<input type="checkbox"/> Leadership and Change	<input checked="" type="checkbox"/> Student Success	<input type="checkbox"/> Physical Infrastructure
<input checked="" type="checkbox"/> Enrolment Management	<input type="checkbox"/> Relationship with Stakeholders											
<input type="checkbox"/> Faculty and Staff	<input type="checkbox"/> Reputation											
<input type="checkbox"/> Funding and Resource Management	<input type="checkbox"/> Research Enterprise											
<input type="checkbox"/> IT Services, Software and Hardware	<input type="checkbox"/> Safety											
<input type="checkbox"/> Leadership and Change	<input checked="" type="checkbox"/> Student Success											
<input type="checkbox"/> Physical Infrastructure												
Legislative Compliance and jurisdiction	Post-Secondary Learning Act (PSLA) UAPPOL Admissions Policy GFC Programs Committee (PC) Terms of Reference											

Attachments

- A. Ancient and Medieval Studies
- B. BFA Drama (Acting) Admissions
- C. Calendar Change-FSJ
- D. Faculty of Science Admission Deadlines
- E. ONCOL Graduate Program - Entrance Requirements
- F. PhD Oral Biology Program Changes
- G. PhD Dentistry Program Changes
- H. MScSLP Standardized Language Requirement
- I. Physical Therapy Entrance Requirements

Prepared by: Heather Richholt, Assistant Secretary to GFC, heather.richholt@ualberta.ca

## Proposal Template: Program/Specialization Name Change

This template is for proposals to change the title of a ministry-approved program or specialization within an existing program.

Name change proposals for degree programs and applied degree programs are typically subject to review by the Campus Alberta Quality Council.

### SECTION 1: PROPOSAL INFORMATION

#### 1.1 Basic Information *(Complete the table below):*

<b>Institution</b>	<b>University of Alberta</b>
<b>Current program/specialization name</b>	<b>Ancient and Medieval History</b>
<b>Credential awarded</b>	<b>Bachelor of Arts</b>
<b>Proposed implementation date</b>	<b>July 1, 2021</b>

#### 1.2 Proposed New Name *(Answer the following questions)*

1.2.1 *Specify the new name that is being proposed.*

**Ancient and Medieval Studies**

1.2.2 *Specify if the new name is for a program or a specialization within a program?*

*Program*

*Specialization*

#### 1.3 Rationale for Proposed New Name *(Answer the following questions)*

1.3.1 *Describe the rationale for the proposed name change.*

The name change better reflects the interdisciplinary nature of the degree and allows for the inclusion of courses from disciplines beyond just History and Classics.

1.3.2 *Is comparable nomenclature used for similar programs/specializations offered across Campus Alberta and, where relevant, in other jurisdictions?*

The University of Calgary has an Ancient and Medieval History program.

### SECTION 2: SYSTEM IMPACT

**2.1 Impact on Learners** (*Answer the following questions*)

**2.1.1** *Were students consulted regarding this proposed name change? If so, what was the feedback received as a result of this consultation?*

Current Ancient and Medieval History majors and minors were emailed regarding the proposed change and invited to give feedback. Students expressed no concerns.

**2.1.2** *Describe benefits for students of proposed new name.*

The new specialization name will better reflect the interdisciplinary nature of the program.

**2.1.3** *Describe plans to accommodate:*

- a) *active students who may wish to graduate with the established credential; and*
- b) *previous graduates who may request to exchange their parchment for one with the new program or specialization name.*

Active students will be allowed to complete the requirements of the Ancient and Medieval History major/minor.

Previous graduates will be allowed to exchange their parchment, as coordinated through the Convocation and Ceremonies Office.

**2.2 Potential Risks** (*Identify the potential risks associated with implementing the name change, if any, and your institution's risk mitigation strategies.*)

No risks have been identified.

**2.3 Consultation/Collaboration** (*Answer the following questions*)

**2.3.1** *Identify which stakeholder groups, if any, were consulted:*

*Faculty*

*Employers*

*Advisory committee*

*Other (identify below)*

*Regulatory bodies/professional associations*

**2.3.2** *Summarize feedback received including anticipated impacts on stakeholders.*



Current students voiced no concerns about the proposed changes and, instead, were supportive of the move to broaden the specialization title and range of relevant courses.

Faculty members teaching courses that will count toward the specialization expressed that the change could increase the popularity of their courses.

**2.4 Communication** (*Describe how information about the name change will be communicated to students and applicants.*)

The Department of History and Classics will email current Ancient and Medieval History majors and minors and announce the change on its website. The Faculty of Arts will also introduce new promotional materials to share with applicants.

**SECTION 3: INSTITUTIONAL AND REGULATORY APPROVAL/SUPPORT**

**3.1** *Provide specific information about which internal governance body approved this proposed name change and the date of approval.*

The name change was approved by:

History and Classics Department Council: September 10, 2020

Arts Faculty Council: TBA

GFC Programs Committee: November 19, 2020.

**3.2** *If applicable, describe authorization/endorsement(s) from relevant professional organizations, regulatory bodies, and/or advisory committees.*

Not applicable

**RECOMMENDATION (FOR DEPARTMENT USE)**

**Do Any Issues or Information Gaps Remain?**

**Recommendation(s):**

**Rationale for Recommendation:**

**Reviewer(s):**



**Date Completed:**

**Submission Deadlines: 21-22 Calendar** – 09.02.20, 09.23.20, 10.07.20

**Submission Deadlines: 22-23 Calendar** – 01.13.21, 03.31.21

**Department:** History and Classics

**Change:** Program

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**Rationale:** History and Classics currently offers an interdisciplinary major and minor in Ancient and Medieval History. Building on but replacing this would be the proposed program in Ancient and Medieval *Studies*. Broader than the current program, the new one will draw on courses from a range of continuing disciplinary programs across the Faculty of Arts, whose departments regularly offer lectures, seminars and language instruction pertaining to ancient and medieval cultures (including those outside the “West”). This inclusive major/minor in Ancient and Medieval Studies will appeal to students looking for a comparative or interdisciplinary perspective on the study of pre-modern worlds and offer wider cultural representation than the existing AMH major. AMS will thus complement existing programs that focus on particular eras, regions or disciplinary approaches.

Faculty were consulted in all departments where relevant coursework is offered. All responded positively and most contributed courses that we may list as cross-listed courses for this major and minor on the departmental webpage (see appendix). Of the language options listed below, HEBR, GREEK, LATIN, and SANSK are offered through our department. We have obtained written permission to list the other languages (Arabic, Classical Chinese, Old English, Old Norse).

Major: [https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=38066](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=38066)

Minor: [https://calendar.ualberta.ca/preview\\_program.php?catoid=33&poid=38064](https://calendar.ualberta.ca/preview_program.php?catoid=33&poid=38064)

**Calendar Copy:**

**Current:** ~~Strike through and highlight~~ deletions

**Proposed:** Underline and highlight additions

## Requirements

See [Bachelor of Arts \(BA\)](#).

### Major in Ancient and Medieval **History**

The Department of History and Classics offers a major in the area of Ancient and Medieval History. Students are required to complete a minimum of \*30 to a maximum of \*48.

Required courses are:

- HIST 290 – Introduction to Historiography (★3)

**★12 Ancient History selected from the following of which at least ★3 must be taken at the 400-level:**

- CLASS 254 – Introduction to Greek Art and Archaeology
- CLASS 255 – Introduction to Roman Art and Archaeology
- CLASS 261 – Women, Gender and Sexuality in the Ancient World
- CLASS 280 – Introduction to Ancient Greek History
- CLASS 282 – Introductory Roman History I
- CLASS 283 – Introductory Roman History II
- CLASS 294 – Ancient Science, Technology, and Medicine
- CLASS 299 – Topics in the Ancient World
- CLASS 303 – Religion in Greco-Roman Antiquity
- CLASS 304 – Warfare in Greco-Roman Antiquity
- CLASS 330 – From Alexander the Great to Cleopatra: The Hellenistic World
- CLASS 354 – Topics in Greek Civilization \*
- CLASS 355 – Topics in Roman Civilization \*
- CLASS 356 – Topics in Ancient Art
- CLASS 376 – Early Civilization I
- CLASS 380 – History of Palestine
- CLASS 399 – Topics in the Ancient World \*
- CLASS 463 – Topics in Roman History
- CLASS 473 – Topics in Classical Archaeology
- CLASS 478 – Topics in Roman Art
- CLASS 480 – Topics in the Archaeology of the Roman Provinces
- CLASS 481 – Topics in Greek History

## Requirements

See [Bachelor of Arts \(BA\)](#).

### Major in Ancient and Medieval **Studies**

Degrees in Ancient and Medieval Studies are interdisciplinary programs administered by the Department of History and Classics. Students are required to complete a minimum of \*30 to a maximum of \*48 at the senior level, chosen from a list of cross-listed courses. Consult the History and Classics website at <https://www.ualberta.ca/history-classics/index.html> for a current list of approved cross-listed courses.

See [Cross-Listed Courses](#) for regulations concerning cross-listed courses.

Required courses:

**★3 INT D 205 – Introduction to Ancient and Medieval Studies**

**★6 at the 400-level**

**★6 of a language relevant to Ancient and Medieval Studies:**

- A minimum of ★6 in Arabic, Classical Chinese, Greek, Hebrew, Latin, Old English, Old Norse, or Sanskrit, which may also fulfil the LOE requirement in the BA program. Note that some language courses may have prerequisites and not all languages are offered every year.

Note: Students may not count more than ★12 from any one course designation (i.e., HIST) toward the required credits for the major.

**In addition to the requirements listed above:**

Students are strongly encouraged to pursue temporal, geographic, and disciplinary diversity in their coursework.

- CLASS 499 – Individual Study of Historical and Archaeological Problems
- HIST 289 – Introduction to Classical India

Note: \*Eligible when the topic is on ancient history or archaeology, but not literature.

**★12 Medieval History selected from the following of which at least ★3 must be taken at the 400-level:**

- HIST 207 – Pre-Modern Europe I
- HIST 212 – Pre-Modern Europe II
- HIST 228 – The Early History of the British Peoples
- HIST 243 – The Golden Age of Islam: History of the Muslim World to the 16th Century
- HIST 272 – Religion in History \*
- HIST 297 – The History of Christianity
- HIST 300 – Topics in European History \*
- HIST 313 – Medieval and Early Imperial Russia
- HIST 397 – History of Science I
- HIST 403 – Topics in Medieval European History
- HIST 420 – Topics in the History of Early Modern Europe
- HIST 421 – Topics in the History of Europe \*
- HIST 428 – Topics in the History of Christianity \*
- HIST 429 – Topics in British History \*
- HIST 498 – Directed Study \*

Note: \*Eligible when the topic is on medieval history.

**★3 further senior level approved CLASS or HIST**

Selected from ★12 Ancient History or ★12 Medieval History above.

**In addition to the requirements listed above**

Students majoring in Ancient and Medieval History are strongly encouraged to take:

- A minimum of ★6 in Latin or Greek, which may also fulfil the LOE requirement in the BA program.

**Two of**

1. CLASS 103 – Introduction to Ancient Greece
2. CLASS 104 – Introduction to Ancient Rome
3. CLASS 110 – The Ancient World
4. HIST 110 – The Pre-Modern World


Minor in Ancient and Medieval Studies

Requirements

A minimum of ★18 at the senior level chosen from a list of cross-listed courses, including:

1. ★3 INT D 205 – Introduction to Ancient and Medieval Studies
2. ★3 at the 400-level

<p>Minor in Ancient and Medieval <del>History</del></p> <p>Requirements</p> <p>A minimum of ★18 <del>selected from the senior level courses listed above including:</del></p> <ul style="list-style-type: none"> <li>5. <del>★9 in Ancient History courses</del></li> <li>6. <del>★9 Medieval History courses</del></li> <li>7. ★3 at the 400-level</li> </ul>	<p><u>Consult the History and Classics website at <a href="https://www.ualberta.ca/history-classics/index.html">https://www.ualberta.ca/history-classics/index.html</a> for a current list of approved cross-listed courses.</u></p> <p><u>See Cross-Listed Courses for regulations concerning cross-listed courses.</u></p> <p><u>Students are strongly encouraged to pursue temporal, geographic, and disciplinary diversity in their coursework.</u></p>
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<p>Department Contact: Josie Hendrickson</p>	<p>Department Council Approval Date: September 10, 2020</p>
<p>Chair or Designate: Jaymie Heilman, Associate Chair Undergraduate Studies</p>	<p>Signature: <i>Jaymie Heilman</i> </p>

Approval: Arts Faculty Council November 26, 2020

6-33 Humanities Centre  
Edmonton, Alberta, Canada T6G 2E5  
Tel: 780.492.ARTS  
Fax: 780.492.7251  
[www.arts.ualberta.ca](http://www.arts.ualberta.ca)

September 15, 2020

Dear Programs Support Team,

I write to offer my enthusiastic support of the proposed changes to the Ancient and Medieval History major and minor that have been submitted by the Department of History and Classics. The proposed changes will lead to a broader program that is transformative in its fuller embrace of interdisciplinarity.

Based on the efforts of Dr. Jaymie Heilman and her colleagues to consult faculty members in all the Departments with relevant courses, I can confirm widespread initial support within the Faculty of Arts. Of course, my support must remain officially provisional prior to the proposal being considered and voted on at an upcoming meeting of Arts Faculty Council.

We appreciate any input that may be offered by the Programs Support Team.

Sincerely,



Steve Patten  
Interim Dean

Department: **Drama**

**Change: Admission Requirement**

**Why is this change being proposed and who was consulted?**  
 Change to Transfer Requirements required before entering:  
 This change reflects the philosophy of the Faculty of Arts' new BA Program, in that the new version is more open to student selection of courses and less directive than previously. The proposed change catches the BFA Acting Program up to this philosophy as it will accept more range of kinds of previous credits for the preparatory year (the BFA Acting Program takes students in after one year of college or university). It also reduces some of the barriers regularly experienced by applicants applying from some significant feeder programs (i.e. acting and performance programs in colleges in western Canada); for example, in the spirit of Campus Alberta, we are proposing two changes that will assist students to "ladder" from one Alberta institution to the other.

Change to Title:  
 This change is editorial, to be consistent throughout calendar.

Changes to the Notes:  
 These are to simplify and clarify and point the applicant to the department website for up-to-date information on deadlines and detailed audition requirements (see the new Note 3, which replaces Note 4).

Deletion of Notes 3&5 simplify this calendar entry for prospective applicants. The content of these notes are better covered by a combination of the website AND the audition-application process. Because BFA Acting is a quota program and entry is limited to those invited to enter after the audition/interview/application review, next steps and deadlines are better handled in their letter of invitation/acceptance.

This calendar change also lists application requirements for the program.

<https://calendar.ualberta.ca/content.php?catoid=29&navoid=7365#bachelor-of-fine-arts-in-drama-acting>

**Calendar Copy:**

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
<p><del>Strike through and highlight</del> deletions</p> <p><b>Bachelor of Fine Arts in Drama (Acting)</b></p> <p><b>I. High School Requirements</b>                      There is no admission to the program directly from high school. See II below.</p> <p><b>II. Transfer Requirements</b>                      Normally successful completion of ★30, transferable to a BA program in the Faculty, is required. Applicants presenting less than the normal ★30, but no less than ★21, may be admitted. Any and all units of course weight less than the normal ★30 must be completed before the Fall Term of the third year. Credits must include ★6 in junior-level English, or ★3 Junior English and ★3 WRS 101. The remaining credits are optional; however, courses in the Humanities, Social Sciences, and Fine Arts are recommended. A maximum of ★12 DRAMA and a maximum of ★6 junior ENGL are permitted, as is a maximum of ★12 in non-Arts or non-Science courses.</p>	<p><u>Underline and highlight</u> additions</p> <p><b>Bachelor of Fine Arts in Drama (Acting)</b></p> <p><b><u>General Admission Requirements</u></b></p> <p><u>In addition to a student's application, the following must also be submitted:</u></p> <ul style="list-style-type: none"> <li><u>A letter of intent</u></li> <li><u>A theatre resume</u></li> <li><u>A headshot</u></li> <li><u>Two letters of reference from teachers or directors</u></li> </ul> <p><u>Applicants must also audition for the program. See Department of Drama website for application deadlines and audition information. Hyperlink "Department of Drama" to <a href="https://www.ualberta.ca/drama">https://www.ualberta.ca/drama</a></u></p> <p><b>I. High School Requirements</b>                      There is no admission to the program directly from high school. See II below.</p> <p><b>II. Transfer Requirements</b>                      Normally successful completion of ★30, transferable to a BA program in the Faculty, is required. Applicants presenting less than the normal ★30, but no less than ★21, may be admitted. Any and all units of course weight less than the normal ★30 must be completed before the Fall Term of the third year. Credits must include ★3 in junior-level English or WRS 101. The remaining credits are optional; however, courses in the Humanities, Social Sciences, and Fine Arts are recommended. A maximum of ★18 DRAMA are permitted.</p> <p>[...]</p>

<p>[...]</p> <p><b>Notes</b> [...]</p> <p>2. Because enrolment is necessarily limited and because the studies in this interpretive-creative field involve highly specialized training, candidates must satisfy a selection committee that they have the ability and commitment to undertake the program. The selection committee decides based on <del>the evidence derived from an</del> assessment of <del>any courses in drama that may have been taken by the candidates, the testimony of their teachers, experience in dramatic work,</del> and an interview and audition.</p> <p><del>3. Candidates must apply to the Department of Drama for an audition by the audition deadline in Undergraduate Application Deadlines for Admission and Readmission. Application to the Faculty must be made before the program deadline in Undergraduate Application Deadlines for Admission and Readmission. Students requesting readmission or internal transfer to the BFA Program must apply to the Faculty before the program deadline in Undergraduate Application Deadlines for Admission and Readmission.</del></p> <p><del>4. Inquiries regarding the artistic requirements for admission to this program should be directed initially to Department of Drama, University of Alberta, Edmonton, Alberta T6G 2C9; telephone (780) 492-2271, e-mail drama@ualberta.ca</del></p> <p><del>5. Applicants wishing to be considered for an alternative program in Arts must meet the specified matriculation and postsecondary admission requirements for that program.</del></p>	<p><b>Notes</b> [...]</p> <p>2. Because enrolment is necessarily limited and because the studies in this interpretive-creative field involve highly specialized training, candidates must satisfy a selection committee that they have the ability and commitment to undertake the program. The selection committee decides based on assessment of <u>previous performing arts courses and other theatre experience, letters of reference, letter of intent</u>, an interview and audition.</p>
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In which academic year is this change is this change required? **2021-2022**

Department contact name: <i>Elizabeth Ludwig</i>	Department Council Approval Date: <i>08/28/2020</i>
Chair or Designate name: <i>Melanie Dreyer-Lude</i>	Signature:

Approved by Arts Faculty Council November 26, 2020



Faculté Saint-Jean  
**CALENDAR CHANGE REQUEST**  
 Calendrier 2021-2022

Current					Proposed				
<b>Admission and Readmission Deadlines</b>  <b>Faculté Saint-Jean</b>					<b>Admission and Readmission Deadlines</b>  <b>Faculté Saint-Jean</b>				
		Admission			Readmission				
	Application	Documents		Application	Documents		Application	Documents	
BEd (Elementary, Secondary Routes), BEd/BSc					BEd (Elementary, Secondary Routes), BEd/BSc				
<b>Fall Term</b>	March 1	Postsecondary transfer applicant - March 15 (See Note 1) June 15 (See Note 2)	March 1	March 15 (See Note 1) June 15 (See Note 2)	March 1	March 15 (See Note 1) June 15 (See Note 2)	March 1	March 15 (See Note 1) June 15 (See Note 2)	
<b>Winter Term</b>	No admission		No admission		No admission		No admission		
<b>Spring/Summer</b>	No admission		No admission		No admission		No admission		
<b>Notes</b>					<b>Notes</b>				
1. All previously completed course work and course registration of current year. 2. Final results of current year.					1. All previously completed course work and course registration of current year. 2. Final results of current year.				

CURRENT	PROPOSED
<p><b>Faculté Saint-Jean [English]</b>  <b>Degree of Bachelor of Education</b>  <b>General Information</b>  The two programs at Faculté Saint-Jean prepare teachers to work in francophone schools and in French immersion programs. Students having successfully completed their studies will obtain a BEd and will be recommended for the Interim Professional Certificate.</p> <p>The 4-year program to students meeting admission requirements normally after completion of first-year university studies. The program consists of ★20. Credits from the first year of university are included in the ★20.</p> <p>The 2-year program (BED/AD) to holders of approved undergraduate degrees (BA, BSc or other). The program consists of ★66.</p> <p>Teaching Certificate: Beginning September 15, 1990 all persons applying for certification as a teacher in Alberta will be subject to the following restriction on eligibility:</p>	<p><b>Faculté Saint-Jean [English]</b>  <b>Degree of Bachelor of Education</b>  <b>General Information</b>  The two programs at Faculté Saint-Jean prepare teachers to work in francophone schools and in French immersion programs. Students having successfully completed their studies will obtain a BEd and will be recommended for the Interim Professional Certificate.</p> <p>The 4-year program to students meeting admission requirements normally after completion of first-year university studies. The program consists of ★20. Credits from the first year of university are included in the ★20.</p> <p>The 2-year program (BED/AD) to holders of approved undergraduate degrees (BA, BSc or other). The program consists of ★66.</p> <p><u>Campus Saint- Jean also offers the BEd and the BEd/AD at the following satellite campuses:</u></p> <ul style="list-style-type: none"> <li>• <u>Calgary</u></li> <li>• <u>Grande-Prairie</u></li> <li>• <u>Red Deer</u></li> </ul> <p><u>For more information, see Campus Saint-Jean website.</u></p> <p>Teaching Certificate: Beginning September 15, 1990 all persons applying for certification as a teacher in Alberta will be subject to the following restriction on eligibility:</p>

## Faculté Saint-Jean [En Français]

### Baccalauréat en Éducation

#### Renseignements généraux

Les deux programmes à la Faculté Saint-Jean préparent les étudiants à l'enseignement dans les écoles francophones et dans les programmes d'immersion. Les candidats ayant complété avec succès leurs années d'études obtiendront un Baccalauréat en Éducation et seront recommandés pour un Brevet d'enseignement temporaire (Interim Professional Certificate). Un programme de 4 ans dans lequel sont normalement admissibles les étudiants qui ont complété une première année d'études universitaires. Il faut réussir ★120 pour compléter le programme. Les crédits de cette première année universitaire sont inclus dans les ★120.

Le programme de 2 ans (BEd/AD) offert aux détenteurs d'un diplôme de premier cycle (BA, BSc ou autre) qui ont l'intention de se diriger vers l'enseignement. Il faut réussir ★66 pour compléter le programme.

Brevet d'enseignement: Depuis le 15 septembre 1990, toute personne qui présente une demande de brevet d'enseignement est soumise aux exigences suivantes:

## Faculté Saint-Jean [En Français]

### Baccalauréat en Éducation

#### Renseignements généraux

Les deux programmes à la Faculté Saint-Jean préparent les étudiants à l'enseignement dans les écoles francophones et dans les programmes d'immersion. Les candidats ayant complété avec succès leurs années d'études obtiendront un Baccalauréat en Éducation et seront recommandés pour un Brevet d'enseignement temporaire (Interim Professional Certificate). Un programme de 4 ans dans lequel sont normalement admissibles les étudiants qui ont complété une première année d'études universitaires. Il faut réussir ★120 pour compléter le programme. Les crédits de cette première année universitaire sont inclus dans les ★120.

Le programme de 2 ans (BEd/AD) offert aux détenteurs d'un diplôme de premier cycle (BA, BSc ou autre) qui ont l'intention de se diriger vers l'enseignement. Il faut réussir ★66 pour compléter le programme.

Le Campus Saint-Jean offre aussi le BEd et le BEd/AD dans les campus satellites suivants :

- Calgary
- Grande Prairie
- Red Deer

Pour plus d'information, veuillez consulter le site Web du Campus Saint-Jean.

Brevet d'enseignement: Depuis le 15 septembre 1990, toute personne qui présente une demande de brevet d'enseignement est soumise aux exigences suivantes:

CURRENT	PROPOSED
<p><b>Compétence dans la langue anglaise [En Français]</b>  <b>Règlements généraux de la University of Alberta</b>  L'anglais est la langue d'enseignement principale dans toutes les facultés sauf à la Faculté Saint-Jean, où la langue d'enseignement principale est le français. Par conséquent, tous les candidats qui demandent l'admission à des facultés autres que la Faculté Saint-Jean doivent posséder une connaissance adéquate de l'anglais oral et écrit pour être admis à la University of Alberta. Les adultes qui ne répondent pas aux conditions d'admission et les étudiants libres sont tenus aux mêmes exigences que les autres candidats. Voir English Language Proficiency.</p> <p>Les candidats qui demandent leur admission à la Faculté Saint-Jean ne sont pas tenus de démontrer leur compétence dans la langue anglaise avant d'être admis. Cependant, ils doivent démontrer cette compétence avant de pouvoir obtenir un diplôme de la University of Alberta. Les candidats qui n'ont pas démontré leur compétence en langue anglaise au moment de l'admission devront rencontrer l'une des conditions suivantes :</p> <p>Par la réussite de ★6 dans <u>l'un des cours</u> suivants : ANGL, ALS (<u>Anglais Langue Seconde</u>) ou ENGL (voir les exigences de chaque programme pour plus d'information). OU  Les étudiants du BEd peuvent démontrer cette compétence par la réussite de ★18 dont la langue d'enseignement est l'anglais. OU  Les étudiants du BEd/AD peuvent démontrer cette compétence par la réussite <u>par la réussite</u> de ★6 dont la langue d'enseignement est l'anglais</p> <p>De plus amples renseignements concernant la compétence dans la langue anglaise peuvent être obtenus du Bureau des admissions à la Faculté Saint-Jean.</p>	<p><b>Compétence dans la langue anglaise [En Français]</b>  <b>Règlements généraux de la University of Alberta</b>  L'anglais est la langue d'enseignement principale dans toutes les facultés sauf à la Faculté Saint-Jean, où la langue d'enseignement principale est le français. Par conséquent, tous les candidats qui demandent l'admission à des facultés autres que la Faculté Saint-Jean doivent posséder une connaissance adéquate de l'anglais oral et écrit pour être admis à la University of Alberta. Les adultes qui ne répondent pas aux conditions d'admission et les étudiants libres sont tenus aux mêmes exigences que les autres candidats. Voir English Language Proficiency.</p> <p>Les candidats qui demandent leur admission à la Faculté Saint-Jean ne sont pas tenus de démontrer leur compétence dans la langue anglaise avant d'être admis. Cependant, ils doivent démontrer cette compétence avant de pouvoir obtenir un diplôme de la University of Alberta. Les candidats qui n'ont pas démontré leur compétence en langue anglaise au moment de l'admission devront rencontrer l'une des conditions suivantes :</p> <p>Par la réussite de ★6 dans <u>l'une des catégories</u> suivantes : ANGL, ALS (<u>ALS 120, ALS 125</u>) ou ENGL (voir les exigences de chaque programme pour plus d'information) . OU  Les étudiants du BEd peuvent démontrer cette compétence par la réussite de ★18 dont la langue d'enseignement est l'anglais. OU  Les étudiants du BEd/AD peuvent démontrer cette compétence par la réussite de ★6 dont la langue d'enseignement est l'anglais</p> <p>De plus amples renseignements concernant la compétence dans la langue anglaise peuvent être obtenus du Bureau des admissions à la Faculté Saint-Jean.</p>

CURRENT	PROPOSED
<p><b>English Language Proficiency for Admission</b>  <b>[English]</b></p> <p><b>General University Requirements</b>  English is the primary language of instruction in all Faculties except Faculté Saint-Jean, where French is the primary language. Therefore, all applicants to undergraduate Faculties other than Faculté Saint-Jean must possess an adequate knowledge of written and spoken English as a prerequisite to admission. For example, nonmatriculated applicants and Open Studies students must comply with the requirement along with other applicants. See English Language Proficiency.</p> <p>Applicants to Faculté Saint-Jean need not demonstrate proficiency in English prior to admission being granted. However, they must demonstrate proficiency in English before they may be granted a degree from this institution. Candidates who are admitted at Faculté Saint-Jean who have not demonstrated proficiency in English will be required to meet one of the following conditions:</p> <p>The satisfactory completion of ★6 in one of the following courses: ANGL, ALS (<del>Anglais Langue Seconde</del>) or ENGL (see requirements of each program for specific information), OR BEd students may also demonstrate proficiency in the English language by the satisfactory completion of ★18 which have English as the language of instruction, OR BEd/AD students may also demonstrate proficiency in the English language by the satisfactory completion of ★6 which have English as the language of instruction.</p> <p>Further information on these language requirements is available from the admissions office at Faculté Saint-Jean.</p>	<p><b>English Language Proficiency for Admission</b>  <b>[English]</b></p> <p><b>General University Requirements</b>  English is the primary language of instruction in all Faculties except Faculté Saint-Jean, where French is the primary language. Therefore, all applicants to undergraduate Faculties other than Faculté Saint-Jean must possess an adequate knowledge of written and spoken English as a prerequisite to admission. For example, nonmatriculated applicants and Open Studies students must comply with the requirement along with other applicants. See English Language Proficiency.</p> <p>Applicants to Faculté Saint-Jean need not demonstrate proficiency in English prior to admission being granted. However, they must demonstrate proficiency in English before they may be granted a degree from this institution. Candidates who are admitted at Faculté Saint-Jean who have not demonstrated proficiency in English will be required to meet one of the following conditions:</p> <p>The satisfactory completion of ★6 in one of the following categories: ANGL, ALS (<del>ALS 120, ALS 125</del>) or ENGL (see requirements of each program for specific information), OR BEd students may also demonstrate proficiency in the English language by the satisfactory completion of ★18 which have English as the language of instruction, OR BEd/AD students may also demonstrate proficiency in the English language by the satisfactory completion of ★6 which have English as the language of instruction.</p> <p>Further information on these language requirements is available from the admissions office at Faculté Saint-Jean.</p>

Submitted by: Dr. P. Mulatris  
Approved by: FSJ Council Committee

Date: December 18, 2020  
Date: December 18, 2020

## Faculty of Science Admission Deadlines

	Admission		Readmission		Other Requirements
	Application	Documents	Application	Documents	
<b>BSc General</b>					
Fall Term	March 1	Postsecondary transfer applicant - March 15 (See Note 1) June 15 (See Note 2)	March 1	March 15 (See Note 1) June 15 (See Note 2)	For After Degree Students, letter of intent <del>July 1</del> <b>June 15</b> . Submit the letter of intent to Student Services, Faculty of Science.
		High School applicant - March 15 (See Note 1) August 1 (See Note 2)			
Winter Term	No admission or readmission				
Spring/Summer	No admission <u>or readmission</u>		<del>Previous students – March 1</del>	<del>Not applicable</del>	
<b>Notes</b> All previously completed course work and course registration of current year. Final results of current year.					
<b>BSc/BEd (Specialization in Science and Education)</b>					
Fall Term	March 1	Postsecondary transfer applicant - March 15 (See Note 1) June 15 (See Note 2)	March 1	March 15 (See Note 1) June 15 (See Note 2)	
		High School applicant - March 15 (See Note 1) August 1 (See Note 2)			
Winter Term	No admission or readmission				
Spring/Summer	No admission or readmission				
<b>Notes</b> All previously completed course work and course registration of current year. Final results of current year.					
<b>BSc (Specialization, Honors)</b>					
Fall Term	March 1	Postsecondary transfer applicant -	March 1	March 15 (See Note 1) June 15 (See Note 2)	For the BSc Specialization in Planning, written

		March 15 (See Note 1) June 15 (See Note 2)			statement- May 1 (see <a href="#">Admissions Chart 4</a> ) For After Degree Students, letter of intent - <del>July 1</del> <del>June 15</del> Submit the letter of intent to Student Services, Faculty of Science
		High School applicant - March 15 (See Note 1) August 1 (See Note 2)			
Winter Term	No admission or readmission				
Spring/Summer	No admission <u>or readmission</u>		<del>Previous students - March 1</del>	<del>Not applicable</del>	
<b>Notes</b>					
All previously completed course work and course registration of current year. Final results of current year.					
<b>Special/Visiting</b>					
Fall Term	July 1	July 1	July 1	July 1	For Special Students, letter of intent - <del>July 1</del> <del>June 15</del> . Submit the letter of intent to Student Services, Faculty of Science.
Winter Term	No admission or readmission				
Spring/Summer	No admission or readmission				

Approval: November 19, 2020, by Associate Chairs on behalf of Science Faculty Council

## Faculty of Medicine & Dentistry

### Proposed University Calendar Changes for 2020/2021

CURRENT	PROPOSED
<p><b>ONCOLOGY [GRADUATE]</b> Entrance Requirements</p> <p>The Department's normal requirements are a minimum GPA of 3.3 or equivalent in the two most recent years (or last 60 credits) of postsecondary education at a recognized institution. Where applicable, a paper-based TOEFL score of at least 600 (or 100 Internet-based, with a minimum of 20 on each subtest), is required (see English Language Requirement). <del>Medical Physics requires a score of 850 or above in GRE Physics.</del></p>	<p><b>ONCOLOGY [GRADUATE]</b> Entrance Requirements</p> <p>The Department's normal requirements are a minimum GPA of 3.3 or equivalent in the two most recent years (or last 60 credits) of postsecondary education at a recognized institution. Where applicable, a paper-based TOEFL score of at least 600 (or 100 Internet-based, with a minimum of 20 on each subtest), is required (see English Language Requirement). <u>Medical Physics program has two additional requirements: 1) a score of 850 or above in GRE Physics 2) Criminal Record Check</u></p>

**Rationale:** The Medical Physics Graduate Program is located at the Cross Cancer Institute (AHS facility). In order to adhere to AHS guidelines regarding direct patient contact, a Criminal Record Check will now be required prior to admittance into the program.

