
The following Motions and Documents were considered by the GFC Programs Committee at its Thursday, February 08, 2024 meeting:

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

- Arts
- Business
- Engineering
- Education
- Law
- Native Studies
- Nursing
- School of Public Health
- Science

CARRIED MOTION:

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the attached submissions from the Faculties of...

Final Item: 4.

Agenda Title: **Terminations**

- Faculty of Arts First-level Specialisations
- Faculty of Arts Second-level Specialisations
- Faculty of Law - Dual Degree with the University of Colorado

CARRIED MOTION:

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the following termination proposals, as submitted by the Faculty of Arts, to take effect upon final approval:

First-level specialisations in the BA:

- Combined French Spanish
- Comparative Literature
- French Language and Literature
- German Language and Literature
- German Linguistics ● German Studies
- Latin American Studies ● Romance Languages
- Scandinavian Language and Literature
- Spanish Language and Literature

First-level specialisations in the BDes:

- Computing Science Route
 - Printmaking Route
 - First-level specialisations in the BFA in Drama:
 - Technical Theatre
 - Second-level specialisations in the BA:
 - Classical Languages Honors
 - Combined Honors in Comparative Literature
 - Combined Honors in Creative Writing
 - Combined Honors in French and Spanish
 - Combined Honors in French
 - Combined Honors in German
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- Combined Honors in Polish and Russian
- Combined Honors in Scandinavian Studies
- Combined Honors in Spanish
- History and Classics Combined Honors
- Honors in Comparative Literature
- Honors in French
- Honors in German
- Honors in Romance Languages

CARRIED MOTION:

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the termination proposals of the Joint Degree with the University of Colorado, as submitted by the Faculty of Law, to take effect upon final approval.

Final Item: 5.

Agenda Title: **Updated Non-Credit Programming Framework & Guide**

CARRIED MOTION:

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, an updated Non-credit and Micro-credential Framework as set out in Attachment 1, for implementation upon approval.

Final Item: 6.

Agenda Title: **Major in Chemistry - Accredited option**

CARRIED MOTION:

THAT the GFC Programs Committee, with delegated authority from General Faculties Council, approve the proposed Accredited Major in Chemistry, as proposed by the Faculty of Science, for inclusion in the 2024-2025 University Calendar.

Final Item: 7.

Agenda Title: **Suspension of the Specialisations in Educational Policy Studies and Elementary Education in the Doctor of Education**

CARRIED MOTION:

Be it resolved that GFC Programs Committee recommend the suspension of the specializations of Educational Policy Studies and Elementary Education under the EdD, for implementation upon final approval.

Final Item: 8.

Agenda Title: **Proposed New Master of Management Analytics Program**

CARRIED MOTION:

THAT the GFC Programs Committee, with delegated authority of General Faculties Council, recommend that the Board of Governors approve the new Master of Management Analytics (MMA) program in the Alberta School of Business for implementation upon final approval.

Final Item: 9.

Agenda Title: **University of Alberta Foundation Program**

CARRIED MOTION:

THAT the GFC Programs Committee, with delegated authority from General Faculties Council, approve the changes to the Open Studies section of the University Calendar to take effect for the 2024-2025 academic year.

Final Item: 10.



Decision **Discussion** **Information**

ITEM OBJECTIVE: To approve course, minor program, and minor regulations changes for the Faculties of Arts; Business; Education; Engineering; Law; Native Studies; Nursing; School of Public Health; and Science.

DATE	February 8, 2024
TO	GFC Programs Committee
RESPONSIBLE PORTFOLIO	Provost and Vice-President (Academic)

MOTION: THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the attached submissions from the Faculties of Faculties of Arts; Business; Education; Engineering; Law; Native Studies; Nursing; School of Public Health; and Science.

EXECUTIVE SUMMARY:

All routine course, minor program, and minor regulation 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.

See individual item for Faculty Council approval information.

Supporting Materials:

Attachments:

1. Arts;
2. Business;
3. Education;
4. Engineering;
5. Law;
6. Native Studies;
7. Nursing;
8. School of Public Health; and
9. Science

This package contains: **Undergraduate - Substantive Program Changes**

Faculty approval date:

AAC Date: September 26, 2023 AEC : November 16, 2023 AFC: November 30, 2023

Page	Department or Unit	What is Changing
2	Faculty / USS	Discontinuing Spring Admission
4	Sociology	Transfer Applicants

Faculty of Arts	Faculty / USS
Level of change	<input checked="" type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate
Type of Change	<input type="checkbox"/> Program <input checked="" type="checkbox"/> Regulation
Are there corresponding course changes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Additional Documentation Attached	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Contact Person:	Kristy Wuetherick/Rebecca Nagel
Department/Unit Approval Date:	n/a

Rationale for change (Indicate other consultation groups, departments, units or faculties)

We would like to remove admission for new students to the Spring term for the Bachelor of Arts, BA/BEEd Drama, and BA Environmental Studies programs. Previous students would still be able to return in the Spring term.

Very few of the students who typically apply to start or transfer in the Spring term are truly eligible for a Spring term start. International students in particular are not able to get their study permits in time for Spring. The Faculty of Arts advising team and the Admissions unit in the Office of the Registrar do quite a bit of manual work to move applications to the Fall term.

We strongly feel that a new student is best served by starting the program in the Fall term when orientation events take place. Removing the Spring term start will set new students up for success.

Spring 2023 statistics:

We had 176 applicants

We admitted 34

20 registered

16 incomplete applications

106 were denied because they were not eligible to start in the Spring term (including 59 international applicants). Most of these were manually moved to the Fall 2023 term, a time-consuming process which could have been avoided.

https://calendar.ualberta.ca/content.php?catoid=39&navoid=12383#admission_and_readmission_deadlines

Calendar Copy

Current: Removed language (Include name of program)	Proposed: New language
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College of Social Sciences and Humanities

- Faculty of Arts

Faculty of Arts Admission Deadlines

	Admission		Readmission		Other Requirements
	Application	Documents	Application	Documents	
BA, BA (Drama)/BEd Combined, and BA Environmental Studies					
Spring/Summer	March 1	March 31	March 1	March 31	

College of Social Sciences and Humanities

- Faculty of Arts

Faculty of Arts Admission Deadlines

	Admission		Readmission		Other Requirements
	Application	Documents	Application	Documents	
BA, BA (Drama)/BEd Combined, and BA Environmental Studies					
Spring/Summer	No application		Previous students - March 1	March 31	

Faculty of Arts	Sociology
Level of change	<input checked="" type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate
Type of Change	<input type="checkbox"/> Program <input checked="" type="checkbox"/> Regulation
Are there corresponding course changes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Additional Documentation Attached	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Contact Person:	Alison Dunwoody
Department/Unit Approval Date:	April 19, 2023

Rationale for change (Indicate other consultation groups, departments, units or faculties)

Correcting an error.
https://calendar.ualberta.ca/content.php?catoid=36&navoid=11294#ba-criminology

Calendar Copy

Current: Removed language (Include name of program)	Proposed: New language
Bachelor of Arts (Criminology) [...]	Bachelor of Arts (Criminology) [...]
Transfer Applicants See Transfer from a Postsecondary Institutions and Transfer of Credit . Students are strongly advised to include 3 units of junior ENGL, SOC 100 (3 units), PSYCH 104 (3 units) and PSYCH 105 (3 units), and a Language other than English (6 units, if applicable), or their equivalents, in their first year. No more than 78 units of course weight will be granted in transfer credit toward the BA (Criminology) program. Refer to Application Procedures and Deadlines .	Transfer Applicants See Transfer from a Postsecondary Institutions and Transfer of Credit . Students are strongly advised to include 3 units of junior ENGL, SOC 100 (3 units), PSYCH 104 (3 units) and PSYCH 105 (3 units), and a Language other than English (6 units, if applicable), or their equivalents, in their first year. No more than 60 units of course weight will be granted in transfer credit toward the BA (Criminology) program from outside of the University of Alberta. Refer to the BA (Criminology) program for other regulations and residence requirements. Refer to Application Procedures and Deadlines .

This package contains: [Graduate - Minor Program Changes](#)

Faculty approval date:

AAC Date: November 21, 2023

Page	Department or Unit	What is Changing
2	Music	Doctor of Music
5	Music	Master of Arts (Music)

Faculty of Arts	Music
Level of change	<input type="checkbox"/> Undergraduate <input checked="" type="checkbox"/> Graduate
Type of Change	<input checked="" type="checkbox"/> Program <input type="checkbox"/> Regulation
Are there corresponding course changes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Additional Documentation Attached	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Contact Person:	Michael Frishkopf
Department/Unit Approval Date:	Oct. 4 th , 2023

Rationale for change (Indicate other consultation groups, departments, units or faculties)

When the three DMus streams (Performance, Choral Conducting, and Composition) were formulated, degree requirements specified academic courses in musicology and music theory. Since then, our academic offerings have diversified, including ethnomusicology and popular music studies. Moreover, students have become more diverse in their research and artistic aspirations, and seek greater flexibility. The purpose of the requirement is to ensure that DMus students gain experience in academic study and writing. We would like them to enjoy flexibility in selecting academic courses, so long as at least two of these courses include a substantial paper.

Correspondingly, the qualifying examinations for the Performance and Choral Conducting streams have been modified slightly, as students will now be required to take (and pass) courses requiring substantial papers, which will replace the corresponding qualifying examination requirements. The qualifying examination for the Choral Conducting stream now includes the option of a public presentation, enabling students to demonstrate and hone presentation skills.

The Composition stream qualifying examination is also being modified. Changes and rationale are as follows:

- 1.) Elimination of the 20th-century repertoire component, since we now expect students to acquire knowledge of 20th and 21st century repertoire as part of their coursework, both in their doctoral program, and in their previous degrees.
- 2.) Elimination of the orchestration exam, which is outdated in today's mixed analog/digital multi cultural environment. Instead, we emphasize scholarly essays to cover history as well as current trends in composition and sonic arts culture.
- 3.) The addition of a public component, since many of our students in other areas of the department have benefited from such an exercise, demonstrating and honing presentation skills.

These changes will allow the qualifying process to be more streamlined, as well as more focused on preparations required for the candidacy, including dissertation proposal and bibliography.

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Calendar Copy

Current: **Removed language** (Include name of program)

Proposed: **New language**

Graduate Programs in Music

[...]

Doctor of Music

The Degree of DMus has three separate program streams: Performance, Choral Conducting and Composition.

Program Requirements

DMus students are normally required to complete 30 to 36 units in graduate-level coursework. Completion of a thesis-equivalent is also required.

Coursework

~~One 3-unit graduate-level theory course normally selected from the following:~~

~~MUSIC 555 (3 units) – Issues in Theory and Analysis~~

~~MUSIC 556 (3 units) – Seminar in Music Theory~~

~~MUSIC 581 (3 units) – Advanced Studies in Avant-Garde~~

~~MUSIC 651 (3 units) – Seminar in Music Analysis~~

~~One 3-unit graduate-level course in musicology~~

At least **eight** 3-unit graduate-level options, to be approved by the supervisory committee.

DMus students concentrating in Choral Conducting are required to take:

MUSIC 730 (6 units) - Choral Conducting (first year)

MUSIC 738 (3 units) - Choral Conducting (second year)

MUSIC 633 (3 units) - Seminar in Choral Literature I

MUSIC 634 (3 units) - Seminar in Choral Literature II

MUSIC 740 (3 units) - Choral Ensemble

DMus students concentrating in Performance are required to take MUSIC 721 (3 units) **and**

MUSIC 725 (3 units).

Graduate Programs in Music

[...]

Doctor of Music

The Degree of DMus has three separate program streams: Performance, Choral Conducting and Composition.

Program Requirements

DMus students are normally required to complete 30 to 36 units in graduate-level coursework. Completion of a thesis-equivalent is also required.

Coursework

At least **ten** 3-unit graduate-level options, to be approved by the supervisory committee, **two of which must be academic MUSIC courses that require a substantial writing component of a minimum of 15 pages (not including a bibliography).**

DMus students concentrating in Choral Conducting are required to take:

MUSIC 730 (6 units) - Choral Conducting (first year)

MUSIC 738 (3 units) - Choral Conducting (second year)

MUSIC 633 (3 units) - Seminar in Choral Literature I

MUSIC 634 (3 units) - Seminar in Choral Literature II

MUSIC 740 (3 units) - Choral Ensemble

DMus students concentrating in Performance are required to take:

MUSIC 721 – (3 units) **Applied Music**

MUSIC 725 – (3 units) **Applied Music**

At the discretion of the supervisor, students who have not taken a bibliography and research methods course (or equivalent) will be required to take MUSIC 505. The fulfillment of this requirement will count as one of the approved options.

At the discretion of the supervisor, further coursework may be required.
[...]

Qualifying Exams

The qualifying exams for DMus students in Performance will consist of ~~one essay in the area of music history, one essay in the area of music theory, and~~ a two-part examination in musical literature focusing on the student's area of concentration.

The qualifying exams for DMus students in Choral Conducting will consist of one score identification exam, one extended essay on a selected topic in choral music; ~~an extended essay on a selected topic in musicology; two theory papers providing analysis of one tonal and one post-tonal work;~~ and a detailed summary of the proposal for the final essay.

The qualifying exams for DMus students in Composition will consist of ~~an orchestration or electro-acoustic sound design component, an essay component in music history, and if the student has not completed MUSIC 580 or equivalent, an examination on 20th century repertoire~~

At the discretion of the supervisor, students who have not taken a bibliography and research methods course (or equivalent) will be required to take MUSIC 505. The fulfillment of this requirement will count as one of the approved options.

At the discretion of the supervisor, further coursework may be required.
[...]

Qualifying Exams

The qualifying exams for DMus students in Performance will consist of a two-part **written** examination in musical literature focusing on the student's area of concentration.

The qualifying exams for DMus students in Choral Conducting will consist of one **written** score identification exam, one extended essay on a selected topic **in choral music; one analysis paper presentation on a tonal work; one analysis paper or public presentation on a pre or post tonal work;** and a detailed summary of the proposal for the final essay.

The qualifying exam for DMus students in Composition will consist of **two scholarly essays in music history or culture of substantial length (normally 15 to 20 pages, not including bibliography), a 45 minute public presentation based on one of the two essays, and preparation of a thesis proposal.**

Faculty of Arts	Music
Level of change	<input type="checkbox"/> Undergraduate <input checked="" type="checkbox"/> Graduate
Type of Change	<input checked="" type="checkbox"/> Program <input type="checkbox"/> Regulation
Are there corresponding course changes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Additional Documentation Attached	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Contact Person:	Michael Frishkopf
Department/Unit Approval Date:	Oct. 4 th , 2023

Rationale for change (Indicate other consultation groups, departments, units or faculties)

At the doctoral level, students select “A minimum of six 3-unit graduate-level courses to be chosen in consultation with the supervisor,” according to the Calendar. But at the master’s level, the phrase “to be chosen in consultation with the supervisor” is not present. Flexibility is good. But without this phrase, the student could select any graduate level course and it would count towards the unit requirements, and if the student didn’t consult in advance some misunderstandings could arise. We believe the supervisor should have a clearly defined role in approving a set of courses that cohere and support the student’s education. Adding this language helps ensure that programs are harmonious and coherent.

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Calendar Copy

Current: Removed language (Include name of program)	Proposed: New language
Master of Arts (Music) [...]	Master of Arts (Music) [...]
Course-based MA: Students must complete a minimum of 30 units in graduate-level course work, including 27 units in required courses and at least 3 units in a capping project. Required Courses MUSIC 614 - Proseminar in Musicology MUSIC 650 - Proseminar in Music Theory MUSIC 665 - Issues in Ethnomusicology MUSIC 670 - Proseminar in Popular Music and Media Studies A minimum of five 3-unit graduate-level options	Course-based MA: Students must complete a minimum of 30 units in graduate-level course work, including 27 units in required courses and at least 3 units in a capping project. Required Courses MUSIC 614 - Proseminar in Musicology MUSIC 650 - Proseminar in Music Theory MUSIC 665 - Issues in Ethnomusicology MUSIC 670 - Proseminar in Popular Music and Media Studies A minimum of five 3-unit graduate-level options to be chosen in consultation with the supervisor.

At the discretion of the supervisor, further coursework may be required.

Students who have not taken a bibliography and research methods course (or equivalent) will be required to take MUSIC 505. This course will not be considered as one of the approved graduate-level options.

A minimum of five 3-unit graduate-level options

[...]

Thesis-based MA:

Students must complete a minimum of 24 units in graduate-level course work. Completion of a thesis is also required.

Required Courses

MUSIC 614 - Proseminar in Musicology
MUSIC 650 - Proseminar in Music Theory
MUSIC 665 - Issues in Ethnomusicology
MUSIC 670 - Proseminar in Popular Music and Media Studies

A minimum of four 3-unit graduate-level options

At the discretion of the supervisor, further coursework may be required.

Students who have not taken a bibliography and research methods course (or equivalent) will be required to take MUSIC 505. This course will not be considered as one of the approved graduate-level options.

Thesis

Registration in 900-level THES. Students must complete and successfully defend a thesis.

Thesis-based MA:

A minimum of four 3-unit graduate-level options

At the discretion of the supervisor, further coursework may be required.

Students who have not taken a bibliography and research methods course (or equivalent) will be required to take MUSIC 505. This course will not be considered as one of the approved graduate-level options.

A minimum of five 3-unit graduate-level options

[

...]

Thesis-based MA:

Students must complete a minimum of 24 units in graduate-level course work. Completion of a thesis is also required.

Required Courses

MUSIC 614 - Proseminar in Musicology
MUSIC 650 - Proseminar in Music Theory
MUSIC 665 - Issues in Ethnomusicology
MUSIC 670 - Proseminar in Popular Music and Media Studies

A minimum of four 3-unit graduate-level options options **to be chosen in consultation with the supervisor.**

At the discretion of the supervisor, further coursework may be required.

Students who have not taken a bibliography and research methods course (or equivalent) will be required to take MUSIC 505. This course will not be considered as one of the approved graduate-level options.

Thesis

Registration in 900-level THES. Students must complete and successfully defend a thesis.

Thesis-based MA:

A minimum of four 3-unit graduate-level options

Faculty (& Department or Academic Unit):	Alberta School of Business
Contact Person:	Dr. Michelle Inness, Associate Dean Undergraduate
Level of change: (choose one only) [?]	• Undergraduate
	• Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Amendment to the course description as suggested by the MBEL department to better represent the course and align it to BUEC 520, the MBA equivalent.

Course Template

Current: Removed language	Proposed: New language
<p>Subject & Number BUEC 420</p> <p>Title: Data Science and Business Economics</p> <p>Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Alberta School of Business Department Business Typically Offered either term</p> <p>Description Businesses, organizations, and firms require data-driven insights to remain competitive. This course teaches you to clean and visualize data and use them for research analysis. All the course materials are based on real data and interesting cases, such as analyzing why the hotel prices are different, how temperature affects electricity consumption, whether large firms are better managed, family ownership and quality of management, etc. This course begins with data introduction, processing, and visualization. Then, we will explore different case topics to show how to apply data to real-world questions. Moreover, we will also learn the most relevant tools (e.g., Python) and methods to conduct your analysis. This</p>	<p>Subject & Number BUEC 420</p> <p>Title: Data Science and Business Economics</p> <p>Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Alberta School of Business Department Business Typically Offered either term</p> <p>Description This course provides an exploration of the intersection between data science and business economics. It offers students a comprehensive perspective of how data analytics, statistical techniques, and economic principles converge to drive informed decision-making in the business realm. The course introduces tools and methods for data visualization and analysis that are valuable for future careers in business and for research. Through theoretical concepts and hands-on applications, students will delve into the utilization of data-driven approaches to address business challenges and enhance economic performance. Prerequisites: MGTSC 212 or 312 or STAT 252.</p>

course incorporates the learning goals of the BCom program, in particular quantitative skills, data analysis, question solving, critical thinking, oral and written communications, and teamwork. By successfully completing this course, you will be good at processing and visualizing data, conducting basic research analysis using the most popular methods, and writing a research paper.
Prerequisites: MGTSC 212 or 312 or STAT 252.

Reviewed/Approved by:

USPC December 15, 2023
Faculty (Business) Council January 8, 2024



Faculty (& Department or Academic Unit):	Alberta School of Business
Contact Person:	Dr. Michelle Inness, Associate Dean Undergraduate
Level of change: (choose one only) [?]	• Undergraduate
	• Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Requesting course number for this class. It has been offered in the past and has shown to be popular with students.

Course Template

Current: Removed language	Proposed: New language
<p>Subject & Number</p> <p>Title:</p> <p>Course Career</p> <p>Units</p> <p>Approved Hours</p> <p>Fee index</p> <p>Faculty</p> <p>Department</p> <p>Typically Offered</p> <p>Description</p>	<p>Subject & Number BUEC 432</p> <p>Title: Labour Economics, Work, and Inequality</p> <p>Course Career Undergraduate</p> <p>Units 3</p> <p>Approved Hours 3-0-0</p> <p>Fee index 6</p> <p>Faculty Alberta School of Business</p> <p>Department Business</p> <p>Typically Offered either term</p> <p>Description This course applies the principles of labour economics to examine differential work conditions, wage inequality, and other forms of inequality for historically disadvantaged groups in various business sectors, industries, and occupations in developed and developing countries. The course reviews historical changes in laws, regulations, reporting requirements, sustainability guidelines, union practices, and societal values, and the implications of these changes for business, the economy, and society.</p> <p>Prerequisite: BUEC 211 or 311 or ECON 281</p>

Reviewed/Approved by:

USPC December 15, 2023
 Faculty (Business) Council January 8, 2024

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Calendar Change Request Form for Course Changes

See the [Calendar Guide](#) for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Faculty of Engineering
Contact Person:	Lindsey Westover / Peter Schiavone
Level of change (choose one only) [?]	<ul style="list-style-type: none"> Graduate
For which term will this change take effect?	Fall 2024

Rationale

Periodically there are opportunities within the Faculty of Engineering to offer new graduate courses on an 'as-available' basis that are not department-specific. The ability of the faculty to offer new and timely electives is hampered by the new course approval process. This course is a 'special topics in Engineering' course that is intended to be an elective in graduate programs, similar to special topics courses in various departments such as MECE 788, ENGM 670, BME 630, etc. The ENGG designation increases accessibility for courses that may be applicable in numerous graduate programs and are not specific to a single discipline. This course would be offered at the discretion of the available instructor.

Course Template

<p>**** New Course ****</p>	<p>Proposed</p> <p>Subject & Number: ENGG 700</p> <p>Title: Special Topics in Engineering</p> <p>Course Career Graduate Units 3 Approved Hours: Variable Hours Fee index: 6 Faculty: Engineering Department: Engineering Typically Offered: Either term OR spring/summer</p> <p>Description: This course will be offered at the discretion of the Faculty of Engineering.</p>
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Reviewed/Approved by:

REQUIRED:

Faculty of Engineering Graduate Planning Committee (GPC): November 1, 2023

Faculty of Engineering Academic Planning Committee (APC): November 09 2023

Faculty of Engineering Executive Coordinating Committee (ECC): November 28, 2023

Faculty (& Department or Academic Unit):	Mechanical Engineering
Contact Person:	Alexandra Komrakova
Level of change: (choose one only)	•
	• Graduate
Type of change request: (check all that apply)	• Program
	•
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Over the last few years, the course offerings at the Department of Mechanical Engineering substantially evolved to accommodate diverse research areas within the department. New courses have been introduced and are now offered on a regular basis. As a result, the current course offerings differ from what they used to be when a limited number of core courses has been regularly offered. A note that is currently in the Calendar under the Graduate Courses is outdated and does not reflect the regular course selection in the department. To minimize future Calendar Changes and avoid confusion among graduate students, it is suggested to remove this note from the Calendar entry.

Calendar Copy

URL in current Calendar (or "New page")

https://calendar.ualberta.ca/preview_program.php?catoid=39&poid=47768&returnto=12424

Graduate Programs in Mechanical Engineering

Current Copy: ~~Removed language~~

Graduate Courses

Graduate courses can be found in [Course Listings](#), under the subject headings Mechanical Engineering (MEC E) and Engineering Management (ENG M).

Proposed Copy: **New language**

Graduate Courses

Graduate courses can be found in [Course Listings](#), under the subject headings Mechanical Engineering (MEC E) and Engineering Management (ENG M).

Note: The courses ~~ENG M 620, MEC E 630, MEC E 639, MEC E 663, MEC E 671, MEC E 680 and MEC E 681~~ normally will be offered annually. Other lecture-based courses will be offered when there is sufficient enrolment.

Reviewed/Approved by:

Reviewed by: Department GPC and APC

REQUIRED: Approved by the MECE Department council on April 20, 2023

Approved by the Faculty of Engineering GPC on May 3, 2023

Approved by the Faculty of Engineering APC on May 10, 2023

Approved by the Faculty of Engineering ECC on Oct 24, 2023

Faculty (& Department or Academic Unit):	Faculty of Engineering, Department of Chemical and Materials Engineering
Contact Person:	Hao Zhang
Level of change: (choose one only)	•
	• Graduate
Type of change request: (check all that apply)	• Program
	• Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

In our current graduate program, the only core course is MAT E 640 – Advanced Materials Thermodynamics for Materials Engineering and Welding Engineering. The learning outcomes for our programs require that students obtain disciplinary knowledge. Currently, the disciplinary knowledge is assessed through the thesis (for MSc/PhD) and the fraction of the courses taken in the department. However, the examining committee does not consider whether the thesis topic is consistent with the program and the current course requirements have not maintained disciplinary focus. The most recent graduate program review also endorsed the idea of having core courses for our program.

A committee for Materials Engineering graduate programs was established to review the core courses program in major North American Universities with Materials Science and Engineering programs. Surveys on identifying the courses our students take most often and find most useful were conducted through graduate students and faculty members in the department. The core course review committee recommended a two core course requirement for graduate students in the Materials Engineering program, where the students are allowed to take any two out of four core courses.

Calendar Copy

URL in current Calendar (or “New page”) Master of Engineering (Chemical and Materials Engineering) https://calendar.ualberta.ca/preview_program.php?catoid=39&pooid=47530&returnto=12424	
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Coursework (24 units)

- Eight 3-unit graduate-level courses. The courses are of the same type and calibre as those taken by the MSc and PhD candidates, and must be approved by the **Associate Chair (Graduate)**.
 - At least **four** courses must be taken from the Department of Chemical and Materials Engineering
 - At least **three** of the CME courses must be at the 600-level or higher. The following courses are considered to be equivalent to 600-level CME courses:
 - [ECE 540](#)
 - [ECE 560](#)
 - [ECE 561](#)
 - [ECE 760](#)
 - ~~[ECE 662](#)~~
 - [ECE 664](#)
 - [ECE 665](#)
 - [ENG M 646](#)
 - [MEC E 615](#)
 - The balance of the courses must be at the 500-level or higher in the Faculty of Engineering.
 - ~~Students specializing in Materials Engineering must take [MAT E 640](#) as one of their three 600-level courses~~

Coursework (24 units)

- Eight 3-unit graduate-level courses. The courses are of the same type and calibre as those taken by MSc and PhD candidates, and must be approved by the **Associate Dean Graduate Students**.
 - At least **four** courses must be taken from the Department of Chemical and Materials Engineering
 - At least **three** of the CME courses must be at the 600-level or higher. The following courses are considered to be equivalent to 600-level CME courses:
 - [ECE 540](#)
 - [ECE 560](#)
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 - [ECE 664](#)
 - [ECE 665](#)
 - [ENG M 646](#)
 - [MEC E 615](#)
 - The balance of the courses must be at the 500-level or higher in the Faculty of Engineering.
 - **Students specializing in Materials Engineering must take two courses out of the following four courses - MAT E 640 - Advanced Materials Thermodynamics, MAT E 664 - Kinetics of Materials, MAT E 666 - Materials Applications of Scanning Electron Microscopy, and MAT E 661 - Structures and Characterization of Materials, as two of their four 600-level courses.**
 - **Students specializing in Welding Engineering programs must take one course out of the following two courses - MAT E 673 Welding Metallurgy and MAT E 681 Advanced Welding Engineering, and one course out of the following four courses - MAT E 640 - Advanced Materials Thermodynamics, MAT E 664 - Kinetics of Materials, MAT E 666 - Materials Applications of Scanning Electron Microscopy, and MAT E 661 - Structures and**

	<p>Characterization of Materials, as two of their three CME 600-level courses.</p>
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Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date.

Approved by Faculty of Engineering Executive Coordinating Committee (ECC): November 28, 2023

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.