Approved/Reviewed by:

FoMD Faculty Learning Committee (Faculty Council Delegated Approver): April 28, 2020

FoMD Faculty Council (Review): May 22, 2020



Killam Centre for Advanced Studies  
 2-29 Triffo Hall Edmonton AB Canada T6G 2E1  
 Tel: 780.492.2816 / Fax: 780.492.0692  
 www.gradstudies.ualberta.ca

**2021-2022 University of Alberta Proposed Calendar Graduate  
 Program Changes:**

Current	Proposed
<p><b>Graduate Programs</b></p> <p><b>The Degree of PhD in Medical Sciences - Oral Biology [Graduate]</b></p> <hr/> <p>The Department of Dentistry offers the degree of PhD in Medical Sciences – Oral Biology.</p> <p><b>Entrance Requirements</b></p> <hr/> <p>The Department’s minimum admission requirements are a <del>master’s degree with</del> an admission GPA of at least 3.0 on the 4-point scale from the University of Alberta, or an equivalent qualification and standing from a recognized institution. The admission GPA will be calculated on the last ★60 of graded coursework completed, or on the equivalent of the last two year of full-time graded coursework.</p> <p>Applicants without a master’s degree may be considered for admission provided <del>they can demonstrate adequate prior relevant education and experiences as determined by the Department of Dentistry.</del></p>	<p><b>Graduate Programs</b></p> <p><b>The Degree of PhD in Medical Sciences - Oral Biology [Graduate]</b></p> <hr/> <p>The Department of Dentistry offers the degree of PhD in Medical Sciences – Oral Biology.</p> <p><b>Entrance Requirements</b></p> <hr/> <p>The Department’s minimum admission requirements are a <b>Doctor of Dental Surgery (DDS) or equivalent plus</b> an admission GPA of at least 3.0 on the 4-point scale from the University of Alberta, or an equivalent qualification and standing from a recognized institution. The admission GPA will be calculated on the last ★60 of graded coursework completed, or on the equivalent of the last two year of full-time graded coursework.</p> <p><b>A master’s degree is expected, but does not guarantee acceptance into the PhD program.</b></p> <p>Applicants without a master’s degree may be considered for admission provided <b>equivalency in prior relevant education and experiences as approved by the Graduate Studies Committee of the School of Dentistry.</b></p>

Where applicable, applicants must provide proof of English Language Proficiency (refer to [English Language Requirement](#) ). Any one of the following is acceptable:

- TOEFL (internet-based) minimum score 95 with at least 20 per section or equivalent;
- MELAB minimum score of 91;
- CAEL minimum score of 70 with at least 70 on each subtest;
- or an IELTS (Academic) minimum score of 7.5 with at least 6 on each band.
- All applicants are also required to submit the following:
  - a current curriculum vitae
  - a statement of intent
  - three letters of recommendation (two must be professional)
  
- Applicants must identify a willing faculty supervisor
- Applicants must identify a potential thesis topic
- Applicants must identify potential funding in their application.
- Admission is dependent upon the approval of the Department of Dentistry Graduate Studies Committee and the Medical Sciences Graduate Program Committee.  
For the PhD in Medical Sciences – Oral Biology, applications are always open. Applications received by March 1 will receive preference for Fall Term (September) admission. Applications received by June 1 will receive preference for Winter Term (January) admission.

Where applicable, applicants must provide proof of English Language Proficiency (refer to [English Language Requirement](#) ). Any one of the following is acceptable:

- TOEFL (internet-based) minimum score 95 with at least 20 per section or equivalent;
- MELAB minimum score of 91;
- CAEL minimum score of 70 with at least 70 on each subtest;
- or an IELTS (Academic) minimum score of 7.5 with at least 6 on each band.
- All applicants are also required to submit the following:
  - a current curriculum vitae
  - a statement of intent
  - three letters of recommendation (two must be professional)
  - an official letter from their dental school noting their class ranking upon graduation from dentistry is recommended.
  
- Applicants must identify a willing faculty supervisor
- Applicants must identify a potential thesis topic
- Applicants must identify potential funding in their application.
- Admission is dependent upon the approval of the Oral Biology Admissions Subcommittee, the Department of Dentistry's Graduate Studies Committee and the Medical Sciences Graduate Program Committee.  
For the PhD in Medical Sciences – Oral Biology, applications are always open. Applications received by March 1 will receive preference for Fall Term (September) admission. Applications received by June 1 will receive preference for Winter Term (January) admission.

## Program Requirements

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Students are required to complete a minimum of ★12 in coursework, consisting of ★6 in required courses and ★6 in elective courses. The program also consists of seminars and a thesis. The program of study is determined in consultation with the Graduate Program Director in consultation with the supervisor and supervisory committee. Student progress will be monitored through an oral and written assessment and an interview with the Graduate Program Coordinator in the Spring term.

### Required courses (★6)

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- [DENT 542 - Research Methodology](#)
- [DENT 543 - Introduction to Research Methods and Data Management](#)
- [DENT 601 - Seminars in Oral Health Sciences](#)

### Elective courses (★6)

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Students must complete ★6 in graduate-level courses chosen in consultation with the program director and their supervisor.

### Thesis

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Registration in 900-level THES. Students are required to complete and defend a thesis.

## Program Requirements

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Students are required to complete a minimum of ★12 in coursework, consisting of ★6 in required courses and ★6 in elective courses. The program also consists of seminars and a thesis. The program of study is determined by the Graduate Program Director in consultation with the supervisor and supervisory committee.

Student progress will be monitored through an oral and written assessment and an interview with the Graduate Program Coordinator in the Spring term.

### Required courses (★6)

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- DENT 542 - Research Methodology
- DENT 543 - Introduction to Research Methods and Data Management
- [DENT 635 - Seminars in Oral Health Sciences I](#)
- [DENT 636 - Seminars in Oral Health Sciences II](#)

### Elective courses (★6)

---

Students must complete ★6 in graduate-level courses chosen in consultation with the program director and their supervisor.

### Thesis

---

Registration in 900-level THES. Students are required to complete and defend a thesis.

<p><b>Candidacy Exam</b></p> <hr/> <p>Students are required to take an oral and written candidacy examination. Students must demonstrate that they possess an adequate knowledge of the discipline and of the subject matter relevant to their thesis topic, and that they have the ability to pursue and complete original research at an advanced level.</p> <p><b>Seminars</b></p> <hr/> <p>Students have an attendance requirement for the Discover Dental Sciences seminars and to participate in the Graduate Student Research Day.</p> <p><b>Length of Program</b></p> <hr/> <p>The time required to complete the PhD will vary according to the previous training of the applicant and the nature of the research undertaken; however, a maximum of five years is considered normal. The maximum time permitted to complete the PhD program as set by the Faculty of Graduate Studies and Research is six years.</p>	<p><b>Candidacy Exam</b></p> <hr/> <p>Students are required to take an oral and written candidacy examination. Students must demonstrate that they possess an adequate knowledge of the discipline and of the subject matter relevant to their thesis topic, and that they have the ability to pursue and complete original research at an advanced level.</p> <p><b>Seminars</b></p> <hr/> <p>Students have an attendance requirement for the Discover Dental Sciences seminars and to participate in the Graduate Student Research Day.</p> <p><b>Length of Program</b></p> <hr/> <p>The time required to complete the PhD will vary according to the previous training of the applicant and the nature of the research undertaken; however, a maximum of five years is considered normal. The maximum time permitted to complete the PhD program as set by the Faculty of Graduate Studies and Research is six years.</p>
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Justification: One course was split into term-based courses instead of a year long course structure to assist in monitoring students as they progress through the program and to assist instructors in identifying students in academic jeopardy earlier.

Approved by:  
School of Dentistry, Graduate Studies Committee - March 17, 2020  
Dentistry Executive Committee for approval - March 30, 2020  
Dentistry Department Council for approval - April 24, 2020  
Medical Sciences Graduate Program Committee - May 12, 2020  
FoMD Faculty Learning Committee (Faculty Council Delegated Approver): May 21, 2020  
FoMD Faculty Council (Review): June 5, 2020



Killam Centre for Advanced Studies  
 2-29 Triffo Hall Edmonton AB Canada T6G 2E1  
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**2021-2022 University of Alberta Proposed Calendar Graduate  
 Program Changes:**

Current	Proposed
<p><b>Graduate Programs</b></p> <p><b>The Degree of PhD in Medical Sciences - Dentistry [Graduate]</b></p> <hr/> <p>The Department of Dentistry offers the degree of PhD in Medical Sciences - Dentistry.</p> <p><b>Entrance Requirements</b></p> <hr/> <p>The Department's minimum admission requirements are a <b>master's degree</b> with an admission GPA of at least 3.0 on the 4-point scale from the University of Alberta, or an equivalent qualification and standing from a recognized institution. The admission GPA will be calculated on the last ★60 of graded coursework completed, or on the equivalent of the last two years of full-time graded coursework.</p> <p>Applicants without a master's degree may be considered for admission provided <b>they can demonstrate adequate prior relevant education and experiences as determined by</b></p>	<p><b>Graduate Programs</b></p> <p><b>The Degree of PhD in Medical Sciences - Dentistry [Graduate]</b></p> <hr/> <p>The Department of Dentistry offers the degree of PhD in Medical Sciences - Dentistry.</p> <p><b>Entrance Requirements</b></p> <hr/> <p>The Department's minimum admission requirements are a <b>Doctor of Dental Surgery (DDS) or equivalent plus</b> an admission GPA of at least 3.0 on the 4-point scale from the University of Alberta, or an equivalent qualification and standing from a recognized institution. The admission GPA will be calculated on the last ★60 of graded coursework completed, or on the equivalent of the last two years of full-time graded coursework.</p> <p><b>A master's degree is expected, but does not guarantee acceptance into the PhD program.</b> Applicant's without a master's degree may be considered for admission provided <b>equivalency in prior relevant education and</b></p>

the Department of Dentistry.

Where applicable, applicants must provide proof of English Language Proficiency (refer to [English Language Requirement](#) ). Any one of the following is acceptable:

- TOEFL (internet-based) minimum score 95 with at least 20 per section or equivalent;
- MELAB minimum score of 91;
- CAEL minimum score of 70 with at least 70 on each subtest;
- or an IELTS (Academic) minimum score of 7.5 with at least 6 on each band.
- All applicants are also required to submit the following:
  - a current curriculum vitae
  - a statement of intent
  - three letters of recommendation (two must be professional)
  
- Applicants must identify a willing faculty supervisor
- Applicants must identify a potential thesis topic
- Applicants must identify potential funding in their application.
- Admission is dependent upon the approval of the Department of Dentistry Graduate Studies Committee and the Medical Sciences Graduate Program Committee.

For the MSc in Medical Sciences – Dental Hygiene, the MSc and PhD in Medical Sciences – Dentistry, and the MSc and PhD in Medical Sciences – Oral Biology, applications are always open. Applications received by March 1 will receive preference for Fall Term (September) admission. Applications received by June 1 will receive

experiences as approved by the Graduate Studies Committee of the School of Dentistry.

Where applicable, applicants must provide proof of English Language Proficiency (refer to [English Language Requirement](#) ). Any one of the following is acceptable:

- TOEFL (internet-based) minimum score 95 with at least 20 per section or equivalent;
- MELAB minimum score of 91;
- CAEL minimum score of 70 with at least 70 on each subtest;
- or an IELTS (Academic) minimum score of 7.5 with at least 6 on each band.
- All applicants are also required to submit the following:
  - a current curriculum vitae
  - a statement of intent
  - three letters of recommendation (two must be professional)
  - an official letter from their dental school noting their class ranking upon graduation from dentistry is recommended
  - Applicants must identify a willing faculty supervisor
  - Applicants must identify a potential thesis topic
  - Applicants must identify potential funding in their application.
- Admission is dependent upon the approval of the Dentistry Admissions SubCommittee, the Department of Dentistry's Graduate Studies Committee and the Medical Sciences Graduate Program Committee. For the MSc in Medical Sciences – Dental Hygiene, the MSc and PhD in Medical Sciences – Dentistry, and the MSc and PhD in Medical Sciences – Oral Biology, applications are always open. Applications received by March 1 will receive preference for Fall Term (September) admission. Applications received by June 1 will receive preference for Winter Term (January) admission.

preference for Winter Term (January) admission.

### Program Requirements

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Students are required to complete a minimum of ★12 in coursework, consisting of ★6 in required courses and ★6 in elective courses. The program also consists of seminars and a thesis. The program of study is determined by the Graduate Program Director in consultation with the supervisor and supervisory committee.

Student progress will be monitored through an oral and written assessment and an interview with the Graduate Program Coordinator in the Spring term.

### Required courses (★6)

---

- [DENT 542 - Research Methodology](#)
- [DENT 543 - Introduction to Research Methods and Data Management](#)
- [DENT 601 - Seminars in Oral Health Sciences](#)

### Elective courses (★6)

---

Students must complete ★6 in graduate-level courses chosen in consultation with the program director and their supervisor.

### Thesis

---

Registration in 900-level THES. Students are required to complete and defend a thesis.

### Program Requirements

---

Students are required to complete a minimum of ★12 in coursework, consisting of ★6 in required courses and ★6 in elective courses. The program also consists of seminars and a thesis. The program of study is determined by the Graduate Program Director in consultation with the supervisor and supervisory committee.

Student progress will be monitored through an oral and written assessment and an interview with the Graduate Program Coordinator in the Spring term.

### Required courses (★6)

---

- [DENT 542 - Research Methodology](#)
- [DENT 543 - Introduction to Research Methods and Data Management](#)
- [DENT 635 - Seminars in Oral Health Sciences I](#)
- [DENT 636 - Seminars in Oral Health Sciences II](#)

### Elective courses (★6)

---

Students must complete ★6 in graduate-level courses chosen in consultation with the program director and their supervisor.

### Thesis

---

Registration in 900-level THES. Students are required to complete and defend a thesis.



<p><b>Candidacy exam</b></p> <hr/> <p>Students are required to take a written and oral candidacy examination. Students must demonstrate that they possess an adequate knowledge of the discipline and of the subject matter relevant to their thesis topic, and that they have the ability to pursue and complete original research at an advanced level.</p> <p><b>Seminars</b></p> <hr/> <p>Students have an attendance requirement for the Discover Dental Sciences seminars and to participate in the Graduate Student Research Day.</p> <p><b>Length of Program</b></p> <hr/> <p>The time required to complete the PhD will vary according to the previous training of the applicant and the nature of the research undertaken; however, a maximum of five years is considered normal. The maximum time permitted to complete the PhD program as set by the Faculty of Graduate Studies and Research is six years.</p>	<p><b>Candidacy exam</b></p> <hr/> <p>Students are required to take a written and oral candidacy examination. Students must demonstrate that they possess an adequate knowledge of the discipline and of the subject matter relevant to their thesis topic, and that they have the ability to pursue and complete original research at an advanced level.</p> <p><b>Seminars</b></p> <hr/> <p>Students have an attendance requirement for the Discover Dental Sciences seminars and to participate in the Graduate Student Research Day.</p> <p><b>Length of Program</b></p> <hr/> <p>The time required to complete the PhD will vary according to the previous training of the applicant and the nature of the research undertaken; however, a maximum of five years is considered normal. The maximum time permitted to complete the PhD program as set by the Faculty of Graduate Studies and Research is six years.</p>
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Justification: One course was split into term-based courses instead of a year long course structure to assist in monitoring students as they progress through the program and to assist instructors in identifying students in academic jeopardy earlier.

Approved by:

School of Dentistry, Graduate Studies Committee - March 17, 2020

Dentistry Executive Committee for approval - March 30, 2020

Dentistry Department Council for approval - April 24, 2020

Medical Sciences Graduate Program Committee - May 12, 2020

FoMD Faculty Learning Committee (Faculty Council Delegated Approver): May 21, 2020



**CALENDAR CHANGE REQUEST FORM**

 Department: **Communication Sciences & Disorders (Winter 2021)**

Highlight type of change request below:

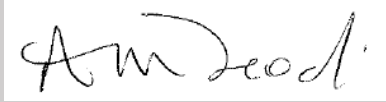
1. Course Change   2. Editorial Change   3.
- Admission Requirement**
4. Program Regulation

CURRENT	PROPOSED
<p><del>Strike through and highlight</del> deletions</p> <p><b>Communication Sciences and Disorders [Graduate]</b></p> <p>...</p> <p><b>Entrance Requirements</b></p> <p>English Language Proficiency</p> <p>The Test of English as a Foreign Language (TOEFL) scores required for admission are as follows:</p> <p>Internet Test (iBT) (Maximum 120) CSD Minimum requirements:</p> <ul style="list-style-type: none"> <li>• Overall score: <b>115</b></li> <li>• <del>Speaking: 28</del></li> <li>• <del>Writing: 26</del></li> <li>• <del>Listening: 24</del></li> <li>• <del>Reading: 22</del></li> </ul>	<p><u>Underline and highlight</u> additions</p> <p><b>Communication Sciences and Disorders [Graduate]</b></p> <p>...</p> <p><b>Entrance Requirements</b></p> <p>English Language Proficiency</p> <p>The Test of English as a Foreign Language (TOEFL) scores required for admission are as follows:</p> <p>Internet Test (iBT) (Maximum 120) CSD Minimum requirements:</p> <ul style="list-style-type: none"> <li>• Overall score: <b>102</b></li> <li>• <b>Reading: 22</b></li> <li>• <b>Listening: 26</b></li> <li>• <b>Speaking: 26</b></li> <li>• <b>Writing: 24</b></li> </ul> <p><u>The International English language testing system (IELTS)</u> <u>(Academic AC or General Training GT)</u></p> <ul style="list-style-type: none"> <li>• <b>Total: 7.5</b></li> <li>• <b>Reading: 7.5</b></li> <li>• <b>Listening: 7.5</b></li> <li>• <b>Speaking: 7.5</b></li> <li>• <b>Writing: 7.5</b></li> </ul>

**Rationale for change:** (Not required for course deletion or editorial changes)

Revise the minimum English language proficiency scores to be consistent with the scores established in 2017 by Canadian Alliance of Audiology and Speech-Language Pathology Regulators (CAASPR) and currently used by the Alberta College of Speech-Language Pathologists and Audiologists (ACSLPA). This includes changes to the TOEFL iBT scores, and the addition of International English language test system (IELTS) scores. These changes also are more consistent with those of other Canadian university SLP programs.

All names, signatures and dates are required:

<b>Department Contact</b> Name: Lu-Anne McFarlane	<b>Department Chair or Designate</b> Name: Andrea MacLeod	<b>Date approved by Faculty Council:</b> May 22, 2020
Email: luanne@ualberta.ca	Signature: 	<b>Date Submitted:</b> May 28, 2020

Email a signed PDF and an editable word version to [noriko.hessmann@ualberta.ca](mailto:noriko.hessmann@ualberta.ca)

**CALENDAR CHANGE REQUEST FORM**
**Department: Physical Therapy (Early Implementation)**

Highlight type of change request below:

- 1.
- Course Change**
- 2.
- Editorial Change**
- 3.
- Admission Requirement**
- 4.
- Program Regulation**

CURRENT	PROPOSED
<p>Physical Therapy [Graduate]</p> <p>General Information</p> <p>[...]</p> <p>The MScPT program is currently offered at <b>three</b> campus locations: Edmonton, <b>Camrose</b> and Calgary. Of the students admitted to the program, a portion are admitted to our Edmonton, <b>Camrose</b> and Calgary campuses based on student preference. All students begin the program with a one month residency in Edmonton to study anatomy and establish initial face-to-face connections with the colleagues they will be working with via technology throughout the remainder of their program. With the MScPT program's distributed education model, students at <b>all</b> campuses complete the same core program of required courses <b>as their colleagues enrolled at the other campuses</b>. Each campus will offer unique elective opportunities reflective of local expertise and community partnerships in addition to the online electives available to all.</p> <p>[...]</p> <p>Entrance Requirements</p> <p>[...]</p>	<p>Physical Therapy [Graduate]</p> <p>General Information</p> <p>[...]</p> <p>The MScPT program is currently offered at <b>two</b> campus locations: Edmonton and Calgary. Of the students admitted to the program, a portion are admitted to our Edmonton and Calgary campuses based on student preference. All students begin the program with a one month residency in Edmonton to study anatomy and establish initial face-to-face connections with the colleagues they will be working with via technology throughout the remainder of their program. With the MScPT program's distributed education model, students at <b>both</b> campuses complete the same core program of required courses. Each campus will offer unique elective opportunities reflective of local expertise and community partnerships in addition to the online electives available to all.</p> <p>[...]</p> <p>Entrance Requirements</p> <p>[...]</p>

Additional weight will be given to the anatomy pre-requisite course in the GPA calculation for admissions. Anatomy must be completed within the previous five years, and must be completed by February 1 in the year of admission. All other prerequisite courses may be completed in the Winter Term of the year of admission (registration by February 1 and completion by June 1).


Human Anatomy must be completed within five years of the admission of pre-requisite course deadline.

**Rationale for change:** (Not required for course deletion or editorial changes)

Closure of the Augustana satellite program.

The additional weighting on the human anatomy prerequisite course has had a negative effect where students have taken an easier anatomy course to gain a higher grade instead of the recommended anatomy course, however have been less prepared for, and struggled in, the intensive MScPT Program anatomy.

All names, signatures and dates are required:

<b>Department Contact</b> Name: Mark Hall	<b>Department Chair or Designate</b> Name: Marguerite Wieler	<b>Date approved by Dept Council:</b> June 19, 2020
Email: mark.hall@ualberta.ca	Signature: 	<b>Date Submitted:</b> June 25, 2020

Email a signed PDF and an editable word version to [noriko.hessmann@ualberta.ca](mailto:noriko.hessmann@ualberta.ca)

**CALENDAR CHANGE REQUEST FORM**
**Department: Physical Therapy (Early Implementation)**

Highlight type of change request below:


1. Course Change   2. Editorial Change   3.
- Admission Requirement**
4. Program Regulation

CURRENT	PROPOSED
Physical Therapy [Graduate]  General Information  [...]  Entrance Requirements  [...]  Applicants who do not possess a degree or its academic equivalent from an academic institution recognized by the University of Alberta, in which the language of instruction is English must have an IELTS score of 7.5 or higher with no less than 7.0 in each band, or TOEFL score of <b>92 (internet-based) or higher</b> (or an equivalent approved English language examination result).	Physical Therapy [Graduate]  General Information  [...]  Entrance Requirements  [...]  Applicants who do not possess a degree or its academic equivalent from an academic institution recognized by the University of Alberta, in which the language of instruction is English must have an IELTS score of 7.5 or higher with no less than 7.0 in each band, or TOEFL score of <b>102 (internet-based) or higher with no less than a score of 23 for the speaking component, 24 for the listening component, 24 for the reading component, and 27 for the writing component</b> (or an equivalent approved English language examination result).

**Rationale for change:** (Not required for course deletion or editorial changes)

Previously approved changes to IELTS scores do not align with current TOEFL scores. These scores now align, and are consistent within the Faculty of Rehabilitation Medicine.

All names, signatures and dates are required:

<b>Department Contact</b> Name: Mark Hall	<b>Department Chair or Designate</b> Name: Marguerite Wieler	<b>Date approved by Faculty Council:</b> October 14, 2020
Email: mark.hall@ualberta.ca	Signature: 	<b>Date Submitted:</b> October 20, 2020

Email a signed PDF and an editable word version to [noriko.hessmann@ualberta.ca](mailto:noriko.hessmann@ualberta.ca)



FINAL Item No. 6

**Governance Executive Summary**  
**Action Item**

<b>Agenda Title</b>	<b>Proposed Name Change for the Bachelor of Commerce Major in Management Information Systems (MIS) to Business Technology Management (BTS), Faculty of Business</b>
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**Motion**

<p>THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the name change for the Bachelor of Commerce major in Management Information Systems to Business Technology Management, as submitted by the Faculty of Business to take effect July 1, 2021.</p>
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**Item**

Action Requested	<input checked="" type="checkbox"/> Approval <input type="checkbox"/> Recommendation
Proposed by	Joseph Doucet, Dean, Faculty of Business
Presenter(s)	Leo Wong, Associate Dean, Undergraduate

**Details**

Responsibility	Provost and Vice-President (Academic)
The Purpose of the Proposal is <i>(please be specific)</i>	To change the major name of MIS to BTM in the Department of Accounting and Business Analytics
Executive Summary <i>(outline the specific item – and remember your audience)</i>	<p>The proposed name change aligns with the learning outcomes and competency standards for Business Technology Management program accreditation and student certification by TECHNATION (formerly known as the Information Technology Association of Canada).</p> <p>BTM has become the dominant standard among our peer institutions (<a href="#">Haskayne School of Business</a>, <a href="#">Sauder School of Business</a>, etc.).</p> <p>The new name will provide clarity for students as they seek professional opportunities including a Business Technology Management (BTM) certificate from The Information Technology Association of Canada (ITAC), which signifies that they have achieved a level of competency in compliance with ITAC's requirements.</p> <p>All stakeholders consulted were very positive with this proposed name change as it modernizes our major to align with industry standards, and provides our students who major in this area a more seamless transition into their careers.</p>
Supplementary Notes and context	<This section is for use by University Governance only to outline governance process.>

**Engagement and Routing** (Include meeting dates)

Consultation and Stakeholder Participation (parties who have seen the proposal and in what capacity)	<p><b><u>Those who are actively participating:</u></b></p> <ul style="list-style-type: none"> <li>Faculty members in the Department of Accounting and Business Analytics. We reached a consensus on the name change.</li> </ul>
	<p><b><u>Those who have been consulted:</u></b></p> <ul style="list-style-type: none"> <li>Senior Faculty leadership</li> <li>Departments of SEM, MBEL and Finance</li> </ul>

Item No. 6

<For information on the protocol see the <a href="#">Governance Resources section Student Participation Protocol</a> >	<p><b><i>Those who have been informed:</i></b></p> <ul style="list-style-type: none"> <li>● All of the faculty within the school</li> <li>● Our students</li> <li>● Our external communities</li> </ul>
Approval Route (Governance) (including meeting dates)	Business Council, January 13, 2020 Undergraduate Program Support Team, December 17, 2020 GFC Programs Committee, January 14, 2021

**Strategic Alignment**

Alignment with <i>For the Public Good</i>	Objective 21	
Alignment with Core Risk Area	Please note below the specific institutional risk(s) this proposal is addressing.	
	<input checked="" type="checkbox"/> Enrolment Management <input checked="" type="checkbox"/> Faculty and Staff <input type="checkbox"/> Funding and Resource Management <input type="checkbox"/> IT Services, Software and Hardware <input type="checkbox"/> Leadership and Change <input type="checkbox"/> Physical Infrastructure	<input checked="" type="checkbox"/> Relationship with Stakeholders <input checked="" type="checkbox"/> Reputation <input type="checkbox"/> Research Enterprise <input type="checkbox"/> Safety <input type="checkbox"/> Student Success
Legislative Compliance and jurisdiction	<p><b><i>Post-Secondary Learning Act</i></b> <b>GFC Programs Committee Terms of Reference</b></p>	

Attachments:

1. Name Change Template (4 pages)
2. Calendar Change MIS to BTM (4 pages)

Prepared by: Nicole Lazorek, Academic Officer, Undergraduate, nlazorek@ualberta.ca

## Proposal Template: Program/Specialization Name Change

This template is for proposals to change the title of a ministry-approved program or specialization within an existing program.

Name change proposals for degree programs and applied degree programs are typically subject to review by the Campus Alberta Quality Council.

### SECTION 1: PROPOSAL INFORMATION

#### 1.1 Basic Information *(Complete the table below):*

<b>Institution</b>	<b>University of Alberta – Alberta School of Business</b>
<b>Current program/specialization name</b>	<b>Major in Management Information Systems</b>
<b>Credential awarded</b>	<b>Bachelor of Commerce</b>
<b>Proposed implementation date</b>	<b>July 1<sup>st</sup>, 2021</b>

#### 1.2 Proposed New Name *(Answer the following questions)*

**1.2.1** *Specify the new name that is being proposed.*

Business Technology Management

**1.2.2** *Specify if the new name is for a program or a specialization within a program?*

*Program*

*Specialization*

#### 1.3 Rationale for Proposed New Name *(Answer the following questions)*

**1.3.1** *Describe the rationale for the proposed name change.*

The proposed name change aligns with the learning outcomes and competency standards for Business Technology Management program accreditation and student certification by TECHNATION (formerly known as the Information Technology Association of Canada).

**1.3.2** *Is comparable nomenclature used for similar programs/specializations offered across Campus Alberta and, where relevant, in other jurisdictions?*

BTM has become the dominant standard among our peer institutions ([Haskayne School of Business](#), [Sauder School of Business](#), etc.).

### SECTION 2: SYSTEM IMPACT

## **2.1 Impact on Learners** (*Answer the following questions*)

### **2.1.1** *Were students consulted regarding this proposed name change? If so, what was the feedback received as a result of this consultation?*

BCom students were involved with the changes including the School of Business' accreditation visit with the Information Technology Association of Canada in November 2017 which was the impetus for the name change.

At the November 2019 BTM Talent Mash event, students were engaged in discussions (led by Alberta School of Business instructor Robb Sombach) regarding the planned renaming from MIS to BTM and their feedback was solicited. Instructor presentations about the BTM program and its planned name-change were made in courses such as BUS 201 and MIS 311 in both the Fall 2019 and Winter 2020 semesters. Student response was positive or accepting and no negative feedback was received.

### **2.1.2** *Describe benefits for students of proposed new name.*

The new name will provide clarity for students as they seek professional opportunities including a Business Technology Management (BTM) certificate from The Information Technology Association of Canada (ITAC), which signifies that they have achieved a level of competency in compliance with ITAC's requirements.

### **2.1.3** *Describe plans to accommodate:*

- a) *active students who may wish to graduate with the established credential; and*
- b) *previous graduates who may request to exchange their parchment for one with the new program or specialization name.*

Active students will have the option of changing their current major (regardless of what it currently is) to the BTM major. No financial cost is involved as this change would be administrative.

There are no plans to reissue parchments for students who graduated with the MIS major to the BTM major as each parchment issued to Alberta School of Business students does not include the student's major and only signifies the degree awarded, eg. Bachelor of Commerce.

## **2.2 Potential Risks** (*Identify the potential risks associated with implementing the name change, if any, and your institution's risk mitigation strategies.*)

Potential risks may include confusion from students and employers. We are mitigating this risk with an extensive communications plan for our students, while employers are already more familiar with the BTM terminology.

## 2.3 Consultation/Collaboration *(Answer the following questions)*

### 2.3.1 Identify which stakeholder groups, if any, were consulted:

Faculty

Employers

Advisory committee

Other (identify below)

Regulatory  
bodies/professional associations

Students

### 2.3.2 Summarize feedback received including anticipated impacts on stakeholders.

All stakeholders consulted were very positive with this proposed name change as it modernizes our major to align with industry standards, and provides our students who major in this area a more seamless transition into their careers.

## 2.4 Communication *(Describe how information about the name change will be communicated to students and applicants.)*

Current MIS majors have been actively consulted in the name change to BTM and are awaiting the change. There is a weekly newsletter for announcements that will be used to communicate the change to all current students once approved. Information will be available through our website to continuing and new students which has a high read rate.

Information will be circulated to all Business instructors, and those teaching relevant course work will be able to advise students of the change as well as the BTM certificate. Individual inquires will be addressed through program advising and career counselling available through the Alberta School of Business, Undergraduate Program Office.

The BTM major will be heavily promoted to new applicants seeking a BCom degree as part of our recruitment of U of A students and post-secondary transfers. Additionally, information will be targeted to high school students as the School moves to direct entry. These first year students will have in-depth exposure to the BTM major and all active majors during their first year as a BCom student.

**3.1** *Provide specific information about which internal governance body approved this proposed name change and the date of approval.*

The School of Business Council approved this name change on January 13, 2020.

The GFC Program Support Team provided positive feedback in support of this proposal on December 17, 2020.

**3.2** *If applicable, describe authorization/endorsement(s) from relevant professional organizations, regulatory bodies, and/or advisory committees.*

Not applicable.

**RECOMMENDATION (FOR DEPARTMENT USE)**

**Do Any Issues or Information Gaps Remain?**

**Recommendation(s):**

**Rationale for Recommendation:**

**Reviewer(s):**

**Date Completed:**

*Faculty of Business  
Bachelor of Commerce  
Calendar Change Request Form*

<b>Department:</b>	<i>Accounting &amp; Business Analytics (ABA)</i>		
<b>Implementation:</b>	<i>September 2021</i>		
<b>Type of Change:</b>	<i>Course Deletion:</i>	<i>Course Change:</i>	<i>New Program:</i>
	<i>New Course:</i>	<i>Program Change: X</i>	<i>Other:</i>

<b>CURRENT Calendar Entry:</b>	<b>PROPOSED Calendar Entry:</b>
<p><del>Strike through deletions</del></p> <p>Major in <del>Management Information Systems</del></p> <p><b>I. Sequence of Courses</b></p> <p><del>Preprofessional</del> Year (recommended electives)</p> <ul style="list-style-type: none"> <li>• CMPUT 174 - Introduction to the Foundations of Computation I AND</li> <li>• CMPUT 175 - Introduction to the Foundations of Computation II (See Note 1)</li> </ul> <p><b>Year Two—Fall</b></p> <ul style="list-style-type: none"> <li>• ACCTG 311 - Introduction to Accounting for Financial Performance</li> <li>• BUS 201 - Introduction to Canadian Business</li> <li>• CMPUT 174 - Introduction to the Foundations of Computation I (See Note 2)</li> <li>• MARK 301 - Introduction to Marketing</li> <li>• MGTSC 312 - Probability and Statistics for Business</li> </ul> <p><b>Year Two—Winter</b></p> <ul style="list-style-type: none"> <li>• ACCTG 322 - Introduction to Accounting for Management Decision Making OR</li> <li>• OM 352 - Operations Management (See Note 5)</li> </ul> <ul style="list-style-type: none"> <li>• CMPUT 175 - Introduction to the Foundations of Computation II (See Note 2)</li> <li>• FIN 301 - Introduction to Finance</li> <li>• MIS 311 - Management Information Systems</li> <li>• SMO 310 - Introduction to Management</li> </ul> <p><b>Year Three</b></p> <ul style="list-style-type: none"> <li>• BUEC 311 - Business Economics, Organizations and Management (See Note 6)</li> <li>• OM 352 - Operations Management OR</li> <li>• ACCTG 322 - Introduction to Accounting for Management Decision Making (See Note 5)</li> <li>• MIS 413 - Systems Analysis and Design</li> <li>• MIS 415 - Data Base Design and Administration</li> </ul>	<p><u>Highlight addition.</u></p> <p>Major in <b>Business Technology Management</b></p> <p><b>I. Sequence of Courses</b></p> <p>Year <b>One</b> (recommended electives)</p> <ul style="list-style-type: none"> <li>• CMPUT 174 – Introduction to the Foundations of Computation I AND</li> <li>• CMPUT 175 – Introduction to the Foundations of Computation II (See Note 1)</li> </ul> <p><b>Year Two—Fall</b></p> <ul style="list-style-type: none"> <li>• ACCTG 311 – Introduction to Accounting for Financial Performance</li> <li>• BUS 201 – Introduction to Canadian Business</li> <li>• CMPUT 174 – Introduction to the Foundations of Computation I (See Note 2)</li> <li>• MARK 301 – Introduction to Marketing</li> <li>• MGTSC 312 – Probability and Statistics for Business</li> </ul> <p><b>Year Two—Winter</b></p> <ul style="list-style-type: none"> <li>• ACCTG 322 – Introduction to Accounting for Management Decision Making OR</li> <li>• OM 352 – Operations Management (See Note 5)</li> </ul> <ul style="list-style-type: none"> <li>• CMPUT 175 – Introduction to the Foundations of Computation II (See Note 2)</li> <li>• FIN 301 – Introduction to Finance</li> <li>• MIS 311 – Management Information Systems</li> <li>• SMO 310 – Introduction to Management</li> </ul> <p><b>Year Three</b></p> <ul style="list-style-type: none"> <li>• BUEC 311 – Business Economics, Organizations and Management (See Note 6)</li> <li>• OM 352 – Operations Management OR</li> <li>• ACCTG 322 – Introduction to Accounting for Management Decision Making (See Note 5)</li> <li>• MIS 413 – Systems Analysis and Design</li> <li>• MIS 415 – Data Base Design and Administration</li> </ul>



- MIS 417 - Telecommunications in Business
- ★15 in free electives (See Notes 3 and 4)

#### Year Four

- MIS 419 - Systems Development Using Advanced Software Tools OR
- CMPUT 201 - Practical Programming Methodology (See Note 3)
- MIS 441 - Managing Information Systems: A Senior Management Perspective
- ★6 Management Information Systems electives (See Note 7)
- ★9 Senior Business electives
- ★9 in free electives (See Notes 3 and 4)

#### Notes

1. Students are strongly advised to consider taking CMPUT 174 and CMPUT 175 in their Preprofessional year, and in any event, must take them no later than Year Three. These courses satisfy the requirements for electives outside Business in Year Two.
2. If not already taken in the Preprofessional year.
3. MIS majors must take either MIS 419 or CMPUT 201. (The other may be taken as an elective.) While MIS 419 is a fourth year course, CMPUT 201 may be taken earlier, and should be taken as soon as practicable, especially by students interested in the Computing Science minor. Some MIS students prefer a business-oriented background. Others may find it useful to develop a stronger background in computing science. The latter students should consult the Computing Science section or seek Faculty advice for appropriate additional course offerings and sequencing. Students must contact the Department of Accounting, Operations and Information Systems early in their program for guidance as to appropriate and available coursework.
4. See Policy on Elective Courses.

- MIS 417 – Telecommunications in Business
- ★15 in free electives (See Notes 3 and 4)

#### Year Four

- MIS 419 – Systems Development Using Advanced Software Tools OR
- CMPUT 201 – Practical Programming Methodology (See Note 3)
- MIS 424 – Introduction to Information Systems Project Management
- MIS 441 – Managing Information Systems: A Senior Management Perspective
- SMO 402 – Management Skills for Supervisors and Leaders OR
- SMO 404 – Interpersonal Communication and Team Management
- ★3 in Business Technology Management electives (See Note 7)
- ★6 in Senior Business electives
- ★9 in free electives (See Notes 3 and 4)

#### Notes

1. Students are strongly advised to consider taking CMPUT 174 and CMPUT 175 in their first year, and in any event, must take them no later than Year Three. These courses satisfy the requirements for electives outside Business in Year Two.
2. If not already taken in Year One.
3. BTM majors must take either MIS 419 or CMPUT 201. (The other may be taken as an elective.) While MIS 419 is a fourth-year course, CMPUT 201 may be taken earlier, and should be taken as soon as practicable, especially by students interested in the Computing Science minor. Some BTM students prefer a business-oriented background. Others may find it useful to develop a stronger background in computing science. The latter students should consult the Computing Science section or seek Faculty advice for appropriate additional course offerings and sequencing. Students must contact the Department of Accounting, Operations and Information Systems early in their program for guidance as to appropriate and available coursework.



5. Either ACCTG 322 or OM 352 may be taken in Year Two with the other taken in Year Three.
6. May be taken in any year except Year Two, Fall Term.
7. **Management Information Systems** electives may be chosen from the following: any 400-level MIS course; CMPUT 201; CIV E 303; ACCTG 435; ACCTG 437; any 400-level MGTSC course or any 400-level OM course.

## II. Minors

1. Students with a declared major in **Management Information Systems** are encouraged to consider choosing a minor in another subject area of Business, or in Computing Science [see Note (3) below]. See Minors for Business Students. See also Section V, **MIS Concentrations**.
2. Students with a declared major in another area may complete a minor in **Management Information Systems** by fulfilling the requirements of Minors for Business Students
3. Students with a declared major in **Management Information Systems** may complete a minor in Computing Science by completion of the following four courses: CMPUT 204, CMPUT 229, CMPUT 272 and CMPUT 379. Students wishing to take this route should consider very early on how to structure their program so as to allow for the proper sequencing of courses and the obtaining of all necessary prerequisites, for example, CMPUT 201 is necessary for the above course sequence.

## III. MIS Concentrations

1. **MIS** major or other students who wish to deepen their competence should consider focusing on areas of concentration. For **MIS** majors, these areas build on the required courses; for other students, they may form a useful related set. Suggested concentrations will be set out by the Accounting, Operations and Information Systems Department from time to time and students are encouraged to contact the Department for more information. Five example concentrations, which include some or all of the indicated courses, are:
  - a. Programming/technical: (See Computing Science minor).
  - b. Managerial/business: MIS 412, MIS 426, SMO 441, **MGTSC 431, MIS 435 or ACCTG 435.**

4. See Policy on Elective Courses.
5. Either ACCTG 322 or OM 352 may be taken in Year Two with the other taken in Year Three.
6. May be taken in any year except Year Two, Fall Term.
7. **Business Technology Management** electives may be chosen from the following: any 400-level MIS course; CMPUT 201; CIV E 303; ACCTG 435; ACCTG 437; any 400-level MGTSC course or any 400-level OM course.

## II. Minors

1. Students with a declared major in **Business Technology Management** are encouraged to consider choosing a minor in another subject area of Business, or in Computing Science [see Note (3) below]. See Minors for Business Students. See also Section III, **BTM Concentrations**.
2. Students with a declared major in another area may complete a minor in **Business Technology Management** by fulfilling the requirements of Minors for Business Students
3. Students with a declared major in **Business Technology Management** may complete a minor in Computing Science by completion of the following four courses: CMPUT 204, CMPUT 229, CMPUT 272 and CMPUT 379. Students wishing to take this route should consider very early on how to structure their program so as to allow for the proper sequencing of courses and the obtaining of all necessary prerequisites, for example, CMPUT 201 is necessary for the above course sequence.

## III. Concentrations and the BTM Certificate

1. **BTM** majors or other students who wish to deepen their competence should consider focusing on areas of concentration. For **BTM** majors, these areas build on the required courses; for other students, they may form a useful related set. Suggested concentrations will be set out by the Accounting, Operations and Information Systems Department from time to time and students are encouraged to contact the Department for more information. Five example concentrations, which include some or all of the indicated courses, are:
  - a. Programming/technical: (See Computing Science minor).

- c. E-commerce: MIS 418, ~~MARK 450, SMO 450, SMO 433, ACCTG 436, MIS 435 or ACCTG 435.~~
- d. Business systems analysis: SMO 432, SMO 433, ~~MGTSC 426, MIS 435 or ACCTG 435.~~
- e. Accounting information systems: MIS 437 or ACCTG 437, ACCTG 424, ~~ACCTG 426, MGTSC 431, ACCTG 436, MIS 435 or ACCTG 435.~~

2. ~~MIS~~ majors ~~may be~~ eligible to obtain the Business Technology Management (BTM) certificate from The Information Technology Association of Canada (ITAC) to signify that they have achieved a level of competency in compliance with that organization's requirements. ~~The requirements for a student to obtain the BTM certificate are:~~  
~~Completion of all requirements for the MIS major;~~  
~~MIS 424,~~  
~~One of SMO 402, or SMO 404.~~  
 Application is made to the Information Technology Association of Canada (ITAC). Contact the Accounting, Operations and Information Systems Department for contact information.

- b. Managerial/business: MIS 412, MIS 426 ~~or~~ SMO 441.
  - c. E-commerce: MIS 418 ~~or~~ SMO 433.
  - d. Business systems analysis: SMO 432 ~~or~~ SMO 433.
  - e. Accounting information systems: MIS 437 or ACCTG 437; ACCTG 424 ~~or~~ ACCTG 426.
2. ~~BTM~~ majors ~~are~~ eligible to obtain the Business Technology Management (BTM) certificate from The Information Technology Association of Canada (ITAC) to signify that they have achieved a level of competency in compliance with that organization's requirements. Application is made to the Information Technology Association of Canada (ITAC). Contact the Accounting, Operations and Information Systems Department for contact information.

**Rationale for change:**

- The name of the major will change from Management Information Systems (MIS) to Business Technology Management (BTM)
- MIS 424 – Introduction to Information Systems Project Management will become a required course
- BTM majors will be required to take one of either SMO 402 – Management Skills for Supervisors and Leaders or SMO 404 – Interpersonal Communication and Team Management
- Current course work updated in Section III to reflect current course offerings.

The additional requirements will enhance the major and will ensure that the program satisfies the learning outcomes and competency standards for Business Technology Management program accreditation and student certification by the Information Technology Association of Canada (ITAC). BTM has become the dominant standard among our peer institutions (Haskayne School of Business, Sauder School of Business, etc.). The name of the major will change to Business Technology Management in order to reflect the new requirements. The new name will also provide clarity for students and employers.

Submitted by: \_\_\_\_\_  
 Karim Jamal, Chair ABA

Date: \_\_\_\_\_

FINAL Item No. 7

**Governance Executive Summary**  
**Action Item**

<b>Agenda Title</b>	<b>Proposed Changes to Entrance and Program Requirements for Graduate Programs in Biological Science, Faculty of Science, and the Faculty of Graduate Studies and Research</b>
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**Motion:**

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the proposed changes to entrance and program requirements for Graduate programs in Biological Science, as set forth in Attachment 1, to take effect upon approval.

**Item**

Action Requested	<input checked="" type="checkbox"/> Approval <input type="checkbox"/> Recommendation
Proposed by	Brooke Milne, Vice-Provost and Dean, Faculty of Graduate Studies and Research Matina Kalcounis-Rueppell, Dean, Faculty of Science
Presenter	Brooke Milne, Vice-Provost and Dean, Faculty of Graduate Studies and Research Mark Wolansky, Graduate Program Coordinator, Biological Science, Faculty of Science

**Details**

Responsibility	Provost and Vice-President (Academic)
The Purpose of the Proposal is (please be specific)	The proposal is before the committee to ensure that all Academic Regulations (entrance/admission requirements, academic standing requirements, and program requirements) for this program are listed in the Calendar.
Executive Summary ( <i>outline the specific item – and remember your audience</i> )	Revisions to existing regulations in the Calendar as part of the graduate calendar compliance project: <ul style="list-style-type: none"> <li>• Adjustment of Areas of specialization and other editorial and formatting.</li> <li>• Clarity of entrance and program requirements to reflect current practice and/or updated institutional graduate requirements.</li> </ul> <p>This Calendar update reflects current practice.</p>
Supplementary Notes and context	<This section is for use by University Governance only to outline governance process.>

**Engagement and Routing** (Include meeting dates)

Consultation and Stakeholder Participation (parties who have seen the proposal and in what capacity) <For information on the protocol see the <a href="#">Governance Toolkit section Student Participation Protocol</a> >	<b><u>Those who are actively participating:</u></b> <ul style="list-style-type: none"> <li>• James Stafford, Associate Chair Grad (Biological Sciences)</li> <li>• Mark Wolansky, Graduate Program Administrator</li> </ul>
	<b><u>Those who have been consulted:</u></b> <ul style="list-style-type: none"> <li>• Faculty of Graduate Studies and Research</li> </ul>

**Item No. 7**

Approval Route (Governance) (including meeting dates)	<p>Jan 21, 2020: Draft proposal of calendar changes were reviewed and recommend to the Department's Faculty Council for approval by the Department's Courses and Curriculum Committee (CCC)</p> <p>Feb 12, 2020: CCC's recommended calendar changes were approved with friendly amendments by the Department's Faculty Council.</p> <p>Nov. 4, 2020 - Approved by the Policy Review Committee</p> <p>Nov. 25, 2020 - Approved by FGSR Council</p> <p>Jan. 14, 2021 - GFC Programs Committee</p>
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**Strategic Alignment**

Alignment with <i>For the Public Good</i>	<p>OBJECTIVE 21: Encourage continuous improvement in administrative, governance, planning and stewardship systems, procedures, and policies that enable students, faculty, staff, and the institution as a whole to achieve shared strategic goals.</p>			
Alignment with Core Risk Area	<p>Please note below the specific institutional risk(s) this proposal is addressing.</p> <table border="1"> <tr> <td> <input type="checkbox"/> Enrolment Management  <input type="checkbox"/> Faculty and Staff  <input type="checkbox"/> Funding and Resource Management  <input type="checkbox"/> IT Services, Software and Hardware  <input type="checkbox"/> Leadership and Change  <input type="checkbox"/> Physical Infrastructure                 </td> <td> <input type="checkbox"/> Relationship with Stakeholders                      x Reputation  <input type="checkbox"/> Research Enterprise  <input type="checkbox"/> Safety                      x Student Success                 </td> </tr> </table>		<input type="checkbox"/> Enrolment Management <input type="checkbox"/> Faculty and Staff <input type="checkbox"/> Funding and Resource Management <input type="checkbox"/> IT Services, Software and Hardware <input type="checkbox"/> Leadership and Change <input type="checkbox"/> Physical Infrastructure	<input type="checkbox"/> Relationship with Stakeholders x Reputation <input type="checkbox"/> Research Enterprise <input type="checkbox"/> Safety x Student Success
<input type="checkbox"/> Enrolment Management <input type="checkbox"/> Faculty and Staff <input type="checkbox"/> Funding and Resource Management <input type="checkbox"/> IT Services, Software and Hardware <input type="checkbox"/> Leadership and Change <input type="checkbox"/> Physical Infrastructure	<input type="checkbox"/> Relationship with Stakeholders x Reputation <input type="checkbox"/> Research Enterprise <input type="checkbox"/> Safety x Student Success			
Legislative Compliance and jurisdiction	<p>Post-Secondary Learning Act (PSLA)                      UAPPOL Admissions Policy                      UAPPOL Academic Standing Policy                      GFC Programs Committee (PC) Terms of Reference</p>			

Attachments

1. Bio Sci Cal Change 2021-2022

Prepared by: James Stafford, Associate Chair Grad (Biological Sciences) ([stafford@ualberta.ca](mailto:stafford@ualberta.ca)) and Andrea Riewe, Executive Coordinator, FGSR ([ariewe1@ualberta.ca](mailto:ariewe1@ualberta.ca))

Killam Centre for Advanced Studies  
2-29 Triffo Hall Edmonton AB Canada T6G 2E1  
Tel: 780.492.2816 / Fax: 780.492.0692  
www.gradstudies.ualberta.ca

**2020-2021 University of Alberta Proposed Calendar Graduate  
Program Changes:**

Current	Proposed
<p><b>Graduate Programs</b></p> <p><b>Biological Sciences [Graduate]</b> Department of Biological Sciences CW312 Biological Sciences Building University of Alberta Edmonton, Alberta T6G 2E9 www.biology.ualberta.ca</p> <p><b>General Information</b> The Department of Biological Sciences offers programs leading to the degrees of Master of Science and Doctor of Philosophy. It strives to develop scholars familiar with literature in their field, capable of identifying new problems and new directions of endeavour in their field, and competent with the methods of data collection and analysis essential to do research. Students will fulfil these objectives through several forums: a supervised research program, coursework, participation in seminar programs, and defending their dissertation.</p> <p>The Department has research laboratories and instructional facilities for 250–300 graduate students. There are facilities for digital image processing, electron and confocal microscopy, analytical chemistry, molecular biology, fermentation, biotechnology, DNA synthesis and sequencing, cultivation of microbial cells and cells of yeasts, plants, insects and mammals. Facilities include large holding tanks for aquatic animals, and controlled environment rooms including an extensive greenhouse complex. Off-campus facilities include the Devonian Botanic Garden and mycology herbarium, several field stations including the Meanook Biological Research Station and Ellerslie Plant Genetics Station, all near Edmonton, and the Bamfield Marine Sciences Centre on Vancouver Island. Extensive reference collections are available for research with microfungi, vascular and cryptogamic plants as well as vertebrates and invertebrates, including major collections of fishes, fossil plants and vertebrates, insects and parasites.</p>	<p><b>Graduate Programs</b></p> <p><b>Biological Sciences [Graduate]</b> Department of Biological Sciences CW405 Biological Sciences Building University of Alberta Edmonton, Alberta T6G 2E9 www.biology.ualberta.ca</p> <p><b>General Information</b> The Department of Biological Sciences offers programs leading to the degrees of Master of Science and Doctor of Philosophy. It strives to develop scholars familiar with literature in their field, capable of identifying new problems and new directions of endeavour in their field, and competent with the methods of data collection and analysis essential to do research. Students will fulfil these objectives through several forums: a supervised research program, coursework, participation in seminar programs, and defending their dissertation.</p> <p>The Department has research laboratories and instructional facilities for 250–300 graduate students. There are facilities for digital image processing, electron and confocal microscopy, analytical chemistry, molecular biology, fermentation, biotechnology, DNA synthesis and sequencing, cultivation of microbial cells and cells of yeasts, plants, insects and mammals. Facilities include large holding tanks for aquatic animals, and controlled environment rooms including an extensive greenhouse complex. Off-campus facilities include the Devonian Botanic Garden and mycology herbarium, several field stations including the Meanook Biological Research Station and Ellerslie Plant Genetics Station, all near Edmonton, and the Bamfield Marine Sciences Centre on Vancouver Island. Extensive reference collections are available for research with microfungi, vascular and cryptogamic plants as well as vertebrates and invertebrates, including major collections of fishes, fossil plants and vertebrates, insects and parasites.</p>

There are six **research interest groups (RIG)** within the Department: Ecology; Microbiology and Biotechnology; Molecular Biology and Genetics; **Physiology, Cell and Developmental Biology**; **Plant Biology**; and Systematics and Evolution. Students either register in one of these areas of specialization for their program or, with permission of the supervisor and approval of the Associate Chair (Graduate Studies), register toward a degree of MSc or PhD with specialization in Biological Sciences. Declared specialization in one of the six research interest areas can be indicated on a student's thesis title page, degree diploma, and transcript.

Potential applicants, **especially PhD students**, are encouraged to first correspond with academic staff in whose research laboratories they might want to study. Additional information is found at [www.biology.ualberta.ca](http://www.biology.ualberta.ca) (see links to – Graduate Program – Prospective Students).

### **Entrance Requirements**

The Department's minimum admission requirements are a four-year undergraduate degree, or its academic equivalent, from a recognized university, and a grade point average of at least 3.3 in the last two years of undergraduate study.

A minimum Test of English as a Foreign Language (TOEFL) of 600 (paper-based) or 100 (internet-based) is required, where applicable (see English Language Requirement). The Graduate Record Examination (GRE) general and subject tests are preferred, but are not required.

There are six **areas of specialization** within the Department: Ecology; Microbiology and Biotechnology; Molecular Biology and Genetics; **Plant Biology**; **Physiology, Development and Cell Biology**; and Systematics and Evolution. Students either register in one of these areas of specialization for their program or, with permission of the supervisor and approval of the Associate Chair (Graduate Studies), register toward a degree of MSc or PhD with specialization in Biological Sciences. Declared specialization in one of the six research interest areas can be indicated on a student's thesis title page, degree diploma, and transcript.

**All** potential applicants are encouraged to first correspond with academic staff in whose research laboratories they might want to study. Additional information is found at [www.ualberta.ca/biological-sciences](http://www.ualberta.ca/biological-sciences) (see **Graduate Studies – For Applicants**).

### **Entrance Requirements**

The Department's minimum admission requirements are a 4-year undergraduate degree with an admission GPA of at least 3.3 on the 4-point scale from the University of Alberta, or an equivalent qualification and standing from a recognized institution. The admission GPA will be calculated on the last ★60 of graded coursework completed, or on the equivalent of the last two years of full-time graded coursework.

Where applicable, applicants must provide proof of English Language Proficiency (refer to **English Language Requirement**). Any one of the following is acceptable:

- A minimum Test of English as a Foreign Language (TOEFL) of 100 overall with a score of at least 22 on each of the individual skill areas (internet-based)
- an equivalent score on an English Language Proficiency test approved by the Faculty of Graduate Studies and Research

Applicants must identify a potential supervisor willing to provide supervision.

Applicants must have the minimum guaranteed funding, attained through one or a combination of

- Scholarships
- Teaching assistantships
- External funding

Applicants are also required to submit the following

- A complete Departmental Package (Curriculum Vitae, Financial Support Information, and Research Interest Form). See the **Department website** for form and format details.