Approved by CME Department Council: October 19, 2023

Approved by Faculty Graduate Planning Committee: November 1, 2023

Approved by Faculty Academic Planning Committee: November 9, 2023

Faculty (& Department or Academic Unit):	Faculty of Engineering, Department of Chemical and Materials Engineering
Contact Person:	Hao Zhang
Level of change: (choose one only)	•
	• Graduate
Type of change request: (check all that apply)	• Program
	• Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

In our current graduate program, the only core course is MAT E 640 – Advanced Materials Thermodynamics for Materials Engineering and Welding Engineering. The learning outcomes for our programs require that students obtain disciplinary knowledge. Currently, the disciplinary knowledge is assessed through the thesis (for MSc/PhD) and the fraction of the courses taken in the department. However, the examining committee does not consider whether the thesis topic is consistent with the program and the current course requirements have not maintained disciplinary focus. The most recent graduate program review also endorsed the idea of having core courses for our program.

A committee for Materials Engineering graduate programs was established to review the core courses program in major North American Universities with Materials Science and Engineering programs. Surveys on identifying the courses our students take most often and find most useful were conducted through graduate students and faculty members in the department. The core course review committee recommended a two core course requirement for graduate students in the Materials Engineering program, where the students are allowed to take any two out of four core courses.

Calendar Copy

URL in current Calendar (or “New page”) Master of Science (Chemical and Materials Engineering) https://calendar.ualberta.ca/preview_program.php?catoid=39&poiid=47530&returnto=12424	
Current Copy: Removed language	Proposed Copy: New language

Coursework (12 units)

- Four 3-unit courses which must be approved by the **Associate Chair (Graduate)**.
 - At least **two** must be 600-level or higher courses in the Department of Chemical and Materials Engineering. The following courses are considered to be equivalent to 600-level CME courses:
 - [ECE 540](#)
 - [ECE 560](#)
 - [ECE 561](#)
 - [ECE 760](#)
 - ~~ECE 662~~
 - [ECE 664](#)
 - [ECE 665](#)
 - [ENG M 646](#)
 - [MEC E 615](#)
 - The remaining **two** courses must be at the 500-level or higher in the Faculty of Engineering, or be at the 400-level or higher in a Science department. Science courses at the 400-level must be approved by the **Associate Chair (Graduate)**. The following courses are considered to be equivalent to 500-level Engineering courses:
 - [ECE 450](#)
 - [ECE 457](#)
 - ~~Students specializing in Materials Engineering or Welding Engineering must take [MAT E 640](#) (3 units) - Advanced Materials Thermodynamics as one of their two 600-level courses~~
 - Reading or independent study courses will not count towards the total course requirements.

Coursework (12 units)

- Four 3-unit courses which must be approved by the **Associate Dean Graduate Students**.
 - At least **two** must be 600-level or higher courses in the Department of Chemical and Materials Engineering. The following courses are considered to be equivalent to 600-level CME courses:
 - [ECE 540](#)
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 - ~~Students specializing in Materials Engineering must take two courses out of the following four courses - MAT E 640 - Advanced Materials Thermodynamics, MAT E 664 - Kinetics of Materials, MAT E 666 - Materials Applications of Scanning Electron Microscopy, and MAT E 661 - Structures and Characterization of Materials, as two of their 600-level courses.~~
 - ~~Students specializing in Welding Engineering programs must take one course out of the following two courses - MAT E 673 Welding Metallurgy and MAT E 681 Advanced Welding Engineering, and one course out of the following four courses - MAT E 640 -~~

	<p>Advanced Materials Thermodynamics, MAT E 664 - Kinetics of Materials, MAT E 666 - Materials Applications of Scanning Electron Microscopy, and MAT E 661 - Structures and Characterization of Materials, as two of their 600-level courses.</p> <ul style="list-style-type: none">○ Reading or independent study courses will not count towards the total course requirements.
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Reviewed/Approved by:

<p>REQUIRED: Faculty Council (or delegate) and approval date.</p> <p>Approved by Faculty of Engineering Executive Coordinating Committee (ECC): November 28, 2023</p>
<p>OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.</p> <p>Approved by CME Department Council: October 19, 2023 Approved by Faculty Graduate Planning Committee: November 1, 2023 Approved by Faculty Academic Planning Committee: November 9, 2023</p>

Faculty (& Department or Academic Unit):	Faculty of Engineering, Department of Chemical and Materials Engineering
Contact Person:	Hao Zhang
Level of change: (choose one only)	<ul style="list-style-type: none"> • • Graduate
Type of change request: (check all that apply)	<ul style="list-style-type: none"> • Program • Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

In our current graduate program, the only core course is MAT E 640 – Advanced Materials Thermodynamics for Materials Engineering and Welding Engineering. The learning outcomes for our programs require that students obtain disciplinary knowledge. Currently, the disciplinary knowledge is assessed through the thesis (for MSc/PhD) and the fraction of the courses taken in the department. However, the examining committee does not consider whether the thesis topic is consistent with the program and the current course requirements have not maintained disciplinary focus. The most recent graduate program review also endorsed the idea of having core courses for our program.

A committee for Materials Engineering graduate programs was established to review the core courses program in major North American Universities with Materials Science and Engineering programs. Surveys on identifying the courses our students take most often and find most useful were conducted through graduate students and faculty members in the department. The core course review committee recommended a two core course requirement for graduate students in the Materials Engineering program, where the students are allowed to take any two out of four core courses.

Calendar Copy

URL in current Calendar (or “New page”) Doctor of Philosophy (Chemical and Materials Engineering) https://calendar.ualberta.ca/preview_program.php?catoid=39&poiid=47529	
Current Copy: Removed language	Proposed Copy: New language

Coursework (20.0 units)

- Six 3-unit courses which must be approved by the **Associate Chair (Graduate)**.
 - At least **three** courses must be 600-level or higher courses in the Department of Chemical and Materials Engineering. The following courses are considered to be equivalent to 600-level CME courses:
 - [ECE 540](#)
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 - The remaining **three** courses must be at the 500-level or higher in the Faculty of Engineering, or be at the 400-level or higher in a Science department. Science courses at the 400-level must be approved by the **Associate Chair (Graduate)**. The following courses are considered to be equivalent to 500-level Engineering courses:
 - [ECE 450](#)
 - [ECE 457](#)
 - ~~Students specializing in Materials Engineering must take [MAT E 640](#) - Advanced Materials Thermodynamics as one of their three 600-level courses~~
 - Reading courses will not count towards the total course requirements.
 - Students **may** be eligible for a Department course exemption if they have previously completed a recognized graduate degree program at an accredited university
- [CME 600](#) (2 units) – Introduction to Research Methods. This course must be completed in the first year in the doctoral program.

Coursework (20.0 units)

- Six 3-unit courses which must be approved by the **Associate Dean Graduate Students**.
 - At least **three** courses must be 600-level or higher courses in the Department of Chemical and Materials Engineering. The following courses are considered to be equivalent to 600-level CME courses:
 - [ECE 540](#)
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 - The remaining **three** courses must be at the 500-level or higher in the Faculty of Engineering, or be at the 400-level or higher in a Science department. Science courses at the 400-level must be approved by the **Associate Dean Graduate Students**. The following courses are considered to be equivalent to 500-level Engineering courses:
 - [ECE 450](#)
 - [ECE 457](#)
 - **Students specializing in Materials Engineering must take two courses out of the following four courses - [MAT E 640](#) - Advanced Materials Thermodynamics, [MAT E 664](#) - Kinetics of Materials, [MAT E 666](#) - Materials Applications of Scanning Electron Microscopy, and [MAT E 661](#) - Structures and Characterization of Materials, as two of their three 600-level courses.**
 - Reading courses will not count towards the total course requirements.
 - Students **may** be eligible for a Department course exemption if they have previously completed a recognized graduate degree program at an accredited university

- | | |
|--|--|
| | <ul style="list-style-type: none">• CME 600 (2 units) – Introduction to Research Methods. This course must be completed in the first year in the doctoral program. |
|--|--|

Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date.

Approved by Faculty of Engineering Executive Coordinating Committee (ECC): November 28, 2023

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.

Approved by CME Department Council: October 19, 2023

Approved by Faculty Graduate Planning Committee: November 1, 2023

Approved by Faculty Academic Planning Committee: November 9, 2023

Faculty (& Department or Academic Unit):	Faculty of Engineering, Department of Chemical and Materials Engineering
Contact Person:	Hyo-Jick Choi
Level of change: (choose one only) [?]	•
	• Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The graduate core course review committee recommended a two core course requirement for graduate students in the Materials Engineering program, where the students are allowed to take any two out of four core courses and identified the four core courses to be MAT E 640 - Advanced Materials Thermodynamics, MAT E 664 – Kinetics of Materials, MAT E 666 - Materials Applications of Scanning Electron Microscopy, and MAT E 661 - Structures and Characterization of Materials.

The structure of materials constitutes a fundamental element of the materials paradigm, setting materials science apart in various ways. After a review of the graduate courses offered in the Department of Chemical and Materials Engineering (CME) as well as in the Faculty of Engineering (FoE), there are currently no graduate-level courses available that comprehensively address the fundamental aspects of materials structure in a systematic manner. This graduate course focuses on the fundamentals of the structure of materials and X-ray diffraction and provides the students with the necessary theories and application tools for materials analysis. Incorporating this foundational course will strengthen the materials engineering graduate program. The course is ready to be offered regularly. This course is listed as a core course in the materials engineering graduate program.

Course Template

**** New Course ****	Proposed
	Subject & Number MAT E 661 Title Structure and Characterization of Materials Course Career Graduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Engineering Department Chemical and Materials Engineering Typically Offered either term or Spring/Summer

	<p>Description Basic symmetry elements and operations, crystallographic point groups and space groups, application of symmetry in materials analysis. Fundamentals of crystal chemistry, transformations, defects in metals and ionic crystals, interactions between point defects and interfaces. Reciprocal lattice, Brillouin zones, construction of Fermi surfaces, theory of diffraction. Fundamental principles of electron scattering, production and detection of x-rays, diffraction methods, application to crystal structure determination, chemical analysis x-ray spectrometry.</p>
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Reviewed/Approved by:

<p>REQUIRED: Faculty Council (or delegate) and approval date.</p> <p>Approved by Faculty of Engineering Executive Coordinating Committee (ECC): November 28, 2023</p>
<p>OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.</p> <p>Approved by CME Department Council: October 19, 2023 Approved by Faculty Graduate Planning Committee: November 1, 2023 Approved by Faculty Academic Planning Committee: November 9, 2023</p>

Course description and justification

1. Calendar description

CHE 661: Structure and Characterization of Materials

★ 3.0 (fi 6) (EITH/SP/SU, 3-0-0)

Basic symmetry elements and operations, crystallographic point groups and space groups, application of symmetry in materials analysis. Fundamentals of crystal chemistry, transformations, defects in metals and ionic crystals, interactions between point defects and interfaces. Reciprocal lattice, Brillouin zones, construction of Fermi surfaces, theory of diffraction. Fundamental principles of electron scattering, production and detection of x-rays, diffraction methods, application to crystal structure determination, chemical analysis x-ray spectrometry.

Learning Outcomes

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

Objective 1: Acquire and apply knowledge of symmetry elements and operations, point groups, and space groups to analyze the structure of materials.

Objective 2: Identify the structure of crystalline metallic/ionic materials, calculate distances and angles in any crystal system using the metric tensor, and determine coordination numbers.

Objective 3: Express individual defect types and reactions present in ionic crystals, identify net defect chemical reactions occurring simultaneously, construct Brouwer diagrams, and predict defect behavior and its effects on material properties.

Objective 4: Identify defect types in metals and understand their behavior.

Objective 5: Develop the ability to understand diffraction in reciprocal space based on the concepts of the reciprocal lattice and Brillouin zones. Predict materials' properties based on the concept of the Fermi surface.

Objective 6: Describe the fundamental principles of x-ray production, diffraction, and detection, and apply this knowledge to predict and characterize crystal structures, residual stress, and chemically analyze materials.

Course outline and schedule

Course contents	Time in weeks
1. Symmetry, Point Groups, Space Groups <ul style="list-style-type: none"> ● Symmetry elements and operations ● Elements of point symmetry: Rotation axes, mirror planes, identity, inversion center, rotoinversion axes, rotoreflection axes ● Combination of symmetry operations ● Symmetry of 14 Bravais Lattices ● Point groups: 	4

<ul style="list-style-type: none"> - 32 point groups - Low and high symmetry - Point group nomenclature - Determination of point groups - Point groups and physical properties ● Application of symmetry <ul style="list-style-type: none"> - Optical activity: a property of a crystal and molecules - Piezoelectricity - Molecular dipole moments ● Space groups <ul style="list-style-type: none"> - Translational symmetry - Screw axes - Glide planes - Space group nomenclature & interpretation of space group symbol - Space group and crystal structure - Relationships between space groups and point groups 	
<p>2. Structure of Crystalline Materials</p> <ul style="list-style-type: none"> ● Distances and angles in a 3D lattice: Metric tensor ● Fundamentals of crystal chemistry <ul style="list-style-type: none"> - Coordination: 2-,3-,4-,6-,8-,12-fold - Metal structures: simple/derivative/superlattice, Frank-Kasper alloy phases, quasicrystal approximants, 1D/2D/3D quasicrystals, amorphous metals - Ionic structures: FCC based structures (Rock salt, Fluorite, Zincblende), HCP based structures (Wurtzite, Corundum, Rutile), Perovskite (ABO_3), Spinel (AB_2O_4), silicates ● Transformations: dilatational, reconstructive, displacive, reconstructive, order-disorder ● Defects in metals: <ul style="list-style-type: none"> - Point defects: thermal formation, diffusion, interaction between point defects - Line defects (edge, screw dislocations): stress fields of dislocations, energy of a dislocation, line tension of a dislocation, force between dislocations, reactions between dislocations - Planar defects (interphase boundaries, grain boundaries, free surface): effects of the interface curvature on the equilibrium pressure/solubility between two phases, equilibrium vacancy concentration changes at curved surfaces (driving force for sintering) - Volume defects ● Defects in ionic crystals: <ul style="list-style-type: none"> - Point defects (Schottky defects, Frenkel defects) - Kröger-Vink notation - Defect chemical reactions: solute incorporation, electrons/holes/defect ionization, oxidation and reduction reactions - Electronic disorder: bandgaps, concentration of intrinsic electrons and holes, donors and acceptors, defect ionization, Fermi energy - Brouwer diagram ● Interactions between point defects and interfaces: ionic space charge potential, intrinsic potential, extrinsic potential 	4

<p>3. Reciprocal Lattice & Diffraction</p> <ul style="list-style-type: none"> ● Reciprocal space/momentum space ● Reciprocal lattice ● Reciprocal metric tensor <ul style="list-style-type: none"> - Computation of the angle between planes - Computation of the length of the reciprocal lattice vector ● Brillouin zones (BZ): Primitive cell, Wigner-Seitz Cell, BZ of SC, BCC, and FCC, labels of the BZs ● Construction of Fermi surfaces ● Theory of diffraction: Laue equations and their relation to Bragg's Law ● Ewald sphere of reflection 	2
<p>4. X-ray Diffraction</p> <ul style="list-style-type: none"> ● Elastic, inelastic scattering ● Production and detection of x-rays: Continuous/characteristic spectrum, absorption, filters ● Diffraction methods: Laue method, rotating crystal method, powder method, diffractometer method ● Intensities of diffracted beams: scattering by an electron, an atom (atomic scattering factor, f), and a unit cell (structure factor, F; Primitive, BCC, FCC, Diamond, HCP, Base centered), Multiplicity factor, Lorentz-polarization factor, Absorption factor, Temperature factor ● Structure of polycrystalline aggregates: particle/grain size, crystal orientation ● Determination of crystal structure: indexing cubic & noncubic crystals ● Order-disorder transformations ● Measurement of residual stress ● Chemical analysis X-ray spectrometry: Wavelength dispersive spectrometer (WDS), Energy dispersive spectrometer (EDS) 	3

Proposed Grading criteria (subject to change pending Instructor course modification)

The breakdown of the assessments included in this course is found in the table below.

Component	Percentage
Homework Assignments	25%
Midterm exam	30%
Final exam	45%

Unexcused absence from Midterm Examination will result in 0 out of 30%. With legitimate excuse, the Midterm weight will be carried over to the Final (i.e., Final Exam will be worth 75% of the overall grade).

Recommended Textbooks:

- Martin Julian Buerger, Elementary Crystallography - An Introduction to The Fundamental Geometrical Features of Crystals. Cambridge, MA: MIT Press, 1978.

- Charles Kittel, Introduction to Solid State Physics, Eighth Edition, John Wiley & Sons, 2015.
- Neil W. Ashcroft, N. David Mermin, Dan Wei, Solid State Physics, Cengage Learning, 2016.
- "Materials Science and Engineering, An Introduction", 8th or 9th Ed., by W.D. Callister Jr., John Wiley & Sons.
- Cullity, B. D. & Stock, S. R., Elements of X-ray Diffraction, Third Edition. Prentice-Hall, 2001.

Relationship to Other Courses Offered at the Graduate Level if any

CHEM 534 - X-ray Crystallography and CHEM 544 - Characterization Methods in Nanoscience

CHEM 534 is an introduction to structure determination by single-crystal X-ray diffraction methods. Topics include X-ray diffraction, crystal symmetry, experimental methods, structure solution, refinement, crystallographic software, and interpretation of crystal structure data. It focuses on X-ray diffraction methods for single crystals.

CHEM 544 is introduction to techniques in determining the composition and structure of materials on the nanometer scale. Characterization of atomic, meso-, and micro-structure of materials including impurities and defects. Major topics will include electron microscopy (transmission, scanning, and Auger) and associated spectroscopies (EDX, EELS), surface sensitive spectroscopies (e.g., XPS, AES, IR) and spectrometry (SIMS), synchrotron techniques, X-ray absorption, fluorescence and emission, and scanned probe microscopies (AFM, STM, etc.). The techniques will be examined through real-world nanotechnology case studies. It introduces diverse techniques used to determine the composition and structure of materials on the nanometer scale.

In contrast, MAT E 661 emphasizes fundamental principles of symmetry, crystallography, defect chemistry, and diffraction. The course applies these principles to X-ray diffraction for understanding and characterizing solid materials.

Faculty (& Department or Academic Unit):	Faculty of Engineering, Department of Chemical and Materials Engineering
Contact Person:	Jing Liu
Level of change: (choose one only) [?]	•
	• Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The graduate core course review committee recommended a two core course requirement for graduate students in the Materials Engineering program, where the students are allowed to take any two out of four core courses and identified the four core courses to be MAT E 640 - Advanced Materials Thermodynamics, MAT E 664 – Kinetics of Materials, MAT E 666 - Materials Applications of Scanning Electron Microscopy, and MAT E 661 - Structures and Characterization of Materials, where MAT E 664 and MAT E 661 currently are not in the Calendar.

Therefore, here, we propose a new course – MAT E 664 – Kinetics of Materials.

In today's rapidly advancing technological landscape, materials play a pivotal role in shaping innovation and progress across industries. Understanding the kinetics of materials is crucial for optimizing material properties and performance, which, in turn, underpins the development of cutting-edge technologies. This course is designed to bridge the gap between the static thermodynamic properties of materials and their dynamic behavior over time. By delving into the intricacies of material kinetics, students will gain the skills and knowledge necessary to engineer and manipulate materials for a wide range of applications.

This course is particularly relevant for graduate students seeking to deepen their expertise in materials science and engineering. It equips students with the tools to predict, control, and optimize material transformations, making them invaluable contributors to industries such as aerospace, electronics, energy, and biotechnology. Moreover, an understanding of material kinetics is essential for those pursuing research in areas like nanotechnology, metallurgy, and materials design.

Course Template

	Subject & Number MAT E 664
	Title Kinetics of Materials
	Course Career Graduate
	Units 3
	Approved Hours 3-0-0

<p>**** New Course ****</p>	<p>Fee index 6</p> <p>Faculty Engineering</p> <p>Department Chemical and Materials</p> <p>Engineering</p> <p>Typically Offered either term or Spring/Summer</p> <p>Description</p> <p>The Kinetics of Materials course delves into the fundamental principles governing the rate and mechanisms of material processes. This course provides students with a comprehensive understanding of the driving forces behind mass transport, diffusion mechanisms, chemical reactions, coarsening, and nucleation theories. It explores the dynamic aspects of materials, focusing on how they change and evolve over time. Through a combination of theoretical discussions and practical applications, students will develop a strong foundation in the kinetics of materials, enabling them to analyze and manipulate material behavior in various engineering and scientific contexts.</p>
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Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date.

Approved by Faculty of Engineering Executive Coordinating Committee (ECC): November 28, 2023

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.

Approved by CME Department Council: October 19, 2023

Approved by Faculty Graduate Planning Committee: November 1, 2023

Approved by Faculty Academic Planning Committee: November 9, 2023

Course description and justification

1. Calendar description

MAT E 664: Kinetics of Materials

★ 3.0 (fi 6) (Either term, 3-0-0)

The Kinetics of Materials course delves into the fundamental principles governing the rate and mechanisms of material processes. This course provides students with a comprehensive understanding of the driving forces behind mass transport, diffusion mechanisms, chemical reactions, coarsening, and nucleation theories. It explores the dynamic aspects of materials, focusing on how they change and evolve over time. Through a combination of theoretical discussions and practical applications, students will develop a strong foundation in the kinetics of materials, enabling them to analyze and manipulate material behavior in various engineering and scientific contexts.

Course justification and objective

In today's rapidly advancing technological landscape, materials play a pivotal role in shaping innovation and progress across industries. Understanding the kinetics of materials is crucial for optimizing material properties and performance, which, in turn, underpins the development of cutting-edge technologies. This course is designed to bridge the gap between the static thermodynamic properties of materials and their dynamic behavior over time. By delving into the intricacies of material kinetics, students will gain the skills and knowledge necessary to engineer and manipulate materials for a wide range of applications.

This course is particularly relevant for graduate students seeking to deepen their expertise in materials science and engineering. It equips students with the tools to predict, control, and optimize material transformations, making them invaluable contributors to industries such as aerospace, electronics, energy, and biotechnology. Moreover, an understanding of material kinetics is essential for those pursuing research in areas like nanotechnology, metallurgy, and materials design.

Upon successful completion of the "Kinetics of Materials" course, students will:

- Master Fundamental Concepts: Develop a comprehensive understanding of the key concepts in material kinetics, differentiating between thermodynamics and kinetics, and grasping the significance of entropy production as a driving force for material transformations.
- Analyze Mass Transport: Explore the driving forces behind mass transport, including diffusion, electromigration, thermomigration, capillarity effects, and stress migration, and apply this knowledge to real-world scenarios.
- Solve Diffusion Problems: Gain proficiency in solving diffusion equations and analyzing both steady and non-steady solutions, considering factors such as concentration-dependent diffusivity and anisotropic diffusivity.
- Understand Diffusion Mechanisms: Delve into the mechanisms underlying diffusion, including thermally activated diffusion and atomic diffusion in crystal lattices, facilitating a deeper appreciation of material atomic processes.
- Examine Crystal Imperfections: Investigate how material kinetics are influenced by crystal imperfections such as grain boundaries, surfaces, and dislocations, and understand their impact on material behavior.
- Explore Chemical Reactions: Analyze homogeneous and heterogeneous chemical reactions, classify them, and determine temperature-dependent rate constants, enabling the assessment of reaction kinetics.
- Predict Coarsening and Grain Growth: Apply theories of coarsening (Ostwald ripening) and grain growth to predict the evolution of material microstructures, essential for materials engineering and processing.
- Study Spinodal Decomposition: Understand spinodal decomposition phenomena, criteria, and concentration profile evolution, and appreciate the effects of interfacial and strain energy on material phase separation.
- Master Nucleation Theories: Gain proficiency in nucleation theories, including homogeneous and heterogeneous nucleation, and their application in solidification processes.
- Apply Knowledge in Research and Industry: Develop the skills to apply the principles of material kinetics in research and industrial settings, contributing to advancements in materials science and engineering.

By achieving these objectives, students will be well-prepared to navigate the dynamic world of materials science, making informed decisions and innovative contributions to the development of novel materials and technologies.

Learning outcomes

By the end of the course, students should have acquired a profound understanding of material kinetics, enabling them to apply their knowledge in diverse contexts and contribute to the advancement of materials science and engineering. Specifically, students will be able to:

- Distinguish Between Thermodynamics and Kinetics: Discern the fundamental differences between thermodynamics and kinetics, appreciating how each governs distinct aspects of material behavior and transformations.
- Identify Driving Forces for Mass Transport: Recognize and evaluate various driving forces for mass transport, such as diffusion, electromigration, capillarity effects, and stress migration, and apply this understanding to analyze and manipulate material systems.
- Solve Diffusion Problems: Proficiently solve diffusion equations and predict both steady and non-steady solutions, considering parameters like concentration-dependent diffusivity and anisotropic diffusivity, to model material diffusion processes accurately.
- Comprehend Diffusion Mechanisms: Understand the intricacies of diffusion mechanisms, including thermally activated diffusion and atomic diffusion in crystal lattices, and utilize this knowledge to elucidate the atomic-scale processes governing material diffusion.
- Analyze Crystal Imperfections: Analyze the impact of crystal imperfections, such as grain boundaries, surfaces, and dislocations, on material kinetics, and employ this understanding to optimize material properties.
- Evaluate Chemical Reactions: Evaluate and classify homogeneous and heterogeneous chemical reactions, derive temperature-dependent rate constants, and employ various methods to analyze reaction data, facilitating the assessment of reaction kinetics.
- Predict Coarsening and Grain Growth: Predict material microstructure evolution by applying theories of coarsening (Ostwald ripening) and grain growth, enabling the design of materials with tailored properties.
- Examine Spinodal Decomposition: Investigate spinodal decomposition phenomena, apply criteria for its occurrence, and comprehend the evolution of concentration profiles during the process, considering interfacial and strain energy effects.
- Apply Nucleation Theories: Apply nucleation theories, including homogeneous and heterogeneous nucleation, to understand and control solidification processes, a critical skill in materials processing and manufacturing.
- Utilize Knowledge in Research and Industry: Effectively apply the principles of material kinetics in research and industrial settings, contributing to innovative advancements in fields such as aerospace, electronics, energy, and beyond.

Textbooks and References

- Balluffi, R. W., S. M. Allen, and W. C. Carter. Kinetics of Materials. New York, NY: John Wiley & Sons, 2005. ISBN: 9780471246893.
- O. Levenspiel, "Chemical Reaction Engineering", 3rd Ed., John Wiley & Sons, 1999.
- D. A. Porter, "Phase Transformations in metals and alloys", 2nd Ed., Chapman & Hall, 1992.

Course outline and schedule

Topics (subject to change)	H # of Lectures*
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Chapter 1: Introduction <ul style="list-style-type: none"> • Thermodynamics vs. Kinetics; • steady flow process; • irreversible thermodynamics; • entropy production & driving force 	2
Chapter 2: Driving forces for mass transport <ul style="list-style-type: none"> • Diffusion – Chemical potential gradient • Electromigration – Electrical potential gradient • Thermomigration – Temperature (thermal potential) gradient • Capillarity effect – Surface (chemical) potential gradient • Stress migration – Stress (mechanic potential) gradient 	3
Chapter 3: Diffusion equations and solutions <ul style="list-style-type: none"> • Diffusion equation • Steady and non-steady solutions • Concentration-dependent diffusivity • Anisotropic diffusivity 	3
Chapter 4: Diffusion mechanism <ul style="list-style-type: none"> • Thermally activated diffusion: Atomic jumping process; Random-walk & correlated atomic jumping process • Diffusion in crystal lattices: Atomic diffusion mechanisms; Atomic diffusion in ionic solids 	2
Chapter 5: Diffusion in crystal imperfections <ul style="list-style-type: none"> • Grain boundary diffusion: Fisher's analysis of GB diffusion • Surface diffusion; • Dislocation diffusion 	2
Review Session 1	1
Chapter 6: Homogeneous chemical reactions <ul style="list-style-type: none"> • Overview of chemical reaction: Classification of chemical reactions; Rate equation (elementary vs. non-elementary); Temperature-dependent rate constant • Analysis of reaction data for batch-type homogeneous reaction: Integral method & derivative method; Fractional- (Half-) lifetime analysis 	2.5
Chapter 7: Heterogeneous chemical reactions <ul style="list-style-type: none"> • Fluid-solid chemical reaction: Oxidation of Si substrate • Fluid-fluid chemical reaction: Transport resistance (RT) vs Reaction resistance (RR); Rate equations for different RT / RR • Fluid-particle chemical reaction: Progressive-Conversion (PCM) vs Shrinking-Core (SCM); Rate determining steps and rate equations 	2.5
Review Session 2	1
Chapter 8: Coarsening & grain growth <ul style="list-style-type: none"> • Coarsening (Ostwald Ripening): Classical Mean-Field Theory of Coarsening; Rate equation for diffusion-limited coarsening; Rate equation for source-limited coarsening • Grain growth: Stability of triple junctions formed by grain boundaries; Rate equation of grain growth 	2

Chapter 9: Spinodal decomposition <ul style="list-style-type: none"> Spinodal decomposition phenomena: Spinodal decomposition vs eutectic reaction; Criteria for spinodal decomposition; Negative interdiffusivity (uphill diffusion) Evolutionary concentration profile during spinodal decomposition: Diffusion equation; Effect of interfacial energy & strain energy 	2
Chapter 10: Nucleation theory and Solidification <ul style="list-style-type: none"> Homogeneous nucleation: Steady-state nucleation rate; Non-steady state nucleation (incubation period) Heterogeneous nucleation: Nucleation at grain boundaries 	2
Review Session 3	1

* # of lectures is proposed based on 1 hour and 20 minutes per lecture.