## Financial Assistance

All students entering the graduate program receive financial support for at least the first two years and four months of a full-time MSc program, and the first five years of a full-time PhD program, at the minimum rate of \$22,790 per year.

The sources of financial support for graduate students include: 1) Scholarships from Natural Sciences and Engineering Research Council, Alberta Innovates Technology Futures, Province of Alberta, University of Alberta; 2) Graduate Teaching and Research Assistantships; 3) University of Alberta General Awards; 4) other external agencies; 5) supervisor's research funds.

International students whose first language is not English and who wish to receive a Graduate Teaching Assistantship normally require a minimum TOEFL score of 630 (paper-based) or 109 (internet-based) with a minimum score of 26 on the speaking component.

## Graduate Program Requirements The Degree of MSc (Biological Sciences) [Graduate]

### Program Requirements

Required courses depend on the area of specialization (see below) and the undergraduate background of the student; however, the MSc program requires registration in a combination of coursework and thesis research comprising the equivalent of a minimum of ★24. This normally consists of a minimum of ★6 graded courses (equivalent to two single term graduate level, or approved undergraduate, graded courses) and a thesis.

Students will be asked to present their thesis research to the Department in the form of a public seminar within two weeks prior to the date of the thesis defence. In addition, students will be encouraged to present progress reports (oral and poster formats) to the Department or research group in an informal setting at an early stage in their research program.

[moved up from Requirements within Research Groups] The MSc program consists of research leading to a thesis, and a minimum of ★6 graded course work, of which ★3 must be in a graded seminar or discussion-oriented course. Attendance/participation in an appropriate seminar series is required as determined by the supervisor/supervisory committee.

- Three letters of reference. Academic letters of reference are preferred.

## Financial Assistance

All students entering the graduate program receive financial support for at least the first two years and four months of a full-time MSc program, and the first five years of a full-time PhD program, at a minimum guaranteed rate. Contact the Department for the current minimum.

## Graduate Program Requirements The Degree of MSc (Biological Sciences) [Graduate]

### Program Requirements

Students are required to complete research leading to a thesis, a minimum of ★6 in graded coursework, a seminar component, one term of graduate teaching, 8 hours of ethics activities, and 8 hours of professional development activities.

### Thesis

- Registration in 900-level THES. Students must present their thesis research to the Department in the form of a public seminar within two weeks prior to the date of the thesis defence. In addition, students are strongly encouraged to present annual progress reports to their supervisory committee.

### Coursework and Seminar Component

Individual programs will be developed by agreement between the student and the supervisor/supervisory committee.

- Two □3 graded courses.

Where graded credits are required as part of the formal coursework toward a MSc degree, project courses or individual study courses may not be included in the minimal requirements. These include BIOL 490, BIOL 498, or BIOL 499, or similar courses in other departments or faculties at the 400, 500, or 600 level. The Associate Chair (Graduate Studies), with advice from the coordinator of the RIG under which a particular graduate program is administered, will maintain a current list of excluded courses. These courses may be taken for credit in addition to the minimal graded requirement on the recommendation of the supervisory committee with approval of the Associate Chair (Graduate Studies).

Generally, courses should be taken in the first year of the program. Beyond the basic course requirements of the Department, each student's individual program will be developed by agreement between the student and the supervisor or the supervisory committee.

There is no language requirement for the degree of MSc.

Candidates for the master's degree must complete a minimum of two (four-month) terms in full-time residence at the University of Alberta.

[moved up from Requirements within Research Groups]

### **Length of Program**

The time required to compete the MSc degree will vary according to the previous training of the applicant and the nature of the research undertaken; however, a minimum of two years is normally required. Candidates must complete their degree program within four years of the time they first register.

- At least one 3 course must be a graded seminar or discussion-oriented course.
- Attendance/participation in an appropriate seminar series is required as determined by the supervisor/supervisory committee.
- Project courses or individual study courses may not be included in the minimum requirements, but may be taken for credit in addition to the minimal graded requirement on the recommendation of the supervisory committee with approval of the Associate Chair (Graduate Studies).
- Generally, coursework should be completed in the first year of the program.

### **Teaching**

- Hold a 0.5 (6 hour per week) graduate teaching assistantship for one semester.

### **Ethics**

- Complete 8 hours of approved ethics activities.
- Ethics hours are approved by the Associate Chair (Graduate Studies).

### **Professional Development**

- Complete 8 hours of approved professional development (PD) activities.
- PD hours are approved by the Associate Chair (Graduate Studies) but cannot include any activity for which the student has previously received credit, cannot be required for the student's thesis research, cannot be required training, and cannot reasonably be an expected part of the students graduate program.

### **Residence Requirement**

Candidates for the master's degree must complete a minimum of two (four-month) terms in full-time residence at the University of Alberta.

### **Length of Program**

The time required to compete the MSc degree will vary according to the previous training of the applicant and the nature of the research undertaken; however, a minimum of two years is normally required.



**Requirements within Research Groups**  
**The Degree of MSc with Specialization in Biological Sciences**

Moved to The Degree of MSc (Biological Sciences) [Graduate]

The MSc program consists of research leading to a thesis, and a minimum of ★6 graded course work, of which ★3 must be in a graded seminar or discussion-oriented course. Attendance/participation in an appropriate seminar series is required as determined by the supervisor/supervisory committee.

**The Degree of MSc with Specialization in Ecology**

The MSc program consists of research leading to a thesis, and a minimum ★6 graded course work, of which ★3 must be in a graded seminar or discussion-oriented course. Enrolment in BIOL 603 is recommended. Students are encouraged to complete these requirements in their first year. Students are encouraged to register in BIOL 631 in their first year and to register and/or participate in BIOL 631 in subsequent years.

The maximum time to complete the thesis-based MSc program as set by the Faculty of Graduate Studies and Research is four years.

**The Degree of MSc with Specialization in Ecology (Biological Sciences) [Graduate]**

**Program Requirements**

Students are required to complete research leading to a thesis, a minimum of ★6 in graded coursework, a seminar component, one term of graduate teaching, 8 hours of ethics activities, and 8 hours of professional development activities.

**Thesis**

- Registration in 900-level THES. Students must present their thesis research to the Department in the form of a public seminar within two weeks prior to the date of the thesis defence. In addition, students are strongly encouraged to present annual progress reports to their supervisory committee.

**Coursework and Seminar Component**

Individual programs will be developed by agreement between the student and the supervisor/supervisory committee.

- Two □3 graded courses.
  - At least one □3 course must be a graded seminar or discussion-oriented course.
  - Enrolment in BIOL 603 is recommended.
- Students are encouraged to register in BIOL 631 in their first year. Registration/participation in BIOL 631 in subsequent years is encouraged.

**The Degree of MSc with Specialization in Microbiology and Biotechnology**

- Project courses or individual study courses may not be included in the minimum requirements, but may be taken for credit in addition to the minimal graded requirement on the recommendation of the supervisory committee with approval of the Associate Chair (Graduate Studies).
- Generally, coursework should be completed in the first year of the program.

**Teaching**

- Hold a 0.5 (6 hour per week) graduate teaching assistantship for one semester.

**Ethics**

- Complete 8 hours of approved ethics activities.
- Ethics hours are approved by the Associate Chair (Graduate Studies).

**Professional Development**

- Complete 8 hours of approved professional development (PD) activities.
- PD hours are approved by the Associate Chair (Graduate Studies) but cannot include any activity for which the student has previously received credit, cannot be required for the student's thesis research, cannot be required training, and cannot reasonably be an expected part of the students graduate program.

**Residence Requirement**

Candidates for the master's degree must complete a minimum of two (four-month) terms in full-time residence at the University of Alberta.

**Length of Program**

The time required to complete the MSc degree will vary according to the previous training of the applicant and the nature of the research undertaken; however, a minimum of two years is normally required.

The maximum time to complete the thesis-based MSc program as set by the Faculty of Graduate Studies and Research is four years.

**The Degree of MSc with Specialization in Microbiology and Biotechnology (Biological Sciences) [Graduate]**

**Program Requirements**

Students are required to complete research leading to a thesis, a minimum of ★6 in graded coursework, a seminar component, one term of graduate teaching, 8 hours of

The MSc program consists of research leading to a thesis and a minimum of ★6 in graded courses, which include MICRB 514 in the first or second year and MICRB 607 in the second year. In addition to registration in MICRB 607, all students must register and/or participate in MICRB 606 in the first and third year.

ethics activities, and 8 hours of professional development activities.

### **Thesis**

- Registration in 900-level THES. Students must present their thesis research to the Department in the form of a public seminar within two weeks prior to the date of the thesis defence. In addition, students are strongly encouraged to present annual progress reports to their supervisory committee.

### **Coursework and Seminar Component**

Individual programs will be developed by agreement between the student and the supervisor/supervisory committee.

- Two □3 graded courses.
  - MICRB 514 in the first or second year.
  - MICRB 607 in the second year.
- Students must register and/or participate in MICRB 606 in their first and third year.
- Project courses or individual study courses may not be included in the minimum requirements, but may be taken for credit in addition to the minimal graded requirement on the recommendation of the supervisory committee with approval of the Associate Chair (Graduate Studies).
- Generally, coursework should be completed in the first year of the program.

### **Teaching**

- Hold a 0.5 (6 hour per week) graduate teaching assistantship for one semester.

### **Ethics**

- Complete 8 hours of approved ethics activities.
- Ethics hours are approved by the Associate Chair (Graduate Studies).

### **Professional Development**

- Complete 8 hours of approved professional development (PD) activities.
- PD hours are approved by the Associate Chair (Graduate Studies) but cannot include any activity for which the student has previously received credit, cannot be required for the student's thesis research, cannot be required training, and cannot reasonably be an expected part of the student's graduate program.

### **Residence Requirement**

Candidates for the master's degree must complete a minimum of two (four-month) terms in full-time residence at the University of Alberta.

## The Degree of MSc with Specialization in Molecular Biology and Genetics

The MSc program consists of research leading to a thesis, and a minimum of ★6 graded course work. In their first year, students typically register in GENET 500 (Term I) and GENET 510 (Term II). In special cases, students may opt out of one of these courses on recommendation of their supervisory committee, however, the substituted course must be at the 400-level or higher. All students must register in at least ★3 graded courses in their first year. All students will register in GENET 601 and GENET 605 each term these courses are offered during the student's guaranteed funding.

### Length of Program

The time required to complete the MSc degree will vary according to the previous training of the applicant and the nature of the research undertaken; however, a minimum of two years is normally required.

The maximum time to complete the thesis-based MSc program as set by the Faculty of Graduate Studies and Research is four years.

## The Degree of MSc with Specialization in Molecular Biology and Genetics (Biological Sciences) [Graduate]

### Program Requirements

Students are required to complete research leading to a thesis, a minimum of ★6 in graded coursework, a seminar component, one term of graduate teaching, 8 hours of ethics activities, and 8 hours of professional development activities.

### Thesis

- Registration in 900-level THES. Students must present their thesis research to the Department in the form of a public seminar within two weeks prior to the date of the thesis defence. In addition, students are strongly encouraged to present annual progress reports to their supervisory committee.

### Coursework and Seminar Component

Individual programs will be developed by agreement between the student and the supervisor/supervisory committee.

- Two □3 graded courses.
  - Students typically register in GENET 500 and GENET 510.
  - In special cases, students may opt out of one of these courses on recommendation of their supervisory committee, however, the substituted course must be at the 400-level or higher.
  - All students must register in at least ★3 graded courses in their first year.
- Students must register in GENET 601 and GENET 605 each term these courses are offered during the student's guaranteed funding.
- Project courses or individual study courses may not be included in the minimum requirements, but may be taken for credit in addition to the minimal graded requirement on the

**The Degree of MSc with Specialization in  
Physiology, Cell, and Developmental Biology**

recommendation of the supervisory committee with approval of the Associate Chair (Graduate Studies).

- Generally, coursework should be completed in the first year of the program.

**Teaching**

- Hold a 0.5 (6 hour per week) graduate teaching assistantship for one semester.

**Ethics**

- Complete 8 hours of approved ethics activities.
- Ethics hours are approved by the Associate Chair (Graduate Studies).

**Professional Development**

- Complete 8 hours of approved professional development (PD) activities.
- PD hours are approved by the Associate Chair (Graduate Studies) but cannot include any activity for which the student has previously received credit, cannot be required for the student's thesis research, cannot be required training, and cannot reasonably be an expected part of the students graduate program.

**Residence Requirement**

Candidates for the master's degree must complete a minimum of two (four-month) terms in full-time residence at the University of Alberta.

**Length of Program**

The time required to compete the MSc degree will vary according to the previous training of the applicant and the nature of the research undertaken; however, a minimum of two years is normally required.

The maximum time to complete the thesis-based MSc program as set by the Faculty of Graduate Studies and Research is four years.

**The Degree of MSc with Specialization in  
Physiology, Cell, and Developmental  
Biology (Biological Sciences) [Graduate]**

**Program Requirements**

Students are required to complete research leading to a thesis, a minimum of ★6 in graded coursework, a seminar component, one term of graduate teaching, 8 hours of ethics activities, and 8 hours of professional development activities.

**Thesis**

The MSc program consists of research leading to a thesis, and a minimum of ★6 graded course work of which ★3 must be in a graded seminar or discussion oriented course. Students will register in BIOL 642 during each Fall/Winter term of their program. Students are required to present one seminar in the BIOL 642 seminar course. Normally this would be in the second year of their thesis work. Presentation in BIOL 642 is not to be used as the pre-thesis or any other seminar course, as determined by the supervisory committee.

- Registration in 900-level THES. Students must present their thesis research to the Department in the form of a public seminar within two weeks prior to the date of the thesis defence. In addition, students are strongly encouraged to present annual progress reports to their supervisory committee.

#### **Coursework and Seminar Component**

Individual programs will be developed by agreement between the student and the supervisor/supervisory committee.

- Two □3 graded courses.
  - At least one □3 course must be in a graded seminar or discussion-oriented course.
- Students will register in BIOL 642 during each Fall/Winter term of their program. Students are required to present one seminar in the BIOL 642 seminar course, normally in the second year of their thesis work. Presentation in BIOL 642 is not to be used as the pre-thesis or any other seminar course, as determined by the supervisory committee.
- Project courses or individual study courses may not be included in the minimum requirements, but may be taken for credit in addition to the minimal graded requirement on the recommendation of the supervisory committee with approval of the Associate Chair (Graduate Studies).
- Generally, coursework should be completed in the first year of the program.

#### **Teaching**

- Hold a 0.5 (6 hour per week) graduate teaching assistantship for one semester.

#### **Ethics**

- Complete 8 hours of approved ethics activities.
- Ethics hours are approved by the Associate Chair (Graduate Studies).

#### **Professional Development**

- Complete 8 hours of approved professional development (PD) activities.
- PD hours are approved by the Associate Chair (Graduate Studies) but cannot include any activity for which the student has previously received credit, cannot be required for the student's thesis research, cannot be required training, and cannot reasonably be an expected part of the students graduate program.

#### **Residence Requirement**

## The Degree of MSc with Specialization in Plant Biology

The MSc consists of research leading to a thesis, and a minimum of ★6 graded course work. Students will register in BOT 600 during the first year of their program. Students are encouraged to complete these requirements in their first year. Continued participation in BOT 600 in subsequent years is recommended.

Candidates for the master's degree must complete a minimum of two (four-month) terms in full-time residence at the University of Alberta.

### Length of Program

The time required to complete the MSc degree will vary according to the previous training of the applicant and the nature of the research undertaken; however, a minimum of two years is normally required.

The maximum time to complete the thesis-based MSc program as set by the Faculty of Graduate Studies and Research is four years.

## The Degree of MSc with Specialization in Plant Biology (Biological Sciences) [Graduate]

### Program Requirements

Students are required to complete research leading to a thesis, a minimum of ★6 in graded coursework, a seminar component, one term of graduate teaching, 8 hours of ethics activities, and 8 hours of professional development activities.

### Thesis

- Registration in 900-level THES. Students must present their thesis research to the Department in the form of a public seminar within two weeks prior to the date of the thesis defence. In addition, students are strongly encouraged to present annual progress reports to their supervisory committee.

### Coursework and Seminar Component

Individual programs will be developed by agreement between the student and the supervisor/supervisory committee.

- Two □3 graded courses.
- Students must register in BOT 600 in their first year. Continued participation in BOT 600 in subsequent years is recommended.
- Project courses or individual study courses may not be included in the minimum requirements, but may be taken for credit in addition to the minimal graded requirement on the recommendation of the supervisory committee with approval of the Associate Chair (Graduate Studies).
- Generally, coursework should be completed in the first year of the program.

### Teaching

**The Degree of MSc with Specialization in Systematics and Evolution**

- Hold a 0.5 (6 hour per week) graduate teaching assistantship for one semester.

**Ethics**

- Complete 8 hours of approved ethics activities.
- Ethics hours are approved by the Associate Chair (Graduate Studies).

**Professional Development**

- Complete 8 hours of approved professional development (PD) activities.
- PD hours are approved by the Associate Chair (Graduate Studies) but cannot include any activity for which the student has previously received credit, cannot be required for the student's thesis research, cannot be required training, and cannot reasonably be an expected part of the students graduate program.

**Residence Requirement**

Candidates for the master's degree must complete a minimum of two (four-month) terms in full-time residence at the University of Alberta.

**Length of Program**

The time required to compete the MSc degree will vary according to the previous training of the applicant and the nature of the research undertaken; however, a minimum of two years is normally required.

The maximum time to complete the thesis-based MSc program as set by the Faculty of Graduate Studies and Research is four years.

**The Degree of MSc with Specialization in Systematics and Evolution (Biological Sciences) [Graduate]**

**Program Requirements**

Students are required to complete research leading to a thesis, a minimum of ★6 in graded coursework, a seminar component, one term of graduate teaching, 8 hours of ethics activities, and 8 hours of professional development activities.

**Thesis**

- Registration in 900-level THES. Students must present their thesis research to the Department in the form of a public seminar within two weeks prior to the date of the thesis defence. In addition, students are strongly encouraged to present annual progress reports to their supervisory committee.



The MSc program consists of research leading to a thesis, and a minimum of ★6 graded course work. In addition, students must register in the seminar courses BIOL 506 and 507 at least once during their program (resulting in a total of ★9). Continued participation in BIOL 507 in subsequent years is recommended. Students are encouraged, but not required, to select graded courses from the following list after consultation with their supervisor or supervisory committee:

**BIOL 221 – Mechanisms of Evolution**

BIOL 335 - Principles of Systematics

BIOL 380 - Genetic Analysis of Populations

BIOL 430 - Experimental Biology

BIOL 521 - Advanced Molecular Evolution and Systematics

BIOL 592 - Laboratory Techniques in Molecular Ecology and Systematics

**Coursework and Seminar Component**

Individual programs will be developed by agreement between the student and the supervisor/supervisory committee.

- **Two 3 graded courses.**
  - Students are encouraged to select graded courses from the following, after consultation with their supervisor:
    - BIOL 335 - Principles of Systematics
    - BIOL 380 - Genetic Analysis of Populations
    - BIOL 430 - Experimental Biology
    - BIOL 521 - Advanced Molecular Evolution and Systematics
    - BIOL 592 - Laboratory Techniques in Molecular Ecology and Systematics
- Students must register in BIOL 506 at least once and BIOL 631 at least twice during their program.
- **Project courses or individual study courses may not be included in the minimum requirements, but may be taken for credit in addition to the minimal graded requirement on the recommendation of the supervisory committee with approval of the Associate Chair (Graduate Studies).**
- **Generally, coursework should be completed in the first year of the program.**

**Teaching**

- **Hold a 0.5 (6 hour per week) graduate teaching assistantship for one semester.**

**Ethics**

- **Complete 8 hours of approved ethics activities.**
- **Ethics hours are approved by the Associate Chair (Graduate Studies).**

**Professional Development**

- **Complete 8 hours of approved professional development (PD) activities.**
- **PD hours are approved by the Associate Chair (Graduate Studies) but cannot include any activity for which the student has previously received credit, cannot be required for the student's thesis research, cannot be required training, and cannot reasonably be an expected part of the students graduate program.**

**Residence Requirement**

## The Degree of PhD (Biological Sciences) [Graduate]

### Program Requirements

[moved up from within The Degree of PhD \(Biological Sciences\) \[Graduate\]](#)

Students [will be asked to](#) present their thesis research to the Department in the form of a public seminar either on the same day, or the day before, the thesis defence. In addition, students [will be](#) encouraged to present progress reports (oral and poster formats) [to the Department or research group in an informal setting at an early stage in their research program.](#)

[\[moved up from Requirements within Research Groups\]](#)  
The PhD program consists of research leading to a thesis, and a minimum of ★6 graded course work, of which ★3 must be in a graded seminar or discussion-oriented course. Attendance/participation in an appropriate seminar series is required as determined by the supervisor/supervisory committee.

[Required courses depend on the area of specialization \(see below\) and the undergraduate background of the student; however, the PhD program requires registration in a combination of coursework and thesis research comprising the equivalent of a minimum of ★36. This normally consists of a minimum of ★6 graded courses \(equivalent to two single-term graduate-level graded courses\) and a thesis. Where graded credits are required](#)

[Candidates for the master's degree must complete a minimum of two \(four-month\) terms in full-time residence at the University of Alberta.](#)

### Length of Program

[The time required to compete the MSc degree will vary according to the previous training of the applicant and the nature of the research undertaken; however, a minimum of two years is normally required.](#)

[The maximum time to complete the thesis-based MSc program as set by the Faculty of Graduate Studies and Research is four years.](#)

## The Degree of PhD (Biological Sciences) [Graduate]

### Program Requirements

[Students are required to complete research leading to a thesis, a minimum of ★6 ingraded coursework, a seminar component, a candidacy exam, one term of graduate teaching, 8 hours of ethics activities, and 8 hours of professional development activities.](#)

### Thesis

- [Registration in 900-level THES.](#) Students [must](#) present their thesis research to the Department in the form of a public seminar either on the same day, or the day before, the thesis defence. In addition, students [are strongly](#) encouraged to present [annual](#) progress reports to [their](#) [supervisory committee.](#)

### Coursework and Seminar Component

Individual programs [will be](#) developed by agreement between the student and the supervisor/supervisory committee.

- [Two □3 graded courses.](#)
  - [At least one □3 course](#) must be a graded seminar or discussion-oriented course.
- Attendance/participation in an appropriate seminar series is required as determined by the supervisor/supervisory committee.
- Project courses or individual study courses may not be included in the minimum requirements, [but](#) may be taken for credit in addition to the minimal graded requirement on the recommendation of the supervisory committee with approval of the Associate Chair (Graduate Studies).
- Generally, course [work](#) should be [completed](#) in the first year of the program.

as part of the formal coursework toward a PhD degree, project courses or individual study courses may not be included in the minimal requirements. These include BIOL 490, BIOL 498, or BIOL 499, or similar courses in other departments or faculties at the 400, 500, or 600 level. The Associate Chair (Graduate Studies), with the advice from the coordinator of the RIG under which a particular graduate program is administered, will maintain a current list of excluded courses. These courses may be taken for credit in addition to the minimal graded requirement on the recommendation of the supervisory committee with approval of the Associate Chair (Graduate Studies).

Generally, courses should be taken in the first year of the program. Beyond the basic course requirements of the Department, each student's individual program will be developed by agreement between the student and the supervisor or the supervisory committee.

There is no language requirement for the degree of PhD.

Candidates for the PhD degree must complete a minimum of two academic years (equivalent to four terms) in full-time residence at the University of Alberta.

[moved up from Requirements within Research Groups]

### **Length of Program**

The time required to compete the PhD degree will vary according to the previous training of the applicant and the nature of the research undertaken; however, a minimum of three years is normally required. Candidates must

### **Candidacy Exam**

Students are required to complete a written and oral candidacy exam by the end of their third year.

### **Teaching**

- Hold a 0.5 (6 hour per week) graduate teaching assistantship for one semester.

### **Ethics**

- Complete 8 hours of approved ethics activities.
- Ethics hours are approved by the Associate Chair (Graduate Studies).

### **Professional Development**

- Complete 8 hours of approved professional development (PD) activities.
- PD hours are approved by the Associate Chair (Graduate Studies) but cannot include any activity for which the student has previously received credit, cannot be required for the student's thesis research, cannot be required training, and cannot reasonably be an expected part of the students graduate program.

### **Residence Requirement**

Candidates for the PhD degree must complete a minimum of two academic years (equivalent to four terms) in full-time residence at the University of Alberta.

### **Length of Program**

The time required to compete the PhD degree will vary according to the previous training of the applicant and the

complete their degree program within six years of the time they first register.

## **Requirements within Research Groups The Degree of PhD with Specialization in Biological Sciences**

### **The Degree of PhD with Specialization in Ecology**

The PhD program consists of research leading to a thesis, and a minimum of ★6 graded course work, of which ★3 must be in a graded seminar or discussion-oriented course. Enrolment in BIOL 603 is recommended. Students are encouraged to complete these requirements in their first two years. Students are encouraged to register in BIOL 631 in their first two years and to register and/or participate in BIOL 631 in subsequent years.

nature of the research undertaken; however, a minimum of three years is normally required.

The maximum time to complete the PhD program as set by the Faculty of Graduate Studies and Research is six years.

### **The Degree of PhD with Specialization in Ecology (Biological Sciences) [Graduate]**

#### **Program Requirements**

Students are required to complete research leading to a thesis, a minimum of ★6 in graded coursework, a seminar component, a candidacy exam, one term of graduate teaching, 8 hours of ethics activities, and 8 hours of professional development activities.

#### **Thesis**

- Registration in 900-level THES. Students must present their thesis research to the Department in the form of a public seminar either on the same day, or the day before, the thesis defence. In addition, students are strongly encouraged to present annual progress reports to their supervisory committee.

#### **Coursework and Seminar Component**

Individual programs will be developed by agreement between the student and the supervisor/supervisory committee.

- Two □3 graded courses.
  - At least one □3 course must be in a graded seminar or discussion-oriented course.
  - Enrollment in BIOL 603 is recommended.
  - Students are encouraged to complete these requirements in their first two years.
- Students are encouraged to register in BIOL 631 in their first two years and to register and/or participate in BIOL 631 in subsequent years.
- Project courses or individual study courses may not be included in the minimum requirements, but may be taken for credit in addition to the minimal graded requirement on the recommendation of the supervisory committee with approval of the Associate Chair (Graduate Studies).

**The Degree of PhD with Specialization in Microbiology and Biotechnology**

- Generally, coursework should be completed in the first year of the program.

**Candidacy Exam**

Students are required to complete a written and oral candidacy exam by the end of their third year.

**Teaching**

- Hold a 0.5 (6 hour per week) graduate teaching assistantship for one semester.

**Ethics**

- Complete 8 hours of approved ethics activities.
- Ethics hours are approved by the Associate Chair (Graduate Studies).

**Professional Development**

- Complete 8 hours of approved professional development (PD) activities.
- PD hours are approved by the Associate Chair (Graduate Studies) but cannot include any activity for which the student has previously received credit, cannot be required for the student's thesis research, cannot be required training, and cannot reasonably be an expected part of the students graduate program.

**Residence Requirement**

Candidates for the PhD degree must complete a minimum of two academic years (equivalent to four terms) in full-time residence at the University of Alberta.

**Length of Program**

The time required to compete the PhD degree will vary according to the previous training of the applicant and the nature of the research undertaken; however, a minimum of three years is normally required.

The maximum time to complete the PhD program as set by the Faculty of Graduate Studies and Research is six years.

**The Degree of PhD with Specialization in Microbiology and Biotechnology (Biological Sciences) [Graduate]**

**Program Requirements**

Students are required to complete research leading to a thesis, a minimum of ★9 in graded coursework, a seminar component, a candidacy exam, one term of graduate teaching, 8 hours of ethics activities, and 8 hours of professional development activities.

The PhD program consists of research leading to a thesis, and a minimum of ★9 in graded course work, which includes MICRB 514 in the first or second year, MICRB 607 in the second year, and a ★3 graded course selected from the graduate course list (found in Course Listings) and approved by the student's supervisor/supervisory committee. In addition to registration in MICRB 607, students must also register and/or participate in MICRB 606 in all other terms, to a maximum of nine terms.

### **Thesis**

- Registration in 900-level THES. Students must present their thesis research to the Department in the form of a public seminar either on the same day, or the day before, the thesis defence. In addition, students are strongly encouraged to present annual progress reports to their supervisory committee.

### **Coursework and Seminar Component**

Individual programs will be developed by agreement between the student and the supervisor/supervisory committee.

- Three □3 graded courses.
  - MICRB 514 in the first or second year
  - MICRB 607 in the second year
  - One ★3 graduate-level graded MICRB course approved by the supervisor/supervisory committee.
- In addition to MICRB 607, students must also register and/or participate in MICRB 606 in all other terms, to a maximum of nine terms.
- Project courses or individual study courses may not be included in the minimum requirements, but may be taken for credit in addition to the minimal graded requirement on the recommendation of the supervisory committee with approval of the Associate Chair (Graduate Studies).
- Generally, coursework should be completed in the first year of the program.

### **Candidacy Exam**

Students are required to complete a written and oral candidacy exam by the end of their third year.

### **Teaching**

- Hold a 0.5 (6 hour per week) graduate teaching assistantship for one semester.

### **Ethics**

- Complete 8 hours of approved ethics activities.
- Ethics hours are approved by the Associate Chair (Graduate Studies).

### **Professional Development**

- Complete 8 hours of approved professional development (PD) activities.
- PD hours are approved by the Associate Chair (Graduate Studies) but cannot include any activity for which the student has previously received credit, cannot be required for the student's thesis research, cannot be required training, and cannot reasonably be an expected part of the student's graduate program.

## The Degree of PhD with Specialization in Molecular Biology and Genetics

The PhD program consists of research leading to a thesis, and a minimum of ★6 graded course work. In their first year, students typically register in GENET 500 (Term I) and GENET 510 (Term II). In special cases, student may opt out of one of these courses on the recommendation of their supervisory committee, however, the substituted course must be at the 400-level or higher. All students must register in at least ★3 graded courses in their first year. All students will register in GENET 601 and GENET 605 each term these courses are offered during the student's guaranteed funding.

### **Residence Requirement**

Candidates for the PhD degree must complete a minimum of two academic years (equivalent to four terms) in full-time residence at the University of Alberta.

### **Length of Program**

The time required to complete the PhD degree will vary according to the previous training of the applicant and the nature of the research undertaken; however, a minimum of three years is normally required.

The maximum time to complete the PhD program as set by the Faculty of Graduate Studies and Research is six years.

## The Degree of PhD with Specialization in Molecular Biology and Genetics (Biological Sciences) [Graduate]

### **Program Requirements**

Students are required to complete research leading to a thesis, a minimum of ★6 in graded coursework, a seminar component, a candidacy exam, one term of graduate teaching, 8 hours of ethics activities, and 8 hours of professional development activities.

### **Thesis**

- Registration in 900-level THES. Students must present their thesis research to the Department in the form of a public seminar either on the same day, or the day before, the thesis defence. In addition, students are strongly encouraged to present annual progress reports to their supervisory committee.

### **Coursework and Seminar Component**

Individual programs will be developed by agreement between the student and the supervisor/supervisory committee.

- Two □3 graded courses.
  - Students typically register in GENET 500 and GENET 510.
  - In special cases, students may opt out of one of these courses on recommendation of their supervisory committee, however, the substituted course must be at the 400-level or higher.
  - All students must register in at least ★3 graded courses in their first year.

**The Degree of PhD with Specialization in  
Physiology, Cell, and Developmental Biology**

- Students must register in GENET 601 and GENET 605 each term these courses are offered during the student's guaranteed funding.
- Project courses or individual study courses may not be included in the minimum requirements, but may be taken for credit in addition to the minimal graded requirement on the recommendation of the supervisory committee with approval of the Associate Chair (Graduate Studies).
- Generally, coursework should be completed in the first year of the program.

**Candidacy Exam**

Students are required to complete a written and oral candidacy exam by the end of their third year.

**Teaching**

- Hold a 0.5 (6 hour per week) graduate teaching assistantship for one semester.

**Ethics**

- Complete 8 hours of approved ethics activities.
- Ethics hours are approved by the Associate Chair (Graduate Studies).

**Professional Development**

- Complete 8 hours of approved professional development (PD) activities.
- PD hours are approved by the Associate Chair (Graduate Studies) but cannot include any activity for which the student has previously received credit, cannot be required for the student's thesis research, cannot be required training, and cannot reasonably be an expected part of the students graduate program.

**Residence Requirement**

Candidates for the PhD degree must complete a minimum of two academic years (equivalent to four terms) in full-time residence at the University of Alberta.

**Length of Program**

The time required to complete the PhD degree will vary according to the previous training of the applicant and the nature of the research undertaken; however, a minimum of three years is normally required.

The maximum time to complete the PhD program as set by the Faculty of Graduate Studies and Research is six years.



The PhD program consists of research leading to a thesis, and a minimum of ★6 graded course work, of which ★3 must be in a graded seminar or discussion oriented course. Students will register in BIOL 642 during each Fall/Winter term of their program. Students are required to present two seminars in the BIOL 642 seminar course during their PhD program. Normally this would be once in the second and again in subsequent years of their thesis work. Presentation in BIOL 642 is not to be used as the pre-thesis public seminar.

## The Degree of PhD with Specialization in Physiology, Cell, and Developmental Biology **(Biological Sciences) [Graduate]**

### Program Requirements

Students are required to complete research leading to a thesis, a minimum of ★6 in graded coursework, a seminar component, a candidacy exam, one term of graduate teaching, 8 hours of ethics activities, and 8 hours of professional development activities.

### Thesis

- Registration in 900-level THES. Students must present their thesis research to the Department in the form of a public seminar either on the same day, or the day before, the thesis defence. In addition, students are strongly encouraged to present annual progress reports to their supervisory committee.

### Coursework and Seminar Component

Individual programs will be developed by agreement between the student and the supervisor/supervisory committee.

- Two □3 graded courses.
  - At least one □3 course must be in a graded seminar or discussion-oriented course.
- Students will register in BIOL 642 during each Fall/Winter term of their program. Students are required to present two seminars in the BIOL 642 seminar course. Normally this would be once in the second year and again in subsequent years of their thesis work. Presentation in BIOL 642 is not to be used as the pre-thesis public seminar.
- Project courses or individual study courses may not be included in the minimum requirements, but may be taken for credit in addition to the minimal graded requirement on the recommendation of the supervisory committee with approval of the Associate Chair (Graduate Studies).
- Generally, coursework should be completed in the first year of the program.

### Candidacy Exam

Students are required to complete a written and oral candidacy exam by the end of their third year.

### Teaching

- Hold a 0.5 (6 hour per week) graduate teaching assistantship for one semester.

### Ethics

## The Degree of PhD with Specialization in Plant Biology

The PhD consists of research leading to a thesis, and a minimum of ★6 graded course work. Students will register in BOT 600 during each of the first two years of their program. Students are encouraged to complete these requirements in their first two years. Continued participation in BOT 600 in subsequent years is recommended.

- Complete 8 hours of approved ethics activities.
- Ethics hours are approved by the Associate Chair (Graduate Studies).

### **Professional Development**

- Complete 8 hours of approved professional development (PD) activities.
- PD hours are approved by the Associate Chair (Graduate Studies) but cannot include any activity for which the student has previously received credit, cannot be required for the student's thesis research, cannot be required training, and cannot reasonably be an expected part of the students graduate program.

### **Residence Requirement**

Candidates for the PhD degree must complete a minimum of two academic years (equivalent to four terms) in full-time residence at the University of Alberta.

### **Length of Program**

The time required to compete the PhD degree will vary according to the previous training of the applicant and the nature of the research undertaken; however, a minimum of three years is normally required.

The maximum time to complete the PhD program as set by the Faculty of Graduate Studies and Research is six years.

## **The Degree of PhD with Specialization in Plant Biology (Biological Sciences) [Graduate]**

### **Program Requirements**

Students are required to complete research leading to a thesis, a minimum of ★6 ingraded coursework, a seminar component, a candidacy exam, one term of graduate teaching, 8 hours of ethics activities, and 8 hours of professional development activities.

### **Thesis**

- Registration in 900-level THES. Students must present their thesis research to the Department in the form of a public seminar either on the same day, or the day before, the thesis defence. In addition, students are strongly encouraged to present annual progress reports to their supervisory committee.

### **Coursework and Seminar Component**

Individual programs will be developed by agreement between the student and the supervisor/supervisory committee.

- Two 3 graded courses.
  - Students are encouraged to complete these requirements in their first two years.
- Students will register in BOT 600 during each of the first two years of their program. Continued participation in BOT 600 in subsequent years is recommended.
- Project courses or individual study courses may not be included in the minimum requirements, but may be taken for credit in addition to the minimal graded requirement on the recommendation of the supervisory committee with approval of the Associate Chair (Graduate Studies).
- Generally, coursework should be completed in the first year of the program.

#### **Candidacy Exam**

Students are required to complete a written and oral candidacy exam by the end of their third year.

#### **Teaching**

- Hold a 0.5 (6 hour per week) graduate teaching assistantship for one semester.

#### **Ethics**

- Complete 8 hours of approved ethics activities.
- Ethics hours are approved by the Associate Chair (Graduate Studies).

#### **Professional Development**

- Complete 8 hours of approved professional development (PD) activities.
- PD hours are approved by the Associate Chair (Graduate Studies) but cannot include any activity for which the student has previously received credit, cannot be required for the student's thesis research, cannot be required training, and cannot reasonably be an expected part of the students graduate program.

#### **Residence Requirement**

Candidates for the PhD degree must complete a minimum of two academic years (equivalent to four terms) in full-time residence at the University of Alberta.

#### **Length of Program**

The time required to complete the PhD degree will vary according to the previous training of the applicant and the nature of the research undertaken; however, a minimum of three years is normally required.

The PhD program consists of research leading to a thesis, and a minimum of ★6 graded course work. In addition, students must register in the seminar courses in BIOL 506 and 507 at least once during the program (resulting in a total of ★9). Continued participation in BIOL 507 in subsequent years is recommended. Students are encouraged to select graded courses from the following list after consultation with their supervisor or supervisory committee:

**BIOL 221 – Mechanisms of Evolution**

BIOL 335 - Principles of Systematics  
BIOL 380 - Genetic Analysis of Populations  
BIOL 430 - Experimental Biology  
BIOL 521 - Advanced Molecular Evolution and Systematics  
BIOL 592 - Laboratory Techniques in Molecular Ecology and Systematics

The maximum time to complete the PhD program as set by the Faculty of Graduate Studies and Research is six years.

**The Degree of PhD with Specialization in Systematics and Evolution (Biological Sciences) [Graduate]**

**Program Requirements**

Students are required to complete research leading to a thesis, a minimum of ★6 in graded coursework, a seminar component, a candidacy exam, one term of graduate teaching, 8 hours of ethics activities, and 8 hours of professional development activities.

**Thesis**

- Registration in 900-level THES. Students must present their thesis research to the Department in the form of a public seminar either on the same day, or the day before, the thesis defence. In addition, students are strongly encouraged to present annual progress reports to their supervisory committee.

**Coursework and Seminar Component**

Individual programs will be developed by agreement between the student and the supervisor/supervisory committee.

- Two □3 graded courses.
  - Students are encouraged to select graded courses from the following, after consultation with their supervisor:
    - BIOL 335 - Principles of Systematics
    - BIOL 380 - Genetic Analysis of Populations
    - BIOL 430 - Experimental Biology
    - BIOL 521 - Advanced Molecular Evolution and Systematics
    - BIOL 592 - Laboratory Techniques in Molecular Ecology and Systematics
- Students must register in BIOL 506 at least once and BIOL 631 at least twice during their program.
- Project courses or individual study courses may not be included in the minimum requirements, but may be taken for credit in addition to the minimal graded requirement on the recommendation of the supervisory committee with approval of the Associate Chair (Graduate Studies).

- Generally, coursework should be completed in the first year of the program.

**Candidacy Exam**

Students are required to complete a written and oral candidacy exam by the end of their third year.

**Teaching**

- Hold a 0.5 (6 hour per week) graduate teaching assistantship for one semester.

**Ethics**

- Complete 8 hours of approved ethics activities.
- Ethics hours are approved by the Associate Chair (Graduate Studies).

**Professional Development**

- Complete 8 hours of approved professional development (PD) activities.
- PD hours are approved by the Associate Chair (Graduate Studies) but cannot include any activity for which the student has previously received credit, cannot be required for the student's thesis research, cannot be required training, and cannot reasonably be an expected part of the students graduate program.

**Residence Requirement**

Candidates for the PhD degree must complete a minimum of two academic years (equivalent to four terms) in full-time residence at the University of Alberta.

**Length of Program**

The time required to compete the PhD degree will vary according to the previous training of the applicant and the nature of the research undertaken; however, a minimum of three years is normally required.

The maximum time to complete the PhD program as set by the Faculty of Graduate Studies and Research is six years.

**Graduate Courses**

Graduate courses can be found in Course Listings under the subject heading Bioinformatics (BIOIN), Biology (BIOL), Botany (BOT), Entomology (ENT), Genetics (GENET), Immunology and Infection (IMIN), Marine Science (MA SC), Microbiology (MICRB), Paleontology (PALEO), and Zoology (ZOOI).

FINAL Item No. 8

**Governance Executive Summary**  
**Action Item**

<b>Agenda Title</b>	<b>Proposed Changes to Entrance and Program Requirements for Graduate Programs in Nursing, Faculty of Nursing, and the Faculty of Graduate Studies and Research</b>
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**Motion I:**

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the proposed changes to Entrance Requirements for graduate programs in Nursing as set forth in Attachment 1: Appendix A.

**Motion II:**

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the proposed changes to program requirements and courses for the Master of Nursing programs as set forth in Attachment 1: Appendix A, Appendix B, and Appendix C, and Attachment 2.

**Motion III:**

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the proposed change to courses for the PhD program in Nursing as set forth in Attachment 3.

**Item**

Action Requested	<input checked="" type="checkbox"/> Approval <input type="checkbox"/> Recommendation
Proposed by	Brooke Milne, Vice-Provost and Dean, Faculty of Graduate Studies and Research Greta Cummings, Dean, Faculty of Nursing
Presenter	Dianne Tapp, Associate Dean Graduate Studies, Faculty of Nursing Brooke Milne, Vice-Provost and Dean, Faculty of Graduate Studies and Research

**Details**

Responsibility	Provost and Vice-President (Academic)
The Purpose of the Proposal is (please be specific)	The proposal is before the committee because the changes will support timely program progression and completion, clarity of structure, and flexibility. More specifically: <ul style="list-style-type: none"> <li>• <b>Master of Nursing Curriculum Changes:</b> The program structure allows flexibility for continuing enrollment growth in the Master of Nursing Program. See Attachment 1 pages 3 - 4 for discussion related to enrolment planning, resource implications, and implementation costs.</li> <li>• <b>Master of Nursing Calendar Change Request - Nurse Practitioner courses:</b> Minor edits to the calendar will provide clarity to students regarding course hours and prerequisites.</li> <li>• <b>PhD Nursing Calendar Change Request:</b> The changes will support timely program progression and completion for doctoral studies.</li> </ul>
Executive Summary (outline the specific item – and remember your audience)	<b>Master of Nursing Curriculum Changes:</b> This proposal outlines revisions that clearly update the program philosophy, outcomes, and courses to reflect current and future trends in advanced nursing roles at the graduate level. A summary of proposed changes is

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	<p>included on pages 10-11 of Attachment 1. The last major revision to the MN curriculum occurred in 2007. Background and comparative data from curricula of other graduate nursing programs, regulatory requirements, employment trends, student accessibility, teaching innovations, and current and future roles for nurses were analyzed. The National Nursing Education Framework of CASN (Canadian Association of Schools of Nursing, 2015) was a key reference document. The curriculum is aligned with the strategic vision of the Faculty, and our core strengths as a leading research-intensive nursing faculty in Canada and globally. The rationale is further explained on pages 2-3 of Attachment 1.</p> <p><b>Master of Nursing Calendar Change Request - Nurse Practitioner courses:</b> This series of courses constitutes a clinical focus within the current MN curriculum that prepares nurses to license as nurse practitioners. These course descriptions were previously approved in fall 2019. Courses are in final development and will be offered for the first time beginning in Winter 2021. Minor edits to calendaring will provide clarity regarding course hours and prerequisites:</p> <ul style="list-style-type: none"> <li>- NURS 516 &amp; 518 – slight wording changes to reflect lab and simulation hours</li> <li>- NURS 516, 518, 530, 531, 532, 533, &amp; 534 – specify required total hours of preceptored clinical (which varies on a weekly basis throughout the term) and to specify prerequisite course requirements</li> <li>- NURS 530, 531, 532 – correction to eliminate reference to other courses in this series.</li> </ul> <p><b>PhD Nursing Calendar Change Request:</b> Doctoral dissertation seminar course previously required registration for 2 consecutive terms. Requirement to be changed to registration in one academic term only. Reduction in course requirements aligns with the number of courses required for doctoral studies in Nursing at other Canadian Universities.</p>
Supplementary Notes and context	<This section is for use by University Governance only to outline governance process.>

**Engagement and Routing** (Include meeting dates)

<p>Consultation and Stakeholder Participation (parties who have seen the proposal and in what capacity)</p> <p>&lt;For information on the protocol see the <a href="#">Governance Toolkit section Student Participation Protocol</a>&gt;</p>	<p><u><b>Those who are actively participating:</b></u></p> <ul style="list-style-type: none"> <li>• Dianne Tapp, Associate Dean (Graduate Studies) &amp; Associate Professor, Faculty of Nursing</li> <li>• Tracy Quigley, Graduate Program Administrator</li> </ul> <p><u><b>Those who have been consulted:</b></u></p> <ul style="list-style-type: none"> <li>• Faculty of Graduate Studies and Research</li> <li>• Representatives from Graduate Studies Offices in the Faculties of Medicine &amp; Dentistry, Rehabilitation Medicine, Pharmacy, and School of Public Health provided feedback on the final draft</li> <li>• Graduate Nursing Students' Association / MentorUs (Graduate Student executives)</li> </ul>
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	<ul style="list-style-type: none"> <li>• Alberta Health Services (VP Chief Health Operations Officer)</li> <li>• College &amp; Association of Registered Nurses of Alberta (CEO, and Chief Professional Practice Administrator)</li> <li>• Vice-Provost Indigenous Programming and Research</li> </ul> <p><i>Those who have been informed:</i></p> <ul style="list-style-type: none"> <li>• All current Master of Nursing students have been informed by email that they will be supported to completed the program to which they were originally admitted</li> </ul>
Approval Route (Governance) (including meeting dates)	Faculty of Nursing Graduate Education Committee - Approved Oct 16, 2020 Faculty of Nursing Council - Approved October 26, 2020 Policy Review Committee - Approved Nov. 4, 2020 FGSR Council - Approved Nov. 25, 2020 GFC Programs Committee - Jan. 14, 2021

**Strategic Alignment**

Alignment with <i>For the Public Good</i>	<b>OBJECTIVE 21:</b> Encourage continuous improvement in administrative, governance, planning and stewardship systems, procedures, and policies that enable students, faculty, staff, and the institution as a whole to achieve shared strategic goals.	
Alignment with Core Risk Area	Please note below the specific institutional risk(s) this proposal is addressing.	
	<input type="checkbox"/> Enrolment Management <input type="checkbox"/> Faculty and Staff <input type="checkbox"/> Funding and Resource Management <input type="checkbox"/> IT Services, Software and Hardware <input type="checkbox"/> Leadership and Change <input type="checkbox"/> Physical Infrastructure	<input checked="" type="checkbox"/> Relationship with Stakeholders <input checked="" type="checkbox"/> Reputation <input type="checkbox"/> Research Enterprise <input type="checkbox"/> Safety <input checked="" type="checkbox"/> Student Success
Legislative Compliance and jurisdiction	Post-Secondary Learning Act (PSLA) UAPPOL Admissions Policy UAPPOL Academic Standing Policy GFC Programs Committee (PC) Terms of Reference GFC Academic Planning Committee (APC) Terms of Reference	

Attachments

1. Master of Nursing Curriculum Proposal - Nov. 18, 2020
2. Master of Nursing - Nurse Practitioner courses calendar changes - Nov. 18, 2020
3. Nursing Doctoral course calendar change - Nov. 18, 2020

Prepared by: Dianne Tapp, Associate Dean Graduate Studies, Nursing ([dianne.tapp@ualberta.ca](mailto:dianne.tapp@ualberta.ca)) and Andrea Riewe, Executive Coordinator, FGSR ([ariewe1@ualberta.ca](mailto:ariewe1@ualberta.ca))



# Proposal for Master of Nursing Program Curriculum Revisions Faculty of Nursing

## Index

1. Template Summary – Basic Information & Program Impact/Rationale
2. Letter of Support from Dean Greta Cummings
3. Stakeholder Consultation
4. Summary of Proposed Changes

Table 1 - Comparison of courses and credits (current and proposed)

Table 2 – Revised MN program: MN course listing, credits & prerequisites

5. MN Curriculum Framework
6. Graduate Programs Philosophy and Values Statement
7. Master of Nursing Program Outcomes
8. Summary of Course Titles and Course Descriptions

Table 3 - Timetable examples for full-time and part-time studies

Table 4 - Timetable example for advanced clinical focus-NP (Nurse Practitioner) full-time and part-time studies

9. Curriculum Development and Assessment Philosophy
10. Transition Plan – Current to Revised Curriculum
11. Future Developments

Appendix A - Calendar Submission

References

# 1. TEMPLATE SUMMARY – BASIC INFORMATION / PROGRAM IMPACT & RATIONALE

## Based on University of Alberta Internal Program Approval Template

- The proposed curriculum revisions are substantive program changes that do not require Ministry approval.

## Internal Guidance for Preparation of Proposal

- The Faculty of Nursing consulted with FGSR Vice-Dean Dr. Bryan Hogeveen, who has reviewed and consulted on the proposed changes with the Dean FGSR (Dr. Brooke Milne) and with the Vice-Provost (Programs) (Dr. Tammy Hopper).

## Basic Information:

- |  |   |
|--|---|
| 1. Title of the Program/Specialization:    | Master of Nursing   |
| 2. Proposed effective date:                | September 1, 2021   |
| 3. Length of the program (years):          | 2 years (full-time); option for part-time studies   |
| 4. Faculty (non-departmentalized):         | Nursing   |
| 5. Contact person:                         | Dr. Dianne Tapp<br>Associate Dean, Graduate Studies, Faculty of Nursing<br><a href="mailto:tapp@ualberta.ca">tapp@ualberta.ca</a><br>780-492-4338 |
| 6. Approval – Faculty of Nursing Council:  | October 26, 2020  |
| Approval – FGSR Council                    | November 25, 2020   |
| 7. Student Consultation:                   |   |
| President Nursing Graduate Students Assoc. | August 25, 2020   |
| Mentor Us Co-Presidents                    | August 25, 2020   |
| Graduate Student Focus Group               | September 3, 2020   |
| 8. Proposed calendar changes:              | Appendices A, B, and C  |
| 9. Dean’s Letter of support:               | see Section 2   |

## Program Impact and Rationale:

### 10. What is the rationale for the program proposal?

Curriculum renewal is an important process for all educational programs. This proposal reflects our commitment to sustain and advance the highest quality of educational programming in Nursing that anticipates and responds to changes in nursing and health sciences, and the evolution of health systems. Planning for the proposed MN curriculum updates and revisions has been underway in the Faculty of Nursing

since 2018 with extensive involvement of faculty members and engagement of a curriculum design specialist. Proposed changes are informed by a curriculum review, a report by a Faculty of Nursing ad hoc task force (2018), and a self-study report and recommendations from the President's Visiting Committee review in 2019. Background and comparative data from curricula of other graduate nursing programs, regulatory requirements, employment trends, student accessibility, teaching innovations, and current and future roles for nurses were analyzed. The National Nursing Education Framework of CASN (Canadian Association of Schools of Nursing, 2015) was a key reference document. The goal of this process was to articulate a foundation for curriculum revisions by examining issues related to program philosophy and values, recruitment and admissions, competencies and career pathways, and alignment of research and learning.

The Faculty of Nursing is a leader in Canadian nursing academia and research, with a strong track record of community engagement and global partnerships. It is the largest Canadian nursing faculty in terms of graduate and undergraduate student numbers, and research productivity. The Faculty was the first faculty/school in Western Canada to offer graduate studies in the discipline of Nursing, as it launched a master's curriculum in 1975 and the first PhD in nursing in Canada in 1991. It is currently ranked #2 overall in Canada; tied for #1 in reputation ranking with the University of Toronto Bloomberg Faculty of Nursing; and tied for #2 in research ranking with the University of British Columbia. The Faculty ranked 18<sup>th</sup> in the 2020 global QS rankings (up 5 spots from last year).

The Faculty has emerged as a leading research-intensive nursing faculty and is ideally positioned to build Canadian capacity in nursing research. The Faculty's vision and strategic plan (2018-2023) emphasize the aim to be the world-renowned academic voice in professional nursing, through cutting-edge research and learner-centred teaching and learning. The curriculum revisions have been undertaken with this aspiration, track-record, and obligation clearly in sight, and will build on established strengths of our current graduate programs.

**11. Provide the expected enrolment (or other) impact on the academic unit(s) offering the program and other affected units if applicable.**

The curriculum changes are anticipated to sustain current enrolment levels and have potential to increase recruitment and positively impact future enrolment in the MN program. The current enrolment target in the master's program is 60 new admissions annually. Despite the uncertainty associated with COVID19, this target has been achieved for Fall 2020 admissions. Prospective students are typically registered nurses who have significant family and employment commitments. The demand for continuing education in this prospective applicant pool varies with overall provincial economic stability and other health system drivers. Curriculum relevance and currency with contemporary nursing and health system issues are critical to sustain enrolment and to increase enrolment in future.

Continuing enrolment growth is contingent on sufficient numbers and capacity of tenure track professoriate for graduate teaching and supervision. The Faculty intends to continue modest enrolment growth over the next 3 years by increasing master's admissions by 10 (headcount) each year.

**12. Are there any resource implications (budget, information technology (IT), library (Library Impact Statement), laboratory, space, student services, administrative services (e.g. FGSR, Registrar's Office, or IST), as applicable for the proposed change? If so, please provide detail and evidence of consultation with affected unit(s) and/or appropriate University officers/committees.**

Over the past 5 years, the Faculty of Nursing has had a strong upward trend in enrollment (see Table 1 below). Although a small increase in overall enrollment is projected over the next 3 years (10 additional new admissions per year), an increase in graduate enrolment has previously been part of the Faculty's strategic planning for the future. The enrolment increase is based on the assumption that the number of tenure-track

faculty members who teach graduate courses and provide graduate supervision will remain constant over the next few years. This curriculum proposal reflects course updates with negligible adjustments to the overall number of course credits required for studies in the master's program in Nursing. It is not anticipated that the curriculum change will have resource implications for IT, laboratory, library, space, student services, or administrative services beyond the costs incurred by the current MN program.

During 2020-2021, graduate teaching capacity in the Faculty of Nursing has been increased by raising the enrolment capacity for most master's courses from 15-20 students to a maximum capacity of 35 students/section. This change has increased workload for faculty teaching in the master's program, but it has effectively increased capacity to accommodate an increase in course enrollees without additional course sections. It is anticipated that the operating costs for teaching in this curriculum will be comparable to existing costs.

In the current curriculum, the development of the capping and thesis projects occurs through extensive individual student consultation and supervision from a faculty advisor or supervisor. Faculty members spend significant time working one-on-one to build student capacity to develop an appropriate question or focus of inquiry for these projects, to conduct an appropriate review of relevant literature, and to develop and implement the project proposal. As will be illustrated in the explanation of the program curriculum framework, the integration of research and inquiry is a core premise of the "community of inquiry" courses. The knowledge and skills that students require to develop and to complete capping and thesis projects are highly aligned with the advanced learning that is required for problem-solving, inquiry, and knowledge-building, and practice development in their professional spheres. It is intended that the curriculum will provide enhanced support to develop capping and thesis projects, effectively augmenting the role of the faculty advisor, and reducing the workload involved in the supervision of individual projects.

The most significant implementation costs will be related to course development for new courses to be implemented for the first time. These development costs will be distributed across two academic years. There will be 6 three-credit courses and 2 one-credit courses that will be introduced for the first time in Fall 2021, and 7 three-credit courses and 1 one-credit course that will be introduced for the first time during the 2021-2022 academic year. Faculty members who work on course development will have the first opportunities to teach these new courses, and their engagement in course development will be considered in their overall teaching workload assignment during this development and implementation period.

The following individuals have been consulted regarding the business case, feasibility, and enrolment planning for this proposal:

Dr. Diane Kunyk – Vice-Dean, Faculty of Nursing

Susan Lynch – Assistant Dean, Administration, Faculty of Nursing

### **13. Enrolment Table:**

Enrolment levels in Nursing are variable and at times difficult to predict, as enrolment can be influenced by shifts in employment and funding for the health sector and by the overall provincial economic outlook. As noted below, the Faculty is intending to pursue continued modest expansion in graduate enrolments over the next few years, with an increase of approximately 10 additional MN admissions each year.

**Table 1**  
**Enrolment Table – Headcount**

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
<b>Total MN (actual)</b>	50	74	107	132			
<b>Admissions</b>	24	44	41	56 <sup>1</sup>	70 <sup>2</sup>	80 <sup>2</sup>	90 <sup>2</sup>
<b>Graduates<sup>3</sup></b>	23	21	10	36	36 <sup>4</sup>	66 <sup>4</sup>	

<sup>1</sup> Deferrals to Fall 2021 – 23 applicants - Majority related to COVID travel restrictions and employment conditions

<sup>2</sup> Desired modest enrolment growth by increasing admissions over next 3 years

<sup>3</sup> Total graduates reported for calendar year

<sup>4</sup> Anticipated graduates based on current trends in part-time and full-time registration

**Table 2**  
**Recent Trends in Part-time/Full-time and Course-Based/Thesis Based Status**

	2019/20	2020/21
<b>Course-Based</b>	79 (74%)	102 (77%)
<b>Thesis-Based</b>	28 (26%)	30 (23%)
<b>Full-time</b>	50 (47%)	58 (44%)
<b>Part-time</b>	57 (53%)	74 (56%)

## 2. DEAN'S LETTER OF SUPPORT



DEAN'S OFFICE

Wednesday, October 21, 2020

Dear Academic Colleagues:

I am very pleased to offer this letter of support for the proposal for revisions to the Master of Nursing curriculum in the Faculty of Nursing. This proposal is the product of intensive faculty engagement and is informed by a recent review by the President's Visiting Committee (2019) and review of comparative background data. The resulting curriculum draws on the Faculty's strengths and strategic priorities for the future and will continue to position the Faculty of Nursing as a leader in Canadian graduate education and research.

Curriculum renewal is an essential element of enduring program quality. The Faculty of Nursing is currently ranked #2 overall in Canada and is tied for #1 in reputation ranking with the University of Toronto Bloomberg Faculty of Nursing and for #2 in research ranking with the University of British Columbia. The Faculty ranked 18<sup>th</sup> in the 2020 global QS rankings (up 5 spots from last year). These rankings reflect the stellar reputation that the Faculty has earned over the past 45 years since our first master's curriculum was introduced in 1975. This standing also reflects capacity and reputation for research impact and training as a core features of the Faculty's identity and reputation. Thus, the proposed curriculum framework is intentional – it is based on a core premise that inquiry and research are essential processes in learning and teaching. The knowledge and skills enacted in the conduct of inquiry and research are also those skills that are needed for evidence-informed professional practice and for leadership in the evolution and transformation of health and health systems. The curriculum creates a scaffolded experience for learners to explore current health systems processes and issues, and to develop a capstone or thesis project that is meaningful to their professional career development.