Expected and types of assessments and suggested grade weight

The overall performance of this course is evaluated based on the following components:

- 4 Regular assignments for practice purpose (20%)
- 1 Group project for evaluation purpose (10%)
- 1 Midterm exam (30%)
- 1 Final exam (40%)

The final letter grade will be assigned at the end of the term to align with a student's performance and level of achievement of the goals/outcomes of this course.

Assignments

There are four regular assignments for practice purpose. They are required to be submitted to the instructor for marking.

Special assignment

1 Group project for evaluation purpose. They are required to be submitted to the instructor for marking.

Midterm and Final exams

Each exam is a closed-book exam, but students are allowed to prepare and bring formula sheet(s) for the exams. Calculators can be used in the exam, but no cell phones and electronic devices of any other kinds are allowed.

Relationship to Other Courses Offered at the Graduate Level if any

CHEM 424 - Optical Spectroscopy and Electrochemistry

CHEM 424 serves as a foundational exploration of principles and applications in the realms of optical spectroscopy and electrochemistry for chemical analysis. It delves into electronic and vibrational spectroscopy, offering insights into their utility for probing and monitoring chemical and biochemical systems. The focus extends to **electrode kinetics**, mass transport, and voltammetry, thereby equipping students with a robust understanding of electroanalysis.

CHEM 479 - Molecular Kinetics

CHEM 479 provides an introduction to rate laws governing both simple and complex reactions. The curriculum encompasses a study of reaction mechanisms, potential energy surfaces, molecular dynamics, and theories of reaction rates, with a specific emphasis on their application to **gas and liquid phase reactions**, and **photochemical reactions** in both chemical and biological contexts, as well as enzyme catalysis.

Conversely, MAT E 661 - The Kinetics of Materials takes a distinctive approach by emphasizing fundamental principles governing the rates and mechanisms of material processes. This course offers a comprehensive exploration of the driving forces

behind mass transport, diffusion mechanisms, chemical reactions, and theories related to coarsening and nucleation. Its primary objective is to equip students with a nuanced understanding of the kinetic aspects involved in characterizing solid materials. While CHEM 424 and CHEM 479 focus on the application of kinetics in the realms of chemical analysis and molecular processes, respectively, MAT E 661 extends this exploration into the kinetics of material transformations.

Faculty (& Department or Academic Unit):	Mechanical Engineering
Contact Person:	John Doucette (jed3@ualberta.ca)
Level of change: (choose one only)	• Undergraduate
	• Graduate
Type of change request: (check all that apply)	• Program
	• Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Sequence generally undesirable among students. It is often the last choice among the MECE program streams by students and as such has students who are not well engaged. This results in the greatest proportion of students breaking their program. No students were admitted to this plan for the 2023-24 Academic Year.

Calendar Copy

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Year 2 Fall Term 3 CIV E 270 – Mechanics of Deformable Bodies I ENGG 299 – Orientation to Cooperative Education MATH 209 – Calculus for Engineering III MEC E 230 – Introduction to Thermo-Fluid Sciences MEC E 260 – Mechanical Design I MEC E 265 – Engineering Graphics and CAD STAT 235 – Introductory Statistics for Engineering	
Winter Term 4 CH E 243 – Engineering Thermodynamics ECE 209 – Fundamentals of Electrical Engineering	

MAT E 202 – Materials Science II
 MATH 201 – Differential Equations
 MEC E 200 – Introduction to Mechanical Engineering
 MEC E 250 – Engineering Mechanics II

Summer

WKEXP 901 – Engineering Work Experience I

Year 3**Fall**

WKEXP 902 – Engineering Work Experience II

Winter Term 5

Course Group 3A

MATH 300 – Advanced Boundary Value Problems

MEC E 300 – Mechanical Measurements

MEC E 301 – Mechanical Engineering Laboratory I

MEC E 331 – Fluid Mechanics I

MEC E 371 – Heat Transfer

MEC E 380 – Advanced Strength of Materials I

OR

Course Group 3B

ENG M 310 – Engineering Economy OR

ENG M 401 – Financial Management for Engineers

Complementary Studies Elective (3-0-0)

MEC E 340 – Applied Thermodynamics

MEC E 360 – Mechanical Design II

MEC E 362 – Mechanics of Machines

MEC E 390 – Numerical Methods of Mechanical Engineers

Summer

WKEXP 903 – Engineering Work Experience III

Year 4**Fall**

WKEXP 904 – Engineering Work Experience IV

Winter Term 6

Course Group 3A

MATH 300 – Advanced Boundary Value Problems

MEC E 300 – Mechanical Measurements

MEC E 301 – Mechanical Engineering Laboratory I

MEC E 331 – Fluid Mechanics I

MEC E 371 – Heat Transfer

MEC E 380 – Advanced Strength of Materials I

OR

Course Group 3B

ENG M 310 – Engineering Economy OR

ENG M 401 – Financial Management for Engineers

Complementary Studies Elective (3-0-0)

MEC E 340 – Applied Thermodynamics

MEC E 360 – Mechanical Design II

MEC E 362 – Mechanics of Machines

MEC E 390 – Numerical Methods of Mechanical Engineers

Summer Term 7

ENGG 404 – Engineering Safety and Risk

Management-Leadership in Risk Management

Program and Technical Elective (3-0-0)

Program and Technical Elective (3-0-0)

MEC E 430 – Fluid Mechanics II OR

MEC E 480 – Advanced Strength of Materials II

MEC E 463 – Thermo-Fluids Systems Design

Program and Technical Elective (3-0-0)

Year 5

Fall

WKEXP 905 – Engineering Work Experience V

Winter Term 8

CH E 448 – Process Control for Mechanical

Engineers OR

MEC E 420 – Feedback Control Design of Dynamic Systems

ENGG 400 – The Practice of the Engineering

Profession

ITS Elective (3-0-0)

MEC E 403 – Mechanical Engineering Laboratory II

MEC E 451 – Vibrations and Sound

MEC E 460 – Design Project

Program and Technical Elective (3-0-0)

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REQUIRED: Faculty Council (or delegate) and approval date.

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OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.

- Approved by MECE Department Council: August 30, 2023
- Approved by Faculty APC: October 12, 2023

Faculty (& Department or Academic Unit):	Mechanical Engineering
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Level of change: (choose one only)	<ul style="list-style-type: none"> • Undergraduate • Graduate
Type of change request: (check all that apply)	<ul style="list-style-type: none"> • Program • Regulation
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Rationale

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Reducing from four co-op streams to three.

Calendar Copy

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Year 2**Fall Term 3**

CIV E 270 – Mechanics of Deformable Bodies I
 ENGG 299 – Orientation to Cooperative Education
 MATH 209 – Calculus for Engineering III
 MEC E 230 – Introduction to Thermo-Fluid Sciences
 MEC E 260 – Mechanical Design I
 MEC E 265 – Engineering Graphics and CAD
 STAT 235 – Introductory Statistics for Engineering

Winter Term 4

ECE 209 – Fundamentals of Electrical Engineering
 MATH 201 – Differential Equations
 CH E 243 – Engineering Thermodynamics
 MAT E 202 – Materials Science II
 MEC E 200 – Introduction to Mechanical Engineering
 MEC E 250 – Engineering Mechanics II

Summer Term 5

Course Group 3A
 MATH 300 – Advanced Boundary Value Problems
 MEC E 300 – Mechanical Measurements
 MEC E 301 – Mechanical Engineering Laboratory I
 MEC E 331 – Fluid Mechanics I
 MEC E 371 – Heat Transfer
 MEC E 380 – Advanced Strength of Materials I
 OR
 Course Group 3B
 ENG M 310 – Engineering Economy OR
 ENG M 401 – Financial Management for Engineers

Complementary Studies Elective (3-0-0)

MEC E 340 – Applied Thermodynamics
 MEC E 360 – Mechanical Design II
 MEC E 362 – Mechanics of Machines
 MEC E 390 – Numerical Methods of Mechanical Engineers

Year 3**Fall**

WKEXP 901 – Engineering Work Experience I

Winter

WKEXP 902 – Engineering Work Experience II

Summer Term 6

Course Group 3A
 MATH 300 – Advanced Boundary Value Problems
 MEC E 300 – Mechanical Measurements
 MEC E 301 – Mechanical Engineering Laboratory I
 MEC E 331 – Fluid Mechanics I

MEC E 371 - Heat Transfer
MEC E 380 - Advanced Strength of Materials I
OR
Course Group 3B
ENG M 310 - Engineering Economy OR
ENG M 401 - Financial Management for Engineers
Complementary Studies Elective (3-0-0)
MEC E 340 - Applied Thermodynamics
MEC E 360 - Mechanical Design II
MEC E 362 - Mechanics of Machines
MEC E 390 - Numerical Methods of Mechanical Engineers

Year 4**Fall**

WKEXP 903 - Engineering Work Experience III

Winter

WKEXP 904 - Engineering Work Experience IV

Summer

WKEXP 905 - Engineering Work Experience V

Year 5**Fall Term 7**

Program and Technical Elective (3-0-0)
Program and Technical Elective (3-0-0)
ENGG 404 - Engineering Safety and Risk
Management Leadership in Risk Management

MEC E 430 - Fluid Mechanics II

OR

MEC E 480 - Advanced Strength of Materials II

MEC E 463 - Thermo-Fluids Systems Design
Program and Technical Elective (3-0-0)

Winter Term 8

CH E 448 - Process Control for Mechanical
Engineers

OR

MEC E 420 - Feedback Control Design of Dynamic
Systems

ENGG 400 - The Practice of the Engineering
Profession

ITS Elective (3-0-0)

MEC E 403 - Mechanical Engineering Laboratory II

MEC E 451 - Vibrations and Sound

MEC E 460 - Design Project

Program and Technical Elective (3-0-0)

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For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The aim is to consolidate the MECE program to achieve a number of goals that include:

- Removal of 4-month work term (seen as advantageous for both students and employers);
- Reduced teaching load in Spring / Summer semester (reduced to third year courses only).

An important aspect of these changes is that all plans will include a Fall and Winter academic term in the final year, allowing for the possibility of a full-year capstone project.

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<u>Winter Term 4</u> CH E 243 - Engineering Thermodynamics	<u>Winter Term 4</u> CH E 243 - Engineering Thermodynamics

ECE 209 - Fundamentals of Electrical Engineering
 MAT E 202 - Materials Science II
 MATH 201 - Differential Equations
 MEC E 200 - Introduction to Mechanical Engineering
 MEC E 250 - Engineering Mechanics II

Summer

~~WKEXP 901 - Engineering Work Experience I~~

Year 3

Fall

~~WKEXP 902 - Engineering Work Experience II~~

Winter Term 5

Course Group 3A

~~MATH 300 - Advanced Boundary Value Problems
 MEC E 300 - Mechanical Measurements
 MEC E 301 - Mechanical Engineering Laboratory I
 MEC E 331 - Fluid Mechanics I
 MEC E 371 - Heat Transfer
 MEC E 380 - Advanced Strength of Materials I
 OR~~

Course Group 3B

~~ENG M 310 - Engineering Economy OR
 ENG M 401 - Financial Management for Engineers~~

Complementary Studies Elective (3-0-0)

~~MEC E 340 - Applied Thermodynamics
 MEC E 360 - Mechanical Design II
 MEC E 362 - Mechanics of Machines~~

ECE 209 - Fundamentals of Electrical Engineering
 MAT E 202 - Materials Science II
 MATH 201 - Differential Equations
 MEC E 200 - Introduction to Mechanical Engineering
 MEC E 250 - Engineering Mechanics II

Summer Term 5

Course Group 3A

MATH 300 - Advanced Boundary Value Problems
 MEC E 300 - Mechanical Measurements
 MEC E 301 - Mechanical Engineering Laboratory I
 MEC E 331 - Fluid Mechanics I
 MEC E 371 - Heat Transfer
 MEC E 380 - Advanced Strength of Materials I
 OR

Course Group 3B

ENG M 310 - Engineering Economy
 OR
 ENG M 401 - Financial Management for Engineers

Complementary Studies Elective (3-0-0)

MEC E 340 - Applied Thermodynamics
 MEC E 360 - Mechanical Design II
 MEC E 362 - Mechanics of Machines
 MEC E 390 - Numerical Methods of Mechanical Engineers

Year 3

Fall

WKEXP 901 - Engineering Work Experience I

Winter

WKEXP 902 - Engineering Work Experience II

MEC E 390 - Numerical Methods of Mechanical Engineers

Summer

WKEXP 903 - Engineering Work Experience III

Year 4

Fall

WKEXP 904 - Engineering Work Experience IV

Winter Term 6

Course Group 3A

MATH 300 - Advanced Boundary Value Problems

MEC E 300 - Mechanical Measurements

MEC E 301 - Mechanical Engineering Laboratory I

MEC E 331 - Fluid Mechanics I

MEC E 371 - Heat Transfer

MEC E 380 - Advanced Strength of Materials I

OR

Course Group 3B

ENG M 310 - Engineering Economy OR

ENG M 401 - Financial Management for Engineers

Complementary Studies Elective (3-0-0)

MEC E 340 - Applied Thermodynamics

MEC E 360 - Mechanical Design II

MEC E 362 - Mechanics of Machines

MEC E 390 - Numerical Methods of Mechanical Engineers

Summer

WKEXP 903 - Engineering Work Experience III

Year 4

Fall Term 6

Course Group 3A

MATH 300 - Advanced Boundary Value Problems

MEC E 300 - Mechanical Measurements

MEC E 301 - Mechanical Engineering Laboratory I

MEC E 331 - Fluid Mechanics I

MEC E 371 - Heat Transfer

MEC E 380 - Advanced Strength of Materials I

OR

Course Group 3B

ENG M 310 - Engineering Economy

OR

ENG M 401 - Financial Management for Engineers

Complementary Studies Elective (3-0-0)

MEC E 340 - Applied Thermodynamics

MEC E 360 - Mechanical Design II

MEC E 362 - Mechanics of Machines

MEC E 390 - Numerical Methods of Mechanical Engineers

Winter

WKEXP 904 - Engineering Work Experience IV

Summer

<p>Summer Term 7 ENG 404 - Engineering Safety and Risk Management-Leadership in Risk Management Program and Technical Elective (3-0-0) Program and Technical Elective (3-0-0)</p> <p>MEC E 430 - Fluid Mechanics II OR MEC E 480 - Advanced Strength of Materials II</p> <p>MEC E 463 - Thermo-Fluids Systems Design Program and Technical Elective (3-0-0)</p> <p>Year 5 Fall WEXP 905 - Engineering Work Experience V</p> <p>Winter Term 8 CH E 448 - Process Control for Mechanical Engineers OR MEC E 420 - Feedback Control Design of Dynamic Systems</p> <p>ENG 400 - The Practice of the Engineering Profession ITS Elective (3-0-0) MEC E 403 - Mechanical Engineering Laboratory II MEC E 451 - Vibrations and Sound MEC E 460 - Design Project Program and Technical Elective (3-0-0)</p>	<p>WEXP 905 - Engineering Work Experience V</p> <p>Year 5 Fall Term 7 ENG 404 - Engineering Safety and Risk Management-Leadership in Risk Management Program and Technical Elective (3-0-0) Program and Technical Elective (3-0-0)</p> <p>MEC E 430 - Fluid Mechanics II OR MEC E 480 - Advanced Strength of Materials II</p> <p>MEC E 463 - Thermo-Fluids Systems Design Program and Technical Elective (3-0-0)</p> <p>Winter Term 8 MEC E 420 - Feedback Control Design of Dynamic Systems ENG 400 - The Practice of the Engineering Profession ITS Elective (3-0-0) MEC E 403 - Mechanical Engineering Laboratory II MEC E 451 - Vibrations and Sound MEC E 460 - Design Project Program and Technical Elective (3-0-0)</p>
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Faculty (& Department or Academic Unit):	Mechanical Engineering
Contact Person:	John Doucette (jed3@ualberta.ca)
Level of change: (choose one only)	• Undergraduate
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Type of change request: (check all that apply)	• Program
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For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

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The aim is to consolidate the MECE program to achieve a number of goals that include:

- Removal of 4-month work term (seen as advantageous for both students and employers);
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An important aspect of these changes is that all plans will include a Fall and Winter academic term in the final year, allowing for the possibility of a full-year capstone project.

Calendar Copy

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Current Copy: Removed language	Proposed Copy: New language
<u>Year 2</u> <u>Fall Term 3</u> CH E 243 - Engineering Thermodynamics CIV E 270 - Mechanics of Deformable Bodies I ENGG 299 - Orientation to Cooperative Education MATH 209 - Calculus for Engineering III MEC E 200 - Introduction to Mechanical Engineering MEC E 250 - Engineering Mechanics II STAT 235 - Introductory Statistics for Engineering <u>Winter</u> WKEXP 901 - Engineering Work Experience I	<u>Year 2</u> <u>Fall Term 3</u> CH E 243 - Engineering Thermodynamics CIV E 270 - Mechanics of Deformable Bodies I ENGG 299 - Orientation to Cooperative Education MATH 209 - Calculus for Engineering III MEC E 200 - Introduction to Mechanical Engineering MEC E 250 - Engineering Mechanics II STAT 235 - Introductory Statistics for Engineering <u>Winter Term 4</u> ECE 209 - Fundamentals of Electrical Engineering

<p>Summer Term 4 ECE 209 – Fundamentals of Electrical Engineering MAT E 202 - Materials Science II MATH 201 – Differential Equations MEC E 230 – Introduction to Thermo-Fluid Sciences MEC E 260 – Mechanical Design I MEC E 265 – Engineering Graphics and CAD</p> <p>Year 3 Fall Term 5 Course Group 3B ENG M 310 – Engineering Economy OR ENG M 401 - Financial Management for Engineers</p> <p>Complementary Studies Elective (3-0-0) MEC E 340 – Applied Thermodynamics MEC E 360 – Mechanical Design II MEC E 362 – Mechanics of Machines MEC E 390 – Numerical Methods of Mechanical Engineers</p> <p>Winter WKEXP 902 – Engineering Work Experience II</p> <p>Summer WKEXP 903 – Engineering Work Experience III</p>	<p>MAT E 202 - Materials Science II MATH 201 - Differential Equations MEC E 230 - Introduction to Thermo-Fluid Sciences MEC E 260 - Mechanical Design I MEC E 265 - Engineering Graphics and CAD</p> <p>Summer WKEXP 901 - Engineering Work Experience I</p> <p>Year 3 Fall WKEXP 902 - Engineering Work Experience II</p> <p>Winter Term 5 Course Group 3B ENG M 310 - Engineering Economy OR ENG M 401 - Financial Management for Engineers</p> <p>Complementary Studies Elective (3-0-0) MEC E 340 - Applied Thermodynamics MEC E 360 - Mechanical Design II MEC E 362 - Mechanics of Machines MEC E 390 - Numerical Methods of Mechanical Engineers</p> <p>Summer Term 6 Course Group 3A MATH 300 - Advanced Boundary Value Problems MEC E 300 - Mechanical Measurements MEC E 301 - Mechanical Engineering Laboratory I MEC E 331 - Fluid Mechanics I MEC E 371 - Heat Transfer MEC E 380 - Advanced Strength of Materials I</p>
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Year 4**Fall Term 6****Course Group 3A**

MATH 300 - Advanced Boundary Value Problems
 MEC E 300 - Mechanical Measurements
 MEC E 301 - Mechanical Engineering Laboratory I
 MEC E 331 - Fluid Mechanics I
 MEC E 371 - Heat Transfer
 MEC E 380 - Advanced Strength of Materials I

Winter

WKEXP 904 - Engineering Work Experience IV

Summer Term 7

Program and Technical Elective (3-0-0)
 Program and Technical Elective (3-0-0)
 ITS Elective (3-0-0)
 MEC E 403 - Mechanical Engineering Laboratory II
 MEC E 451 - Vibrations and Sound
 MEC E 460 - Design Project

Year 5**Fall**

WKEXP 905 - Engineering Work Experience V

Winter Term 8

CH E 448 - Process Control for Mechanical Engineers

OR

MEC E 420 - Feedback Control Design of Dynamic Systems

ENGG 400 - The Practice of the Engineering Profession

ENGG 404 - Engineering Safety and Risk Management-Leadership in Risk Management
 Program and Technical Elective (3-0-0)

MEC E 430 - Fluid Mechanics II

OR

MEC E 480 - Advanced Strength of Materials II

MEC E 463 - Thermo-Fluids Systems Design
 Program and Technical Elective (3-0-0)

Year 4**Fall**

WKEXP 903 - Engineering Work Experience III

Winter

WKEXP 904 - Engineering Work Experience IV

Summer

WKEXP 905 - Engineering Work Experience V

Year 5**Fall Term 7**

Program and Technical Elective (3-0-0)
 Program and Technical Elective (3-0-0)
 ITS Elective (3-0-0)
 MEC E 403 - Mechanical Engineering Laboratory II
 MEC E 451 - Vibrations and Sound
 MEC E 460 - Design Project

Winter Term 8

MEC E 420 - Feedback Control Design of Dynamic Systems

ENGG 400 - The Practice of the Engineering Profession

ENGG 404 - Engineering Safety and Risk Management-Leadership in Risk Management
 Program and Technical Elective (3-0-0)

MEC E 430 - Fluid Mechanics II

OR

MEC E 480 - Advanced Strength of Materials II

MEC E 463 - Thermo-Fluids Systems Design
 Program and Technical Elective (3-0-0)

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<u>Winter Term 4</u> ECE 209 - Fundamentals of Electrical Engineering	<u>Winter Term 4</u> ECE 209 - Fundamentals of Electrical Engineering

MAT E 202 - Materials Science II
 MATH 201 - Differential Equations
 MEC E 230 - Introduction to Thermo-Fluid Sciences
 MEC E 260 - Mechanical Design I
 MEC E 265 - Engineering Graphics and CAD

Summer

WKEXP 902 - Engineering Work Experience II

Year 3

Fall Term 5

~~BME 320 - Human Anatomy and Physiology: Cells and Tissue~~

~~ENG M 310 - Engineering Economy~~

~~OR~~

~~ENG M 401 - Financial Management for Engineers~~

~~MEC E 340 - Applied Thermodynamics~~

~~MEC E 360 - Mechanical Design II~~

~~MEC E 362 - Mechanics of Machines~~

~~MEC E 390 - Numerical Methods of Mechanical Engineers~~

Winter

~~WKEXP 903 - Engineering Work Experience III~~

Summer Term 6

MATH 300 - Advanced Boundary Value Problems

MEC E 300 - Mechanical Measurements

MEC E 301 - Mechanical Engineering Laboratory I

MEC E 331 - Fluid Mechanics I

MEC E 371 - Heat Transfer

MEC E 380 - Advanced Strength of Materials I

Year 4

Fall Term 7

BME 321 - Human Anatomy and Physiology: Systems

MAT E 202 - Materials Science II
 MATH 201 - Differential Equations
 MEC E 230 - Introduction to Thermo-Fluid Sciences
 MEC E 260 - Mechanical Design I
 MEC E 265 - Engineering Graphics and CAD

Summer

WKEXP 902 - Engineering Work Experience II

Year 3

Fall

WKEXP 903 - Engineering Work Experience III

Winter Term 5

BME 320 - Human Anatomy and Physiology: Cells and Tissue

ENG M 310 - Engineering Economy

OR

ENG M 401 - Financial Management for Engineers

MEC E 340 - Applied Thermodynamics

MEC E 360 - Mechanical Design II

MEC E 362 - Mechanics of Machines

MEC E 390 - Numerical Methods of Mechanical Engineers

Summer Term 6

MATH 300 - Advanced Boundary Value Problems

MEC E 300 - Mechanical Measurements

MEC E 301 - Mechanical Engineering Laboratory I

MEC E 331 - Fluid Mechanics I

MEC E 371 - Heat Transfer

MEC E 380 - Advanced Strength of Materials I

Year 4

Fall Term 7

BME 321 - Human Anatomy and Physiology: Systems

<p>ENGG 404 - Engineering Safety and Risk Management-Leadership in Risk Management Complementary Studies Elective (3-0-0) MEC E 563 - Finite Element Method for Mechanical Engineering Program and Technical Elective (3-0-0) STAT 337 - Biostatistics</p> <p><u>Winter</u> WKEXP 906 - Engineering Work Experience VI</p> <p><u>Summer</u> WKEXP 904 - Engineering Work Experience IV</p> <p><u>Year 5</u> <u>Fall Term 8</u> ITS Elective (3-0-0) MEC E 430 - Fluid Mechanics II MEC E 463 - Thermo-Fluids Systems Design Program and Technical Elective (3-0-0) Program and Technical Elective (3-0-0)</p> <p><u>Winter Term 9</u> CH E 448 - Process Control for Mechanical Engineers OR MEC E 420 - Feedback Control Design of Dynamic Systems</p> <p>ENGG 400 - The Practice of the Engineering Profession MEC E 485 - Biomechanical Modelling of Human Tissues and Systems MEC E 403 - Mechanical Engineering Laboratory II MEC E 451 - Vibrations and Sound MEC E 460 - Design Project PHIL 386 - Health Care Ethics</p>	<p>ENGG 404 - Engineering Safety and Risk Management-Leadership in Risk Management Complementary Studies Elective (3-0-0) MEC E 563 - Finite Element Method for Mechanical Engineering Program and Technical Elective (3-0-0) STAT 252 - Introduction to Applied Statistics II</p> <p><u>Winter</u> WKEXP 904 - Engineering Work Experience IV</p> <p><u>Summer</u> WKEXP 906 - Engineering Work Experience VI</p> <p><u>Year 5</u> <u>Fall Term 8</u> ITS Elective (3-0-0) MEC E 430 - Fluid Mechanics II MEC E 463 - Thermo-Fluids Systems Design Program and Technical Elective (3-0-0) Program and Technical Elective (3-0-0)</p> <p><u>Winter Term 9</u> MEC E 420 - Feedback Control Design of Dynamic Systems ENGG 400 - The Practice of the Engineering Profession MEC E 485 - Biomechanical Modelling of Human Tissues and Systems MEC E 403 - Mechanical Engineering Laboratory II MEC E 451 - Vibrations and Sound MEC E 460 - Design Project PHIL 386 - Health Care Ethics</p>
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Reviewed/Approved by:

<p>REQUIRED: Faculty Council (or delegate) and approval date.</p> <ul style="list-style-type: none"> Approved by Faculty of Engineering Executive Coordinating Committee (ECC): November 28, 2023
<p>OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.</p> <ul style="list-style-type: none"> Approved by MECE Department Council: August 30, 2023 Approved by Faculty APC: October 12, 2023

Faculty (& Department or Academic Unit):	Engineering
Contact Person:	Don Raboud
Level of change: (choose one only)	<input checked="" type="radio"/> Undergraduate
Type of change request: (check all that apply)	<input checked="" type="radio"/> Regulation
For which term is this intended to take effect?	Fall 2023
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The calendar entry as is is simply not accurate.

A student who completes the qualifying year with a GPA in the 1.7 – 1.9 range is not (always) required to withdraw. For example, students completing Y1Q1 with a GPA in the 1.7-1.9 range are specifically admitted to a second qualifying year if they have completed the required number of units.

As well, the calendar section on “Time Limit for Completion of Degree” has no relevance to qualifying year students.

This entry 6.b.i should be removed as it is incorrect, and in fact progress for qualifying year students (Y1Q2, Y1Q2, Y2Q2) are described elsewhere in the calendar (1. Admissions):

“Students admitted to the qualifying year must normally qualify for a specialized program in not more than two terms (one year). Students entering directly from high school or with less than 15.0 units of transfer credit may, subject to space availability, be allowed an additional two terms (one year) to qualify. Students entering with 15.0 or more units of transfer credit must qualify in not more than two terms (one year). In order to qualify, a student must be in satisfactory standing after Fall/Winter and have credit in at least 30.0 units (excluding ENGG 100/ENGG 160) of courses transferable to a specialized program. A student who is offered admission to a specialized program after two terms has qualified and may not continue as a qualifying student. Students who fail to qualify within the indicated number of terms are required to withdraw and are not normally readmitted to the Faculty.”