The curriculum revisions also create opportunity for the Faculty to address recommendations from the Faculty of Nursing *2020 Strategic plan for Equity, Diversity, and Inclusivity*. The EDI plan commits that

“We will prepare the next generation of expert nurses in advanced clinical practice, education, and research (Master of Nursing and Doctoral programs) who are ready to advance professional nursing roles in diverse and complex contexts by

- *Reviewing and revising the graduate programs in anticipation of the comprehensive requirements of future nursing researchers and leaders.*
- *Imbedding Indigenous ways of knowing, where appropriate, throughout the courses offered across the graduate programs”* (p. 6). [italics added]

The revisions to the MN curriculum provide opportunities to demonstrate action on these commitments to advance social equity and the spirit of reconciliation with Indigenous peoples. Thus, it is also intentional that the first of twelve program outcomes states that graduates will be able to “demonstrate leadership in health equity, diversity, inclusivity, and reconciliation with Indigenous peoples in health systems”. Attention to issues of reconciliation, power, culture, diversity, and equity is noted in several course descriptions. We anticipate that there will be many more opportunities to make these commitments increasingly explicit as further course development evolves.

Office of the Dean  
Faculty of Nursing, University of Alberta  
Level 3, Edmonton Clinic Health Academy 11405 - 87 Avenue, Edmonton, AB Canada T6G 1C9  
Telephone: +1.780.492.6236  
[nursinadean@ualberta.ca](mailto:nursinadean@ualberta.ca) <https://www.ualberta.ca/nursing>

In the role of Dean, I have frequent and ongoing interactions with the health sector on local, provincial, national and federal levels. The messaging that I have heard repeatedly is that nurses with graduate education are critically needed to be innovators of health and health system changes through their research, leadership, and teaching activities. Our revised curriculum speaks directly to this expressed need and will prepare graduates with advanced competencies in articulating, enacting and evaluating evidence-based healthcare practices, strategies for leadership in equity, diversity, inclusivity and reconciliation activities across the health spectrum, and the enactment of collaborative, interdisciplinary approaches to complex health issues.

Our students and their experiences are of critical importance for us. This revised curriculum has taken into account their diverse learning needs to ensure the program is accommodating. For many, full-time study is not achievable given their life circumstances and few enter the program with similar educational, practice and research experiences. For these reasons, we have ensured that flexibility is a priority and embedded throughout the revised program. Further, we are confident that this revision will prepare graduates for advanced practice in nursing and further graduate education preparation. This latter point is critical for nursing as we are one of the few disciplines aching to produce more doctoral-prepared professionals.

The proposal for revisions to the Master of Nursing program has my full support. I look forward to the synergies between curriculum, Faculty research, the Faculty's strategic plan, and the EDI plan that will advance the impact of our graduates in the health care arena.

Sincerely,



Greta Cummings, RN, PhD, FAAN, FCAHS  
Dean and Professor, Faculty of Nursing  
Principal Investigator, CLEAR Outcomes Research Program

Office of the Dean  
Faculty of Nursing, University of Alberta  
Level 3, Edmonton Clinic Health Academy 11405 - 87 Avenue, Edmonton, AB Canada T6G 1C9  
Telephone: +1.780.482.6236  
[nursingdean@ualberta.ca](mailto:nursingdean@ualberta.ca) <https://www.ualberta.ca/nursing>

### 3. STAKEHOLDER CONSULTATION

Faculty engagement in the development of the proposal for revisions has been extensive. Recommendations from an ad hoc task force led by faculty members in 2018 and from a President's Visiting Committee Review report in 2019 have been incorporated in this planning. In 2019-20, with support from the Provost's Fund, a curriculum design consultant from the Faculty of Education facilitated a series of exercises which broadly engaged faculty members and students through working groups and a series of three faculty curriculum retreats. These activities focused on gathering and reviewing information, regulatory requirements, best practices, and teaching innovations. This process culminated in the Rizzoli Report (2020, March) which provides the basis for the revisions recommended in this curriculum proposal. Throughout spring and summer 2020, this proposal has been developed through ongoing input by a Core Curriculum Working Group, the Graduate Education Committee, and the Faculty of Nursing Graduate Studies Office. Drafts of resulting materials have been circulated to faculty members, and two faculty discussion forums were held over the summer months. Faculty members had the opportunity for feedback and to provide input at a recent Faculty Caucus meeting in September 2020, prior to final approval at Nursing Council in October 2020.

Graduate student representatives were invited to three faculty curriculum retreats throughout the development process. A proposal draft was circulated to three graduate student leaders and a graduate focus group (9 students participated in September 2020) for discussion and planning.

President Nursing Graduate Students Assoc.	August 25, 2020
Mentor Us Co-Presidents	August 25, 2020
Graduate Student Focus Group	September 3, 2020

Student participants voiced support for the emphasis in the curriculum framework on research and inquiry, and they were excited about the inclusion of a community of inquiry to link student work and nursing experience to coursework across the curriculum. It was noted that although many master's students do not intend to become researchers, most want to become strong users of research information. Student leaders encouraged that key communication messages should explain the emphasis on research in the curriculum, and highlight the skills related to exploring and engaging with nursing and health questions and issues in the context of health system complexity. They encouraged clear messaging to students regarding the transition to the revised curriculum, and regarding what is changing and what will remain the same.

Feedback was sought regarding the integration of language and substance that would align with the *2020 Faculty of Nursing Strategic Plan for Equity, Diversity, and Inclusivity*. The draft curriculum proposal was circulated to the Associate Dean Global Health in the Faculty of Nursing, and to a member of the Faculty of Nursing EDI Committee. The feedback and suggestions offered valuable input that strengthened the language in course descriptions and in the description of the curriculum framework.

External stakeholders were consulted through two presentation and discussion groups (September 1 & September 4, 2020) with members of the Faculty of Nursing Dean's Strategic Advisory Council, including representation from the following organizations:

- CARNA (College and Association of Registered Nurses of Alberta) – CEO and Chief Professional Practice Officer
- Alberta Health Services VP, Chief Health Operations Officer
- Dean Native Studies, University of Alberta
- Graduate Student Representative, Faculty of Nursing
- University of Alberta alumna and KPMG business consultant



External stakeholders validated the curriculum emphasis on research and inquiry, MN graduate program competencies, and the continuing emphasis on advanced studies in the areas of leadership, education, research, and clinical practice (Nurse Practitioner). These health system leaders noted the heightened need for emphasis on issues related to community and public health, and emerging trends in virtual care as highlighted by our recent pandemic experience. There was encouragement to include topics related to models of care and change management as critical for understanding health system complexity and organizational transformation. Stakeholders strongly encouraged that partnerships should leverage existing relationships between the University (including the Faculties of Medicine and Native Studies), Alberta Health Services, and community agencies/groups to advance Indigenous reconciliation.

The proposal has also been circulated to other health sciences faculties and schools for their feedback, including Medicine, Rehabilitation Medicine, Public Health, and Pharmacy. Considering the academic restructuring that is currently underway at the University of Alberta, there is potential for interdisciplinary registrants in some of the MN courses. Feedback from other faculties raised questions about areas of the proposal that required clarification and offered suggestions for possible areas for future interdisciplinary and cross-faculty engagement.

We extend our gratitude to all who have contributed to development of this proposal over the past two years!

## 4. SUMMARY OF PROPOSED CHANGES

Details pertaining to a comparison of current and proposed course titles and program credits are summarized on Table 1 (p. 12). Required calendar submission changes are listed in Appendix A.

**Essential features of the current MN program will remain unchanged, including the following:**

1. *The main current admission criteria remain unchanged* as follows:
  - a. A baccalaureate degree in nursing with a minimum grade point average (GPA) of 3.0/4.0 or the equivalent calculated on the basis of the last 60 course weights (i.e. last two years of full-time study).
  - b. One undergraduate course in statistics and one in research methods with a final grade of B or higher in each. Students who completed these courses more than 6 years prior to applying to the MN program are encouraged to review the content of these courses or enroll into an undergraduate statistics and/or research course prior to beginning the MN program.

A minor change to admission criteria that is included in the calendar submission is a request to delete a statement that “A minimum of one year of nursing experience is typically required” (see Appendix A, p. 29). This is no longer a requirement for most North American Master of Nursing programs.

Clinical practice requirements for the Advanced Clinical-Nurse Practitioner Focus remain unchanged (i.e. Prior to entering the program, prerequisite includes 4500 hours of registered nursing practice appropriate to the program category of Adult, Neonate, or Family/All Ages).

This document also reflects a pending calendar change request related to a waiver for the ELP requirement for nurses who have previously been licensed as an RN in a Canadian regulatory jurisdiction (see Appendix A).

2. *An option for either course-based or thesis-based studies is retained.*

Approximately 25% of current students continue to choose the thesis program route. As research intensity is a core distinguishing strength of this Faculty, the thesis route is viewed as an important option for students interested in preparation for doctoral studies and career scientist pathways. Both course-based and thesis-based study options provide a solid foundation for pursuing a PhD in Nursing. Although students normally request admission to either course or thesis-based routes, the required coursework is identical during the first year of studies, and transfer between routes may be requested during the program of studies.
3. *Clinical courses listed (Table 1) for the Advanced Clinical-Nurse Practitioner Focus are unchanged from the current curriculum. The required credits (24 credits) for the clinical courses are unchanged and remain significantly higher than other advanced focus areas.*

These courses are unique and include significant clinical hours (totalling 800 hours). This advanced focus stream is the only component of the MN curriculum that is subject to external program approval in Alberta. The nurse practitioner curriculum is regulated by CARNA (College and Association of Registered Nurses of Alberta). This course stream was revised and subsequently approved by the University in fall 2019, and by CARNA in May 2020. NP faculty have carefully considered the overall MN program outcomes and have made recommendations for those new MN courses that are required to integrate the Advanced Clinical-NP focus with overall MN program outcomes. When MN curriculum revisions have been formally approved, the overall MN program changes will be resubmitted for review by CARNA.
4. *Timetabling options will continue to include both face-to-face and blended/online study options.*

**This proposal outlines proposed changes and elaborates on the curriculum framework for the program as follows:**

1. *An advanced focus in community nursing will be discontinued due to low registration over the past 5 years.*  
Topics related to community health and community as a context are reflected throughout the curriculum in relation to nursing roles, health care practice, and health system issues. Four of five current advanced focus study areas are retained (Education, Leadership, Research, Clinical-Nurse Practitioner).
2. *There are minor variations in total program credit requirements (see Table 1)*
  - a. Practicum courses (4 credits) for advanced focus studies in education, leadership, and research have been omitted. It is intended that capstone projects may incorporate appropriate objectives and activities for those students who are interested in pursuing a learning opportunity in collaboration with a health agency mentor or initiative.
  - b. Course weightings for all advanced focus courses will consistently be 3 credits each, such that the total program credits for programs focusing on Education, Leadership, and Research will be 36 for course-based studies, and 30 for thesis route.
  - c. The total requirement for program credits remains unchanged for the Advanced Clinical-NP Focus (42 for course-based; 39 for thesis route).
  - d. Former research methods courses totalling 6 credits (NURS 512 and 513) are replaced by courses totalling 12 credits of research/inquiry focused content, including a core course in Research Foundations (3 credits), and Community of Inquiry courses (3 one-credit courses and 2 three-credit Applied Inquiry courses).
3. *The number of required courses/credits in the revised curriculum has been increased from fifteen credits to twenty-four credits. (See Tables 1 and 2)*  
In addition to 5 required core courses (15 credits), an additional 9 course credits comprise the “Community of Inquiry”, which is the conceptual umbrella for the new curriculum emphasis on research and inquiry. (See **Section 7** for more details on course titles and descriptions).  
  
Throughout the community of inquiry coursework, students have opportunities to draw upon current interests and challenges in their nursing practice setting. These courses create a scaffolded sequence of opportunities for research and/or inquiry, steadily building capability and confidence as students integrate research thinking into their overall learning journey and personal goals. In these courses, students move progressively through structured, guided, and increasingly independent inquiry as these courses explicitly build knowledge and skills for development of the capstone or thesis project. In the revised curriculum, the “Research Foundations” course (one of the required core courses) and the community of inquiry courses (9 credits) will replace two research methods courses that focus on quantitative and qualitative research approaches. As a result, the number of course credits that are directly linked to development of knowledge and skills related to research and inquiry will increase from 6 to 12 credits.
4. *An explicit curriculum framework explains the integration of a focus on research and inquiry as core elements of learning foci across the curriculum. (see Section 4)*
5. *The Master of Nursing Graduate Program philosophy is explicitly articulated. (See Section 5)*

6. *Outcomes are identified for the overall MN program and for each area of advanced focus study. (See Section 6)*

**Table 1**  
**COMPARISON OF COURSES AND CREDITS (CURRENT AND PROPOSED)**

**A. Current Courses and Credits**

	Course-Based	Thesis	Clinical (NP) Course-based	Clinical (NP) Thesis
<b>Core Courses</b>	Credits	Credits	Credits	Credits
NURS 502 – Nature of Nursing Knowledge	3	3	3	3
NURS 505 – Transforming Practice	3	3	3	3
NURS 506 – Program Planning	3	3	3	3
NURS 512 – Quantitative Research	3	3	3	3
NURS 513 – Qualitative Research	3	3	3	3
<b>Focus Plus electives (*Credit weighting is noted – Variation in credits is due to weighting of practicum and teaching focus courses)</b>				
Teaching – 546(*4), 556(*4), 586(*6). Plus electives - 3 (Course) or 2 (Thesis)	23	20		
Research – 588(*4), 683(*3), 687(*3). Plus electives - 3 (Course) or 2 (Thesis)	19	16		
Leadership – 536(*3), 584(*4). Plus electives - 4 (Course) or 3 (Thesis)	19	16		
Community – 508(*3), 536(*3), 584(*4). Plus electives - 3 (Course) or 2 (Thesis)	19	16		
<b>Clinical Focus (Nurse Practitioner)</b>				
Clinical (NP Curriculum approved by NEPAC May 2020)-see course list below			24	24
<b>Other Program Requirements</b>				
NURS 900 -Capstone project	3		3	
<b>Or Thesis Credits</b>		variable		variable
<b>Total Course Credits (not including thesis credits)</b>	<b>36-40</b>	<b>31-35</b>	<b>42</b>	<b>39</b>

**B. Proposed Courses and Credits**

<b>Working Titles</b>	Course-Based	Thesis	Clinical (NP) Course-Based	Clinical (NP) Thesis
<b>Core Courses</b>	Credits	Credits	Credits	Credits
NURS 595 - Foundations of Scholarship/Critical Thought	3	3	3	3
NURS 596 – Research Foundations	3	3	3	3
NURS 597 - Understanding Complex Systems	3	3	3	3
NURS 598 - Translating Knowledge	3	3	3	3
NURS 599 - Philosophy & Ethics in Nursing Inquiry	3	3		
<b>Community of Inquiry courses</b>				
NURS 589 - Community of Inquiry I - Engaging with Nursing Scholarship	1	1	1	1
NURS 590 - Community of Inquiry II – Inquiry Topic & Literature Review	1	1	1	1
NURS 591 - Community of Inquiry III - Building Collaborative Inquiry	1	1	1	1
NURS 593 - Applied Inquiry I: Framing the Inquiry Focus	3	3		
NURS 594 - Applied Inquiry II: Grand Challenge Questions (OR 600 level research methods course or equivalent course approved by department)	3	3		
<b>Advanced Focus Courses</b>				
Education NURS 558/559 OR Leadership NURS 568/569 OR Research NURS 578/579	6	6		
OR Clinical -Nurse Practitioner (Existing courses - NP Curriculum previously approved) - 507/520 – Advanced Pharmacotherapeutics - 509/520 - Advanced Pathophysiology - 516/518 – Advanced Health Assessment (100 hrs clinical) - 530 – Advanced Clinical Care I (100 hrs clinical) - 531 – Advanced Clinical Care II (100 hrs clinical) - 532 – Advanced Clinical Care III (100 hrs clinical) - 533 – Consolidated Practicum I (200 hrs clinical) - 534 – Consolidated Practicum (200 hrs clinical)			24	24
<b>Other Program Requirements</b>				
Elective (options in Nursing or Interdisciplinary courses)	3			
NURS 900 - Capstone project	3		3	
<b>Or Thesis Credits</b>		Variable		Variable

Total Course Credits (not including thesis credits)	36	30	42	39
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**Table 2 – Revised MN Program  
MN COURSE LISTING, CREDITS & PREREQUISITES**

Course #	Course Name	Credits	Prerequisite(s)/Notes
<b>COMMUNITY OF INQUIRY</b>			
589	Community of Inquiry I - Engaging with Nursing Scholarship	1	
590	Community of Inquiry II – Inquiry Topic and Literature Review	1	589
591	Community of Inquiry III - Building Collaborative Inquiry	1	590
593	Applied Inquiry I – Framing the Inquiry Focus	3	Prerequisite or Corequisite 589
594	Applied Inquiry II – Grand Challenge Questions (OR a 600 level research methods course or equivalent course approved by the department)	3	593
<b>CORE COURSES</b>			
595	Foundations of Scholarship/Critical Thought	3	
596	Research Foundations	3	
597	Understanding Complex Systems	3	
598	Translating Knowledge	3	
599	Philosophy and Ethics in Nursing Inquiry	3	
<b>ADVANCED FOCUS COURSES</b>			
	<u>Advanced Clinical Focus (Nurse Practitioner)*</u> previously approved 507/520 Advanced Pharmacotherapeutics 509/520 Advanced Pathophysiology 516/518 Advanced Health Assessment (204 hrs clinical) 530 Advanced Clinical Care I (100 hrs clinical) 531 Advanced Clinical Care II (100 hrs clinical) 532 Advanced Clinical Care III (100 hrs clinical) 533 Consolidated Practicum I (200 hrs clinical) 534 Consolidated Practicum II (200 hrs clinical)	24 (total)	NP curriculum revisions have been previously approved by the University, and by NEPAC / CARNA in March 2020
or	<u>Advanced Education Focus</u>		
558	Perspectives on Nursing Pedagogy	3	
559	Approaches to Learning and Teaching Innovation in Nursing	3	
or	<u>Advanced Leadership Focus</u>		
568	Advanced Nursing Leadership in Health Systems	3	
569	Nursing Power and Policy in Health Care Leadership	3	
or	<u>Advanced Research Focus</u>		
578	Knowledge Synthesis	3	
579	Operationalizing Research Design	3	
<b>PROJECTS</b>			
900	Capstone Project	3	

or

Thesis

**ELECTIVE (does not apply to Thesis Route & Advanced NP focus)**

3

## 5. MN CURRICULUM FRAMEWORK

The Faculty of Nursing revisions to the MN curriculum reflect the recommendations from the faculty working groups and consultations that culminated in the Rizzoli Report (2020), the “Connected Curriculum” framework articulated by Fung (2017), and the strategic vision and priorities articulated in the Faculty of Nursing Strategic Plan (2018-2023). The knowledge and dispositions that are cultivated across the master’s program are intended to support learners to connect their capacity to ask questions and conduct inquiries about meaningful experiences in their professional lives. This process develops skills for: lifelong learning and adaptive leadership in complex health care systems and settings; exploring and critiquing evidence; uncovering assumptions; identifying trends; asking questions; engaging in collaborative communities of inquiry; generating knowledge; and advancing nursing practice. In the process, learners are empowered to find their own voice, articulate well-informed perspectives to diverse audiences, and actively shape the systems in which they participate and lead (Fung, 2017).

### **Outcome-based**

The curriculum design reflects an outcome-based framework for professional nursing education at the master’s level. The overall curriculum is guided by a core set of 12 program outcomes to be met by all program graduates. It also includes specific outcomes to be attained in one of four advanced focus areas of study, including research, leadership, education, and clinical practice (Nurse Practitioner) [see Section 8 – MN Program Outcomes]. Students will select either thesis or course-based studies for completion of the program and will select one area of advanced focus study.

### **Research and Inquiry-Mindedness**

Core premises of the “Connected Curriculum” framework (Fung, 2017) are that research/inquiry and learning are mutually synergistic activities, and that active modes of inquiry offer an experiential basis for empowering learners to explore, question, and critique knowledge that is needed for professional work and ongoing learning within nursing. The curriculum framework presents a systematic pathway for building individual and group capacity for inquiry and research. Core courses expose students to topics and questions that are shaping the evolution of nursing knowledge and practice, and community of inquiry courses build skills for actively engaging in the process of inquiry. These studies encourage learners to consider diverse forms of knowledge within nursing, other disciplines, and other cultures.

A community of inquiry approach (Garrison, 2017; Vaughn et al., 2013) explicitly draws on Fung’s (2017) conceptual framework, providing opportunities to apply emerging inquiry skills and positioning students to learn with and from each other. Students have opportunities to connect with researchers, to consider important lines of inquiry within their workplace arena, and to formulate their own questions about nursing knowledge and practice. Course work provides progressive opportunities to build inquiry skills, moving through structured, guided, and independent applications of skills required in the conduct of research and scholarly inquiry. These experiences build toward exploration of a focused area of study, addressing particular topics and questions within advanced nursing roles that may reflect their current arena of workplace application or future opportunities for practice and inquiry.

### **Reconciliation, Equity, Diversity, and Inclusivity**

The Faculty of Nursing 2020 Strategic Plan for Equity, Diversity, and Inclusivity provides direction to address issues of reconciliation, equity, diversity, and inclusivity. This plan commits the Faculty to prepare nursing graduates to meet the healthcare needs of Indigenous persons and communities, and to advance the process of Canadian reconciliation by acting on the Truth and Reconciliation Commission of Canada Calls to Action (#18 – 24) (p. 9).



Regarding graduate students, the EDI plan also commits that “We will prepare the next generation of expert nurses in advanced clinical practice, education, and research (Master of Nursing and Doctoral programs) who are ready to advance professional nursing roles in diverse and complex contexts by:

- Attracting and retaining a robust body of outstanding graduate students.
- Reviewing criteria (e.g. holistic admission) to promote an intersectionality approach to admissions. Building a community of graduate students marked by excellence, engagement, equity, and inquiry that is open and diverse.
- Creating orientation and professional development activities that are respectful to the diverse needs of all students.
- *Reviewing and revising the graduate programs in anticipation of the comprehensive requirements of future nursing researchers and leaders.*
- *Imbedding Indigenous ways of knowing, where appropriate, throughout the courses offered across the graduate programs” (p. 6). [italics added]*

The revisions to the MN curriculum provide opportunities to demonstrate action on these commitments to advance social equity and the spirit of reconciliation with Indigenous peoples, communities, and knowledges. Attention to issues of reconciliation, power, culture, diversity, and equity is noted in several course descriptions. We recognize that there will be many more opportunities to make these commitments increasingly explicit as further course development evolves.

It was intentional that the first item on the list of MN Program Outcomes (p. 18) states that graduates will be able to “Demonstrate leadership by creating health systems that are equitable, diverse, and inclusive, and by engaging in reconciliation with Indigenous peoples, communities, and knowledges”. Master’s and doctoral nursing graduates are leaders in the health care arena with potential to exercise power and influence to advance equity, diversity, and inclusivity. These leaders must contribute to creation of health care contexts where there is equitable access and representation of diverse peoples, and meaningful engagement and participation of socially diverse peoples. Our efforts in this curriculum are intended to support capacity building and advance these important goals.

### **Accessibility and Choice**

At the graduate level, nursing learners need a range of options for full-time and part-time progression in their studies. Many students are juggling multiple professional, workplace and family commitments. They require scheduling formats that may include options for remote course delivery, weekend intensives, and evening or flexible timetabling. The curriculum framework intentionally aims to offer flexibility in course sequencing and programming with minimal prerequisites in order to avoid creating barriers to program progression.

### **Four Advanced Focus Areas of Study**

Students will select one of four focus areas of study that reflect advanced nursing roles, including:

1. Leadership – building expertise for current and future nursing leadership roles in the health sector;
2. Education – preparation for practice in both academic and clinical sector teaching contexts;
3. Research – building capacity for working with data; using research; conducting and leading research projects; seeking advanced research skills;
4. Clinical – leading to licensure as a nurse practitioner.

## 6. NURSING GRADUATE PROGRAMS PHILOSOPHY AND VALUES STATEMENT

Graduate Programs in the Faculty of Nursing are designed to cultivate critical engagement, intellectual curiosity and global citizenship. Students are welcomed into a research-intensive environment that honours learning and scholarship. Students are invited to think critically and reflexively about their place in the world, and to engage with personal and professional opportunities to promote health equity and quality of life for the public good.

Learning is understood as a journey situated within vibrant, engaged, scholarly communities that value and support dialogue, intellectual curiosity and comfort with the uncertain nature of knowledge. The Faculty of Nursing aims to create a collaborative learning milieu that promotes engagement within nursing and across broader communities.

Students work in a context that encourages them to delve into complex problems, drawing on diverse schools of thought and academic traditions, honoring Indigenous ways of knowing and doing, to push the boundaries of nursing through the creation and dissemination of knowledge and insight.

### Philosophy Statement Rationale

Each succinct sentence within the above Graduate Programs Philosophy and Values Statement is grounded in assumptions and values which are further elaborated in the following description of the rationale for these commitments.

#### I. The Environment and Purpose of Programming

*“Graduate Programs in the Faculty of Nursing are designed to cultivate critical engagement, intellectual curiosity and global citizenship.”*

This statement emphasizes that the environment for learning is thoughtfully created, as an intentional, yet organic process leading to clear outcomes.

Intellectual curiosity is viewed, and fostered, as a foundational intrinsic motivator that serves as the enduring spark within an individual. Critical engagement describes the desired mode of interaction with knowledge, and supports advocacy and global citizenship establishing a vision aligned with wider societal and institutional goals.

*“Students are welcomed into a research-intensive environment that honours learning and scholarship.”*

This statement recognizes that the Faculty of Nursing is situated within a research-intensive university and emphasizes the institution’s balanced focus on research as well as teaching and learning. We view our responsibility as promoting and modeling a firm commitment to research. This, combined with attitudes of respect for entrants into graduate studies in the field of nursing, establishes an open, welcoming and supportive environment for learners.

*“Students are invited to think critically and reflexively about their place in the world, and to engage with personal and professional opportunities to promote health equity and quality of life for the public good.”*

This statement sets up the scope and focus for learning while acknowledging each student’s point of influence. Students are encouraged towards personal reflection and to question how their unique interests, skills and developing knowledge can contribute to human health in alignment with wider societal, disciplinary and institutional values.

We want to emphasize both the internal reflection and growth that form part of a student’s experience as well as the purpose-driven, external outcomes that arise out of their work.

## **II. The Experience: “What we offer”**

*“Learning is situated within vibrant, engaged, scholarly communities that value and support dialogue and intellectual curiosity.”*

This statement emphasizes that the Faculty of Nursing is thoughtfully creating a learning space for students that is collaborative and community based. The programs enable an active approach to learning that encourages students to interact meaningfully and contribute to research as they develop their interests and skills.

*“The Faculty of Nursing aims to create a collaborative learning milieu that promotes engagement within nursing and across broader communities”*

This statement describes the wider disciplinary environment in which the faculty community is situated, establishing an expectation that relationships beyond the faculty are thoughtfully developed and nurtured. The faculty community builds global relationships in which students are encouraged to participate.

## **III. The Focus**

*“Students work in a context that encourages them to delve into complex problems, drawing on diverse schools of thought and academic traditions, honoring Indigenous ways of knowing and doing, to push the boundaries of nursing through the creation and dissemination of knowledge and insight.”*

This statement emphasizes a focus on research that has the potential to influence practice. We take a broad conceptualization of nursing and recognize that practice takes place in many circumstances and contexts. Nursing continues to evolve and remains firmly focused on the wellbeing of populations and individuals.

## 7. MN PROGRAM OUTCOMES

The Faculty of Nursing vision and mission statements and strategic priorities; the Faculty of Nursing strategic plan for Equity, Diversity, and Inclusivity; and the philosophy of the Faculty of Nursing Graduate Programs provide context for the following program outcomes to be attained by all master's level graduates as they prepare for advanced nursing roles.

### **Graduates of the Master of Nursing program will be able to:**

1. Demonstrate leadership by creating health systems that are equitable, diverse, and inclusive, and by engaging in reconciliation with Indigenous peoples, communities, and knowledges.
2. Draw on diverse schools of thought and academic traditions to explore complex problems and practice issues.
3. Explore, develop, and apply knowledge in their substantive area of nursing inquiry to advance practice, health, and system improvement.
4. Use systematic research and inquiry methods to explore health and nursing questions, and practice problems.
5. Collaborate in research, knowledge development, and/or knowledge synthesis initiatives.
6. Develop and support initiatives to improve healthcare delivery, promote health, and reduce / minimize health inequity through critical evaluation, dissemination and application of knowledge.
7. Support the ethical collection and analysis of relevant operational, research and patient-specific data, and maintain commitments to best practices of data management.
8. Articulate and use nursing knowledge and evidence to inform decisions related to clinical practice, policy, education, administration, and research.
9. Advocate for federal, provincial, local and institutional policy initiatives based on available evidence and critically informed analysis.
10. Apply appropriate pedagogies and strategies in the creation of engaging learning experiences, and in the assessment and evaluation of educational outcomes.
11. Use a variety of technologies to support health, health service delivery and advanced nursing roles.
12. Evaluate care practices from the context of policy, ethics, economics and operational viability.

**Additionally, Graduates of the MN Program will achieve program outcomes related to their selected advanced focus area of study.**

### **Graduates of the Advanced Clinical Focus (Nurse Practitioner) will be able to:**

1. Actively appraise and integrate evidence-based practice research, and lead or participate in research activity to demonstrate optimization in patient care for advanced clinical practice.
2. Operationalize advanced clinical knowledge and experience to successfully meet Nurse Practitioner entry-to-practice competencies.
3. Display capacity for professional advocacy, partnership, and leadership both intra and inter-professionally.

### **Graduates of the Advanced Education Focus will be able to:**

1. Draw on diverse educational philosophies and pedagogical theories to explore curriculum issues relevant to learning and teaching in the nursing context.
2. Use systematic inquiry to inform, develop, and evaluate educational endeavours that maximise opportunities for learning.

3. Support educational practices that honour the Calls to Action of the Truth and Reconciliation Commission of Canada.
4. Recognize and incorporate a sensitivity to the needs of learners from diverse cultural groups as well as individuals who suffer discrimination as a result of disability, racism, and/or marginalization.

**Graduates of the Advanced Research Focus will be able to:**

1. Select and apply appropriate methods for systematic literature review to develop research questions and synthesize evidence to support planning and decision-making.
2. Design a research project incorporating relevant key elements of the research lifecycle.
3. Collaborate in creative development and exploration of cutting-edge research to advance knowledge in nursing and health sciences.

**Graduates of the Advanced Leadership Focus will be able to:**

1. Design organizational transformation initiatives using advanced leadership concepts for health care organizations.
2. Apply knowledge of health system organization, health human resources, change processes, and financing to proposed solutions for improved health system outcomes.
3. Promote evidence-informed decision making for policy assessment, development, and/or implementation for local, national, and global health issues.

## 8. COURSE TITLES AND COURSE DESCRIPTIONS

Four clusters of coursework unfold across the program – community of inquiry, common core courses, advanced focus courses, and the thesis or capstone project. See Table 2 for a listing of courses, credits, and prerequisites. See Tables 3 and 4 for illustrative mapping of timetabling for course sequencing.

### 1. Community of Inquiry (9 credits)

A distinguishing feature of this curriculum is the integrated developmental journey of discovery through participation in a scholarly community. A series of 3 one-credit courses will normally be taken sequentially across three consecutive terms (fall, winter, fall), and will engage students as a community of inquiry (Garrison, 2017; Vaughan, Cleveland-Innes, & Garrison, 2013). Students will gain scholarly experience and consolidate what it means to think like a researcher, to pose good questions, and to progressively build their personal capability to conduct their final capstone or thesis project. This series of 3 one-credit courses can be interspersed sequentially across the program of studies whether the student is registered on a full-time or part-time basis.

Two additional applied inquiry courses (3 credits each) create a scaffolded sequence of opportunities for research and inquiry, steadily building capability and confidence as students integrate research thinking into their overall learning journey and personal goals. These courses explicitly build knowledge and skills for development of the capstone and thesis projects.

A total of 12 credits [a core course on Research Foundations (NURS 596 - 3 credits) and Community of Inquiry courses (9 credits)] support the main conceptual thrust of research and inquiry mindedness in the revised curriculum. The courses iteratively apply understanding of approaches to research and inquiry, adapting methodologies for gathering data and analyzing evidence, and building skills for communicating findings to diverse audiences.

- a. NURS 589 Community of Inquiry I - Engaging with Nursing Scholarship (1 credit) – Deepen understanding of the nature of nursing scholarship and research by engaging with the work of nursing faculty researchers. Emphasis is placed on developing collaborative critical dialogue as an introduction to systematic enquiry into a topic of relevance to the student’s selected area of advanced focus.
- b. NURS 590 Community of Inquiry II - Research Question & Literature Review (1 credit) – Explore development of questions appropriate for systematic research and inquiry. Emphasis is placed on locating and exploring literature that informs the current state and limits of knowledge relevant to the student’s selected advanced focus area of study. (Prerequisite: NURS 589)
- c. NURS 591 Community of Inquiry III - Building Collaborative Inquiry (1 credit) – Build collaborative capacity in the development of systematic research and inquiry. Emphasis is placed on peer review of capstone and thesis proposal development and on strengthening communication skills for the effective articulation of ideas and arguments to and with diverse audiences. (Prerequisite: NURS 590)
- d. NURS 593 Applied Inquiry I – Framing the Inquiry Focus (3 credits) – Engage in structured inquiry in relation to issues from health care and/or nursing practice. Emphasis is placed on exploring key elements of such issues, identifying knowledge gaps, and shaping current understandings in pursuit of questions and methods appropriate for systematic research and inquiry. (Prerequisite or Corequisite: NURS 589)

- e. NURS 594 Applied Inquiry II – Grand Challenge Questions (3 credits) - Participate in guided inquiry, applying research skills and inquiry approaches, designing solutions, and contributing to a knowledge-building community. Student teams investigate a current nursing issue from a range of perspectives informed by advanced leadership, education, clinical and research-based knowledge, theory and practice. (Prerequisite: NURS 593) (Note: may choose a 600 level research methods course or equivalent course approved by department as alternative)

## 2. Core Courses (15 credits)

Five core courses support attainment of overall MN program outcomes. In these courses, students explore diverse knowledge traditions from other disciplines, cultures, and related approaches to research and inquiry. Students deconstruct philosophical assumptions, consider the complexity of systems, and engage with current research topics and methods that are pushing forward the limits of nursing knowledge and practice (Fung, 2017). There is emphasis on understanding how knowledge is formed and communicated, and how it must be tested and critically interrogated. There is explicit attention to issues of inequality, inclusion, and power differentials in nursing approaches to research and inquiry.

- a. NURS 595 Foundations of Scholarship/Critical Thought (3 credits) – Develop critical thinking skills through exposure to approaches to knowledge and knowledge production in diverse disciplines and cultures, including Indigenous ways of knowing. Emphasis is placed on issues of inequality, inclusion, and power in knowledge production, and systematic scholarly analyses of everyday nursing experiences.
- b. NURS 596 Research Foundations (3 credits) – Explore diverse methods and approaches to formal research inquiry, including Indigenous research approaches. Compare and contrast research methods and practices, including approaches to framing of the research question, generating and analyzing data, presenting and disseminating findings. Increase understanding of research literacy, appraisal of rigour, and roles of research team members leading and participating in research endeavours.
- c. NURS 597 Understanding Complex Systems (3 credits) – Explore the complex nature of nursing practice in the context of evolving healthcare systems, including fiscal, policy and regulatory environments. Emphasis is placed on models of care delivery, relationships within and between systems, and issues of health inequity, gender, culture, and bias.
- d. NURS 598 Translating Knowledge (3 credits) - Examine use of knowledge in diverse settings, by different stakeholders, and for various types of decision-making. Explore evidence-based decisions, guidelines, policies and procedures, quality improvement, and knowledge translation strategies.
- e. NURS 599 Philosophy and Ethics in Nursing Inquiry (3 credits) - Explore philosophical and ethical questions related to nursing practice, professionalism, scholarship, and research, including Indigenous research ethics. Emphasis is placed on the nature of responsibility and professional obligation associated with systematic nursing inquiry and knowledge application.

## 3. Advanced Focus Courses (6 credits for Education, or Research, or Leadership foci OR 24 credits for Advanced Clinical Focus-NP)

Students apply for admission to one of the four advanced focus area of study (i.e. Education, Research, Leadership, or Clinical-NP). With the exception of the latter (Advanced Clinical Focus-NP), each focus area

consists of two courses (totalling 6 credits) that explore the conceptual frameworks, methods and approaches associated with knowledge generation and application in the context of advanced nursing roles in each of these areas. The core courses and community of inquiry courses that are taken during the first year of the program are consistent across advanced focus areas of education, research, and leadership, so that students may request a transfer between these advanced focus areas during their first year of studies (or equivalent for part-time students).

**A. Advanced Focus Education – 6 credits**

- a. NURS 558 Perspectives on Nursing Pedagogy (3 credits) – Explore historical and contemporary perspectives on nursing pedagogy, with emphasis on the language, concepts, and theories that have shaped education in nursing. Underlying influences such as empirical, behaviourist, emancipatory, and interpretive philosophies will be examined as these perspectives interact with the dynamics of politics, economics, gender, culture, and power as experienced by learners in nursing. Approaches to learner-centered education informed by the scholarship of teaching and learning in nursing will be explored.
- b. NURS 559 Approaches to Learning and Teaching Innovation in Nursing (3 credits) – Examine approaches to learning and teaching in diverse nursing practice settings. Develop a repertoire of strategies related to planning educational experiences that may include establishing relational contexts for learning, becoming an inclusive educator, offering feedback, measuring learning outcomes, and incorporating technology.

OR

**B. Advanced Focus Leadership – 6 credits**

- a. NURS 568 Advanced Nursing Leadership in Health Systems (3 credits) – Analyze aspects of healthcare planning and evidence-informed decision making related to core functions of nursing leadership across diverse settings. Emphasis is placed on health human resources, change management, fiscal planning and monitoring, interprofessional and cross-sectoral collaboration, quality and safety processes, strategic planning, and policy development.
- b. NURS 569 Nursing Power and Policy in Health Care Leadership (3 credits) – Examine the ways that nurses gain and leverage power to impact health systems and health care practices. Explore local, national, and global health issues through the lens of power, influence, and policy development. Emphasis will be placed on organizational, regulatory, and policy contexts for nursing practice and health issues as they relate to health equity, inclusivity, health promotion, and health outcomes.

OR

**C. Advanced Research Focus – 6 credits**

- a. NURS 578 Knowledge Synthesis (3 credits) - Examine the methods used to conduct various types of systematically conducted literature reviews or syntheses. Apply key steps for systematically conducting selected types of literature reviews, and the benefits and challenges associated with each of these approaches. Challenges, debates, and issues in evidence-based/evidence-informed practice and policy will be addressed.
- b. NURS 579 Operationalizing Research Design (3 credits) - Critically discuss and select basic research designs while considering application and integration of theory, research question, population of interest, and research methods. The research lifecycle and the complexities of operationalizing the research project will be introduced and explored. Assess challenges and potential mitigation strategies related to logistical aspects of research activity, including project planning, implementation of the project, and dissemination of findings.

OR



#### **D. Advanced Clinical-Nurse Practitioner Focus – 24 credits**

The overall program requirements for the MN (clinical focus) are unique as this curriculum must meet provincial/national competencies for nurse practitioners. The clinical program must be approved by the provincial nursing regulator (CARNA – College and Association of Registered Nurses of Alberta). This advanced focus requires a total of 24 credits for clinical courses. In order to align with overall MN outcomes and to ensure comparability with other advanced focus streams of study, the integration of the clinical courses (24 credits) was achieved by reducing other required courses to a total of 15 credits as follows:

- a. Core Courses (12 credits)
  - NURS 595 - Foundations of Scholarship/Critical Thought
  - NURS 596 - Research Foundations
  - NURS 597 - Understanding Complex Systems
  - NURS 598 - Translating Knowledge
  
- b. Community of Inquiry Courses (3 credits total)
  - NURS 589 - Community of Inquiry I - Engaging with Nursing Scholarship
  - NURS 590 - Community of Inquiry II - Research Question & Literature Review
  - NURS 591 - Community of Inquiry III - Building Collaborative Inquiry

#### c. Clinical Courses –

The following 8 clinical courses lead to preparation for nurse practitioner practice and licensure. The course numbers, titles, and their related calendar descriptions were revised in 2019-2020, have previously received University approval, and were approved by CARNA/NEPAC in May 2020.

- 507 (520) – Advanced Pharmacotherapeutics (Neonatal)
- 509 (522) – Advanced Pathophysiology (Neonatal)
- 516 (518) – Advanced Health Assessment (Neonatal) (100 clinical hours)
- 530 – Advanced Clinical Care I (100 clinical hours)
- 531 – Advanced Clinical Care II (100 clinical hours)
- 532 – Advanced Clinical Care III (100 clinical hours)
- 533 – Consolidated Practicum I (200 clinical hours)
- 534 – Consolidated Practicum II (200 clinical hours)

#### **4. Elective Option - 3 credits** (course-based students in Advanced Education or Leadership focus only)

Course-based students in Advanced Education or Leadership focus will select one graduate elective course . This may be an advanced focus course outside their selected program focus, an interdisciplinary graduate course from another faculty, or an independent study course.

#### **5. Capstone - 3 credits (course-based students only) OR Thesis Project**

Upon admission to the Faculty of Nursing, master’s students select either a course-based or a thesis-based program of studies. The major distinguishing feature between these programs is the final project required for program completion. Required coursework is nearly identical for both program options. MN thesis students are required to complete 30 course credits compared to 36 credits for course-based students (with exception of MN Clinical-NP). Students have the option to transfer between course-based and thesis-based routes throughout their programs with approval of the graduate supervisor and the Associate Dean Graduate Studies.

Both theses and capstone projects are developed throughout the program. As coursework progresses, students select a focus of inquiry for either a capstone or thesis project and develop a plan to implement their project.

The Community of Inquiry courses and Applied Inquiry courses (described above) support the development of skills required for project completion. In their coursework, students work individually and in groups through progressive experiences where inquiry skills are structured and guided by the course instructors. In their final projects, students formulate questions and develop processes for inquiry or research and implement a full project cycle. Learners demonstrate the knowledge, skills and approaches to inquiry needed for professional work and for lifelong learning. Throughout their coursework and projects, students will have opportunities to maximize student ownership and voice, employing scholarly dialogue and engagement to test their arguments and assumptions, developing appropriate tools for inquiry, and developing communication skills and digital practices needed to engage diverse audiences in the knowledge that is generated through their projects (Fung, 2017).

All projects are completed under the supervision of a faculty member (faculty supervisor/advisor) who must approve the proposal for the project. The “Community of Inquiry” and “Applied Inquiry” courses are intended to support the development of capstone and thesis projects, effectively augmenting and reducing the significant workload of faculty supervisors/advisors related to completion of master’s projects. Faculty members may propose a collaborative group project (capstone or theses) that would involve 2 to 4 master’s students in completion of a series of small projects in a related theme. In this instance, specific project details and an evaluation plan for each student’s contribution must be explicitly identified in the project proposal.

*a. Capstone Project*

The capstone project demonstrates the application of systematic inquiry in advanced nursing practice, education, and/or leadership. The project topic or question uses evidence and theoretically or philosophically informed knowledge to explore a nursing or health issue/question. Capstone projects do not involve primary data collection that would require research ethics application. The resulting report details the process, findings and recommendations of the project.

Students are encouraged to explore issues or topics related to a current or prospective practice or employment setting. Projects may be planned and completed in collaboration with a stakeholder partner or agency representative. The graduate advisor or the student may identify a key mentor in an external setting who can facilitate engagement in an organizational initiative or immersion in an appropriate context for completion of the desired project. If an external stakeholder is involved, the role and expectations for their participation in the project will be determined and documented in advance, including their role in evaluation of the project. Evaluation of the project will follow Faculty of Nursing assessment guidelines for capping exercises (to be developed). Results of the project may be communicated to diverse audiences and in diverse forms, including visual arts, social media, podcasts, webinars, and written form. Students are encouraged (but not required) to publish and disseminate their work in appropriate academic presentations and journals.

For students in the Advanced Clinical-NP Focus, the final two clinical courses (NURS 533 and NURS 534) are consolidated practicum courses (3 credits and 200 clinical hours in each course). The capping exercise will be integrated across these final two practicum courses. This integration will ensure that MN program outcomes are attained and will provide an opportunity for a structured clinical inquiry aligned with this advanced focus stream.

*b. Thesis Project*

A thesis project is a requirement for students in the Advanced Research Focus area. The thesis route may also be selected by students in other advanced focus areas (i.e. Education, Clinical, and Leadership).

The master’s thesis must demonstrate that the student has applied an appropriate method to investigate the research question and understands the main scholarly/disciplinary questions and issues related to the chosen topic. FGSR requires that “the master’s thesis, at a minimum, should reveal that the student is able to work in a

scholarly manner and is acquainted with the principal works published on the subject of the thesis. As far as possible, it should be an original contribution.” [FGSR Thesis Requirements, Regulations and Outline of Responsibilities]. Thesis projects typically involve primary data collection or generation and require research ethics approval. Students work with the graduate supervisor/supervisory committee to develop and obtain approval for their research proposal, including application for agency administrative or operational approval, and application to the appropriate research ethics board.

Table 3

TIMETABLE EXAMPLES FOR FULL-TIME STUDIES AND PART-TIME STUDIES

Core Courses										
Community of Inquiry										
Advanced Focus										
FULL TIME - 3 courses / term					Year 2					
Course Name	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer		
NURS 595 Foundations of Scholarship/Critical Thought										
NURS 596 Research Foundations										
NURS 593 Applied Inquiry I: Framing the Inquiry Focus										
NURS 597 Understanding Complex Systems										
NURS 598 Translating Knowledge										
NURS 599 Philosophy & Ethics in Nursing Inquiry										
Advanced Focus A (Leadership OR Education OR Research)										
Advanced Focus B (Leadership OR Education OR Research)										
NURS 594 Applied Inquiry II: Grand Challenge Questions										
NURS 589 Community of Inquiry I: Engaging with Nursing Scholarship 1 Credit										
NURS 590 Community of Inquiry II: Topic & Lit Review 1 Credit										
NURS 591 Community of Inquiry III: Building Collaborative Inquiry 1 Credit										
<b>Course based students:</b>										
NURS 900 Capstone						Proposal	Capstone			
Elective (1 course)						Elective or	Elective			
<b>Thesis Based Students:</b>										
Thesis			Thesis							
PART TIME - 2 courses / term										
Course Name	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
NURS 595 Foundations of Scholarship/Critical Thought	Fall									
NURS 596 Research Foundations		Winter								
NURS 593 Applied Inquiry I: Framing the Inquiry Focus			Spring							
NURS 597 Understanding Complex Systems				Summer						
NURS 598 Translating Knowledge					Fall					
NURS 599 Philosophy & Ethics in Nursing Inquiry						Winter				
Advanced Focus A (Leadership OR Education OR Research)										
Advanced Focus B (Leadership OR Education OR Research)										
NURS 594 Applied Inquiry II: Grand Challenge Questions										
NURS 589 Community of Inquiry I: Engaging with Nursing Scholarship 1 Credit										
NURS 590 Community of Inquiry II: Topic & Lit Review 1 Credit										
NURS 591 Community of Inquiry III: Building Collaborative Inquiry 1 Credit										
<b>Course based students:</b>										
NURS 900 Capstone									Proposal	Capstone
Elective (1 course)									Elective OR	
<b>Thesis Based Students:</b>										
Thesis								Thesis		

Table 4

**TIMETABLE EXAMPLE FOR FULL-TIME AND PART-TIME STUDIES:  
Advanced Clinical Focus-Nurse Practitioner**

Core Courses										
Community of Inquiry										
Advanced Focus										
Clinical Focus (NP Stream)										
Full Time - 3 courses / term										
Course Name	Year 1				Year 2				Year 3	
	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter
NURS 595 Foundations of Scholarship/Critical Thought										
NURS 596 Research Foundations										
NURS 593 Applied Inquiry I: Framing the Inquiry Focus										
NURS 597 Understanding Complex Systems										
NURS 598 Translating Knowledge										
NURS 599 Philosophy & Ethics in Nursing Inquiry										
Advanced Focus Courses (Clinical - Nurse Practitioner)	509 or 522	507 or 520	516 or 518	530	531	533*				
Advanced Focus Courses (Clinical - Nurse Practitioner)					532	534*				
NURS 594 Applied Inquiry II: Grand Challenge Questions										
NURS 589 Community of Inquiry I: Engaging with Nursing Scholarship 1 Credit										
NURS 590 Community of Inquiry II: Topic & Lit Review 1 Credit										
NURS 591 Community of Inquiry III: Building Collaborative Inquiry 1 Credit										
Capstone OR										Capstone
Thesis			Thesis							
NP Required Courses										
507/520 - Advanced Pharmacotherapeutics										
509/522 - Advanced Pathophysiology										
516/518 - Health Assessment (100 hrs clinical)										
530 - Advanced Clinical Care I (100 hrs clinical)										
531 - Advanced Clinical Care II (100 hrs clinical)										
532 - Advanced Clinical Care III (100 hrs clinical)										
533 - Consolidated Practicum I (200 hrs clinical)										
534 - Consolidated Practicum II (200 hrs clinical)										
PART TIME - 2 courses / term										
Course Name	Year 1				Year 2				Year 3	
	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter
NURS 595 Foundations of Scholarship/Critical Thought										
NURS 596 Research Foundations										
NURS 593 Applied: Framing the Inquiry Focus										
NURS 597 Understanding Complex Systems										
NURS 598 Translating Knowledge										
NURS 599 Philosophy & Ethics in Nursing Inquiry										
Advanced Focus Courses (Clinical - Nurse Practitioner)					509 or 522	507 or 520	516 or 518	530	531	533*
Advanced Focus Courses (Clinical - Nurse Practitioner)									532	534*
NURS 594 Applied: Grand Challenge Questions										
NURS 589 Community of Inquiry I: Engaging with Nursing Scholarship 1 Credit										
NURS 590 Community of Inquiry II: Topic & Lit Review 1 Credit										
NURS 591 Community of Inquiry III: Building Collaborative Inquiry 1 Credit										
Capstone OR										Capstone
Thesis							Thesis			

## 9. CURRICULUM DEVELOPMENT & ASSESSMENT PHILOSOPHY

### Next Steps

Once this proposal has received the required governance approvals, detailed course development will begin immediately. It is anticipated that faculty engagement in this process will be sustained, guided by the curriculum framework that has been articulated in this document. The MN Program Outcomes and the course descriptions will provide direction for detailed course development. Faculty course development teams will collaborate as they articulate the intended learner outcomes for each course, and as they develop and coordinate learning and assessment activities that actualize desired program outcomes. Through this process, over time, it will be increasingly possible to illustrate the mapping of the curricular elements across the courses and to demonstrate linkages to the program outcomes.

During the curriculum revisioning exercises that have occurred over the past year, a faculty working group was tasked specifically to develop an assessment philosophy that would provide guideposts for planning and coordinating assessment activities in the new curriculum. The following assessment philosophy was developed to clearly articulate shared expectations and principles for assessment strategies to be adopted in the curriculum development and implementation process.

### Assessment Philosophy for Graduate Nursing Programs

This philosophy of assessment is intended to support design, development and operational decision-making associated with planning student assessment experiences. Additionally, it will inform the process to evaluate the assessment strategies used across graduate programs. Principles for assessment will be introduced, along with an outline of the intended purpose of key assessment experiences that fall outside of courses.

The scope of learning within a program of studies is determined by the program's purpose, philosophy, and associated program outcomes. Standards for performance are established for competencies that are essential to the program. Assessments should be designed to provide evidence that the essential standards for performance have been met and serve as an indicator for a successful transition into an associated career or field of study.

Assessment experiences within Graduate Programs in the Faculty of Nursing are designed to achieve at least one of the following purposes:

- To provide formative feedback and, combined with constructive feedback, support students to recognize their learning progress.
- As a summative assessment experience that serves as an indicator of competence in relation to defined standards of achievement.
- As a milestone to celebrate student progress and achievement, and as a determining factor towards program continuation.

## Principles for Assessment:

1. Assessment experiences within Graduate Nursing Programs will be administered within recommended structures and policies defined by the Faculty of Graduate Studies and Research.
2. Assessment across a program of study will align with a student's individual learning goals and provide a holistic perspective of the student's capabilities, beyond the academic and professional expectations outlined within the Program Outcomes (founded on [CASN Competencies](#)):
  - career development skills,
  - professional skills,
  - digital literacy,
  - cultural literacy,
  - socio-communicative literacy.
3. Assessment requirements will be progressively scaffolded through program(s) to ensure students are incrementally exposed to the requirements that form part of their final summative assessment experience.
4. As program milestones, the focus of assessment experiences should extend beyond an accounting of what has been achieved to date. They should also encompass forward planning and an assessment of a student's preparation for the next phase of learning.
5. Faculty members who participate in assessments should be aware of the standards of performance and products (substandard, satisfactory, exceptional), so that expectations and interpretation of standards are aligned across the faculty.
6. A variety of assessment approaches should be apparent throughout a program of study (e.g. self-assessment, assessment by peers, formative, summative).
7. Standards for performance should be clear, transparent and equitable when multiple types of assessments are administered to assess a distinct competency area.
8. Students should be active participants within all assessment contexts, encompassing opportunities to provide feedback regarding the assessment process.
9. Assessment experiences should be designed from a humanistic perspective, with adequate transparency, achieving rigor without excess rigidity, with respect for the student's investment and in consideration of the student's well-being and their continued development.
10. Assessment experiences are designed in alignment with [Universal Design for Learning](#) with a focus on limiting bias and ensuring accessibility for all learners (cultural bias, appropriate ESL considerations, accommodations for learners-at-a-distance and learners with different abilities).
11. Where possible, summative assessments should be designed to incorporate more than one assessment format.

## **10. TRANSITION PLAN – CURRENT TO REVISED CURRICULUM**

The Faculty is committed to ensuring that current graduate students will be able to finish their MN program in the format that was in place when they were admitted. There is a significant proportion of part-time students within the graduate student population (approximately 60% of the admission cohort in each year). In June 2020, all current MN students and supervisors/advisors were advised that the MN curriculum is anticipated to change effective September 2021. All students were encouraged to complete the 5 required core courses in the current MN curriculum (NURS 502, 505, 506, 512, 513) during the upcoming 2020-2021 academic year, as most of these courses are planned to be discontinued by fall 2021. These courses will formally be discontinued in the University calendar when all students have completed existing programming, anticipated by June 30, 2022. During the past summer, as students have registered in courses for 2020-2021, the Graduate Office staff have tracked completion progress in core courses for all of our current and incoming students, and staff worked actively to support course registration planning to achieve this goal. The Faculty will assess the need for additional core courses offerings in Spring and Fall 2021. During 2021-2022, current students will continue to be able to register in elective courses, current focus courses in teaching, leadership, community and research streams, the capstone project course (NURS 900), and thesis work to complete the program of study for which they were admitted.

In October 2020, when the curriculum proposal has been approved by Faculty of Nursing Council, the Faculty website will be updated to ensure that applicants to the new curriculum program beginning in September 2021 are aware of the anticipated curriculum changes. Broad descriptions of proposed changes will be made available, and full details will be posted when final approval by GFC has been secured.



## 11. FUTURE DEVELOPMENTS

In future, the Faculty of Nursing will explore development of embedded and stackable certificates that could incorporate courses in the advanced focus areas of research, education, and leadership, and other areas of interest for continuing education of professional nurses. The current academic restructuring that is underway at the University of Alberta may foster opportunities for interdisciplinary collaboration in development of future certificates.

In early 2021, discussions will continue for graduate program revisions related to the doctoral program in Nursing. Throughout the revisioning planning, there was intention that updates to the doctoral curriculum should be aligned with the MN revisions, and that there would be strong reciprocity and coherent linkages between these two levels of graduate programming.

There are two secondary specializations that will be reviewed and potentially be discontinued in the future.

- The “Degree of MN with a specialization in Aging (Nursing)” currently comprises a single course (Nursing 604 – Fundamentals of Aging). This elective course is the remnant of an inter-faculty initiative on aging that no longer exists. It remains to be determined whether the course will continue as an elective in future, and whether there will be an application to discontinue this secondary specialization.
- The “Graduate Embedded Certificate in Teaching and Learning” focuses on teaching and learning in higher education for nursing and has been offered for many years as an embedded specialization within the MN or PhD program. It currently consists of three graduate level courses: NURS 546 (Philosophy of Teaching – 4 credits), NURS 556 (Teaching in Nursing Practice – 4 credits), and NURS 586 (Teaching Practicum – 6 credits) totalling 14 credits. This certificate will be reviewed in light of the potential to update this curriculum and potentially incorporate a future certificate based upon new courses in the Advanced Focus on Education in the revised curriculum. The current curriculum structure (4 and 6 credit courses) does not align with the revised curriculum advanced focus areas of study. A request will be brought forward to terminate this certificate in the 2023/24 academic year when all current students are anticipated to have completed the existing requirements.

**APPENDIX A - CALENDAR CHANGES**  
**General Information, Entrance and Program Requirements, Course Changes**  
**For implementation in 2021-2022**

Current	Proposed
<p><b>General Information</b></p> <p>The MN program prepares nurses to fulfil leadership roles in advanced practice nursing; provide health promotion, prevention and specialized care in a variety of health care settings; teach in academic and clinical settings; and contribute to the development of health programs and policies. It provides a solid academic and practice foundation for pursuing a PhD in Nursing.</p> <p>Students who choose a clinical focus may, upon completion of the MN program... See the Faculty of Nursing website for further information about available clinical areas of focus.</p> <p>The Post-MN Program is for those who wish to be eligible for entry-to-practice as a Nurse Practitioner (Adult, Family/All Ages, or Neonate) and did not complete the required courses while in the MN program.</p>	<p>The MN program prepares nurses to fulfil advanced nursing roles in diverse settings, including education roles in academic and clinical settings, formal leadership and management roles, clinical nurse practitioner roles, emerging roles in health care organizations, and preparation for advanced research training. The program creates opportunities to develop advanced knowledge and skills that support inquiry and research to address issues in health care and nursing practice. Both course-based and thesis-based study options provide a solid foundation for pursuing a PhD in Nursing.</p> <p>Students who choose a clinical focus may, upon completion of the MN program... See the Faculty of Nursing website for further information about available clinical areas of focus.</p> <p>Students who have previously completed a Master of Nursing and who wish to be eligible for entry-to-practice as a Nurse Practitioner (Adult, Family/All Ages, or Neonate) may also complete required course work as Post-MN students.</p>
<p><b>Entrance Requirements</b></p> <p>For the Master of Nursing, the Faculty's minimum admission requirements are:</p> <ul style="list-style-type: none"> <li>● an undergraduate degree in Nursing with ...</li> <li>● A minimum of one year of nursing experience is typically required.</li> <li>● Students applying to the clinical focus stream must provide evidence of 4500 hours of RN experience and be a regulated member in a Canadian jurisdiction.</li> <li>● Where applicable, applicants must provide proof of English Language Proficiency (refer to English Language Requirement). Any one of the following is acceptable:</li> </ul>	<p>For the Master of Nursing, the Faculty's minimum admission requirements are:</p> <ul style="list-style-type: none"> <li>● an undergraduate degree in Nursing.</li> <li>● Students applying to the advanced clinical focus (Nurse Practitioner) stream must provide evidence of 4500 hours of registered nursing practice, appropriate to the program category (i.e. Adult, Neonate, or Family/All Ages), prior to entering the program. Applicants must be</li> </ul>

- A TOEFL score of at least 97 (internet-based) with a score of at least 22 on each of the individual skill areas, or equivalent;
- an IELTS overall score of 7.0 with the following minimum scores: Listening-7.5, Reading-6.5, Writing-7.0, Speaking-7.0, Overall-7.0.