Calendar Copy

URL in current Calendar (or “New page”)	
https://calendar.ualberta.ca/content.php?catoid=36&navoid=11220#academic-regulations	
Current Copy: Removed language	Proposed Copy: New language

<p>6. Promotion:</p> <p>[...]</p> <p>a. Satisfactory Standing:</p> <p>[...]</p> <p>b. Marginal Standing-Academic Warning: Fall/Winter or Spring/Summer GPA of 1.7 to 1.9 inclusive. Proceed to next term on academic warning, repeating any failed course(s) and other courses as specified by the Dean, unless one of the following conditions applies, in which case the student must withdraw:</p> <ul style="list-style-type: none"> i. occurs immediately upon completion of the qualifying year [also see Time Limit for Completion of Degree with respect to students who entered directly from high school or with less than 15.0 units of transfer credit]. ii. previously on academic warning on two or more occasions. iii. previously required to withdraw and previously on academic warning. iv. already on academic warning or probation. 	<p>6. Promotion:</p> <p>[...]</p> <p>c. Satisfactory Standing:</p> <p>[...]</p> <p>d. Marginal Standing-Academic Warning: Fall/Winter or Spring/Summer GPA of 1.7 to 1.9 inclusive. Proceed to next term on academic warning, repeating any failed course(s) and other courses as specified by the Dean, unless one of the following conditions applies, in which case the student must withdraw:</p> <ul style="list-style-type: none"> i. previously on academic warning on two or more occasions. ii. previously required to withdraw and previously on academic warning. iii. already on academic warning or probation.
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Reviewed/Approved by:

<p>REQUIRED: Faculty of Engineering Executive Coordinating Committee (ECC): November 28, 2023</p>
<p>OPTIONAL: Faculty Academic Planning Committee: December 14, 2022</p>



EXECUTIVE SUMMARY

PROGRAM CHANGES (OTHER)

Note: Prior to completing this form, please consult with the programs team in the Office of the Provost (Carley Roth or Suzanne French) to ensure this is the appropriate form for the changes you wish to propose.

Program/Specialization Name	Bachelor of Science in Chemical Engineering - Computer Process Control Option	
Faculty/Department	Faculty of Engineering, Chemical and Materials Engineering	
Contact Information	Name and Title	Prof. Anthony Yeung, Associate Chair (Undergraduate)
	Email	tony.yeung@ualberta.ca
Proposed Effective Date	July 2024	
Attachments		
<ul style="list-style-type: none"> ✓ Proposed Calendar changes <ul style="list-style-type: none"> - Change in the course sequence (Removal of one CS Elective) - Addition of a new course CH E 574 – Process Optimization - Renaming and change in course description of CH E 358 – Process Data Analysis - Renaming and change in course description of CH E 316 – Equilibrium Stage Processes 		

OVERVIEW | *Brief description of what is being proposed*

- i. Changes in the traditional and co-op course sequences for the Option “Computer Process Control”
- ii. Renaming of the course CH E 358 from “Process Data Analysis” to “Process Data Analytics and Machine Learning” to incorporate elements of machine learning.
- iii. Renaming of the course CH E 316 from “Equilibrium Stage Processes” to “Separation Processes” to incorporate advanced separation processes in the course content.
- iv. Introducing a new course CH E 574 “Process Optimization” in the course sequence.
- v. Removal of a course CH E 472 “Modeling Process Dynamics”.
- vi. Removal of one Complementary Studies (CS) electives from the traditional and co-op course sequences.

RATIONALE | *Why is this being proposed? What problems and/or opportunities will it address?*

The field of process control has evolved in the last decade. In addition to process control, system-level integration and optimization are being emphasized in current practices. Furthermore, due to resource constraints, the need to move to net-zero provides additional impetus to study chemical processes at a system-level. In response to this, the CPC group has had several consultations and has proposed a revamp of the program structure for the Option.

In addition, elements of machine learning have been incorporated in the course CH E 358 “Process Data Analytics”. In accordance with the proposed changes in the syllabus of CH E 358, the department of Chemical & Materials Engineering proposes a renaming of CH E 358 from “Process Data Analysis” to “Process Data Analytics and Machine Learning”.

FINANCIAL IMPLICATIONS | *Basic costs and funding sources (as applicable)*

This is an existing Option. No additional resources are required.

CONSULTATION | *Who has been consulted? (e.g., students, faculty, other stakeholders, etc.)*

The proposed program description and structure was presented during the Department Council meeting to solicit colleagues’ feedback. The members of the department council supported the proposed changes in the existing Option and provided constructive feedback. The suggestions were integrated into the curriculum development process for the proposed Option.

LEARNER IMPACT | *Will this proposal affect current students, and if so, how will negative impacts (if relevant) be mitigated?*

When the new curriculum is introduced in Fall 2024, the following cohorts of students will still need to graduate under the current curriculum.

Cohort 1 (T1/C1): Traditional and Co-op students whose start date is September 2023

Cohort 2 (T2/C2): Traditional and Co-op students whose start date is September 2022

Cohort 3 (T3/C3): Traditional and Co-op students whose start date is September 2021

Cohort 4 (C4): Co-op students whose start date is September 2020

[Appendix A](#) provides the sequence of courses in the Traditional Chemical Engineering program and the proposed option, respectively. All undergraduate students in the Faculty of Engineering have the same qualifying Year 1; therefore, the sequence of courses offered in Year 1 is not shown here. The [revised course sequence](#) proposes the removal of course CH E 472 Process Dynamics and Control; however, this course will still be offered in the spring-summer to ensure that all students following the recommended sequence of courses in the old curriculum will be able to graduate.

Other than CH E 472, other changes, such as renaming of CH E 358 and CH E 316, and addition of a new course CH E 574, will not affect the current students enrolled in this Option.

COMMITMENT TO TRC'S CALLS TO ACTION | *How does this proposal address commitment to the goals outlined in [Braiding Past, Present and Future: University of Alberta Indigenous Strategic Plan](#) (see goal 3.0 [Indigenous Ways of Knowing: programs, 3.1](#))?*

Indigenous perspectives will be woven throughout the curriculum in a meaningful way and an Indigenization Strategy, consistent with the template being developed for the Faculty of Engineering, is being developed.

A new component is being added to the content of CME 200 (**Introduction to Chemical and Materials Engineering**) to acknowledge the impact engineering has had and will continue to have on Indigenous people in the context of resource development and applications of engineering design. Guest speakers from Indigenous communities, who are chemical/biochemical engineers or have been impacted by the chemical engineering projects, in different ways, will be invited to share their experiences. Indigenization component will be introduced in CME 481 to weave a variety of Indigenous worldviews, histories, and perspectives into the program.

Students in the co-op sequence of the proposed Option will be asked to complete an online asynchronous course, *Indigenous Canada Massive Open Online Course (MOOC)*, offered by the Faculty of Native Studies, in order to receive credit for WKEXP 905. Students will be encouraged to complete the online course during their first 8-month work term (WKEXP 901/902). The Faculty of Engineering will work to ensure that students can take the course and provide evidence of completion at zero or only a marginal additional cost to the student. This course is an important resource to understand Indigenous ways of knowing, outline decolonization, and close the knowledge gap around racism, historical and contemporary Indigenous experiences and the foundational agreements.

COMMITMENT TO EQUITY, DIVERSITY, + INCLUSION | *How does this proposal address commitment to considerations for equity, diversity, and inclusion (see [Strategic Plan for Equity, Diversity, and Inclusion](#))?*

The most current best practices in equity, diversity and inclusion are incorporated into the core part of the program and an EDI Strategy, consistent with the template for the Faculty of Engineering, will be developed.

The EDI Strategy will include the provision of training in group dynamics and decision-making, including recognizing decision-making biases and implicit biases, incorporating design projects that include the engineering design for developing assistive tools/technologies for people with differing abilities, and engaging organizations and industries with leaders who are from traditionally underrepresented groups in engineering as partners in capstone design projects.

Industry, Indigenous, and EDI perspectives will be incorporated in regular program reviews.

ADDITIONAL INFORMATION | *Optional*

Appendix A: Visual Representation of the changes proposed in the revised Option

Year 2		Year 3		Year 4	
Fall	Winter	Fall	Winter	Fall	Winter
CH E 243	CME 265	CH E 314	CH E 316	CH E 464	CH E 454
CHEM 261	CH E 312	CH E 343	CH E 318	CME 481	CH E 465
CME 200	CS Elective	CH E 351	CH E 345	ITS Elective	CH E 573
ECE 202	MAT E 202	CH E 374	CH E 358	P&T Elective	CH E 576
ECE 210	MATH 201	CH E 446	CH E 472	P&T Elective	ENGG 400
MATH 209	STAT 235	ENGG 404	ENG M 310/401	CS Electives	
CS Elective ¹					

Figure 1: Sequence of courses in the traditional Chemical Engineering Program

Year 2		Year 3		Year 4	
Fall	Winter	Fall	Winter	Fall	Winter
CH E 243	CME 265	CH E 314	CH E 316	CH E 464	CH E 454
CHEM 261	CH E 312	CH E 343	CH E 318	CME 481	CH E 465
CME 200	CS Elective	CH E 351	CH E 345	ITS Elective	CH E 573
ECE 202	MAT E 202	CH E 374	CH E 358	CH E 446	CH E 576
ECE 210	MATH 201	CH E 446	CH E 472	P&T Elective	ENGG 400
MATH 209	STAT 235	ENGG 404	CH E 574	P&T Elective	
CS Elective		ITS Elective	ENG M 310/401	CS Electives	

Figure 2: Sequence of courses in the revised Option (: Course Rearrangement; : Course Addition; : Course Withdrawal; : Course Renaming)

¹ List of *Complementary Studies (CS) electives* offered in the proposed option is same as offered in the traditional CH E program.

Faculty (& Department or Academic Unit):	Faculty of Engineering / Chemical and Materials Engineering
Contact Person:	Prof. Anthony Yeung (tony.yeung@ualberta.ca)
Level of change: (choose one only)	• Undergraduate
	• Graduate
Type of change request: (check all that apply)	• Program
	• Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	Yes

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

A revamp of the program structure for the Option is proposed based on several consultations with internal stakeholders to incorporate the current practices in the existing program structure. In addition to process control, system-level integration and optimization have been emphasized and elements of machine learning have been included in the revised program structure.

Calendar Copy

URL in current Calendar (or "New page") https://calendar.ualberta.ca/preview_program.php?catoid=39&poid=47895&returnto=12339	
Current Copy: Removed language	Proposed Copy: New language
Bachelor of Science in Chemical Engineering - Computer Process Control Option Engineering Disciplines To find descriptions of the various disciplines of Engineering, visit Explore our Programs on the Faculty of Engineering website. Admission Requirements General Undergraduate Admission Requirements Admission Requirements for Qualifying Year	Bachelor of Science in Chemical Engineering - Computer Process Control Option Engineering Disciplines To find descriptions of the various disciplines of Engineering, visit Explore our Programs on the Faculty of Engineering website. Admission Requirements General Undergraduate Admission Requirements Admission Requirements for Qualifying Year

Academic Regulations[University Regulations](#)[Faculty of Engineering Regulations](#)**Program Requirements****Year 1**

Requirements for Year 1 can be found in [Bachelor of Science in Engineering - Qualifying Year](#).

Information regarding admission to a specialized program from the Qualifying Year Program can be found in [Faculty of Engineering Regulations](#).

Year 2**Term 3**

CH E 243 - Engineering Thermodynamics
 CHEM 261 - Organic Chemistry I
 CME 200 - Introduction to Chemical and Materials Engineering
 ECE 202 - Electrical Circuits I
 ECE 210 - Introduction to Digital Logic Design
 MATH 209 - Calculus III
 Complementary Studies Elective (3-0-0)

Term 4

CME 265 - Process Analysis
 CH E 312 - Fluid Mechanics
 Complementary Studies Elective (3-0-0)
 MAT E 202 - Materials Science II
 MATH 201 - Differential Equations
 STAT 235 - Introductory Statistics for Engineering

Year 3**Term 5**

CH E 314 - Heat Transfer
 CH E 343 - Chemical Engineering Thermodynamics
 CH E 351 - Chemical Engineering Laboratory
 CH E 374 - Computational Methods in Engineering
~~CH E 446 - Process Dynamics and Control~~
 ENGG 404 - Engineering Safety and Risk Management-
 Leadership in Risk Management

Term 6

CH E 316 - ~~Equilibrium Stage Process~~
 CH E 318 - Mass Transfer
 CH E 345 - Chemical Reactor Analysis I
 CH E 358 - Process Data Analysis
~~CH E 472 - Modelling Process Dynamics~~
 ENG M 310 - Engineering Economy

Academic Regulations[University Regulations](#)[Faculty of Engineering Regulations](#)**Program Requirements****Year 1**

Requirements for Year 1 can be found in [Bachelor of Science in Engineering - Qualifying Year](#).

Information regarding admission to a specialized program from the Qualifying Year Program can be found in [Faculty of Engineering Regulations](#).

Year 2**Term 3**

CH E 243 - Engineering Thermodynamics
 CHEM 261 - Organic Chemistry I
 CME 200 - Introduction to Chemical and Materials Engineering
 ECE 202 - Electrical Circuits I
 ECE 210 - Introduction to Digital Logic Design
 MATH 209 - Calculus III
 Complementary Studies Elective (3-0-0)

Term 4

CME 265 - Process Analysis
 CH E 312 - Fluid Mechanics
 Complementary Studies Elective (3-0-0)
 MAT E 202 - Materials Science II
 MATH 201 - Differential Equations
 STAT 235 - Introductory Statistics for Engineering

Year 3**Term 5**

CH E 314 - Heat Transfer
 CH E 343 - Chemical Engineering Thermodynamics
 CH E 351 - Chemical Engineering Laboratory
 CH E 374 - Computational Methods in Engineering
 ENGG 404 - Engineering Safety and Risk Management-
 Leadership in Risk Management
 ITS Elective (3-0-0)

Term 6

CH E 316 - Separation Processes
 CH E 318 - Mass Transfer
 CH E 345 - Chemical Reactor Analysis I
 CH E 358 - Process Data Analytics and Machine Learning
 CH E 574 - Process Optimization
 ENG M 310 - Engineering Economy

<p><u>OR</u> ENG M 401 - Financial Management for Engineers</p> <p>Year 4 Term 7 CH E 464 - Chemical Engineering Design I CME 481 - Colloquium I ITS Elective (3-0-0) Program and Technical Elective (3-1s-0) Program and Technical Elective (3-1s-0) Complementary Studies Elective (3-0-0)</p> <p>Term 8 CH E 454 - Chemical Engineering Project Laboratory CH E 465 - Chemical Engineering Design II CH E 573 - Digital Signal Processing for Chemical Engineers CH E 576 - Intermediate Process Control ENGG 400 - The Practice of the Engineering Profession</p> <p>Notes</p> <ol style="list-style-type: none"> MATH 201 must be taken in either Term 3 or 4. See Program and Technical Electives below for restrictions on the program electives. <p>Complementary Studies and Impact of Technology on Society (ITS) Electives See Complementary Studies and Impact of Technology on Society (ITS) Electives for a list of approved electives.</p> <p>Program and Technical Electives The two single-term program electives must be selected from lists in Bachelor of Science in Chemical Engineering. At least one of these electives must be Engineering Science and/or Engineering Design in BSc in Chemical Engineering. Other courses may be taken with written permission from the current Computer Process Control Advisor prior to enrollment.</p>	<p><u>OR</u> ENG M 401 - Financial Management for Engineers</p> <p>Year 4 Term 7 CH E 464 - Chemical Engineering Design I CME 481 - Colloquium I CH E 446 - Process Dynamics and Control Program and Technical Elective (3-1s-0) Program and Technical Elective (3-1s-0)</p> <p>Term 8 CH E 454 - Chemical Engineering Project Laboratory CH E 465 - Chemical Engineering Design II CH E 573 - Digital Signal Processing for Chemical Engineers CH E 576 - Intermediate Process Control ENGG 400 - The Practice of the Engineering Profession</p> <p>Notes</p> <ol style="list-style-type: none"> MATH 201 must be taken in either Term 3 or 4. See Program and Technical Electives below for restrictions on the program electives. <p>Complementary Studies and Impact of Technology on Society (ITS) Electives See Complementary Studies and Impact of Technology on Society (ITS) Electives for a list of approved electives.</p> <p>Program and Technical Electives The two single-term program electives must be selected from lists in Bachelor of Science in Chemical Engineering. At least one of these electives must be Engineering Science and/or Engineering Design in BSc in Chemical Engineering. Other courses may be taken with written permission from the current Computer Process Control Advisor prior to enrollment.</p>
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Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date.

- Department Council Meeting and Approval: **August 17, 2022**
- Faculty APC Meeting and Approval: **September 14, 2023**
- Faculty of Engineering Executive Coordinating Committee (ECC): **November 28, 2023**

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.

Faculty (& Department or Academic Unit):	Faculty of Engineering / Chemical and Materials Engineering
Contact Person:	Prof. Anthony Yeung (tony.yeung@ualberta.ca)
Level of change: (choose one only)	<ul style="list-style-type: none"> • Undergraduate • Graduate
Type of change request: (check all that apply)	<ul style="list-style-type: none"> • Program • Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	Yes

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

A revamp of the program structure for the Option is proposed based on several consultations with internal stakeholders to incorporate the current practices in the existing program structure. In addition to process control, system-level integration and optimization have been emphasized and elements of machine learning have been included in the revised program structure.

Calendar Copy

URL in current Calendar (or "New page") Bachelor of Science in Chemical Engineering Co-op - Computer Process Control Option https://calendar.ualberta.ca/preview_program.php?catoid=39&poiid=47910&returnto=12339	
Current Copy: Removed language	Proposed Copy: New language
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Academic Regulations

[University Regulations](#)
[Faculty of Engineering Regulations](#)

Program Requirements**Year 1**

Requirements for Year 1 can be found in [Bachelor of Science in Engineering - Qualifying Year](#).

Information regarding admission to a specialized program from the Qualifying Year Program can be found in [Faculty of Engineering Regulations](#).

Year 2**Fall Term 3**

CH E 243 - Engineering Thermodynamics
 CHEM 261 - Organic Chemistry I
 CME 200 - Introduction to Chemical and Materials Engineering
 ECE 202 - Electrical Circuits I
 ECE 210 - Introduction to Digital Logic Design
 ENGG 299 - Orientation to Cooperative Education
 MATH 209 - Calculus III
 Complementary Studies Elective (3-0-0)

Winter Term 4

CH E 312 - Fluid Mechanics
 CME 265 - Process Analysis
 MAT E 202 - Materials Science II
 MATH 201 - Differential Equations
 STAT 235 - Introductory Statistics for Engineering
 Complementary Studies Elective (3-0-0)

Summer

WKEXP 901 - Engineering Work Experience I

Year 3**Fall**

WKEXP 902 - Engineering Work Experience II

Winter Term 5

CH E 314 - Heat Transfer
 CH E 343 - Chemical Engineering Thermodynamics
 CH E 351 - Chemical Engineering Laboratory
 CH E 374 - Computational Methods in Engineering
 CH E 446 - Process Dynamics and Control
 Complementary Studies Elective (3-0-0)

Academic Regulations

[University Regulations](#)
[Faculty of Engineering Regulations](#)

Program Requirements**Year 1**

Requirements for Year 1 can be found in [Bachelor of Science in Engineering - Qualifying Year](#).

Information regarding admission to a specialized program from the Qualifying Year Program can be found in [Faculty of Engineering Regulations](#).

Year 2**Fall Term 3**

CH E 243 - Engineering Thermodynamics
 CHEM 261 - Organic Chemistry I
 CME 200 - Introduction to Chemical and Materials Engineering
 ECE 202 - Electrical Circuits I
 ECE 210 - Introduction to Digital Logic Design
 ENGG 299 - Orientation to Cooperative Education
 MATH 209 - Calculus III
 Complementary Studies Elective (3-0-0)

Winter Term 4

CH E 312 - Fluid Mechanics
 CME 265 - Process Analysis
 MAT E 202 - Materials Science II
 MATH 201 - Differential Equations
 STAT 235 - Introductory Statistics for Engineering
 Complementary Studies Elective (3-0-0)

Summer

WKEXP 901 - Engineering Work Experience I

Year 3**Fall**

WKEXP 902 - Engineering Work Experience II

Winter Term 5

CH E 314 - Heat Transfer
 CH E 343 - Chemical Engineering Thermodynamics
 CH E 351 - Chemical Engineering Laboratory
 CH E 374 - Computational Methods in Engineering
 Program and Technical Elective (3-1s-0)
 ITS Elective (3-0-0)

Summer Term 6

CH E 316 - ~~Equilibrium Stage Process~~
 CH E 318 - Mass Transfer
 CH E 345 - Chemical Reactor Analysis I
 CH E 358 - Process Data-~~Analysis~~
 ENG M 310 - Engineering Economy
OR
 ENG M 401 - Financial Management for Engineers
 ENGG 404 - Engineering Safety and Risk Management-
 Leadership in Risk Management

Year 4

Fall

WKEXP 903 - Engineering Work Experience III

Winter Term 7

CH E 464 - Chemical Engineering Design I
~~CH E 472 - Modelling Process Dynamics~~
 CME 481 - Colloquium I
 Program and Technical Elective (3-1s-0)
~~Program and Technical Elective (3-1s-0)~~
~~ITS Elective (3-0-0)~~

Summer

WKEXP 904 - Engineering Work Experience IV

Year 5

Fall

WKEXP 905 - Engineering Work Experience V

Winter Term 8

CH E 454 - Chemical Engineering Project Laboratory
 CH E 465 - Chemical Engineering Design II
 CH E 573 - Digital Signal Processing for Chemical Engineers
 CH E 576 - Intermediate Process Control
 ENGG 400 - The Practice of the Engineering Profession

Notes

1. MATH 201 must be taken in either Term 3 or 4.
2. See Program and Technical Electives below for restrictions on the program electives.

Complementary Studies and Impact of Technology on Society (ITS) Electives

See Complementary Studies and Impact of Technology on Society (ITS) Electives for a list of approved electives.

Summer Term 6

CH E 316 - ~~Separation Processes~~
 CH E 318 - Mass Transfer
 CH E 345 - Chemical Reactor Analysis I
 CH E 358 - Process Data ~~Analytics and Machine Learning~~
 ENG M 310 - Engineering Economy
OR
 ENG M 401 - Financial Management for Engineers
 ENGG 404 - Engineering Safety and Risk Management-
 Leadership in Risk Management

Year 4

Fall

WKEXP 903 - Engineering Work Experience III

Winter Term 7

CH E 464 - Chemical Engineering Design I
~~CHE 574 - Process Optimization~~
 CME 481 - Colloquium I
~~CH E 446 - Process Dynamics and Control~~
 Program and Technical Elective (3-1s-0)

Summer

WKEXP 904 - Engineering Work Experience IV

Year 5

Fall

WKEXP 905 - Engineering Work Experience V

Winter Term 8

CH E 454 - Chemical Engineering Project Laboratory
 CH E 465 - Chemical Engineering Design II
 CH E 573 - Digital Signal Processing for Chemical Engineers
 CH E 576 - Intermediate Process Control
 ENGG 400 - The Practice of the Engineering Profession

Notes

1. MATH 201 must be taken in either Term 3 or 4.
2. See Program and Technical Electives below for restrictions on the program electives.

Complementary Studies and Impact of Technology on Society (ITS) Electives

See Complementary Studies and Impact of Technology on Society (ITS) Electives for a list of approved electives.

Program and Technical Electives

The two single-term program electives must be selected from lists in [Bachelor of Science in Chemical Engineering](#). At least one of these electives must be Engineering Science and/or Engineering Design in BSc in Chemical Engineering. Other courses may be taken with written permission from the current Computer Process Control Advisor prior to enrollment.

Program and Technical Electives

The two single-term program electives must be selected from lists in [Bachelor of Science in Chemical Engineering](#). At least one of these electives must be Engineering Science and/or Engineering Design in BSc in Chemical Engineering. Other courses may be taken with written permission from the current Computer Process Control Advisor prior to enrollment.

Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date.

- Department Council Meeting and Approval: [August 17, 2022](#)
- Faculty APC Meeting and Approval: [September 14, 2023](#)
- Faculty of Engineering Executive Coordinating Committee (ECC): [November 28, 2023](#)

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.

Faculty (& Department or Academic Unit):	Faculty of Engineering / Chemical and Materials Engineering
Contact Person:	Prof. Anthony Yeung (tony.yeung@ualberta.ca)
Level of change: (choose one only) [?]	• Undergraduate
	• Graduate
For which term will this change take effect?	Fall 2024 onwards

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

A revised course description is proposed to include rate based separation processes in addition to the equilibrium stage processes. Rate based separation processes are widely used in industries; therefore, it is important for students to learn these concepts. In addition, use of process simulator is added in the course content to emphasize the designing aspects in the classroom.

Course Template

Current: Removed language	Proposed: New language
<p>Subject & Number CH E 316</p> <p>Title Equilibrium Stage Process</p> <p>Course Career Undergraduate Units 4 Approved Hours 3-0-2 Fee index 8 Faculty Engineering Department Chemical & Materials Engineering Typically Offered either term or Spring/Summer</p> <p>Description Design of separation processes with emphasis on the equilibrium stage concept, distillation, absorption and extraction.</p> <p>Prerequisites: CH E 343, 314. Corequisite: CH E 318. Credit may not be obtained in this course if previous credit has been obtained for CH E 416.</p>	<p>Subject & Number: CH E 316</p> <p>Title: Separation Processes</p> <p>Course Career: Undergraduate Units: 4 Approved Hours: 3-0-2 Fee index: 8 Faculty: Engineering Department: Chemical & Materials Engineering Typically Offered: either term or Spring/Summer</p> <p>Description Design of separation processes with emphasis on the equilibrium stage concept, distillation, absorption and extraction. Design of rate based separations, membranes, membrane cascades, adsorption. Introduction to the use of process simulators for designing the separation processes.</p> <p>Prerequisites: CH E 343, CH E 314. Corequisite: CH E 318.</p>

Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date.

- Department Council Meeting: [August 17, 2022](#)
- Faculty Academic Planning Committee (APC): [September 14, 2023](#)
- Faculty of Engineering Executive Coordinating Committee (ECC): [November 28, 2023](#)

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.

Supporting Information

Learning Outcomes

1. Perform single stage flash calculations, graphical methods for binary mixtures and Rachford-Rice calculations for multi-component systems.
2. Perform McCabe Thiele analysis to determine number of ideal number of equilibrium stages for binary distillation.
3. Define efficiency of a separation stage and use it to determine actual number of stages.
4. Determine number of equilibrium stages for absorbers and strippers using approximate methods such as Kremser equation.
5. Design a distillation tray tower - height and diameter of the column and pressure drop calculations.
6. Identify operating regimes of mass transfer equipment, e.g., flooding, weeping.
7. Determine number of equilibrium stages for design of a counter-current L-L extraction train in both completely immiscible and partially miscible systems.
8. Determining the number of equilibrium stages for a multi-component multi-stage distillation column using Fenske-Underwood-Gilliland methods.
9. Design distillation column/trains using process simulators.
10. Define key operating parameters associated with membrane separations, e.g., flux, permeability, selectivity.
11. Design single-stage membrane separations and membrane cascades for gas separations.
12. Explain the working principle of gas adsorption separations

Relationship of Learning Outcomes and Graduate Attributes

Learning Outcome	Graduate Attribute	Instructional Level
1–4, 7, 8,	Problem Analysis Investigation	Applied
5, 6, 9, 11	Problem Analysis Investigation Tools Design	Applied
10, 12	Knowledge based in Engineering	Developed

Assessments of Learning Outcomes

Learning Outcome	Assessments/Activities
1–4, 7, 8, 10, 12	Assignments, Quizzes, Midterm Exam, and Final Exam
5, 6, 9, 11	Design Project

Accreditation Units

AU Category	Linked to which learning outcome	Percentage of course content ¹
Math		
Natural Sciences		
Engineering Science	1–4, 7, 8, 10, 12	75%
Engineering Design (requires PEng)	5, 6, 9, 11	25%
Complementary studies		
Other		

Final Course AUs

Total	Math	NS	ES	ED	CS	Other
50.4	-	-	37.8	12.6	-	-

¹ Accreditation unit (AU) calculation –

- Total Lecture hours = course lecture hours as per calendar description x 12.6 weeks = X
- Total Seminar hours = course seminar hours as per calendar description x 12.6 weeks = Y
- Total Lab hours = course lab hours as per calendar description x 12.6 weeks = Z

Total course hours = X+Y+Z = TCH

Total AUs in a course $AU_{total} = X + \frac{1}{2} Y + \frac{1}{2} Z$

Number of hours (lecture, seminar, lab) spent on teaching and doing examples of accreditation category "i", is H_i where subscript, i, is for the number total hours spent in course for either Math (M), Engineering Design (ED), Natural Sciences (NS), Engineering Science (ES), Complementary studies (CS), or Other (O)

Percentage course content in AU category i, is: $\%_i = H_i/TCH$

Accreditation unit for category i, is: $A_i = AU_{total} \times \%_i$

Proposed Grading criteria (subject to change pending Instructor course modification)

The breakdown of the assessments included in this course is found in the table below.