**For the PhD in Nursing**, the Faculty's minimum admission requirements are:

- a Master's degree in Nursing with an admission GPA of at least 3.5 on the ...
- Where applicable, applicants must provide proof of English Language Proficiency (refer to English Language Requirement). Any one of the following is acceptable:
  - TOEFL score of 93 (internet-based) with a score of at least 24 on speaking and writing, and 21 on reading and listening, or equivalent;
  - an IELTS overall score of 7.0 with the following minimum scores: Listening-7.5, Reading-6.5, Writing-7.0, Speaking-7.0, Overall-7.0.

**licensed as a Registered Nurse in a Canadian nursing regulatory** jurisdiction.

- Where applicable, applicants must provide proof of English Language Proficiency (refer to English Language Requirement). Any one of the following is acceptable:
  - A TOEFL score of at least 97 (internet-based) with the following minimum scores on each of the individual skill areas: Listening-27, Reading-21, Writing-27, Speaking-23, or equivalent;
  - an IELTS overall score of 7.0 with the following minimum scores: Listening-7.5, Reading-6.5, Writing-7.0, Speaking-7.0, Overall-7.0.

**The requirement for a test of English Language Proficiency (ELP) requirement will be waived for applicants who are currently licensed as an RN with a Canadian nursing regulator.**

**For the PhD in Nursing**, the Faculty's minimum admission requirements are:

- a Master's degree in Nursing with an admission GPA of at least 3.5 on the ...
- Where applicable, applicants must provide proof of English Language Proficiency (refer to English Language Requirement). Any one of the following is acceptable:
  - A TOEFL score of at least 97 (internet-based) with the following minimum scores on each of the individual skill areas: Listening-27, Reading-21, Writing-27, Speaking-23, or equivalent;
  - an IELTS overall score of 7.0 with the following minimum scores: Listening-7.5, Reading-6.5, Writing-7.0, Speaking-7.0, Overall-7.0.

**The requirement for a test of English Language Proficiency (ELP) requirement will be waived for applicants who are currently licensed as an RN with a Canadian nursing regulator.**

**The Degree of MN (Nursing) [Graduate]**

**Program Requirements**

The MN program aims to prepare graduates to:

- **Demonstrate in-depth knowledge in advanced nursing practice**

**The Degree of MN (Nursing) [Graduate]**

**Program Requirements**

The MN program aims to prepare graduates to:

- Engage in reflection, to think critically, and to act with scientific integrity in scholarly endeavors
- Facilitate the learning process and participate in activities that influence health and healthcare policy
- Understand the interaction of the nursing profession with social, political, economic, and historical forces

- Explore, develop, and apply knowledge in a substantive area of nursing inquiry to advance practice, health, and system improvement.
- Use systematic research and inquiry methods to explore health and nursing questions, and practice problems.
- Develop and support initiatives to improve healthcare delivery, promote health, and reduce health inequity.
- Articulate and use nursing knowledge and evidence to inform decisions related to clinical practice, policy, education, administration, and research.

Refer to the Faculty of Nursing website for a full description of MN program outcomes.

Students in the MN program can select a thesis-based or course-based route.

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Student programs are designed based on the chosen focus area and in light of the student's career goals, clinical interests, and research interests.

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#### MN Thesis-based

#### MN Thesis-based

Students in the thesis-based MN program are required to complete 10 courses or 13 courses for the Clinical focus area (★3, ★4 and/or ★6) for a minimum total of ★30 credits, plus a thesis.

Students in the thesis-based MN program are required to complete 30 course credits (or 39 credits for the Advanced Clinical-NP Focus), plus a thesis.

Coursework includes five required courses. The remaining courses are selected according to areas of focus, outlined below, and elective courses.

Coursework includes 24 required credits. Two remaining courses (totalling 6 credits) are selected according to the area of advanced focus, outlined below (Exception: Thesis students in the Advanced Clinical-NP Focus complete 15 required credits and an additional 24 required credits for clinical courses, totalling 39 required credits).

The thesis-based route is an opportunity for intensive research education in an area of student interest. It provides knowledge about particular content and research method and students work closely with their supervisors to complete the research.

The thesis-based route may be selected by students in any of the Advanced Focus areas of study (education, research, leadership, or clinical). The thesis project demonstrates the student's ability to develop and implement a research proposal using an accepted research method, and to present the findings in an appropriate scholarly manner. Students work closely with their supervisor to complete the research.

#### MN Course-based

#### MN Course-based

Students in the course-based MN program are required to complete 11 courses or 13 courses in the Clinical focus area (★3, ★4 and/or ★6) for a minimum total of ★33 credits, plus a ★3 capping exercise (NURS 900).

Students in the course-based MN program (Advanced Education or Leadership Focus areas) complete a minimum of 36 course credits, including twenty-four required credits, a selection of two advanced focus

Coursework includes five required courses. The remaining courses are selected according to areas of focus, outlined

below, and elective courses. The capping exercise is individually designed and is congruent with the student's area of study and may address topics such as clinical outcomes, evidence-based practice, total quality improvement, or knowledge translation. Course-based students should complete at least three courses per year.

All part-time course-based graduate students must register in a minimum of 3 units (★3) in course-work or in M REG 800 each September to August period to maintain their student status.

Required courses (★15):

All MN students are required to take:

- NURS 502 – Nature of Nursing Knowledge
- NURS 505 – Transforming Practice
- NURS 506 – Program Planning
- NURS 512 – Quantitative Research
- NURS 513 – Qualitative Research

The remaining course requirements are determined by the following areas of focus:

#### Clinical

This area may lead to entry to practice as a Nurse Practitioner (Adult, Family/All Ages, or Neonatal).

#### Focus Area required courses

For entry to practice as a Nurse Practitioner, students must meet the requirements for their selected clinical areas of focus

Adult/Older Adult and Family All Ages: NURS 507, NURS 509, NURS 516, NURS 530 and NURS 531, NURS 532, NURS 533, NURS 534

Neonate: NURS 520, NURS 522, NURS 518, NURS 530 and NURS 531, NURS 532, NURS 533, NURS 534

#### Teaching

courses (totalling 6 credits), plus one ★3 elective, and a ★3 credit capping exercise (NURS 900).

Students in the course-based MN program (Advanced Clinical-NP focus) are required to complete a minimum of 42 credits, including fifteen credits for core MN courses, and twenty-four credits for completion of the Advanced-NP focus, and a ★3 credit capping exercise (NURS 900).

The capping exercise is developed through coursework across the program of studies with guidance from a faculty advisor. This exercise is an inquiry that demonstrates a synthesis of the individual's learning experiences, and explores a topic that is linked to the student's advanced focus courses and nursing experience.

Course-based students should complete at least three courses (9 credits) per year.

All part-time course-based graduate students must register in a minimum of 3 units (★3) in course-work or in M REG 800 each September to August period to maintain their student status.

Required courses (★24):

With the exception of Advanced Clinical-NP focus, all MN students are required to take:

- NURS 589 - Community of Inquiry I - Engaging with Nursing Scholarship (1 Cr) (★1)
- NURS 590 - Community of Inquiry II - Inquiry Topic and Literature Review (★1)
- NURS 591 - Community of Inquiry III - Building Collaborative Inquiry (★1)
- NURS 593 - Applied Inquiry I - Framing the Inquiry Focus (★3)
- NURS 594 - Applied Inquiry II - Grand Challenge Questions (★3) OR a 600 level research methods course or equivalent course approved by department
- NURS 595 - Foundations of Scholarship/Critical Thought (★3)
- NURS 596 - Research Foundations (★3)
- NURS 597 - Understanding Complex Systems (★3)
- NURS 598 - Translating Knowledge (★3)
- NURS 599 - Philosophy and Ethics in Nursing Inquiry (★3)

The remaining course requirements are determined by the following Advanced Focus areas of study:

**Advanced Focus Courses (6 credits for Education, or Research, or Leadership foci OR 24 credits for Advanced Clinical-NP focus)**

Students opting for a Teaching focus will be introduced to principles of learning and pedagogy. Students earn a Graduate Certificate in Teaching and Learning in Nursing Education which will be reflected on the student's transcript. See the teaching certificate link: Teaching and Learning Certificate

**Focus Area required courses**

NURS 546, NURS 556, and NURS 586.

**Elective courses**

Two (thesis-based programs) or three (course-based programs) electives are required.

**Research**

In the Research focus area, students develop skills in research methodologies and work closely with faculty members to conduct a research project.

**Focus Area required courses**

NURS 588, NURS 683, and NURS 687.

**Elective courses**

Two (thesis-based programs) or three (course-based programs) electives are required.

**Leadership**

The Leadership focus prepares students for practice within the contexts of administration and management of health services.

**Focus Area required courses**

NURS 536 and NURS 584

**Elective courses**

Three (thesis-based programs) or four (course-based programs) electives are required.

**Community**

The Community focus addresses leadership in community settings, population health assessment, and approaches to working with population aggregates and communities, and community health issues.

**Focus Area required courses**

NURS 508, NURS 536 and NURS 584

**Elective courses**

Two (thesis-based programs) or three (course-based programs) electives are required.

Students will select one advanced focus area of study (i.e. Education, Research, Leadership, or Clinical-NP). With the exception of the latter (Advanced Clinical-Nurse Practitioner Focus), each focus area consists of two courses (totalling 6 credits) that explore the conceptual frameworks, methods and approaches associated with knowledge generation and application in the context of advanced nursing roles in each of these areas.

**Education**

- **Advanced Focus Area courses**  
NURS 558 (★3) and NURS 559 (★3)

**Leadership**

- **Advanced Focus Area courses:**  
NURS 568 (★3) and NURS 569 (★3)

**Research**

- **Advanced Focus Area courses:**  
NURS 578 (★3) and NURS 579 (★3)

**Clinical-NP**

This area of study leads to entry-to-practice as a Nurse Practitioner (Adult, Family/All Ages, or Neonatal) with a Canadian nursing regulatory body.

**Clinical-NP Focus Required courses (non-clinical):**

- NURS 589 - Community of Inquiry I - Engaging with Nursing Scholarship (★1)
- NURS 590 - Community of Inquiry II - Inquiry Topic and Literature (★1)
- NURS 591 - Community of Inquiry III - Building Collaborative Inquiry (★1)
- NURS 595 - Foundations of Scholarship/Critical Thought (★3)
- NURS 596 - Research Foundations (★3)
- NURS 597 - Understanding Complex Systems (★3)
- NURS 598 - Translating Knowledge (★3)

**Clinical-NP Focus required courses:**

For entry-to-practice as a Nurse Practitioner, students must meet the requirements for their selected clinical areas of study.

- **Adult/Older Adult and Family All Ages:** NURS 507, NURS 509, NURS 516, NURS 530, NURS 531, NURS 532, NURS 533, and NURS 534

	<ul style="list-style-type: none"> <li>• <b>Neonate: NURS 520, NURS 522, NURS 518, NURS 530 and NURS 531, NURS 532, NURS 533, NURS 534</b></li> </ul>
<p><b>Clinical Requirements for Nursing Courses</b></p> <p>Students are responsible for the health and safety requirements for all clinical practice courses in their ...</p>	<p><b>Clinical Requirements for <u>Advanced Clinical-NP Focus</u> Nursing Courses</b></p> <p>Students are responsible for the health and safety requirements for all clinical practice courses in their ...</p>
<p><b>Length of Program</b></p> <p>The Master’s program can be completed within a two-year period. All students with a clinical focus area attend continuously through the spring/summer terms between their first and second years.</p> <p>...</p>	<p><b>Length of Program</b></p> <p>The Master’s program can be completed within a two-year period. <b>For Advanced Clinical-NP Focus, All full-time students with a clinical focus area attend continuously through the spring/summer terms between their first and second years. Part-time students attend continuously through the spring/summer terms following completion of all required courses outside the Advanced Focus studies.</b></p> <p>...</p>

**Justification:**

Minor editorial changes are intended to provide increased clarity. The rationale for other changes is specified below.

General Information:

- Changes align with revisions to the MN program that will be introduced in Fall 2021.

Entrance requirements

- Deletion of the statement that “A minimum of one year of nursing experience is typically required” is intended to reduce barriers for students who wish to move directly into graduate studies. This change is consistent with admission requirements for master’s students at many other Canadian universities.
- Clarification of wording related to clinical practice requirements for eligibility to study in the Advanced Clinical-NP focus.
- The addition of the statement that “The requirement for a test of English Language Proficiency (ELP) requirement will be waived for applicants who are currently licensed as an RN with a Canadian nursing regulator” recognizes that the Faculty of Nursing requirements for ELP exceed those stipulated by FGSR. This ensures that the Faculty requirements align with requirements of Canadian nursing regulators (e.g. CARNA) who license internationally educated nurses as Registered Nurses. Thus applicants who have successfully attained Canadian RN licensure have previously exceeded the minimum ELP requirements as stated by FGSR.

Program requirements:

- Changes align with revisions to the MN program that will be introduced in Fall 2021.





**APPENDIX B**  
**CALENDAR CHANGES for Courses to be Implemented in 2021-2022**

	Proposed
<b>NEW COURSE in 2021-2022</b>	<p><b><u>NURS 589 Community of Inquiry I - Engaging with Nursing Scholarship ★1 (fi 2) (either term, 0-1s-0)</u></b></p> <p><u>Deepen understanding of the nature of nursing scholarship and research by engaging with the work of nursing faculty researchers. Emphasis is placed on developing collaborative critical dialogue as an introduction to systematic enquiry into a topic of relevance to the student's selected area of advanced focus.</u></p>
<b>NEW COURSE in 2021-2022</b>	<p><b><u>NURS 590 Community of Inquiry II - Research Question &amp; Literature Review ★1 (fi 2) (either term, 0-1s-0)</u></b></p> <p><u>Explore development of questions appropriate for systematic research and inquiry. Emphasis is placed on locating and exploring literature that informs the current state and limits of knowledge relevant to the student's selected advanced focus area of study. (Prerequisite: NURS 589)</u></p>
<b>NEW COURSE in 2021-2022</b>	<p><b><u>NURS 591 Community of Inquiry III - Building Collaborative Inquiry ★1 (fi 2) (either term, 0-1s-0)</u></b></p> <p><u>Build collaborative capacity in the development of systematic research and inquiry. Emphasis is placed on peer review of capstone and thesis proposal development and on strengthening communication skills for the effective articulation of ideas and arguments to and with diverse audiences. (Prerequisite: NURS 590)</u></p>
<b>NEW COURSE in 2021-2022</b>	<p><b><u>NURS 593 Applied Inquiry I – Framing the Inquiry Focus ★3 (fi 6) (either term, 0-3s-0)</u></b></p> <p><u>Engage in structured inquiry in relation to issues from health care and/or nursing practice. Emphasis is placed on exploring key elements of such issues, identifying</u></p>

	<p>knowledge gaps, and shaping current understandings in pursuit of questions and methods appropriate for systematic research and inquiry. (Co- or Prerequisite: NURS 589, NURS 595)</p>
<b>NEW COURSE in 2021-2022</b>	<p><b><u>NURS 594 Applied Inquiry II – Grand Challenge Questions ★3 (fi 6) (either term, 0-3s-0)</u></b></p> <p>Participate in guided inquiry, applying research skills and inquiry approaches, designing solutions, and contributing to a knowledge-building community. Student teams investigate a current nursing issue from a range of perspectives informed by advanced leadership, education, clinical and research-based knowledge, theory and practice. (Prerequisite: NURS 593)</p>
<b>NEW COURSE in 2021-2022</b>	<p><b><u>NURS 595 Foundations of Scholarship/Critical Thought ★3 (fi 6) (either term, 0-3s-0)</u></b></p> <p>Develop critical thinking skills through exposure to approaches to knowledge and knowledge production in diverse disciplines and cultures, including Indigenous ways of knowing. Emphasis is placed on issues of inequality, inclusion, and power in knowledge production, and systematic scholarly analyses of everyday nursing experiences.</p>
<b>NEW COURSE in 2021-2022</b>	<p><b><u>NURS 596 Research Foundations ★3 (fi 6) (either term, 0-3s-0)</u></b></p> <p>Explore diverse methods and approaches to formal research inquiry, including Indigenous research approaches. Compare and contrast research methods and practices, including approaches to framing of the research question, generating and analyzing data, presenting and disseminating findings. Increase understanding of research literacy, appraisal of rigour, and roles of research team members leading and participating in research endeavours.</p>
<b>NEW COURSE in 2021-2022</b>	<p><b><u>NURS 597 Understanding Complex Systems ★3 (fi 6) (either term, 0-3s-0)</u></b></p> <p>Explore the complex nature of nursing practice in the context of evolving healthcare systems, including fiscal, policy and regulatory environments. Emphasis is placed on models of care delivery, relationships within and</p>

	<u>between systems, and issues of health inequity, gender, culture, and bias.</u>
<b>NEW COURSE in 2021-2022</b>	<p><b><u>NURS 598 <i>Translating Knowledge</i> ★3 (fi 6) (either term, 0-3s-0)</u></b></p> <p><u>Examine use of knowledge in diverse settings, by different stakeholders, and for various types of decision-making. Explore evidence-based decisions, guidelines, policies and procedures; quality improvement, and knowledge translation strategies.</u></p>
<b>NEW COURSE in 2021-2022</b>	<p><b><u>NURS 599 <i>Philosophy and Ethics in Nursing Inquiry</i> ★3 (fi 6) (either term, 0-3s-0)</u></b></p> <p><u>Explore philosophical and ethical questions related to nursing practice, professionalism, scholarship, and research, including Indigenous research ethics. Emphasis is placed on the nature of responsibility and professional obligation associated with systematic nursing inquiry and knowledge application.</u></p>

**Justification:**

Revisions to the current MN curriculum will be introduced in September 2021. This document reflects the calendaring changes pertaining to new course numbers, titles, and descriptions for courses that will be introduced in the 2021-2022 academic year.

**APPENDIX C**  
**CALENDAR CHANGES for Courses to be Implemented in 2022-2023**

	Proposed
<b>NEW COURSE in 2022-2023</b>	<p><b><u>NURS 558 <i>Perspectives on Nursing Pedagogy</i> ★3 (fi 6) (either term, 0-3s-0)</u></b></p> <p><u>Explore historical and contemporary perspectives on nursing pedagogy, with emphasis on the language, concepts, and theories that have shaped education in nursing. Underlying influences such as empirical, behaviourist, emancipatory, and interpretive philosophies will be examined as these perspectives interact with the dynamics of politics, economics, gender, culture, and power as experienced by learners in nursing. Approaches to learner-centered education informed by the scholarship of teaching and learning in nursing will be explored.</u></p>
<b>NEW COURSE in 2022-2023</b>	<p><b><u>NURS 559 <i>Approaches to Learning and Teaching Innovation in Nursing</i> ★3 (fi 6) (either term, 0-3s-0)</u></b></p> <p><u>Examine approaches to learning and teaching in diverse nursing practice settings. Develop a repertoire of strategies related to planning educational experiences that may include establishing relational contexts for learning, becoming an inclusive educator, understanding feedback, measuring learning outcomes, and incorporating technology.</u></p>
<b>NEW COURSE in 2022-2023</b>	<p><b><u>NURS 568 <i>Advanced Nursing Leadership in Health Systems</i> ★3 (fi 6) (either term, 0-3s-0)</u></b></p> <p><u>Analyze aspects of healthcare planning and evidence-informed decision-making related to core functions of nursing leadership across diverse settings. Emphasis is placed on health human resources, change management, fiscal planning and monitoring, interprofessional and cross-sectoral collaboration, quality and safety processes, strategic planning, and policy development.</u></p>
<b>NEW COURSE in 2022-2023</b>	<p><b><u>NURS 569 <i>Nursing Power and Policy in Health Care Leadership</i> ★3 (fi 6) (either term, 0-3s-0)</u></b></p> <p><u>Examine the ways that nurses gain and leverage power to impact health systems and health care practices.</u></p>

	<p>Explore local, national, and global health issues through the lens of power, influence, and policy development. Emphasis will be placed on organizational, regulatory, and policy contexts for nursing practice and health issues as they relate to health equity, inclusivity, health promotion, and health outcomes.</p>
<b>NEW COURSE in 2022-2023</b>	<p><b><u>NURS 578 Knowledge Synthesis ★3 (fi 6) (either term, 0-3s-0)</u></b></p> <p>Examine the methods used to conduct various types of systematically conducted literature review or syntheses. Applying key steps for systematically conducting selected types of literature reviews, and the benefits and challenges associated with each of these approaches. Challenges, debates, and issues in evidence-based/evidence informed practice and policy will be addressed.</p>
<b>NEW COURSE in 2022-2023</b>	<p><b><u>NURS 579 Operationalizing Research Design ★3 (fi 6) (either term, 0-3s-0)</u></b></p> <p>Critically discuss and select basic research designs while considering application and integration of theory, research question, population of interest, and research methods. The research lifecycle and the complexities of operationalizing the research project will be introduced and explored. Assess challenges and potential mitigation strategies related to logistical aspects of research activity, including project planning, implementation of the project, and dissemination of findings.</p>

**Justification:**

Revisions to the current MN curriculum will be introduced in September 2021. This document reflects the calendaring changes pertaining to new course numbers, titles, and descriptions for courses that will be introduced in the 2022-2023 academic year.

## REFERENCES

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**Faculty of Nursing**  
**Calendaring Corrections**  
 For Implementation in 2020-2021

Current	Proposed
<p><b>NURS 516 Advanced Health Assessment and Diagnostic Reasoning</b></p> <p>★ 3 (fi 6) (either term, 0-<del>8c</del>-3) The focus of this course is on the development of advanced assessment and diagnostic reasoning skills for common variations in health status. Students will apply concepts from advanced pathophysiology and advanced pharmacotherapeutics. Opportunities to apply clinical diagnostic reasoning skills and decision making required for the assessment of population focused health problems are provided through <del>seminars</del>, clinical simulation, and a clinical practicum. Prerequisite or corequisite: NURS 507 and NURS 509.</p>	<p><b>NURS 516 - Advanced Health Assessment and Clinical Diagnostic Reasoning</b></p> <p>★ 3 (fi 6) (either term, 0-<u>100c total</u>-3) The focus of this course is on the development of advanced assessment and diagnostic reasoning skills for common variations in health status. Students will apply concepts from advanced pathophysiology and advanced pharmacotherapeutics. Opportunities to apply clinical diagnostic reasoning skills and decision making required for the assessment of population focused health problems are provided through <u>labs including</u> clinical simulation, and a clinical practicum. <u>An on campus intensive of 3-5 days may be held at the beginning of the term.</u> Prerequisite or corequisite: NURS 507 and NURS 509.</p>
<p><b>NURS 518 - Advanced Health Assessment and Clinical Diagnostic Reasoning - Neonate</b></p> <p>★ 3 (fi 6) (either term, 0-<del>8c</del>-3) The focus of this course is on the development of advanced assessment and diagnostic reasoning skills for common variations in the health status of neonates. Students will gain an understanding of advanced assessment and applied pathophysiology related to specific health problems for the neonate in emergent to chronic health care situations. Opportunities to apply clinical diagnostic reasoning skills and decision making required for the assessment of neonatal problems are provided through <del>seminars, laboratory practice</del>, and a clinical practicum. Corequisites: NURS 520 and NURS 522.</p>	<p><b>NURS 518 - Advanced Health Assessment and Clinical Diagnostic Reasoning - Neonate</b></p> <p>★ 3 (fi 6) (either term, 0-<u>100c total</u>-3) The focus of this course is on the development of advanced assessment and diagnostic reasoning skills for common variations in the health status of neonates. Students will gain an understanding of advanced assessment and applied pathophysiology related to specific health problems for the neonate in emergent to chronic health care situations. Opportunities to apply clinical diagnostic reasoning skills and decision making required for the assessment of neonatal problems are provided through <u>labs including clinical simulation</u> and a clinical practicum. <u>An on campus intensive of 3-5 days may be held at the beginning of term.</u> Prerequisites or corequisites: NURS 520 and NURS 522.</p>

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<p><b>NURS 530 - Advanced Clinical Care I</b></p> <p>★ 3(<i>fi</i> 6) (either term, 0-2s-<del>25e</del>) Students will complete 2 focused modules <del>within this course, for a total of 6 over the 3 courses.</del> NP practice stream differentiation, <del>if applicable will be determined by module selection.</del> Students will complete a clinical practicum <del>with each course.</del> Students must demonstrate application of diagnostic reasoning and therapeutic management at a novice learner level.</p>	<p><b>NURS 530 - Advanced Clinical Care I</b></p> <p>★ 3(<i>fi</i> 6) (either term, 0-2s-<u>100c total</u>) Students will complete 2 focused modules <u>related to the selected</u> NP practice stream differentiation. Students will complete a clinical practicum. Students must demonstrate application of diagnostic reasoning and therapeutic management at a novice learner level. <u>Prerequisite: NURS 516 or NURS 518.</u></p>
<p><b>NURS 531 - Advanced Clinical Care II</b></p> <hr/> <p>★ 3(<i>fi</i> 6) (either term, 0-2s-<del>25e</del>) Students will complete 2 focused modules <del>within this course, for a total of 6 over the 3 courses.</del> NP practice stream differentiation, <del>if applicable will be determined by module selection.</del> Students will complete a clinical practicum <del>with each course.</del> Students must demonstrate application of diagnostic reasoning and therapeutic management at an intermediate learner level.</p>	<p><b>NURS 531 - Advanced Clinical Care II</b></p> <hr/> <p>★ 3(<i>fi</i> 6) (either term, 0-2s-<u>100c total</u>) Students will complete 2 focused modules <u>related to the selected</u> NP practice stream differentiation. Students will complete a clinical practicum. Students must demonstrate application of diagnostic reasoning and therapeutic management at an intermediate learner level. <u>Prerequisite: NURS 530.</u></p>
<p><b>NURS 532 - Advanced Clinical Care III</b></p> <p>★ 3(<i>fi</i> 6) (either term, 0-2s-<del>25e</del>) Students will complete 2 focused modules <del>within this course, for a total of 6 over the 3 courses.</del> NP practice stream differentiation, <del>if applicable will be determined by module selection.</del> Students will complete a clinical practicum <del>with each course.</del> Students must demonstrate application of diagnostic reasoning and therapeutic management at an advanced learner level.</p>	<p><b>NURS 532 - Advanced Clinical Care III</b></p> <p>★ 3(<i>fi</i> 6) (either term, 0-2s-<u>100c total</u>) Students will complete 2 focused modules <u>related to the selected</u> NP practice stream differentiation. Students will complete a clinical practicum. Students must demonstrate application of diagnostic reasoning and therapeutic management at an advanced learner level. <u>Prerequisite: NURS 531.</u></p>



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 For Implementation in 2020-2021

<p><b>NURS 533 - Consolidated Clinical Practicum I</b></p> <p>★ 3(<i>fi</i> 6) (either term, 0-<del>34e</del>-0) The focus of this course is to provide a consolidated practicum experience in the role of the advanced practice nurse. By the end of this course students must practice progressively towards entry to practice nurse practitioner competencies.</p>	<p><b>NURS 533 - Consolidated Clinical Practicum I</b></p> <p>★ 3(<i>fi</i> 6) (either term, 0-<del>200c total</del>-0) The focus of this course is to provide a consolidated practicum experience in the role of the advanced practice nurse. By the end of this course students must practice progressively towards entry to practice nurse practitioner competencies. <u>Prerequisite: NURS 532.</u></p>
<p><b>NURS 534 - Consolidated Clinical Practicum II</b></p> <hr/> <p>★ 3(<i>fi</i> 6) (either term, 0-<del>34e</del>-0) The focus of this course is to provide a consolidated practicum experience in the role of the advanced practice nurse. By the end of this course students must practice at the entry to practice level for expected graduate nurse practitioner competencies.</p>	<p><b>NURS 534 - Consolidated Clinical Practicum II</b></p> <hr/> <p>★ 3(<i>fi</i> 6) (either term, 0-<del>200c total</del>-0) The focus of this course is to provide a consolidated practicum experience in the role of the advanced practice nurse. By the end of this course students must practice at the entry to practice level for expected graduate nurse practitioner competencies. <u>Prerequisite: NURS 532.</u></p>

**Justification:** To edit new calendaring entries for minor corrections to increase clarity  
 NURS 516 & 518 – slight wording changes to reflect lab and simulation hours  
 NURS 516, 518, 530, 531, 532, 533, & 534 – specify required total hours of preceptored clinical (which varies on a weekly basis throughout the term) and to specify prerequisite course requirements  
 NURS 530, 531, 532 – correction to eliminate reference to other courses in this series

**Governance information/approvals (pending):**

Graduate Education Committee meeting - October 19, 2020  
 FON Caucus - October 20, 2020  
 FON Council - October 26, 2020

**Faculty of Nursing**  
**Course Changes**  
 For Implementation in 2021-2022

**Nursing Doctoral course calendar change (Nov. 18, 2020)**

Current	Proposed
<p><b>NURS 699 Dissertation Seminar</b></p> <p>★ 3 (fi 6) <del>(two term, 0-1.5s-0)</del>            For PhD in Nursing students registration required for two consecutive terms. The seminar focus is on the doctoral students' development as nurse scholars/researchers. It will include opportunities for discussion of the students' proposed and ongoing research, and career development. Prerequisites: NURS 600, 601, 609, and INT D 690.</p>	<p><b>NURS 699 Dissertation Seminar</b></p> <p>★ 3 (fi 6) (either term, 03s-0)            For PhD in Nursing students. The seminar focus is on the doctoral students' development as nurse scholars/researchers. It will include opportunities for discussion of the students' proposed and ongoing research, and career development.</p>

**Justification:**

Consolidate to one semester and reduce prerequisites to support timely course progression.