Component	Percentage
Assignments/Quiz (Max. 5)	15%
Midterm Exam	25%
Project	20%
Final Exam (Written)	40%
Total	100%

Unexcused absence from Midterm Examination will result in 0 out of 25%. With legitimate excuse, the Midterm weight will be carried over to the Final (i.e., Final Exam will be worth 65% of the overall grade).

Recommended Textbooks:

Recommended textbook for the newly added content (membrane, adsorption): Wankat, P.C. (2017) Separation Process Engineering, 4th Ed. New Jersey: Prentice Hall.

Faculty (& Department or Academic Unit):	Faculty of Engineering / Chemical and Materials Engineering
Contact Person:	Prof. Anthony Yeung (tony.yeung@ualberta.ca)
Level of change: (choose one only) [?]	• Undergraduate
	• Graduate
For which term will this change take effect?	Fall 2024 onwards

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Elements of machine learning has been added in the syllabus of CH E 358. In addition, a few concepts related to statistics, including least squares regression, analysis of variance, propagation of error, have been removed considering that students learn these concepts already in STAT 235. This gives space to include new concepts related to Machine Learning, which will provide knowledge base on the current trends in the field.

Course Template

Current: Removed language	Proposed: New language
<p>Subject & Number CH E 358</p> <p>Title Process Data Analysis</p> <p>Course Career Undergraduate Units 5 Approved Hours 3-0-4 Fee index 8 Faculty Engineering Department Chemical & Materials Engineering Typically Offered either term or Spring/Summer</p> <p>Description Statistical analysis of process data from chemical process plants and course laboratory experiments. Topics covered include least squares regression, analysis of variance, propagation of error, and design of experiments.</p> <p>Prerequisites: CH E 351 and STAT 235. Corequisites: CH E 314 and CH E 345.</p>	<p>Subject & Number: CH E 358</p> <p>Title: Process Data Analytics and Machine Learning</p> <p>Course Career: Undergraduate Units: 5 Approved Hours: 3-0-4 Fee index: 8 Faculty: Engineering Department: Chemical & Materials Engineering Typically Offered: either term or Spring/Summer</p> <p>Description Statistical analysis of process data from chemical process plants and course laboratory experiments. Topics covered include linear and nonlinear regression, dimensionality reduction, classification, deep learning, and design of experiments.</p> <p>Prerequisites: CH E 351 and STAT 235. Corequisites: CH E 314 and CH E 345.</p>

Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date.

- Department Council Meeting: [August 17, 2022](#)
- Faculty Academic Planning Committee (APC): [September 14, 2023](#)
- Faculty of Engineering Executive Coordinating Committee (ECC): [November 28, 2023](#)

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.

Supporting Information

Learning Outcomes

1. Formulate an engineering problem in a statistical framework and identify statistical methods to analyze data.
2. Calculate the least squares estimators of simple and multiple linear regression model, calculate residuals and perform residual analysis using mathematical tools.
3. Calculate confidence interval for parameters, evaluate the mean response and predicted response at a point and the corresponding confidence interval.
4. Recognize transformable linear model and general nonlinear model, and derive linear approximation of nonlinear model and perform nonlinear regression from process data.
5. Design efficient fractional factorial experiments to collect data in lab experiments.
6. Calculate main and interaction effects, determine the significance of effects, make interpretation of effects, formulate regression model, and determine optimal condition from the experimental data.
7. Explain the concept of confounding and blocking, and identify the generators, defining relation and confounding patterns.
8. Use principal component analysis method to perform dimensionality reduction.
9. Apply data classification principle using logistic regression and use classification evaluation metrics.
10. Apply the basic concepts of neural network and deep learning for solving chemical engineering problems.

Relationship of Learning Outcomes and Graduate Attributes

Learning Outcome	Graduate Attribute	Instructional Level
1–3, 6	Problem Analysis Investigation	Applied
4	Knowledge Base in Engineering Problem Analysis	Developed
5	Problem Analysis Investigation Design	Applied
7, 8	Knowledge Base in Engineering	Developed
9, 10	Problem Analysis Investigation	Applied

Assessments of Learning Outcomes

Learning Outcome	Assessments/Activities
1–10	Assignments, Quizzes, Midterm Exam, and Final Exam

Accreditation Units

AU Category	Linked to which learning outcome	Percentage of course content ¹
Math	1–10	50%
Natural Sciences		
Engineering Science	7–10	25%
Engineering Design (requires P.Eng.)	5	25%
Complementary studies		
Other		

Final Course AUs

Total	Math	NS	ES	ED	CS	Other
63	31.5	-	15.75	15.75	-	-

¹ Accreditation unit (AU) calculation –

- Total Lecture hours = course lecture hours as per calendar description x 12.6 weeks = X
- Total Seminar hours = course seminar hours as per calendar description x 12.6 weeks = Y
- Total Lab hours = course lab hours as per calendar description x 12.6 weeks = Z

Total course hours = X+Y+Z = TCH

Total AUs in a course $AU_{total} = 12.6 \times (X + \frac{1}{2} Y + \frac{1}{2} Z)$

Number of hours (lecture, seminar, lab) spent on teaching and doing examples of accreditation category "i", is H_i where subscript, i, is for the number total hours spent in course for either Math (M), Engineering Design (ED), Natural Sciences (NS), Engineering Science (ES), Complementary studies (CS), or Other (O)

Percentage course content in AU category i, is: $\%_i = H_i/TCH$

Accreditation unit for category i, is: $A_i = AU_{total} \times \%_i$

Proposed Grading criteria (subject to change pending Instructor course modification)

The breakdown of the assessments included in this course is found in the table below.

Component	Percentage
Assignments/Quiz (Max. 5)	25%
Midterm Exam	30%
Final Exam (Written)	45%
Total	100%

Unexcused absence from Midterm Examination will result in 0 out of 25%. With legitimate excuse, the Midterm weight will be carried over to the Final (i.e., Final Exam will be worth 65% of the overall grade).

Faculty (& Department or Academic Unit):	Faculty of Engineering / Chemical and Materials Engineering
Contact Person:	Prof. Anthony Yeung (tony.yeung@ualberta.ca)
Level of change: (choose one only) [?]	• Undergraduate
	• Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Considering the increasing interest in system-level optimization, this course is proposed as a core course in the final year (Term 7) of the proposed option "[Bachelor of Science in Chemical Engineering– Control and Process Systems Engineering Option](#)" in both the traditional and co-op sequences. The course is designed to provide knowledge base on linear and non-linear programming, optimization modeling tools, and their use in process system engineering applications.

Course Template

Current: Removed language	Proposed: New language
<p>Not Applicable.</p> <p>We are proposing a new course.</p>	<p>Subject & Number: CH E 574</p> <p>Title: Process Optimization</p> <p>Course Career: Undergraduate</p> <p>Units: 4</p> <p>Approved Hours: 3-1s-3/3</p> <p>Fee index: 8</p> <p>Faculty: Engineering</p> <p>Department: Chemical & Materials Engineering</p> <p>Typically Offered: either term or Spring/Summer</p> <p>Description Modeling and solving optimization problems in process systems engineering (PSE) applications. Topics covered include solving systems of nonlinear equations, optimality conditions, linear programming, unconstrained/constrained nonlinear programming, mixed integer programming, optimization modeling tools, and selected PSE applications.</p> <p>Prerequisites: MATH 102, 209, and CME 265.</p> <p>Corequisites: CH E 314, 318 and 345.</p>

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Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date.

- Department Council Meeting: [August 17, 2022](#)
- Faculty Academic Planning Committee (APC): [September 14, 2023](#)
- Faculty of Engineering Executive Coordinating Committee (ECC): [November 28, 2023](#)

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.

Supporting Information

Learning Outcomes

1. Solve systems of nonlinear equations for process flowsheet simulation.
2. Formulate optimization problem in various process systems engineering problems by defining objective, constraints and variables.
3. Explain basic optimization concepts including convexity, optimality conditions, Lagrangian and duality.
4. Use linear programming solution technique including graphical method and simplex method.
5. Use gradient based nonlinear programming solution technique.
6. Explain the basic mixed integer linear/nonlinear programming solution technique.
7. Explain the difference between deterministic and heuristic optimization approaches.
8. Use selected optimization problem modeling software and solver tools.

Relationship of Learning Outcomes and Graduate Attributes

Learning Outcome	Graduate Attribute	Instructional Level
1	Problem Analysis Investigation	Applied
2	Knowledge Base in Engineering Problem Analysis Investigation	Applied
3	Knowledge Base in Engineering	Developed
4	Knowledge Base in Engineering Problem Analysis Investigation	Applied
5	Knowledge Base in Engineering Problem Analysis Investigation	Applied
6	Knowledge Base in Engineering	Developed
7	Knowledge Base in Engineering	Developed
8	Investigation Use of Engg Tools	Applied

Assessments of Learning Outcomes

Learning Outcome	Assessments/Activities
1–8	Assignments, Quizzes, Midterm Exam, and Final Exam

Accreditation Units

AU Category	Linked to which learning outcome	Percentage of course content ¹
Math		
Natural Sciences		
Engineering Science	1–8	100%
Engineering Design (requires PEng)		
Complementary studies		
Other		

Final Course AUs

Total	Math	NS	ES	ED	CS	Other
50.4	-	-	50.4	-	-	-

¹ Accreditation unit (AU) calculation –

- Total Lecture hours = course lecture hours as per calendar description x 12.6 weeks = X
- Total Seminar hours = course seminar hours as per calendar description x 12.6 weeks = Y
- Total Lab hours = course lab hours as per calendar description x 12.6 weeks = Z

Total course hours = X+Y+Z = TCH

Total AUs in a course $AU_{total} = 12.6 \times (X + \frac{1}{2} Y + \frac{1}{2} Z)$

Number of hours (lecture, seminar, lab) spent on teaching and doing examples of accreditation category "i", is H_i where subscript, i, is for the number total hours spent in course for either Math (M), Engineering Design (ED), Natural Sciences (NS), Engineering Science (ES), Complementary studies (CS), or Other (O)

Percentage course content in AU category i, is: $\%_i = H_i/TCH$

Accreditation unit for category i, is: $A_i = AU_{total} \times \%_i$

Proposed Grading criteria (subject to change pending Instructor course modification)

The breakdown of the assessments included in this course is found in the table below.

Component	Percentage
Assignments/Quiz (Max. 5)	20%
Midterm Exam	30%
Final Exam (Written)	50%
Total	100%

Unexcused absence from Midterm Examination will result in 0 out of 25%. With legitimate excuse, the Midterm weight will be carried over to the Final (i.e., Final Exam will be worth 65% of the overall grade).

Faculty (& Department or Academic Unit):	Faculty of Engineering Department of Civil and Environmental Engineering
Contact Person:	Dr. Carlos Cruz Dr. Samer Adeeb
Level of change: (choose one only) [?]	<input checked="" type="radio"/> Undergraduate
	<input type="radio"/> Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The description for CIV E 411 is being corrected due to a potential error in the BearTracks system. The course description has been used for the past several years and is provided below. It should be noted that all aspects of the original course description are included in the revised course content with the exception of two areas: weaving and interchange ramp analysis and motor vehicle accident analysis. Motor vehicle accident analysis is covered in CIV E 315, which is required for CIV E students. Weaving and interchange ramp analysis is an advanced topic with isolated applications. This is taught in the graduate program at the UofA due to its complexity.

Two additional changes have been made. First, the following information has been added “Emerging topics in transportation engineering for future careers will be discussed.” The goal of this change will be to better prepare students for diverse and emerging careers in the transportation engineering field. Topics of coverage may include: sustainability, resilience, equity, micromobility, and public transit. Second, the pre-requisite of STAT 235 has been added. Due to the statistical analysis needed for elements of CIV E 411, the pre-requisite has been added to ensure that students are prepared. This course is required for CIV E students during their studies. Both changes have been made to improve the success of the students in the course and their careers.

Course Template

Current: Removed language	Proposed: New language
Subject & Number: CIV E 411 Title: Transportation Engineering II Course Career: Undergraduate Units: 3.80 Approved Hours: 3-0-3/2 Fee index: 8 Faculty: Engineering Department: Civil and Environmental Eng. Typically Offered: Fall Description "Traffic operations and network analysis, traffic stream flow and roadway analysis, weaving and interchange ramp analysis, intersection traffic control measures and	Subject & Number: CIV E 411 Title: Transportation Engineering II Course Career: Undergraduate Units: 3.80 Approved Hours: 3-0-3/2 Fee index: 8 Faculty: Engineering Department: Civil and Environmental Eng. Typically Offered: Fall Description The course provides an in-depth understanding of transportation planning and traffic operations concepts and methods. These include: travel demand analysis;

<p>control design, progressive signal system design, traffic flow prediction, road network simulation and assignment algorithms, motor vehicle accident analysis; and field data collection method. Prerequisite: CIV E 315.”</p>	<p>data collection methods and data analysis; urban transportation planning and modeling techniques; traffic flow fundamentals and characteristics; and operations of surface roadway networks and controls (intersections). Emerging topics in transportation engineering for future careers will be discussed. Prerequisite: CIV E 315, STAT 235</p>
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Reviewed/Approved by:

<p>REQUIRED: Faculty of Engineering Executive Coordinating Committee (ECC): November 28, 2023</p>
<p>OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates. CEE Department Academic Planning Committee: October 19, 2023 Faculty of Engineering Academic Planning Committee: November 9, 2023</p>

Faculty (& Department or Academic Unit):	Faculty of Education (Measurement, Evaluation, and Data Science)
Contact Person:	Mark Gierl
Level of change: (choose one only) [?]	<ul style="list-style-type: none"> Undergraduate Graduate
For which term will this change take effect?	Winter 2025

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

EDPY 605 is a required doctoral-level statistics course for PhD students enrolled in the Measurement, Evaluation, and Data Science (MEDS) program. All incoming doctoral students are expected to have taken EDPY 505 or an equivalent course in previous undergraduate and/or graduate course work. Removing this prerequisite will help graduate students enroll in EDPY 605 via BearTracks without a manual enrollment process.

Course Template

Current: Removed language	Proposed: New language
<p>Subject & Number: EDPY 605</p> <p>Title: Quantitative Methods II</p> <p>Course Career Units Approved Hours Fee index Faculty: Faculty of Education Department: N/A Typically Offered: Winter</p> <p>Description</p> <p>This course will introduce students to advanced statistical techniques that are frequently used in data analysis in the social sciences. Selected topics such as multiple regression, MANOVA, canonical correlation, principal component analysis, and factor analysis will be covered. Prerequisites: EDPY 500 or equivalent.</p>	<p>Subject & Number: EDPY 605</p> <p>Title: Quantitative Methods II</p> <p>Course Career Units Approved Hours Fee index Faculty: Faculty of Education Department: N/A Typically Offered: Winter</p> <p>Description</p> <p>This course will introduce students to advanced statistical techniques that are frequently used in data analysis in the social sciences. Selected topics such as multiple regression, MANOVA, canonical correlation, principal component analysis, and factor analysis will be covered. Prerequisite: EDPY 505 or equivalent.</p>

Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date.

December 4, 2023 by the Faculty of Education Graduate Academic Affairs Council (GAAC).

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.



Faculty (& Department or Academic Unit):	Law
Contact Person:	James Muir
Level of change: (choose one only) [?]	<ul style="list-style-type: none"> • Undergraduate •
For which term will this change take effect?	F2025

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Course Template

Current: Removed language	Proposed: New language
Subject & Number Title Course Career Units Approved Hours Fee index Faculty Department Typically Offered Description	Subject & Number: Law544 Title: Utilities Law Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Law Department n/a Typically Offered annually Description: The general objective of this course is introduce students to the regulation of local energy utilities (electricity and consumable gas) and long-distance transmission (electricity, oil, and gas) infrastructure. The course material will cover the basics of each industry segment, relevant regulatory processes including standard utility tariff applications, and key issues facing utilities and regulators.

Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date.

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.

Faculty (& Department or Academic Unit):	Law
Contact Person:	James Muir
Level of change: (choose one only) [?]	• Undergraduate
	Graduate
For which term will this change take effect?	1890

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Course has run for three years with good enrollment as a topics course, so we would like to set it up as a regular course with a devoted number. LAW 6xx courses have prerequisites; and LAW 559 is one of the two possible prerequisites.

Course Template

Current: Removed language	Proposed: New language
Subject & Number Title Course Career Units Approved Hours Fee index Faculty Department Typically Offered Description	Subject & Number: LAW 554 Title: Oceans Law & Policy Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Law Department n/a Typically Offered annually Description: This course introduces students to the fundamentals of oceans law, with particular attention being paid to legal issues relevant to Canada. Where appropriate, this course will also explore contemporary oceans law issues, such as: piracy, maritime boundary delimitation, extended continental shelf claims, polar governance, marine protected areas, conservation of living marine resources, shipping, and sub-marine cables.

Reviewed/Approved by:

REQUIRED: Law Faculty Council, approval, 17 October, 2023

OPTIONAL: none

Faculty (& Department or Academic Unit):	Law
Contact Person:	James Muir
Level of change: (choose one only) [?]	• Undergraduate
	Graduate
For which term will this change take effect?	1890

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Course has run for three years with good enrollment as a topics course, so we would like to set it up as a regular course with a devoted number. LAW 6xx courses have prerequisites; and LAW 590 is one of the two possible prerequisites.

Course Template

Current: Removed language	Proposed: New language
Subject & Number Title Course Career Units Approved Hours Fee index Faculty Department Typically Offered Description	Subject & Number: LAW 630 Title: Indigenous Legal Issues Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Law Department n/a Typically Offered annually Description: This advanced seminar discusses the immediate legal concerns of Indigenous peoples, including recognition and reconciliation of their own legal traditions with the Canadian legal system. Topics may include the legal needs and rapidly evolving ambitions of Indigenous communities and nations that extend to land management processes, environmental impact assessments, matrimonial real property regimes, and other self-government initiatives. Prerequisite: LAW590 or equivalent.

Reviewed/Approved by:

REQUIRED: Law Faculty Council, approval, 17 October, 2023

OPTIONAL: none

Faculty (& Department or Academic Unit):	LAW
Contact Person:	James Muir (jmuir1@ualberta.ca)
Level of change: (choose one only)	<ul style="list-style-type: none"> • Undergraduate •
Type of change request: (check all that apply)	<ul style="list-style-type: none"> • Program •
For which term is this intended to take effect?	ASAP
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No.

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The UAPPOL “Grading Procedure” policy states: “Faculties may recommend grade distributions as approved by the Faculty Council. Such (i.e., Faculty or department-specific) guidelines must be brought to the Academic Standards Committee for information and communicated to students through the University Calendar.”
The Faculty of Law has a Grade Distribution scheme that dates to 1993 but that is not in the Calendar.

Calendar Copy

https://calendar.ualberta.ca/preview_program.php?catoid=36&poid=42202

Current Copy: Removed language	Proposed Copy: New language
Marking in the Faculty is based on the University of Alberta marking scale. See Evaluation Procedures and Grading System .	Marking in the Faculty is based on the University of Alberta marking scale. See Evaluation Procedures and Grading System . The Faculty of Law’s Grade Distribution policies are described in the Law Faculty Council Policy Manual.

Reviewed/Approved by:

REQUIRED: Law Faculty Council, 21 March, 2023

OPTIONAL: n/a

Appendix: Faculty of Law’s grading distribution regulations from the Law Faculty Council policy manual:

GRADING STANDARDS

Instructors made familiar with distribution

31.7 At the beginning of each academic year, the Dean shall bring the matter of grade distribution to the attention of all instructors to familiarize them with the necessity of the distribution scheme and adherence to it.

Initial allocation according to recommended distribution

31.8 Instructors are to allocate grades according to the recommended distributions or class average ranges, and then determine whether the resulting distribution fairly reflects the performance of the class.

Instructor may submit a deviant distribution

31.9 Where an instructor determines that a distribution different from the recommended distribution is appropriate, the instructor shall submit the different distribution to the Vice Dean.

Deviant distribution must be justified by the instructor

31.10 The Vice Dean shall require an instructor who submits grades which do not comply with the suggested distribution to justify the deviant grades. It is an acceptable justification if the class performance was unusually good or bad. This must be established by the instructor. The onus of proving this is heavy and must be discharged to the Vice Dean's satisfaction.

Other justifications

31.11 Section 31.12 does not preclude other justifications for deviation deemed acceptable by the Vice Dean.

No reasonable justification

31.12 Where the grades submitted deviate from the suggested distribution and no reasonable justification for deviation has been provided, the Vice Dean shall take such steps as may be required to make the grades fall within the suggested distribution; including submitting the papers to other instructors for reappraisal and changing the grades.

LFC approves marks report

31.13 Law Faculty Council Marks Meeting shall consider the Grade Distribution Report and if they deem it appropriate, approve the report presented to it by the Vice Dean.

LFC has final approval

31.14 Law Faculty Council shall have final approval of grades.

Grade distribution for classes of 25 or less students or non-exam courses

31.15 Where a course has twenty-five (25) or less students, or examination is not the primary method of evaluation, the class average is to be between "2.3" and "3.3".

Grade distribution for first year classes of 26 or more students

31.16 Where a first year course has more than twenty-five (25) students and examinations are the primary means of evaluation the course average must fall between "2.7" and "3.0". In addition, the number of students receiving a failing grade (F) must not exceed five (5%) per cent of the class, and the number of students receiving grades of "F", "D", and "D+" must not exceed fifteen (15%) per cent of the class.

Grade distribution for upper year classes of 26 or more students

31.17 Where an upper year course has more than twenty-five (25) students and examinations are the primary means of evaluation, the course average must fall between "2.9" and "3.2". In addition, the number of students receiving a failing grade (F) must not exceed five (5%) per cent of the class, and the number of students receiving grades of "F", "D", and "D+" must not exceed ten (10%) per cent of the class.

Primary means of evaluation defined

31.18 "Primary" as used in 31.15-31.17 inclusive, shall mean at least seventy (70%) per cent of the total grade.

Graduate and ITLP students excluded

31.19 When graduate students (LL.M. and Ph.D.) and ITLP (NCA) students enrol in J.D. courses, they shall be excluded from the class average and grade distribution requirements of LFC Policy sections 31.15 to 31.17. Instructors shall grade graduate students on the basis of Faculty of Graduate Studies and Research requirements and guidelines. Instructors shall grade ITLP (NCA) students on the basis of the University's undergraduate grading system.

Grade distribution for classes of five or less students

31.20 For classes of five (5) students or less no distribution is recommended.

Exchange students excluded

31.21 Exchange students may be graded on a credit/non-credit basis at the discretion of the instructor to accommodate language, cultural, or juridicial differences. Any decision in this regard is subject to the prior approval of the Vice Dean.

Letter grades awarded to exchange students

31.22 Exchange students enrolled in J.D. courses and awarded grades shall be excluded from class averages and grade distribution requirements of LFC policy.

Faculty (& Department or Academic Unit):	Law
Contact Person:	James Muir
Level of change: (choose one only) [?]	<ul style="list-style-type: none"> • Undergraduate
	Graduate
For which term will this change take effect?	1890

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Course has run for three years with good enrollment as a topics course, so we would like to set it up as a regular course with a devoted number. LAW 6xx courses have prerequisites; and LAW 559 is one of the two possible prerequisites.

Course Template

Current: Removed language	Proposed: New language
Subject & Number Title Course Career Units Approved Hours Fee index Faculty Department Typically Offered Description	Subject & Number: LAW 659 Title: Energy and Environmental Law & Policy Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Law Department n/a Typically Offered annually Description: An advanced topics course in energy and environmental law and policy, covering current areas of intersection between the law and energy and environmental policy such as climate change, oil and gas liability management, and renewable electricity integration. Topics will highlight relevant areas of intersection between environmental policy and constitutional, contract, administrative, and regulatory law. Prerequisite: Law 543 or 559.

Reviewed/Approved by:

REQUIRED: Law Faculty Council, approval, 17 October, 2023

OPTIONAL: none

Faculty (& Department or Academic Unit):	Law
Contact Person:	James Muir, Vice Dean
Level of change: (choose one only)	<ul style="list-style-type: none"> • Undergraduate •
Type of change request: (check all that apply)	<ul style="list-style-type: none"> • • Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The language regarding time-to-completion is inconsistent between the calendar and Faculty of Law internal regulations; the proposed change makes the language consistent. It does not shorten the time-to-completion regulations for any current or future student from what is currently in practice.

Calendar Copy

https://calendar.ualberta.ca/preview_program.php?catoid=39&poid=47343&returnto=12340

Current Copy: Removed language	Proposed Copy: New language
<p>Promotion of Full-time Students</p> <p>a. Units of course weight: After the required first year, law students must take a program of required and optional courses totalling no more than 15 units in a single Fall or Winter Term (see Course Listings for required courses, optional courses and units of course weight) and no more than 6 credit hours in a single Spring or Summer Term. Students must accumulate a total of not less than 92 units to qualify for the degree of Juris Doctor. The Dean or the Dean's delegate may permit a student to register for more than the prescribed maximum units of course weight in an academic year. Students must pass each course attempted with a minimum grade of D before receiving credit for the course.</p>	<p>Promotion of Full-time Students</p> <p>a. Units of course weight: After the required first year, law students must take a program of required and optional courses totalling no more than 15 units in a single Fall or Winter Term (see Course Listings for required courses, optional courses and units of course weight) and no more than 6 credit hours in a single Spring or Summer Term. Students must accumulate a total of not less than 92 units to qualify for the degree of Juris Doctor. The Dean or the Dean's delegate may permit a student to register for more than the prescribed maximum units of course weight in an academic year. Students must pass each course attempted with a minimum grade of D before receiving credit for the course.</p>

b. The Faculty operates under a minimum grade point average system which requires that a minimum grade point average of 2.0 is required for promotion for all years. Any student failing to obtain a 2.0 average in an academic year is required to withdraw from the Faculty. Any student with a 2.0 average or better receives credit for each course in which a passing grade is obtained and receives no credit in a course or courses in which a failing grade is obtained. Any compulsory course failed must be repeated, and any noncompulsory course failed may be repeated. ~~Students are not permitted to spend more than a total of four additional years of study after the completion of first year in the Faculty to acquire the 92 units.~~

b. The Faculty operates under a minimum grade point average system which requires that a minimum grade point average of 2.0 is required for promotion for all years. Any student failing to obtain a 2.0 average in an academic year is required to withdraw from the Faculty. Any student with a 2.0 average or better receives credit for each course in which a passing grade is obtained and receives no credit in a course or courses in which a failing grade is obtained. Any compulsory course failed must be repeated, and any noncompulsory course failed may be repeated. **Students admitted as Full-time students must complete all degree requirements within five years of beginning their degree.**

Part-Time Students

To the extent possible, the academic and administrative regulations and policies apply to part-time students as to full-time students.

Part-Time Students

To the extent possible, the academic and administrative regulations and policies apply to part-time students as to full-time students. **Students admitted as Part-time students must complete all degree requirements within six years of beginning their degree**

Reviewed/Approved by:

REQUIRED: Law Faculty Council approved, 21 November, 2023.

OPTIONAL:.

Calendar Change Request Form for Program and Regulation Changes

See the [Calendar Guide](#) for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Faculty of Native Studies
Contact Person:	Dr. Sean Robertson, Associate Dean (Academic)
Level of change: (choose one only)	• Undergraduate
	• Graduate
Type of change request: (check all that apply)	• Program
	• Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	Yes

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The research and creative intricacies faced by Indigenous Studies scholars necessitate drawing on diverse areas of learning and their intersections: e.g., the Humanities, Social Sciences, Health Sciences, Science, etc. and, of course, Indigenous knowledges. At the same time, the grounding of Indigenous Studies in community means that scholars must be able to disseminate information to non-academic audiences, while continuing to be responsive to knowledge sharing and feedback from community knowledge keepers. Through practical and incremental skill development, students will develop university-level reading, listening, writing, research, analytical, and presentation competencies in order to understand and contribute to Indigenous Studies topics.

By providing an introduction to these competencies, this course not only equips students to successfully engage with the complexities and assignments across their Indigenous Studies degree program, but also prepares them for professional practice. This course will provide students with a standardized set of compositional skills to better prepare them for subsequent methodology courses. * This course will replace the English course currently required toward the Bachelor of Arts in Native Studies degree.

Calendar Copy

URL in current Calendar (or "New page")

https://calendar.ualberta.ca/preview_program.php?catoid=39&poiid=47389

Current Copy: ~~Removed language~~

Proposed Copy: New language

<p>Bachelor of Arts in Native Studies [...]</p> <p>General Program Requirements [...]</p> <p>Faculty Common Requirements (30 units)</p> <p>6 units in Junior English OR 3 units in Junior English and 3 units in Writing Studies (WRS)</p> <p>No more than 6 units of junior English, or equivalent, may be taken for credit in an undergraduate program. ENGL 125 - Indigenous Literatures is recommended.</p> <p>[...]</p>	<p>Bachelor of Arts in Native Studies [...]</p> <p>General Program Requirements [...]</p> <p>Faculty Common Requirements (30 units)</p> <ul style="list-style-type: none"> • 3 units in NS 190 Reading, Writing, and Communicating for Indigenous Studies; and • 3 units in Junior English or 3 units in Writing Studies (WRS) (Except ENGL 150). ENGL 125 - Indigenous Literatures is recommended. <p>No more than 6 units of junior English, or equivalent, may be taken for credit in an undergraduate program.</p> <p>[...]</p>
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Reviewed/Approved by:

<p>REQUIRED: Faculty Council (or delegate) and approval date. Faculty of Native Studies Faculty Council, November 14, 2023.</p>
<p>OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates. Faculty of Native Studies Academic Affairs Committee, October 25, 2023.</p>

Calendar Change Request Form for Program and Regulation Changes

See the [Calendar Guide](#) for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Faculty of Native Studies
Contact Person:	Dr. Sean Robertson, Associate Dean (Academic)
Level of change: (choose one only)	<ul style="list-style-type: none"> • Undergraduate • Graduate
Type of change request: (check all that apply)	<ul style="list-style-type: none"> • Program • Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

High school admission requirements are removed from post secondary transfer admissions route, as there is no direct entry from high school. Admission requirements are considered at the post secondary level.

Calendar Copy

URL in current Calendar (or "New page") https://calendar.ualberta.ca/content.php?catoid=39&navoid=12307#ba-native-studies-honors	
Current Copy: Removed language	Proposed Copy: New language
Faculty of Native Studies Admission Requirements [...]	Faculty of Native Studies Admission Requirements [...]
BA (Native Studies) Honors	BA (Native Studies) Honors
General Admission Requirements Admission to the Honors program normally occurs at the end of the first year. Students planning to apply to	General Admission Requirements Admission to the Honors program normally occurs at the end of the first year of a BA(NS) undergraduate

<p>the Honors program should consult the Honors/Academic advisor before applying. Admission to Honors requires a 3.0 AGPA on 24 units of course weight, and a 3.3 GPA in all courses in the major. (Refer to Postsecondary Transfer Applicants for information on AGPA calculation.) Admission at the end of the second or third year requires a 3.0 GPA on all previous courses and a 3.3 GPA on all Native Studies courses taken. All applicants must also present the high school subject requirements specified for the BA NS program (see BA in Native Studies).</p> <p>High School Requirements: There is no admission directly from high school.</p> <p>Transfer Applicants: Refer to general admission requirements, above.</p> <p>Nonmatriculated Applicants: There is no direct admission. Admission to the BA NS program (see BA in Native Studies) and completion of the first year meeting general admission requirements, above, is required.</p>	<p>program. Students planning to apply to the BA(NS) Honors program should consult the Honors/Academic advisor before applying.</p> <p>Admission to Honors requires a 3.0 AGPA on 24 units of course weight, and a 3.3 GPA in all courses in the major. (Refer to Postsecondary Transfer Applicants for information on AGPA calculation.)</p> <p>Admission at the end of the second or third year requires a 3.0 GPA on all previous courses and a 3.3 GPA on all Native Studies courses taken.</p> <p>High School Requirements: There is no admission directly from high school.</p> <p>Transfer Applicants: Refer to the BA(NS) Honors General Admission Requirements, above.</p> <p>Nonmatriculated Applicants: There is no direct admission. Admission to the BA(NS) program (see BA in Native Studies) and completion of the first year meeting the BA(NS) Honors General Admission Requirements is required.</p>
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Reviewed/Approved by:

<p>REQUIRED: Faculty Council (or delegate) and approval date. Faculty of Native Studies Faculty Council, November 14, 2023.</p>
<p>OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates. Faculty of Native Studies Academic Affairs Committee, October 25, 2023.</p>

Faculty (& Department or Academic Unit):	Faculty of Native Studies
Contact Person:	Dr. Sean Robertson, Associate Dean (Academic)
Level of change: (choose one only)	<ul style="list-style-type: none"> • Undergraduate • Graduate
Type of change request: (check all that apply)	<ul style="list-style-type: none"> • Program • Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The proposed changes will streamline and remove barriers to completion of the Certificate in Indigenous Governance and Partnership (with degree). The primary change is the removal of the core-elective component of the certificate requirement. Core-elective courses will become electives. The second component will be to reduce the overall requirements from 18 to 15 units. Of these 15 units, 9 units must be Native Studies (NS) courses.

Several electives have been added from the Faculty of Arts to reflect calendar changes that have been initiated with increase in hiring Indigenous faculty members in various departments.

The original program requirements were designed after community consultations led by Dr. Shalene Jobin approximately 15 years ago. While the survey identified a comprehensive list of skills and knowledge, staffing the proper courses is a challenge. Currently the core-elective courses are only offered every two years. This requires students have to begin planning in their second year and completing the requirements takes a minimum of two academic years.

The proposed changes are student planning and enrollment focused. The proposed changes would mean a students can complete the program requirements in the Fall and Winter term of any calendar year. As well, the new electives will give greater flexibility to the Faculty of Native Studies in course scheduling. The increase in electives possible from Arts will greatly increase recruitment opportunities by allowing the program to present in those classes and explain how students only require four more courses that can be completed in Fall-Winter of the following academic year.

Calendar Copy

URL in current Calendar (or "New page")

https://calendar.ualberta.ca/preview_program.php?catoid=39&poid=48033

Current Copy: Removed language	Proposed Copy: New language
<p>Certificate in Indigenous Governance and Partnership (With Degree)</p> <p>Students may pursue the Certificate in Indigenous Governance and Partnership with degree by completing a minimum of six courses (18 units) from the following list:</p> <p>Indigenous Governance Core Credits – 6 units:</p> <p>NS 320 - Indigenous Politics and Diplomacy NS 430 - Indigenous Governance and Partnership Capstone</p> <p>Elective Course Credits — 12 units:</p> <p>6 units chosen from</p> <p>NS 330 - Indigenous Economies NS 345 - Governance in Indigenous Nations NS 420 - Partnership Strategies</p> <p>6 units chosen from</p> <p>NS 240 - Introduction to Indigenous Legal Issues NS 340 - Indigenous Legal Systems NS 362 - Indigenous Women NS 370 - The Métis: The Emergence of a People NS 372 - Métis Politics NS 403 - Selected Topics in Indigenous Studies (Governance Topics Only) NS 435 - Management of Indigenous Natural Resources NS 440 - Indigenous Treaties and Agreements NS 441 - Indigenous Land Claims and Agreements NS 445 - Community Development Processes NS 485</p> <p>POL S 329 - Global Indigenous Politics POL S 436 - Topics in Indigenous Politics and/or the elective not chosen from above (NS 330, NS 345, NS 420)</p> <p>Total Certificate Requirements – 18 units</p>	<p>Certificate in Indigenous Governance and Partnership (With Degree)</p> <p>Students may pursue the Certificate in Indigenous Governance and Partnership with degree by completing a minimum of five courses (15 units) from the following list:</p> <p>Indigenous Governance Core Credits – 6 units:</p> <p>NS 320 - Indigenous Politics and Diplomacy NS 430 - Indigenous Governance and Partnership Capstone</p> <p>Elective Course Credits – 9 units: At least one course (3 units) must be a Native Studies course.</p> <p>NS 240 - Introduction to Indigenous Legal Issues NS 330 – Indigenous Economies NS 340 – Indigenous Legal Systems NS 345 – Governance in Indigenous Nations NS 362 – Indigenous Women NS 370 – The Métis: The Emergence of a People NS 372 – Métis Politics NS 403 – Selected Topics in Indigenous Studies (Governance Only) NS 420 – Partnership Strategies NS 435 – Management of Indigenous Natural Resources NS 440 – Indigenous Treaties and Agreements NS 441 – Indigenous Land Claims and Agreements NS 442 – Colonialism and the Criminal Justice System NS 445 – Community Development Processes NS 476 – Perspectives on Indigenous Peoples Health and Wellbeing NS 485 – Urban Indigenous Issues and Identities NS 490 – Community-Based Research</p>

Calendar Change Request Form for Program and Regulation Changes

	<p>ANTHR 311 – Archaeology of Indigenous North America</p> <p>ECON 451 – Indigenous Economic Development</p> <p>POL S 327 – Indigenous Politics in Canada</p> <p>POL S 329 – Global Indigenous Politics</p> <p>POL S 331 – Indigenous Feminist Politics</p> <p>POL S 436 – Topics in Indigenous Politics</p> <p>POL S 437 – Indigenous Political Thought</p> <p>HIST 368 – Histories of Indigenous Peoples and Kanata until 1870</p> <p>HIST 369 – Histories of Indigenous Peoples and Kanata after 1870</p> <p>HIST 462 – Indian Residential Schooling in Canada</p> <p>HIST 479 – Topics in Indigenous Histories – Global and Local</p> <p>SOC 370 – Racism and Decolonization</p> <p>SOC 472 – Indigenous Settler Relations (Anticipated course for 2024/25 calendar)</p> <p>WGS 480 – Indigenous Genders and Sexualities</p> <p>WGS 498 – Indigenous Feminisms</p> <p>Total Certificate Requirements – 15 units</p>
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Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date.

Faculty of Native Studies Faculty Council, November 14, 2023.

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.

Faculty of Native Studies Academic Affairs, October 25, 2023

Calendar Change Request Form for Course Changes

See the [Calendar Guide](#) for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Faculty of Native Studies
Contact Person:	Dr. Sean Robertson, Associate Dean (Academic)
Level of change: (choose one only) [?]	<ul style="list-style-type: none"> • Undergraduate • Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The research and creative intricacies faced by Indigenous Studies scholars necessitate drawing on diverse areas of learning and their intersections: e.g., the Humanities, Social Sciences, Health Sciences, Science, etc. and, of course, Indigenous knowledges. At the same time, the grounding of Indigenous Studies in community means that scholars must be able to disseminate information to non-academic audiences, while continuing to be responsive to knowledge sharing and feedback from community knowledge keepers. Through practical and incremental skill development, students will develop university-level reading, listening, writing, research, analytical, and presentation competencies in order to understand and contribute to Indigenous Studies topics.

By providing an introduction to these competencies, this course not only equips students to successfully engage with the complexities and assignments across their Indigenous Studies degree program, but also prepares them for professional practice. This course will provide students with a standardized set of compositional skills to better prepare them for subsequent methodology courses. * This course will replace the English course currently required toward the Bachelor of Arts in Native Studies degree.

Course Template

Current: Removed language	Proposed: New language
<p>Subject & Number NS 190</p> <p>Title Academic Writing and Research in the Context of Native Studies</p> <p>Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Native Studies Department N/A Typically Offered Either Term</p> <p>Description</p>	<p>Subject & Number NS 190</p> <p>Title Reading, Writing, and Communicating for Indigenous Studies</p> <p>Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Native Studies Department N/A Typically Offered Either Term</p> <p>Description</p>

<p>An introduction to research and writing skills necessary in an academic environment, with an emphasis on how these methods are used in the discipline of Native Studies. Enrollment by Faculty consent only.</p>	<p>Through practical and incremental skill development, and with a focus on Indigenous Studies content, this course explores ways of learning and writing in the university environment and more specifically in the discipline of Indigenous Studies. Students will develop their analytical thinking skills by expanding their competencies in reading, composition, writing, research, and communication. Note: Restricted to students in the Faculty of Native Studies only.</p>
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Reviewed/Approved by:

<p>REQUIRED: Faculty Council (or delegate) and approval date. Faculty of Native Studies Faculty Council, November 14, 2023.</p>
<p>OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates. Faculty of Native Studies Academic Affairs Committee, October 25, 2023.</p>

Proposal for New Course (syllabus attached)

Native Studies 190

Reading, Writing, and Communicating for Indigenous Studies

September 8, 2023

ACADEMIC RATIONALE

The research and creative intricacies faced by Indigenous Studies scholars necessitate drawing on diverse areas of learning and their intersections: e.g., the Humanities, Social Sciences, Health Sciences, Science, etc. and, of course, Indigenous knowledges. At the same time, the grounding of Indigenous Studies in community means that scholars must be able to disseminate information to non academic audiences, while continuing to be responsive to knowledge sharing and feedback from community knowledge keepers. Through practical and incremental skill development, students will develop university-level reading, listening, writing, research, analytical, and presentation competencies in order to understand and contribute to Indigenous Studies topics.

By providing an introduction to these competencies, this course not only equips students to successfully engage with the complexities and assignments across their Indigenous Studies degree program, but also prepares them for professional practice. This course will provide students with a standardized set of compositional skills to better prepare them for subsequent methodology courses. * This course will replace the English course currently required toward the NS degree.

EXPECTED ENROLMENT

50?

PREREQUISITES

Open only to students in the Native Studies Arts program or the combined degrees (Education and AELS) or with permission of the instructor.

Assignments: 3000-4000 words of written text should be submitted over the term. This is approximately similar to the word count FNS students face in the required English course they currently take toward their degree.

**Faculty of Native Studies
University of Alberta**

**Native Studies 190
Reading, Writing, and Communicating for Indigenous Studies**

Instructor:

Phone:

Email:

Class Times:

Class Location:

Office Room No:

Office Hours:

FNS Front Office No: 780-492-2991

or nativestudies@ualberta.ca

Note: Native Studies Front Office is open 8:30AM-noon and 1:00PM- 4:30PM.

Preamble: “The course outline acts as an understanding between the student and the instructor regarding details of the course. Modifications to this understanding may be made with fair warning and general class consent.” Sec. 61.6 GFC

“Policy about course outlines can be found in [Evaluation Procedures and Grading System](#) of the University Calendar.”

Note: PLEASE indicate if the course is offered as a remote course with synchronous (learning in real time) and asynchronous (learning on a flexible time frame) activities. The nature of the activities (synchronous and/or asynchronous) will be clearly identified in e-class.

Course Calendar Description [*add course specific wording from university calendar*]

Through practical and incremental skill development, and with a focus on Indigenous Studies content, this course explores ways of learning and writing in the university environment and more specifically in the discipline of Indigenous Studies. Students will develop their analytical thinking skills by expanding their competencies in reading, composition, writing, research, and communication.

Course Objectives

Students will learn to read, write, and communicate effectively in the disciplinary context of Indigenous Studies. At the end of the course, students will be able to:

1. critically read articles and scholarly books
2. perform close reading (attending to diction, patterns, contradictions)
3. take notes effectively by summarizing ideas and the use of different tools (e.g. PDF noting)
4. professionally communicate (by acquiring skills toward answering questions, preparing for seminars, oral presentations)
5. describe and perform different forms of writing and communication (text, beading, orality)
6. initiate research (skills related to using key words, library resources, iPortal)
7. differentiate between academic sources
8. devise research strategies (toward building a bibliography and annotated bibliography)
9. critically think (analysis, synthesis, application, and complexity)

10. write an essay (thesis statement, components of an essay)
11. quote and cite effectively (to avoid plagiarism)
12. paraphrase source information
13. use a citation style (Chicago: notes-bibliography)
14. work in teams (e.g. conducting a peer review)
15. use skills and strategies toward effective exam preparation
16. assess the risks and benefits of artificial intelligence in writing, research, and communication

(Note to instructors: these objectives could be further integrated as weekly exercises as listed in the syllabus, below. E.g. for (3), see: “Week 2: summarize a paragraph from the essay...”)

Required Texts

Graff, G., & Birkenstein, C. (2021). *They Say / I Say*. W.W. Norton & Company.

Younging, G. (2018). *Elements of Indigenous Style: A Guide to Writing by and about Indigenous People*. Brush Education.

All other readings available on eClass

Description of Course Content/Syllabus

Week 1: Course Intro, Entering the Conversation

Guest Speaker: Elder invitation to open class in a good way.

Read:

- “Land as Pedagogy” by Leanne Simpson (pages 1-9)
 - Discuss connection to the land and why it is integral to Indigenous peoples
- *They Say / I Say* Introduction and Chapter One
 - Adapt exercises to reflect the article and discussion

Week 2: Summarizing and Close Reading

Read:

- *They Say / I Say* Chapters Two and Three
- “Land Speaking” by Jeannette Armstrong
 - Summarize a paragraph in the essay, quote key sentences or lines
- Activity:
 - [“Nobody Cries at Bingo Except Me”](#) by David Gaertner (adapt for class)

Week 3: Agree to Disagree

Read:

- *They Say / I Say* Chapter Four
- “The Danger of a Single Story” (TED Talk) by Chimamanda Adichie

- Learn to create argumentative sentences about a given topic, develop a persuasive paragraph of 3-4 sentences
- Learn how to cite from a video

Week 4: Who is Talking?Read:

- *They Say / I Say* Chapter Five
- *Elements of Indigenous Style* Chapters One and Two
 - Refer to the Case Study section in Younging – create sentences using the skills you have developed, and make sure it is clear who you are quoting or if it is your own words

Week 5: Indigenous VoiceRead:

- *Elements of Indigenous Style* Chapters Three and Four
- “Aliens” from *Moccasin Square Gardens* (library online)
 - Intro to UNDRIP
 - Indigenous voice in storytelling: What is voice? Who has voice? Describe the voice of the narrator

Week 6: The Power of WordsRead:

- *They Say / I Say* Chapters Six and Seven
- *Elements of Indigenous Style* Chapter Six
 - Why do our words matter?
 - Library presentation on research and citation

Week 7: The Key PiecesRead:

- *They Say / I Say* Chapter Eight
 - Grammar and word choice, understanding sentence mechanics

Week 8: Peer Review and Academic VoiceRead:

- *They Say / I Say* Chapters Nine and Ten
 - Peer Review Workshop one class
 - Developing academic voice, avoiding passive language, say what you mean

Week 9: Beading WeekRead:

- Sherry Farrell Racette: “Tuft Life” (eClass)
 - Beading together during class time – beads as text, not just art

Week 10: READING WEEK, no class**Week 11: How to Revise**Read:

- *They Say / I Say* Chapter Eleven
 - Revise simple paragraphs, basic editing

- *Elements of Indigenous Style* Chapter Seven
 - Understand incorporation of Indigenous languages in texts written in English, ensure cultural safety in writing

Week 12: The Language We Use

Read:

- *They Say / I Say* Chapters Twelve and Thirteen
 - Social media activity – bring a short video (under two minutes) to share in groups, pick one video to share with the class – work on citation, and write reflection

Week 13:

No Readings:

- Presentations

Week 14: Final Week

No Readings:

- Presentations
- Final exam review and class feast

Final Exam: Date TBD

Course Requirements/Assignments

Marking Summary:

Participation and group work	15%
Inksheds	25%
Essay	35%
Presentation	5%
Final Exam	20%

More detailed descriptions of assignments will be provided on eClass:

1. Participation and group work (15%). This mark reflects the labour involved in participating in discussion, group work, and other activities; it also evaluates your role in contributing to the classroom community. Assessments factors include: evidence of preparedness for class, willingness to remain mentally present and engaged during class time, and contributions to discussion and/or communication with the instructor.

2. Inksheds and Portfolio (1250-1500 words): 25%

Class time will be set aside regularly for writing reflections based on our readings and activities. Each response will require that students complete 10 minutes of writing in the form of an inkshed (also known as a “free write”). The inkshed should be 250-350 words in length. Every four weeks, you will select your best inkshed and revise it. At the end of the semester, you will submit these THREE inksheds, along with a 500-750 word reflection that thoughtfully considers all the inksheds, in a portfolio.

3. Essay (1500 words): 35% (5% outline and thesis, 10% peer workshop, 20% essay)

Your major assignment this term will involve the development—in stages—of an argumentative essay responding to one reading from class. You should use at least two secondary sources that are outside of course readings, and at least one of these must be a peer-reviewed academic source (10-20 pages in length).

- Stage One of this assignment will consist of a thesis statement and an annotated bibliography; these components will be submitted on _____ for a grade. 1-2 pages
- Stage Two will involve creating a rough draft based on your outline and instructor feedback on it; you will then share this draft with a peer for additional feedback.
 - Four of the ten marks assigned to Stage Two are not evaluative; that is, you will receive four marks by simply bringing a printed copy of your rough draft to the peer-review workshop on _____.
 - The remaining six marks will be based on your participation via a self-reflection exit sheet (length: 1 page) explaining the feedback you received and gave.
 - Draft length: 4-5 pages
- Stage Three involves making substantial alterations to your rough draft and submitting a final, polished version of the paper on _____—along with a separate written explanation (no more than half a page in length) of the revisions you have made. If you did not make any revisions, tell me why. Your final paper must follow proper Chicago style (notes-bibliography), double-spaced, in Times New Roman font.

4. Presentation 1: 5% (5 minutes)

For this assignment, you will develop a short presentation about one of the articles covered in class. A more detailed assignment sheet will be made available. Make sure to include proper citations on your slides!

5. Final Examination: 20%

(OTHER POSSIBLE WRITTEN ASSIGNMENTS (PERHAPS REPLACING INKSHED):

1. *Journal Entries (marked individually and submitted on eClass).*
2. *Journalism Assignment - choose a topic related to Indigenous Peoples and write a short news article on the topic. Follow news article format, and include one image (cited properly).*

3. Write a short story (2-3 pages) based on prompts given in class. Make sure to think about the “voice” of the story, and include at least two instances of dialogue.)

(OTHER POSSIBLE ORAL ASSIGNMENTS

Presentation 2: 10% (5 minutes)

For this assignment, you will develop a short presentation about your Essay assignment. A more detailed assignment sheet will be made available. Make sure to include proper citations on your slides!)

SUBMISSION of ASSIGNMENTS: *[Provide clarity on your expectations, for example “Deadlines for assignments will be strictly observed. All assignments are **due at the beginning of class on the date they are due.**]*

LATE assignments are penalized 10% PER DAY that they are late to a maximum of three days (-30%); after three days late assignments will not be accepted. Only in extremely special cases will extensions be granted *[If you do allow extensions, explain your terms or process for granting an extension]*.

The instructor is **not** responsible for any assignment handed in to anyone other than the instructor. It is expected that all assignments will be typed (except for in-class exams).

Assignments are not handed back until all assignments are in. The final paper will be handed back at the last class or at the final exam.

Student assignments remaining at the Faculty of Native Studies 90 days after the semester ends will be shredded.

GRADING SYSTEM

4.0	A+	90-100%
4.0	A	85-89%
3.7	A-	80-84%
3.3	B+	77-79%
3.0	B	73-76%
2.7	B-	70-72%
2.3	C+	67-69%
2.0	C	63-66%
1.7	C-	60-62%
1.3	D+	55-59%
1.0	D	50-54%
0.0	F	0-49%

[ensure that these numbers are used to inform your E-Class grading scale]

Cell Phones: *[You may want to include language on cell phone usage and texting during class times, for example]:* Cell phones are to be turned off during class times. Cell phones are not to be brought to exams. (On class disruptions, see Code of Student Behaviour [30.5.3](#))

Recording of Lectures: Audio or video recording, digital or otherwise, of lectures, labs, 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. Student or instructor content, digital or otherwise, created and/or used within the context of the course 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 content author(s).

Missed Term Work And Absence From Exams: Please see Calendar [Attendance](#) regarding **Absence from Term Work** and **Absence from Exams**.

Past or Representative Evaluative Course Material: Students can access past examinations or sample questions via the Students' Union Exam Registry, or directly from your instructor.

[Note: if this is the first time you have taught the course, there will be no past examinations at Students' Union Exam Registry. Alternatively, the following language may assist students with the scope of expectations for your exam: "A class review will be held, the structure of the exam will be explained and some representative questions based on past examinations in NSxxx will be provided."]

Deferred Final Examinations: Application for a deferral of a Final Exam will require approval of your home Faculty. Please note that it is not up to the instructor to permit or deny a deferral of a final exam; only the Dean's Office may do so with supporting documentation and just cause. *[As an instructor you may want to set the date for all deferred exams in the outline, such as "The deferred final exam will be held on (date and time)."* *If you do not preset a date for deferred final examination in the course outline, the date and time will be set by an agreement between the student and instructor.]*

University policy, [Absence from Final Exams](#), states that a deferred exam will NOT be approved if a student:

- i. has not been in regular attendance where attendance and/or participation is required, and/or,
- ii. excluding the final exam, has completed less than half of the assigned work.

ACADEMIC INTEGRITY AND HONESTY

The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the [Code of Student Behaviour](#) (on the [University Governance](#) website) and avoid any behavior, which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University. (GFC 29 SEP 2003)

[30.3.2\(1\)](#) Plagiarism

No Student shall submit the words, ideas, images or data of another person as the Student's own in any academic writing, essay, thesis, project, assignment, presentation or poster in a course or program of study.

30.3.2(2) Cheating

30.3.2(2)a No Student shall in the course of an examination or other similar activity, obtain or attempt to obtain information from another Student or other unauthorized source, give or attempt to give information to another Student, or use, attempt to use or possess for the purposes of use any unauthorized material.

30.3.2(2)b No Student shall represent or attempt to represent themselves as another nor shall a Student attempt to have themselves represented by another in the taking of an examination, preparation of a paper or other similar activity. See also misrepresentation in 30.3.6(4).

30.3.2(2)c No Student shall represent another's substantial editorial or compositional assistance on an assignment as the Student's own work.

30.3.2(2)d No Student shall submit in any course or program of study, without the written approval of the course Instructor, all or a substantial portion of any academic writing, essay, thesis, research report, project, assignment, presentation or poster for which credit has previously been obtained by the Student or which has been or is being submitted by the Student in another course or program of study in the University or elsewhere.

30.3.2(2)e No Student shall submit in any course or program of study any academic writing, essay, thesis, report, project, assignment, presentation or poster containing a statement of fact known by the Student to be false or a reference to a source the Student knows to contain fabricated claims (unless acknowledged by the Student), or a fabricated reference to a source.

30.3.6(4) Misrepresentation of Facts

No Student shall misrepresent pertinent facts to any member of the University community for the purpose of obtaining academic or other advantage. See also 30.3.2(2) b, c, d and e.

30.3.6(5) Participation in an Offence

No Student shall counsel or encourage or knowingly aid or assist, directly or indirectly, another person in the commission of any offence under this Code.

For further information concerning academic honesty processes, see [Student Conduct and Accountability](#). Email: conduct@ualberta.ca or Phone: 780-492-0777

The Academic Success Centre (ASC) provides services to support University of Alberta students in the areas of accommodations, learning, and writing. The ASC coordinates reasonable accommodations to eligible students who encounter medical or non-medical restrictions to their ability to perform the daily activities necessary to pursue studies at a post-secondary level. To that end, they work with students to coordinate disability-related accommodation needs for participation in University programs. For more information, and to register for services, visit the [Academic Accommodations](#) webpage.

The ASC also provides peer-based and professional academic support in the areas of learning and writing. They offer individual appointments, group workshops, and online courses to students in all University of Alberta programs, and at all levels of achievement and study.

At Writing Services, undergraduate students can work with a peer tutor to get feedback on a draft of

their paper. Graduate students can book an appointment with a graduate writing advisor to get feedback on their documents. For more information, please visit the [Writing Services](#) webpage.

RESEARCH ETHICS BOARD REQUIREMENTS

Information about ethics required for inclusion in all course outlines where students may choose to conduct interviews or other research with human subjects:

Interviews and community-based knowledge: The Faculty of Native Studies (FNS) encourages students to draw upon community expertise and knowledge and to conduct interviews where appropriate as part of a research process. At the same time, the University of Alberta and FNS require that anyone planning to undertake research with human subjects, including relatives (as opposed to a library or archives-based project), must first submit an ethics proposal and have it approved before conducting any interviews or other research. Papers that violate this requirement will not be accepted, and students could be subject to disciplinary action. ALL applications will need to be prepared in ARISE (<https://www.ualberta.ca/research/research-support/research-ethics-office/support/getting-started.html>). With the ARISE system, the instructor applies for Ethics for the class and not individual students (so please, contact your instructor). Only proposals that are considered low risk will be reviewed for undergraduate courses.

STRAYNADKA/BRADY READING ROOM

The Faculty of Native Studies is fortunate to have its own excellent collection of library materials relating to Native Studies. The reading room is located in 2-19 Pembina Hall. Contact the Native Studies Front Office for information on hours of operation.

Faculty (& Department or Academic Unit):	Nursing
Contact Person:	Janeen Jordan
Level of change: (choose one only)	<input checked="" type="checkbox"/> Undergraduate
	<input type="checkbox"/> Graduate
Type of change request: (check all that apply)	<input checked="" type="checkbox"/> Program
	<input type="checkbox"/> Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	Submitted by Faculte Saint-Jean

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Changes proposed by Faculte Saint-Jean and approved by FSJ council.

Calendar Copy

URL in current Calendar (or "New page") [Program: Bachelor of Science in Nursing - Bilingual \[Nursing\] - University of Alberta - Acalog ACMS™ \(ualberta.ca\)](#)

Current Copy: ~~Removed language~~

Proposed Copy: New language

Course Sequence

As of September 2022 at University of Alberta (see [Maintaining Registration](#))

Year 1

Course Sequence

As of September 2022 at University of Alberta (see [Maintaining Registration](#))

Year 1

Fall Term

- [ANATE 140 - Anatomie](#)
- [FRANC 224 - Maîtrise du français pour les sciences infirmières](#)
- [MICRE 133 - Microbiologie Médicale pour Infirmières](#)
- [SC INF 110 - Fondements du succès en soins infirmiers](#)
- [SOCIE 100 - Introduction à la sociologie](#)

Fall/Winter

- [PHYSE 152 - Physiologie](#)

Winter Term

- [ANGL 126 – Exploring Writing Studies](#)
- [NURS 125 - Nursing Practice - Health Assessment](#)
- [PSYCE 106 - Principes psychologiques pour les infirmières](#)
- [STATQ 151 - Introduction à la statistique appliquée I](#)

Spring/Summer

- [FRANC 232 – Techniques de rédaction](#) **OR**
- ANGL (3 units) **OR**
- Elective (3 units) (see Note 1)

Fall Term

- [ANATE 140 - Anatomie](#)
- [FRANC 224 - Maîtrise du français pour les sciences infirmières](#)
- [MICRE 133 - Microbiologie Médicale pour Infirmières](#)
- [SC INF 110 - Fondements du succès en soins infirmiers](#)
- [SOCIE 100 - Introduction à la sociologie](#)

Fall/Winter

- [PHYSE 152 - Physiologie](#)

Winter Term

- [ANGL 127 - new course](#)
- [NURS 125 - Nursing Practice - Health Assessment](#)
- [PSYCE 106 - Principes psychologiques pour les infirmières](#)
- [STATQ 151 - Introduction à la statistique appliquée I](#)

Spring/Summer

- [FRANC 233 - new course](#) **OR**
- ANGL (3 units) **OR**
- Elective (3 units) (see Note 1)

Year 2 (see Notes 2 and 3)

Fall Term

- [SC INF 205 - L'innovation, le leadership, les politiques et les organisations de soins de santé](#)
- [SC INF 221 - Introduction à la pratique infirmière](#)
- [SC INF 223 - Les fondations des sciences infirmières I/II](#)

Two Term

- [NURS 216 - Pathophysiology and Pharmacology II](#)

Winter Term

- [NURS 224 - Foundations of Nursing III](#)
- [NURS 225 - Introduction to Acute Care Nursing Practice](#)
- [SC INF 301 - Recherche en sciences infirmières](#)

Spring/Summer

Year 2 (see Notes 2 and 3)

Fall Term

- [SC INF 205 - L'innovation, le leadership, les politiques et les organisations de soins de santé](#)
- [SC INF 221 - Introduction à la pratique infirmière](#)
- [SC INF 223 - Les fondations des sciences infirmières I/II](#)

Two Term

- [NURS 216 - Pathophysiology and Pharmacology II](#)

Winter Term

- [NURS 224 - Foundations of Nursing III](#)
- [NURS 225 - Introduction to Acute Care Nursing Practice](#)
- [SC INF 301 - Recherche en sciences infirmières](#)

Spring/Summer

- [SCSOC 222 - Santé des Autochtones et conceptions du bien-vivre](#)

Year 3 (see Notes 3, 4 and 5)

Fall Term

- [NURS 321 - Advanced Acute Care Nursing Practice I](#)
- [NURS 323 - Community Nursing through the Lifespan](#)
- [SC PO 320 - La politique du système de santé au Canada](#) (see Note 6)

Winter Term

[NURS 325 - Advanced Acute Care Nursing Practice II](#)

[NURS 327 - Mental Health and Wellness in Nursing](#) (see Note 7) **OR** [SC INF 327 - Santé mentale et bien-être en soins infirmiers](#)

[NURS 400 - Leadership in Nursing and Interprofessional Practice](#)

Year 4 (see Notes 3, 4 and 8)

- [SCSOC 222 - Santé des Autochtones et conceptions du bien-vivre](#) (see Note 6)

Year 3 (see Notes 3, 4 and 5)

Fall Term

- [NURS 321 - Advanced Acute Care Nursing Practice I](#)
- [NURS 323 - Community Nursing through the Lifespan](#)
- [SC PO 320 - La politique du système de santé au Canada](#) (see Note 7)

Winter Term

[NURS 325 - Advanced Acute Care Nursing Practice II](#)

[NURS 327 - Mental Health and Wellness in Nursing](#) (see Note 8) **OR** [SC INF 327 - Santé mentale et bien-être en soins infirmiers](#)

[NURS 400 - Leadership in Nursing and Interprofessional Practice](#)

Fall Term

[NURS 485 - Nursing Practice in a Focused Area](#)
(see Note 9)

Winter Term

- [INT D 420 - Perspectives on Inclusive and Global Health](#)
- [PHILE 386 - La bioéthique](#) (see Note 6)
- [SC INF 425 - Le leadership en sciences infirmières dans un domaine spécifique](#)

Notes

1. The language of instruction of electives must be French and electives are normally taken at Faculté Saint-Jean.
2. To proceed to Year 2 students must have passed all Year 1 courses.
3. "SC INF" denotes nursing courses where French is the primary language of instruction.
4. Courses may be configured differently depending on clinical placement availability.
5. To proceed to Year 3 students must have passed all Year 2 courses.
6. The Faculty of Nursing will determine which course students will take.

Year 4 (see Notes 3, 4 and 9)

Fall Term

[NURS 485 - Nursing Practice in a Focused Area](#)
(see Note 10)

Winter Term

- [INT D 420 - Perspectives on Inclusive and Global Health](#)
- [PHILE 386 - La bioéthique](#) (see Note 7)
- [SC INF 425 - Le leadership en sciences infirmières dans un domaine spécifique](#)

Notes

1. The language of instruction of electives must be French and electives are normally taken at Faculté Saint-Jean.
2. To proceed to Year 2 students must have passed all Year 1 courses.
3. "SC INF" denotes nursing courses where French is the primary language of instruction.

<ol style="list-style-type: none"> 7. The Faculty of Nursing will offer this course in French whenever possible. When offered, students in the Bilingual Nursing Program must take this course in French. 8. To proceed to Year 4, students must have passed all Year 2 and 3 courses. 9. Based on academic and clinical performance, and on availability of placements, students may elect to complete the senior practicum in a bilingual or francophone milieu outside of Edmonton. 	<ol style="list-style-type: none"> 4. Courses may be configured differently depending on clinical placement availability. 5. To proceed to Year 3 students must have passed all Year 2 courses. 6. Students must have completed Year 2 courses before taking SC SOC 222. 7. The Faculty of Nursing will determine which course students will take. 8. The Faculty of Nursing will offer this course in French whenever possible. When offered, students in the Bilingual Nursing Program must take this course in French. 9. To proceed to Year 4, students must have passed all Year 2 and 3 courses. 10. Based on academic and clinical performance, and on availability of placements, students may elect to complete the senior practicum in a bilingual or francophone milieu outside of Edmonton.
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Reviewed/Approved by:

<p>REQUIRED: Faculty Council (or delegate) and approval date. Faculty of Nursing Executive Committee - January 8, 2024</p>
<p>OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates. Undergraduate Curriculum Committee December 5, 2023 Faculty Caucus December 19, 2023</p>

Faculty (& Department or Academic Unit):	Faculty of Nursing
Contact Person:	Janeen Jordan
Level of Change: (Choose one only) [?]	<input checked="" type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate
For which term will this change take effect?	Winter 2025

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Insufficient lecture time to cover required course content. Granting credit for other equivalent courses is no longer required.

Course Template

Current: Removed language	Proposed: New language
NURS 125 - Nursing Practice - Health Assessment	NURS 125 - Nursing Practice - Health Assessment
Course Career: Undergraduate Units: 4 Approved Hours: 2-0-3 Fee index: 8 Faculty: Nursing Department: Nursing Typically Offered: Second term	Course Career: Undergraduate Units: 4 Approved Hours: 3-0-3 Fee index: 8 Faculty: Nursing Department: Nursing Typically Offered: Second term
Description: The focus is on the health assessment of the adult, and expected health assessment findings throughout the lifespan. The course provides a beginning foundation of the nursing process as framework for developing assessment skills and use of clinical technologies necessary for determining client health status and provision of care. Note: Available only to nursing students in the Collaborative Program and Bilingual Program. Prerequisites for Collaborative Program students: MMI 133, NURS 106 (or	Description: The focus is on the health assessment of the adult, and expected health assessment findings throughout the lifespan. The course provides a beginning foundation of the nursing process as framework for developing assessment skills and use of clinical technologies necessary for determining client health status and provision of care. Note: Available only to nursing students in the Collaborative Program and Bilingual Program. Prerequisites for Collaborative Program students: MMI 133, NURS 106 (or

<p>NURS 140 and 150), and NURS 120 (or NURS 103); Corequisite: NURS 124 (or NURS 103). Prerequisites for Bilingual Program students: ANATE 140, MICRE 133. Students must achieve a minimum grade of C+ in order to progress in the program. Credit cannot be obtained for NURS 125 if credit is granted for NURS 105 or 305.</p>	<p>NURS 140 and 150), and NURS 120 (or NURS 103); Corequisite: NURS 124 (or NURS 103). Prerequisites for Bilingual Program students: ANATE 140, MICRE 133. Students must achieve a minimum grade of C+ in order to progress in the program.</p>
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Reviewed/Approved by:

<p>REQUIRED: Faculty Council (or delegate) and approval date. Faculty of Nursing Executive Committee - December 22, 2023</p>
<p>OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates. Undergraduate Curriculum Committee – December 5, 2023 Faculty Caucus – December 19, 2023</p>

Faculty (& Department or Academic Unit):	Faculty of Nursing
Contact Person:	Janeen Jordan
Level of Change: (Choose one only) [?]	<input checked="" type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Insufficient lecture time to cover required course content. Granting credit for other equivalent courses is no longer required.

Course Template

Current: Removed language	Proposed: New language
NURS 335 - Nursing Practice - Health Assessment	NURS 335 - Nursing Practice - Health Assessment
Course Career: Undergraduate Units: 4 Approved Hours: 2-0-3 Fee index: 8 Faculty: Nursing Department: Nursing Typically Offered: First term	Course Career: Undergraduate Units: 4 Approved Hours: 3-0-3 Fee index: 8 Faculty: Nursing Department: Nursing Typically Offered: First term
Description: The focus is on the health assessment of the adult, and expected health assessment findings throughout the lifespan. The course provides a beginning foundation of the nursing process as framework for developing assessment skills and use of clinical technologies necessary for determining client health status and provision of care. Note: Available only to nursing students in the After Degree/After Degree Honors Program or RPN-BScN Program. Students must achieve a minimum grade of C+ in order to progress in	Description: The focus is on the health assessment of the adult, and expected health assessment findings throughout the lifespan. The course provides a beginning foundation of the nursing process as framework for developing assessment skills and use of clinical technologies necessary for determining client health status and provision of care. Note: Available only to nursing students in the After Degree/After Degree Honors Program or RPN-BScN Program. Students must achieve a minimum grade of C+ in order to progress in

the program. Credit cannot be obtained for NURS 335 if credit is granted for NURS 105 or 305.	the program.
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Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date. Faculty of Nursing Executive Committee - December 22, 2023
OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates. Undergraduate Curriculum Committee – December 5, 2023 Faculty Caucus – December 19, 2023

Faculty (& Department or Academic Unit):	Nursing
Contact Person:	Janeen Jordan
Level of change: (choose one only)	<input checked="" type="checkbox"/> Undergraduate
	<input type="checkbox"/> Graduate
Type of change request: (check all that apply)	<input type="checkbox"/> Program
	<input checked="" type="checkbox"/> Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Under-age students do not have the legal capacity to meet Nursing program health and safety requirements, including the participation of restricted activities such as the administration of controlled substances and documentation of patient care findings and activities. Consultations included the College of Registered Nurses of Alberta (November 20, 2023), Alberta Health Services (November 29, 2023), College of Health Sciences (November 16, 2023) and their associated legal counsel, plus Office of the Registrar Admissions Managers (November 10, 2023).

Calendar Copy

URL in current Calendar (or "New page") https://calendar.ualberta.ca/content.php?catoid=39&navoid=12308	
Current Copy: Removed language	Proposed Copy: New language
<p>Admission Requirements for All Students</p> <p>All students seeking admission to undergraduate programs in the Faculty of Nursing must present the following:</p> <ol style="list-style-type: none"> Spoken English Requirement: Applicants must meet a spoken English requirement (see Spoken English Proficiency). Health and Safety Requirements: There are a number of health and safety-related 	<p>Admission Requirements for All Students</p> <p>All students seeking admission to undergraduate programs in the Faculty of Nursing must present the following:</p> <ol style="list-style-type: none"> Spoken English Requirement: Applicants must meet a spoken English requirement (see Spoken English Proficiency). Health and Safety Requirements: There are a number of health and safety-related

<p>requirements that must be met upon admission (see Health and Safety Requirements). Further information regarding these requirements and deadlines is available on the Faculty of Nursing website.</p> <p>3. Situational Judgement Test Requirement (Effective Fall 2020 admission onward): Applicants are required to complete a situational judgement test and submit the results when submitting an application for admission. An applicant’s situational judgement test score is a selection factor that is considered in the admission decision process. Further information regarding this requirement is available on the Faculty of Nursing website.</p>	<p>requirements that must be met upon admission (see Health and Safety Requirements). Further information regarding these requirements and deadlines is available on the Faculty of Nursing website.</p> <p>3. Situational Judgement Test Requirement (Effective Fall 2020 admission onward): Applicants are required to complete a situational judgement test and submit the results when submitting an application for admission. An applicant’s situational judgement test score is a selection factor that is considered in the admission decision process. Further information regarding this requirement is available on the Faculty of Nursing website.</p> <p>4. Minimum Age Requirement (Effective Fall 2024 admission onward): <i>Students must have reached 18 years of age prior to the start of their first clinical course.</i></p>
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Reviewed/Approved by:

<p>REQUIRED: Faculty Council (or delegate) and approval date. Faculty of Nursing Executive Committee December 22, 2023</p>
<p>OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates. Undergraduate Curriculum Committee December 5, 2023 Faculty of Nursing Caucus December 19, 2023</p>

Faculty (& Department or Academic Unit):	School of Public Health
Contact Person:	Helen Starodub Roman Pabayo Irina Dinu
Level of change: (choose one only)	• Undergraduate
	• Graduate
Type of change request: (check all that apply)	• Program
	• Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Ten years ago, the Department of Public Health Sciences introduced MPH degree programs in both Epidemiology and Applied Biostatistics, along with several other specializations. Given the introduction of the new MPH in General Public Health degree in Fall 2023 and suspension of the current MPH specializations, SPH is developing GECs in strategic areas that will equip graduates with practice-ready methodological, analytical, and technical skills needed in the field of public health and beyond. Graduate students will be able to opt to complete the proposed GEC to complement and enrich their MPH in General Public Health or other University of Alberta degree.

There is currently a shortage of professionals with formal training in Epidemiology and Biostatistics. Even more, when it comes to methodology, data analysis and interpretation, and causal inference, many rely on google searches for bits of statistical analysis code, much similar to a black box, lacking in-depth understanding of pitfalls, and may lead to distorted and erroneous scientific interpretations. There is a need for professionals with sound Epidemiological and Biostatistics training in the biomedical and public health fields, who work in government, non-governmental, industry and research sectors in Canada and internationally.

Calendar Copy

URL in current Calendar (or "New page")	
Current Copy: Removed language	Proposed Copy: New language
New	<p>Graduate Embedded Certificate in in Epidemiology & Applied Biostatistics</p> <p>General Information: Epidemiology is the study of the frequency, distribution, and determinants of disease, health, and well-being in a population-a fundamental science of public health. Biostatistics applies statistical reasoning and methods to health-related fields including public health, medicine and biomedical sciences. As core</p>

disciplines of public health, epidemiology and biostatistics are concerned with key aspects of public health investigations, covering the study design, statistical design, conduct, analysis, and interpretation of studies, and understanding of causal inference. Epidemiological and biostatistical methods are used for a wide range of public health activities, such as assessing etiological hypotheses of diseases and injuries, evaluating effectiveness of intervention programs/policies/trials, and monitoring and detecting health trends of populations.

As part of interdisciplinary teams, epidemiologists and biostatisticians collaborate with practitioners and researchers in health-related fields, monitoring population health and evaluating public health interventions, with a high degree of quantitative expertise. This typically involves understanding health-related hypotheses and surrounding issues under study; putting them into a statistically evaluable framework which guides the study design and data collection; analyzing data with respect to the hypotheses and surrounding issues; using statistical software; providing interpretation of the analysis results. Epidemiologists and biostatisticians find employment in various types of organizations and settings, including government, non-governmental organizations, research centres/groups, and the private sector involved in health. The GEC in Epidemiology and Applied Biostatistics responds to a shortage of professionals who can effectively contribute to design, conduct, monitor, analyse, and interpret a wide range of health studies.

Entrance Requirements: The embedded certificate is open to students enrolled in any degree in the School of Public Health, as well as other Faculties.

Students must be in good academic standing at the time of application for the embedded certificate.

Students will be required to register for the embedded certificate no later than September 30 of their second year.

For information on the application process for the embedded certificate, refer to the School of Public Health website.

Program Requirements: The Graduate Embedded Certificate (GEC) in Epidemiology and Applied Biostatistics will require successful completion of 12 units of coursework.

Required courses:

SPH 519 Biostatistics I - 3 units

SPH 619 Biostatistics II - 3 units

SPH 596 Epidemiology methods I - 3 units

SPH 696 Epidemiology methods II- 3 units

Note: Graduate Embed Certificate will be awarded at the time the students earn their degree.

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Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date.
September 2023: SPH Faculty Council Approval

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.
June 2022: SPH Committee on Educational Policies and Programs
June 20, 2023 : SPH-wide discussion
June 2022: SPH epidemiology and biostatistics professors were consulted via virtual meeting.
July 2022: Student Consultation-The faculty has also consulted current MPH students and recent MPH graduates on developing this Graduate Embedded Certificate (GEC). For example, surveys were administered and focus groups were conducted to gain student insight.

Faculty (& Department or Academic Unit):	School of Public Health
Contact Person:	Helen Starodub Stephen Hodgins
Level of change: (choose one only)	• Undergraduate
	• Graduate
Type of change request: (check all that apply)	• Program
	• Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Global health is an evolving field, with continued attention to areas such as health systems strengthening, infectious disease control, nutrition, maternal-child health, and sexual and reproductive health. There is now increasing attention to non-communicable diseases and health challenges associated with climate change and the environment. Furthermore, with economic development and increasing human capacity within LMICs, the roles of and relationships between within-country actors and development assistance partners are changing. Equity and decolonization, and the imperative to ensure the voices of Indigenous peoples and other historically marginalized groups are attracting increasing attention in this field.

For Canada (and Canadians) to contribute effectively in this field there is a need for well-trained professionals having skill sets matching current and future needs. This GEC responds directly to this need.

University of Alberta was one of the first institutions in Canada to offer an MPH with a global health specialization, so it has an established set of course offerings in this area as well as in related areas, notably in community engagement / development. The recent implementation of the General MPH in the School of Public Health means that students are no longer entering directly into this specialization, so the GEC provides an alternate approach for students to pursue and achieve a similar credential on their transcripts at the time of graduation.

Calendar Copy

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<p>New</p>	<p>Graduate Embedded Certificate in Global Health Equity</p> <p>General Information: Global Health (GH) has been defined as: "an area for study, research, and practice that places a priority on improving health and achieving health equity for all people worldwide." Global health is an established field, with a central role for actors within low- and middle-income countries (LMIC), including those based in government, academic institutions, and local NGOs. There is also an important role for global and regional entities, including WHO, UNICEF, international non-governmental organizations (NGOs) and consulting agencies, and funding agencies (notably World Bank and regional development banks, bilateral agencies such as USAID, philanthropies, and global-level funding mechanisms such as the Global Fund and GAVI).</p> <p>This Graduate Embedded Certificate (GEC) in Global Health Equity is intended to equip students for careers in public health practice in agencies, as described above, focusing primarily on countries categorized by the World Bank as LMICs and in related areas of globalization and health (including Indigenous and circumpolar health).</p> <p>Entrance Requirements: The embedded certificate is open to students enrolled in any degree in the School of Public Health, as well as other Faculties. Students must be in good academic standing at the time of application for the embedded certificate. Students will be required to register for the embedded certificate no later than September 30 of their second year. For information on the application process for the embedded certificate, refer to the School of Public Health website.</p> <p>Program Requirements: The Graduate Embedded Certificate (GEC) in Epidemiology and Applied Biostatistics will require successful completion of 12 units of coursework.</p> <p>Required courses: SPH 641 - 3 units Global Health Project Development SPH 542 - 3 units Global Health Practice SPH 640 - 3 units Introduction to Global Health.</p> <p>AND one of the following evaluation-related courses:</p> <p>SPH 563 3 units Evaluation in Public Health Practice OR MACE 552 3 units Evaluation in the Community Context; OR SPH 697 3 units Epidemiology and Control of Infectious Diseases (note that there is a prerequisite for this course, SPH 596)</p>
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	Note: Graduate Embedded Certificate will be awarded at the time the students earn their degree.
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Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date. September 2023: SPH Faculty Council Approval
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OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates. April 2023: SPH Committee on Educational Policies and Programs

Faculty (& Department or Academic Unit):	Science - Physics
Contact Person:	Erik Rosolowsky
Level of change: (choose one only)	<input checked="" type="checkbox"/> Undergraduate
	<input type="checkbox"/> Graduate
Type of change request: (check all that apply)	<input checked="" type="checkbox"/> Program
	<input type="checkbox"/> Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

With the renewal of the BSc degree, the Department of Physics has restructured the first and second years of physics programs. This has changed one of the calculus-based, first-year physics courses; PHYS 146 has been replaced with PHYS 181. PHYS 281 has also been removed from the second year programs in physics since credit cannot be obtained for both PHYS 181 and 281. However, this course will be offered as a service course to the Faculty of Engineering and students in the BSc/BEEd programs can continue to take it if they complete PHYS 126. Recent changes in prerequisites for some of our courses, as well as previous changes to the BSc/BEEd program (such as replacing MATH 315 with MATH 125), has resulted in some PHYS courses at the 200 level or above in the program no longer being accessible. To reflect these changes, we propose restructuring the requirements in the BSc/BEEd degree as follows:

- Add PHYS 181 anywhere PHYS 146 appears.
- Remove PHYS 261 from the Area “B” courses in a Major/Minor combination with no Physics courses (this course is present on this list for other Major/Minor combinations to facilitate students taking PHYS 364, an Area “C” course, in their program).
- Removing PHYS courses that no longer are accessible:
 - PHYS 310, 311 and 362 (Area “C” courses) require a Calculus IV course (MATH 315 or equivalent). We have removed those courses from Area “C” where applicable.
 - Remove PHYS 271 where applicable since this is no longer accessible to students in these programs since it requires a differential equations course.

Calendar Copy

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Current Copy: Removed language	Proposed Copy: New language

<p>Bachelor of Science Specialization in Science and Education / Bachelor of Education in Secondary Education Combined Degrees Program [Science]</p>	<p>Bachelor of Science Specialization in Science and Education / Bachelor of Education in Secondary Education Combined Degrees Program [Science]</p>
<p>Biological Sciences Major/Mathematical Sciences Minor (150 units) [Science] . . .</p>	<p>Biological Sciences Major/Mathematical Sciences Minor (150 units) [Science] . . .</p>
<p>Biological Sciences Major/Physical Sciences Minor (150 units) [Science] . . .</p> <p>Area "A"</p> <ul style="list-style-type: none"> ● CHEM 211 - Quantitative Analysis I ● CHEM 263 - Organic Chemistry II ● PHYS 208 - Aspects of Modern Physics ● PHYS 271 - Introduction to Modern Physics 	<p>Biological Sciences Major/Physical Sciences Minor (150 units) [Science] . . .</p> <p>Area "A"</p> <ul style="list-style-type: none"> ● CHEM 211 - Quantitative Analysis I ● CHEM 263 - Organic Chemistry II ● PHYS 208 - Aspects of Modern Physics

Area “B”

Area “C”

- ASTRO 320 - Stellar Astrophysics I
- ASTRO 322 - Galactic and Extragalactic Astrophysics
- PHYS 301 - Particles, Nuclei, and the Cosmos
- PHYS 308 - Statistical, Molecular, and Solid State Physics
- ~~PHYS 310 - Thermodynamics and Kinetic Theory~~
- ~~PHYS 311 - Statistical Physics~~
- ~~PHYS 362 - Optics and Lasers~~
- PHYS 364 - Environmental Physics II or any 300-level CHEM (not to include CHEM 300 or CHEM 399)

Note:

It is the student’s responsibility to ensure all prerequisites for 300-level courses are met.

Year 1 (30 units)

- BIOL 107 - Introduction to Cell Biology
- BIOL 108 - Introduction to Biological Diversity
- CHEM 101 - Introductory University Chemistry I
- CHEM 261 - Organic Chemistry I
- One of MATH 134, 144, or 154
- One of MATH 136, 146, or 156
- PHYS 124 - Particles and Waves OR
- PHYS 144 - Newtonian Mechanics and Relativity
- PHYS 126 - Fluids, Fields, and Radiation OR
- PHYS 146 - Fluids and Waves
- EDU 100 - Contexts of Education

• **Area “B”**

Area “C”

- ASTRO 320 - Stellar Astrophysics I
- ASTRO 322 - Galactic and Extragalactic Astrophysics
- PHYS 301 - Particles, Nuclei, and the Cosmos
- PHYS 308 - Statistical, Molecular, and Solid State Physics
- PHYS 364 - Environmental Physics II or any 300-level CHEM (not to include CHEM 300 or CHEM 399)

Note:

It is the student’s responsibility to ensure all prerequisites for 300-level courses are met.

Year 1 (30 units)

- BIOL 107 - Introduction to Cell Biology
- BIOL 108 - Introduction to Biological Diversity
- CHEM 101 - Introductory University Chemistry I
- CHEM 261 - Organic Chemistry I
- One of MATH 134, 144, or 154
- One of MATH 136, 146, or 156
- PHYS 124 - Particles and Waves OR
- PHYS 144 - Newtonian Mechanics and Relativity
- PHYS 126 - Fluids, Fields, and Radiation OR
- PHYS 146 - Fluids and Waves OR
- ~~PHYS 181 - Relativity, Electricity and Magnetism~~
- EDU 100 - Contexts of Education

<ul style="list-style-type: none"> • 3 units in junior ENGL or WRS . . . 	<ul style="list-style-type: none"> • 3 units in junior ENGL or WRS . . .
<p>Mathematical Sciences Major/Biological Sciences Minor (150 units) [Science]</p> <p>.</p> <p>.</p> <p>.</p> <p>Area “B”</p> <ul style="list-style-type: none"> • ANTHR 230 - Anthropology of Science, Technology, and Environment • BIOL 315 - Biology: An Historical Perspective • CHRTC 350 - Science and Religion • CHRTC 352 - Bioethics and Christianity • CLASS 294 - Ancient Science, Technology, and Medicine • HIST 115 - Technology and History • HIST 294 - An Introduction to the History of Sciences, Technology, and Medicine • HIST 391 - History of Technology • HIST 394 - History of Astronomy and Cosmology from Stonehenge to the Space Age • HIST 397 • HIST 398 - History of Science II • HIST 496 - Topics in the History of Science • PHIL 217 - Biology, Society, and Values • PHIL 265 - Philosophy of Science • PHYS 261 - Physics of Energy • STS 200 - Introduction to Studies in Science, Technology and Society • SUST 201 - Introduction to Sustainability • WGS 250 - Gender and Science <p>.</p> <p>.</p> <p>.</p>	<p>Mathematical Sciences Major/Biological Sciences Minor (150 units) [Science]</p> <p>.</p> <p>.</p> <p>.</p> <p>Area “B”</p> <ul style="list-style-type: none"> • ANTHR 230 - Anthropology of Science, Technology, and Environment • BIOL 315 - Biology: An Historical Perspective • CHRTC 350 - Science and Religion • CHRTC 352 - Bioethics and Christianity • CLASS 294 - Ancient Science, Technology, and Medicine • HIST 115 - Technology and History • HIST 294 - An Introduction to the History of Sciences, Technology, and Medicine • HIST 391 - History of Technology • HIST 394 - History of Astronomy and Cosmology from Stonehenge to the Space Age • HIST 397 • HIST 398 - History of Science II • HIST 496 - Topics in the History of Science • PHIL 217 - Biology, Society, and Values • PHIL 265 - Philosophy of Science • STS 200 - Introduction to Studies in Science, Technology and Society • SUST 201 - Introduction to Sustainability • WGS 250 - Gender and Science <p>.</p> <p>.</p> <p>.</p>

**Mathematical Sciences
Major/Physical Sciences
Minor (150 units) [Science]**

Area “A”

- BIOCH 200 - Introductory Biochemistry
- CHEM 211 - Quantitative Analysis I
- CHEM 263 - Organic Chemistry II
- PHYS 208 - Aspects of Modern Physics
- ~~PHYS 271 - Introduction to Modern Physics~~

Area “B”

Area “C”

- ASTRO 320 - Stellar Astrophysics I
- ASTRO 322 - Galactic and Extragalactic Astrophysics
- PHYS 301 - Particles, Nuclei, and the Cosmos
- PHYS 308 - Statistical, Molecular, and Solid State Physics
- PHYS 310 - Thermodynamics and Kinetic Theory
- ~~PHYS 311 - Statistical Physics~~
- PHYS 362 - Optics and Lasers
- PHYS 364 - Environmental Physics II or any 300-level CHEM (not to include CHEM 300 or CHEM 399)

Note:

It is the student’s responsibility to ensure all prerequisites for 300-level courses are met.

Year 1 (30 units)

**Mathematical Sciences
Major/Physical Sciences
Minor (150 units) [Science]**

Area “A”

- BIOCH 200 - Introductory Biochemistry
- CHEM 211 - Quantitative Analysis I
- CHEM 263 - Organic Chemistry II
- PHYS 208 - Aspects of Modern Physics

Area “B”

Area “C”

- ASTRO 320 - Stellar Astrophysics I
- ASTRO 322 - Galactic and Extragalactic Astrophysics
- PHYS 301 - Particles, Nuclei, and the Cosmos
- PHYS 308 - Statistical, Molecular, and Solid State Physics
- PHYS 310 - Thermodynamics and Kinetic Theory
- PHYS 362 - Optics and Lasers
- PHYS 364 - Environmental Physics II or any 300-level CHEM (not to include CHEM 300 or CHEM 399)

Note:

It is the student’s responsibility to ensure all prerequisites for 300-level courses are met.

Year 1 (30 units)

<ul style="list-style-type: none"> • BIOL 107 - Introduction to Cell Biology • BIOL 108 - Introduction to Biological Diversity • EDU 100 - Contexts of Education • One of MATH 134, 144, or 154 • One of MATH 136, 146, or 156 • MATH 125 - Linear Algebra I • STAT 151 - Introduction to Applied Statistics I <p>6 units chosen from</p> <ul style="list-style-type: none"> • CHEM 101 - Introductory University Chemistry I • CHEM 102 - Introductory University Chemistry II • PHYS 124 - Particles and Waves OR • PHYS 144 - Newtonian Mechanics and Relativity • PHYS 126 - Fluids, Fields, and Radiation OR • PHYS 146 - Fluids and Waves <p>Options</p> <ul style="list-style-type: none"> • 3 units in junior ENGL or WRS <p>Year 2 (30 units)</p> <ul style="list-style-type: none"> • CHEM 261 - Organic Chemistry I • EDU 211 - Aboriginal Education and Contexts for Professional and Personal Engagement • MATH 214 - Calculus III • MATH 315 - Calculus IV • MATH 228 - Algebra: Introduction to Ring Theory • MATH 241 - Geometry <p>6 units chosen from</p> <ul style="list-style-type: none"> • CHEM 101 - Introductory University Chemistry I • CHEM 102 - Introductory University Chemistry II • PHYS 124 - Particles and Waves OR • PHYS 144 - Newtonian Mechanics and Relativity 	<ul style="list-style-type: none"> • BIOL 107 - Introduction to Cell Biology • BIOL 108 - Introduction to Biological Diversity • EDU 100 - Contexts of Education • One of MATH 134, 144, or 154 • One of MATH 136, 146, or 156 • MATH 125 - Linear Algebra I • STAT 151 - Introduction to Applied Statistics I <p>6 units chosen from</p> <ul style="list-style-type: none"> • CHEM 101 - Introductory University Chemistry I • CHEM 102 - Introductory University Chemistry II • PHYS 124 - Particles and Waves OR • PHYS 144 - Newtonian Mechanics and Relativity • PHYS 126 - Fluids, Fields, and Radiation OR • PHYS 146 - Fluids and Waves OR • PHYS 181 - Relativity, Electricity and Magnetism <p>Options</p> <ul style="list-style-type: none"> • 3 units in junior ENGL or WRS <p>Year 2 (30 units)</p> <ul style="list-style-type: none"> • CHEM 261 - Organic Chemistry I • EDU 211 - Aboriginal Education and Contexts for Professional and Personal Engagement • MATH 214 - Calculus III • MATH 315 - Calculus IV • MATH 228 - Algebra: Introduction to Ring Theory • MATH 241 - Geometry <p>6 units chosen from</p> <ul style="list-style-type: none"> • CHEM 101 - Introductory University Chemistry I • CHEM 102 - Introductory University Chemistry II • PHYS 124 - Particles and Waves OR • PHYS 144 - Newtonian Mechanics and Relativity
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<ul style="list-style-type: none"> • PHYS 126 - Fluids, Fields, and Radiation OR • PHYS 146 - Fluids and Waves <p>Options</p> <ul style="list-style-type: none"> • 3 units in junior ENGL or WRS • 3 units in Arts options <p>Year 3 (30 units)</p> <ul style="list-style-type: none"> • EDPY 301 - Introduction to Inclusive Education: Adapting Classroom Instruction for Students with Special Needs • EDPY 304 - Adolescent Development and Learning • EDU 210 - Introduction to Educational Technology • PHYS 208 - Aspects of Modern Physics OR • PHYS 271 - Introduction to Modern Physics • 3 units from Area "A" • 6 units in Mathematical Sciences at the 200, 300 or 400-level • 3 units in Arts Options • 6 units from Area "B" <p>Note: Students wishing to take PHYS 364 as their Area "C" option must take PHYS 261 as an Area "B" option.</p> <p>.</p> <p>.</p> <p>.</p>	<ul style="list-style-type: none"> • PHYS 126 - Fluids, Fields, and Radiation OR • PHYS 146 - Fluids and Waves OR • PHYS 181 - Relativity, Electricity and Magnetism <p>Options</p> <ul style="list-style-type: none"> • 3 units in junior ENGL or WRS • 3 units in Arts options <p>Year 3 (30 units)</p> <ul style="list-style-type: none"> • EDPY 301 - Introduction to Inclusive Education: Adapting Classroom Instruction for Students with Special Needs • EDPY 304 - Adolescent Development and Learning • EDU 210 - Introduction to Educational Technology • PHYS 208 - Aspects of Modern Physics • 3 units from Area "A" • 6 units in Mathematical Sciences at the 200, 300 or 400-level • 3 units in Arts Options • 6 units from Area "B" <p>Note: Students wishing to take PHYS 364 as their Area "C" option must take PHYS 261 as an Area "B" option.</p> <p>.</p> <p>.</p> <p>.</p>
<p>Physical Sciences Major/Biological Sciences Minor, Chemistry Concentration [Science]</p> <p>.</p> <p>.</p>	<p>Physical Sciences Major/Biological Sciences Minor, Chemistry Concentration [Science]</p> <p>.</p> <p>.</p>

Area “C”

- ASTRO 320 - Stellar Astrophysics I
- ASTRO 322 - Galactic and Extragalactic Astrophysics
- ~~MA PH 251 - Differential Equations for Physics~~
- ~~MA PH 351 - Mathematical Methods for Physics I~~
- PHYS 301 - Particles, Nuclei, and the Cosmos
- PHYS 308 - Statistical, Molecular, and Solid State Physics
- ~~PHYS 310 - Thermodynamics and Kinetic Theory~~
- ~~PHYS 311 - Statistical Physics~~
- ~~PHYS 362 - Optics and Lasers~~
- PHYS 364 - Environmental Physics II or any 300-level CHEM (not to include CHEM 300 or CHEM 399)

Note:

It is the student’s responsibility to ensure all prerequisites for 300-level courses are met.

Year 1 (30 units)

- BIOL 107 - Introduction to Cell Biology
- BIOL 108 - Introduction to Biological Diversity
- CHEM 101 - Introductory University Chemistry I
- CHEM 102 - Introductory University Chemistry II
- EDU 100 - Contexts of Education
- One of MATH 134, 144, or 154
- One of MATH 136, 146, or 156

- PHYS 124 - Particles and Waves OR
- PHYS 144 - Newtonian Mechanics and Relativity

Area “C”

- ASTRO 320 - Stellar Astrophysics I
- ASTRO 322 - Galactic and Extragalactic Astrophysics
- PHYS 301 - Particles, Nuclei, and the Cosmos
- PHYS 308 - Statistical, Molecular, and Solid State Physics
- PHYS 364 - Environmental Physics II or any 300-level CHEM (not to include CHEM 300 or CHEM 399)

Note:

It is the student’s responsibility to ensure all prerequisites for 300-level courses are met.

Year 1 (30 units)

- BIOL 107 - Introduction to Cell Biology
- BIOL 108 - Introduction to Biological Diversity
- CHEM 101 - Introductory University Chemistry I
- CHEM 102 - Introductory University Chemistry II
- EDU 100 - Contexts of Education
- One of MATH 134, 144, or 154
- One of MATH 136, 146, or 156

- PHYS 124 - Particles and Waves OR
- PHYS 144 - Newtonian Mechanics and Relativity

- PHYS 126 - Fluids, Fields, and Radiation OR
- PHYS 146 - Fluids and Waves

- 3 units in junior ENGL or WRS

Year 2 (30 units)

- BIOL 207 - Molecular Genetics and Heredity
- BIOL 208 - Principles of Ecology
- CHEM 261 - Organic Chemistry I
- EDU 210 - Introduction to Educational Technology
- EDU 211 - Aboriginal Education and Contexts for Professional and Personal Engagement

- PHYS 208 - Aspects of Modern Physics

- CHEM 211 - Quantitative Analysis I OR
- PHYS 294 - General Physics Laboratory

- 3 units in junior ENGL or WRS
- 6 units in Arts options

Year 3 (30 units)

- CHEM 263 - Organic Chemistry II
- MATH 214 - Calculus III
- CHEM 211 - Quantitative Analysis I OR
- PHYS 294 - General Physics Laboratory
- EDPY 304 - Adolescent Development and Learning
- PHYS 281 - Electricity and Magnetism
- 6 units in Biological Sciences at the 200-level
- 6 units from Area "B"
- 3 units from Area "C"

- PHYS 126 - Fluids, Fields, and Radiation OR
- PHYS 146 - Fluids and Waves OR

- PHYS 181 - Relativity, Electricity and Magnetism

- 3 units in junior ENGL or WRS

Year 2 (30 units)

- BIOL 207 - Molecular Genetics and Heredity
- BIOL 208 - Principles of Ecology
- CHEM 261 - Organic Chemistry I
- EDU 210 - Introduction to Educational Technology
- EDU 211 - Aboriginal Education and Contexts for Professional and Personal Engagement

- PHYS 208 - Aspects of Modern Physics

- CHEM 211 - Quantitative Analysis I OR
- PHYS 294 - General Physics Laboratory

- 3 units in junior ENGL or WRS
- 6 units in Arts options

Year 3 (30 units)

- CHEM 263 - Organic Chemistry II
- MATH 214 - Calculus III
- CHEM 211 - Quantitative Analysis I OR
- PHYS 294 - General Physics Laboratory
- EDPY 304 - Adolescent Development and Learning
- PHYS 261 - Physics of Energy OR
- PHYS 281 - Electricity and Magnetism
- 6 units in Biological Sciences at the 200-level
- 6 units from Area "B"
- 3 units from Area "C"

<p>Note:</p> <p>Students wishing to take PHYS 364 as their Area “C” option must take PHYS 261 as an Area “B” option.</p> <p>.</p> <p>.</p> <p>.</p>	<p>Note:</p> <p>Students wishing to take PHYS 364 as their Area “C” option must take PHYS 261 instead of PHYS 281 or take PHYS 261 as an Area “B” option.</p> <p>.</p> <p>.</p> <p>.</p>
<p>Physical Sciences Major/Biological Sciences Minor, Physics Concentration [Science]</p> <p>.</p> <p>.</p> <p>.</p> <p>Area “C”</p> <ul style="list-style-type: none"> ● ASTRO 320 - Stellar Astrophysics I ● ASTRO 322 - Galactic and Extragalactic Astrophysics ● PHYS 301 - Particles, Nuclei, and the Cosmos ● PHYS 308 - Statistical, Molecular, and Solid State Physics ● PHYS 310 - Thermodynamics and Kinetic Theory ● PHYS 311 - Statistical Physics ● PHYS 362 - Optics and Lasers ● PHYS 364 - Environmental Physics II or any 300-level CHEM (not to include CHEM 300 or CHEM 399) <p>Note:</p> <p>It is the student’s responsibility to ensure all prerequisites for 300-level courses are met.</p> <p>Year 1 (30 units)</p> <ul style="list-style-type: none"> ● BIOL 107 - Introduction to Cell Biology 	<p>Physical Sciences Major/Biological Sciences Minor, Physics Concentration [Science]</p> <p>.</p> <p>.</p> <p>.</p> <p>Area “C”</p> <ul style="list-style-type: none"> ● ASTRO 320 - Stellar Astrophysics I ● ASTRO 322 - Galactic and Extragalactic Astrophysics ● PHYS 301 - Particles, Nuclei, and the Cosmos ● PHYS 308 - Statistical, Molecular, and Solid State Physics ● PHYS 364 - Environmental Physics II or any 300-level CHEM (not to include CHEM 300 or CHEM 399) <p>Note:</p> <p>It is the student’s responsibility to ensure all prerequisites for 300-level courses are met.</p> <p>Year 1 (30 units)</p> <ul style="list-style-type: none"> ● BIOL 107 - Introduction to Cell Biology

- BIOL 108 - Introduction to Biological Diversity
- CHEM 101 - Introductory University Chemistry I
- CHEM 102 - Introductory University Chemistry II
- EDU 100 - Contexts of Education
- One of MATH 134, 144, or 154
- One of MATH 136, 146, or 156

- PHYS 124 - Particles and Waves OR
- PHYS 144 - Newtonian Mechanics and Relativity

- PHYS 126 - Fluids, Fields, and Radiation OR
- PHYS 146 - Fluids and Waves

- 3 units in junior ENGL or WRS

Year 2 (30 units)

- BIOL 207 - Molecular Genetics and Heredity
- BIOL 208 - Principles of Ecology
- CHEM 261 - Organic Chemistry I
- EDU 210 - Introduction to Educational Technology
- EDU 211 - Aboriginal Education and Contexts for Professional and Personal Engagement

- PHYS 208 - Aspects of Modern Physics OR
- ~~PHYS 271 - Introduction to Modern Physics~~

- MATH 125 - Linear Algebra I

- CHEM 211 - Quantitative Analysis I OR
- PHYS 294 - General Physics Laboratory

- 3 units in Arts options
- 3 units in junior ENGL or WRS

Year 3 (30 units)

- CHEM 263 - Organic Chemistry II

- CHEM 211 - Quantitative Analysis I OR
- PHYS 294 - General Physics Laboratory

- BIOL 108 - Introduction to Biological Diversity
- CHEM 101 - Introductory University Chemistry I
- CHEM 102 - Introductory University Chemistry II
- EDU 100 - Contexts of Education
- One of MATH 134, 144, or 154
- One of MATH 136, 146, or 156

- PHYS 124 - Particles and Waves OR
- PHYS 144 - Newtonian Mechanics and Relativity

- PHYS 126 - Fluids, Fields, and Radiation OR
- PHYS 146 - Fluids and Waves OR
- **PHYS 181 - Relativity, Electricity and Magnetism**

- 3 units in junior ENGL or WRS

Year 2 (30 units)

- BIOL 207 - Molecular Genetics and Heredity
- BIOL 208 - Principles of Ecology
- CHEM 261 - Organic Chemistry I
- EDU 210 - Introduction to Educational Technology
- EDU 211 - Aboriginal Education and Contexts for Professional and Personal Engagement

- PHYS 208 - Aspects of Modern Physics
- MATH 125 - Linear Algebra I

- CHEM 211 - Quantitative Analysis I OR
- PHYS 294 - General Physics Laboratory

- 3 units in Arts options
- 3 units in junior ENGL or WRS

Year 3 (30 units)

- CHEM 263 - Organic Chemistry II

- CHEM 211 - Quantitative Analysis I OR
- PHYS 294 - General Physics Laboratory

- EDPY 304 - Adolescent Development and Learning
- MATH 214 - Calculus III
- PHYS 281 - Electricity and Magnetism
- 6 units in Biological Sciences at the 200-level
- 3 units in Arts options
- 3 units from Area "B"
- 3 units from Area "C"

Note:

Students wishing to take PHYS 364 as their Area "C" option must take PHYS 261 as an Area "B" option.

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- EDPY 304 - Adolescent Development and Learning
- MATH 214 - Calculus III
- PHYS 261 - Physics of Energy OR
- PHYS 281 - Electricity and Magnetism
- 6 units in Biological Sciences at the 200-level
- 3 units in Arts options
- 3 units from Area "B"
- 3 units from Area "C"

Note:

Students wishing to take PHYS 364 as their Area "C" option must take PHYS 261 instead of PHYS 281 or take PHYS 261 as an Area "B" option.

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**Physical Sciences
Major/Mathematical Sciences
Minor (150 units) [Science]**

Area “C”

- ASTRO 320 - Stellar Astrophysics I
- ASTRO 322 - Galactic and Extragalactic Astrophysics
- PHYS 301 - Particles, Nuclei, and the Cosmos
- PHYS 308 - Statistical, Molecular, and Solid State Physics
- PHYS 310 - Thermodynamics and Kinetic Theory
- ~~PHYS 311 - Statistical Physics~~
- PHYS 362 - Optics and Lasers
- PHYS 364 - Environmental Physics II or any 300-level CHEM (not to include CHEM 300 or CHEM 399)

Note:

It is the student’s responsibility to ensure all prerequisites for 300-level courses are met.

Year 1 (30 units)

- BIOL 107 - Introduction to Cell Biology
- BIOL 108 - Introduction to Biological Diversity
- CHEM 101 - Introductory University Chemistry I
- CHEM 102 - Introductory University Chemistry II
- EDU 100 - Contexts of Education
- One of MATH 134, 144, or 154
- One of MATH 136, 146, or 156
- PHYS 124 - Particles and Waves OR
- PHYS 144 - Newtonian Mechanics and Relativity
- PHYS 126 - Fluids, Fields, and Radiation OR

**Physical Sciences
Major/Mathematical Sciences
Minor (150 units) [Science]**

Area “C”

- ASTRO 320 - Stellar Astrophysics I
- ASTRO 322 - Galactic and Extragalactic Astrophysics
- PHYS 301 - Particles, Nuclei, and the Cosmos
- PHYS 308 - Statistical, Molecular, and Solid State Physics
- PHYS 310 - Thermodynamics and Kinetic Theory
- PHYS 362 - Optics and Lasers
- PHYS 364 - Environmental Physics II or any 300-level CHEM (not to include CHEM 300 or CHEM 399)

Note:

It is the student’s responsibility to ensure all prerequisites for 300-level courses are met.

Year 1 (30 units)

- BIOL 107 - Introduction to Cell Biology
- BIOL 108 - Introduction to Biological Diversity
- CHEM 101 - Introductory University Chemistry I
- CHEM 102 - Introductory University Chemistry II
- EDU 100 - Contexts of Education
- One of MATH 134, 144, or 154
- One of MATH 136, 146, or 156
- PHYS 124 - Particles and Waves OR
- PHYS 144 - Newtonian Mechanics and Relativity
- PHYS 126 - Fluids, Fields, and Radiation OR
- PHYS 146 - Fluids and Waves **OR**

<ul style="list-style-type: none"> • PHYS 146 - Fluids and Waves • 3 units in junior ENGL or WRS <p>Year 2 (30 units)</p> <ul style="list-style-type: none"> • EDU 210 - Introduction to Educational Technology • EDU 211 - Aboriginal Education and Contexts for Professional and Personal Engagement • CHEM 261 - Organic Chemistry I • MATH 125 - Linear Algebra I • MATH 214 - Calculus III • PHYS 261 - Physics of Energy OR • PHYS 281 - Electricity and Magnetism • PHYS 208 - Aspects of Modern Physics OR • PHYS 271 - Introduction to Modern Physics • CHEM 211 - Quantitative Analysis I OR • PHYS 294 - General Physics Laboratory • 3 units in junior ENGL or WRS • 3 units in Arts options 	<ul style="list-style-type: none"> • PHYS 181 - Relativity, Electricity and Magnetism • 3 units in junior ENGL or WRS <p>Year 2 (30 units)</p> <ul style="list-style-type: none"> • EDU 210 - Introduction to Educational Technology • EDU 211 - Aboriginal Education and Contexts for Professional and Personal Engagement • CHEM 261 - Organic Chemistry I • MATH 125 - Linear Algebra I • MATH 214 - Calculus III • PHYS 261 - Physics of Energy OR • PHYS 281 - Electricity and Magnetism • PHYS 208 - Aspects of Modern Physics • CHEM 211 - Quantitative Analysis I OR • PHYS 294 - General Physics Laboratory • 3 units in junior ENGL or WRS • 3 units in Arts options <p>Note:</p> <p>Students wishing to take PHYS 364 as their Area "C" option must take PHYS 261 instead of PHYS 281 or take PHYS 261 as an Area "B" option.</p>
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Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date. Science Undergraduate Programs Committee- January 11, 2024

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.

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 <small>Enter the Calendar URL here</small>	PROPOSED
<p><u>Strike through and highlight</u> deletions</p> <p>IPG 514 - Petroleum Basin Analysis</p> <hr/> <p>★ 3 (fi 6) (either term, 3-0-0) <u>Classification and evolution of sedimentary basins; tectonics and sedimentation; methods of sedimentary basin analysis; basin forming mechanisms; classification of basins in a plate tectonic context; discussion of individual basin types; controls on accommodation and stratigraphic architecture; evaluation of burial and thermal history of sedimentary basins; migration and entrapment in sedimentary basins; exploration applications of basin modeling.</u> [Faculty of Science]</p>	<p><u>Underline and highlight</u> additions</p> <p>IPG 514 - Petroleum Basin Analysis</p> <hr/> <p>★ 3 (fi 6) (either term, 3-0-3) <u>Introduction to the concept of petroleum systems, including source rocks, reservoirs, traps and seals, emphasizing the geological and geochemical components that comprise petroleum systems in a risk analysis framework; relationships to basin types are emphasized with basin modeling.</u> [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.)

To reflect updated delivery of this course in the context of the IPG MSc.

Department Contact Name: Melissa Dhillon	Department Chair or Designate Name: Murray Gingras	Date approved by Dept Council: Feb. 15, 2021
Email: dhillon2@ualberta.ca		Approved by Faculty of Science October 24, 2023 Mark McDermott, Assoc Dean Grad

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.

Faculty (& Department or Academic Unit):	Faculty of Science, Department of Earth and Atmospheric Sciences
Contact Person:	Dr. Murray Gingras, Associate Chair for Undergraduate Studies
Level of change: (choose one only) [?]	• Undergraduate
	• Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

This course provides students with the foundational skills necessary to quality control and manipulate datasets of virtually any size to interpret and leverage observations to produce insights. The aim is to enable EAS students to use the R programming language and its statistical capabilities to enhance their research projects. A combination of computational theory, basic statistics, spatial data analysis, data visualization, data science techniques, machine learning methods and more complex tasks will allow the students to evaluate their research data, laboratory analysis results, modeling results, or any raw data as a part of their projects. Any advanced EAS student can benefit from this course, regardless of their field of study or their research subject. The course is intended to complement existing research work by allowing students to use their own data in their final project.

Course Template

Current:	Proposed:
NEW COURSE	Subject & Number EAS 505 Title Geoscience Data Analysis Course Career Graduate Units 3 Approved Hours 0-0-3 Fee index 6 Faculty Science Department Earth and Atmospheric Sciences Typically Offered Either term Description Quality control and manipulation of Geoscience datasets for analysis and interpretation. Computational theory, programming techniques, basic statistics, uncertainty, spatial data analysis, data

	visualization, data science techniques, and machine learning methods. Prerequisite: permission of instructor. [Faculty of Science]
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Reviewed/Approved by:

REQUIRED: Faculty Council December 14, 2022. Approved Faculty of Science, November 19, 2023

OPTIONAL:

Calendar Change Request Form for Course Changes

See the [Calendar Guide](#) for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Faculty of Science, Department of Earth and Atmospheric Sciences
Contact Person:	Dr. Murray Gingras, Associate Chair for Undergraduate Studies
Level of change: (choose one only) [?]	<ul style="list-style-type: none"> • Undergraduate
	<ul style="list-style-type: none"> • Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Desired for EAS Geoscience Graduate Program. Cross list with EAS 432 Precambrian Geology.

CURRENT	PROPOSED
New Course	<p>EAS 532 - Advanced Precambrian Geology</p> <p>Graduate</p> <p>Units 3</p> <p>Approved Hours 3-0-0</p> <p>Fee index 6</p> <p>Faculty Science</p> <p>Department Earth & Atmospheric Sci</p> <p>Offered either term</p> <p>Description</p> <p>Advanced treatment of Precambrian geological evolution of Earth focusing on development of the continental lithosphere. Geochemical evolution of the crust and mantle as well as the atmosphere and hydrosphere. Special reference to the evolution, stratigraphy, petrology and geochronology of the Canadian Shield. Prerequisite: Approval of Instructor. Not available to students with credit in EAS 432 [Faculty of Science]</p>

Reviewed/Approved by:

REQUIRED: Faculty Council November 15, 2022. Approved Faculty of Science, November 19, 2023
OPTIONAL:

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 <small>Enter the Calendar URL here</small>	PROPOSED
<p>Strike through and highlight deletions</p> <p>EAS 547 - Methods and Instrumentation in Geology Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Science Department Earth and Atmospheric Sciences Typically Offered either term</p> <p>Description Course will cover analytical techniques such as probe-SEM, XRD, TIMS/gas source mass spectrometry, superpress, XRF, ICP-MS, TEM, NMR, SHRIMP and microthermometric techniques. Prerequisites: [Faculty of Science]</p>	<p><u>Underline and highlight</u> additions</p> <p>EAS 547 – Methods and Instrumentation in Geology Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Science Department Earth and Atmospheric Sciences Typically Offered either term</p> <p>Description Processing and analysis of geochemical data, and selected analytical techniques such as: inductively-coupled-plasma mass-spectrometry (ICP-MS), secondary-ion mass-spectrometry (SIMS), and electron probe microanalysis (EPMA), or other geochemical instrumental methods as determined by the instructor. Prerequisites: An undergraduate or graduate degree in the Earth Sciences; or consent of the instructor. [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.)

To be consistent with present teaching practice.

Department Contact Name: Melissa Dhillon	Department Chair or Designate Name: Murray Gingras	Date approved by Dept Council: Approved Faculty of Science, November 19, 2023
dhillon2@ualberta.ca		Mark T. McDermott, Assoc Dean, Grad

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.



Decision **Discussion** **Information**

ITEM OBJECTIVE: To approve the termination of 28 first- and second-level specialisations in the Bachelor of Arts, Bachelor of Design (BDes), and Bachelor of Fine Arts in Drama (BFA in Drama).

DATE	February 8, 2024
TO	GFC Programs Committee
RESPONSIBLE PORTFOLIO	Provost and Vice-President (Academic)

MOTION: THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the following termination proposals, as submitted by the Faculty of Arts, to take effect upon final approval:

First-level specialisations in the BA:

- Combined French Spanish
- Comparative Literature
- French Language and Literature
- German Language and Literature
- German Linguistics
- German Studies
- Latin American Studies
- Romance Languages
- Scandinavian Language and Literature
- Spanish Language and Literature

First-level specialisations in the BDes:

- Computing Science Route
- Printmaking Route

First-level specialisations in the BFA in Drama:

- Technical Theatre

Second-level specialisations in the BA:

- Classical Languages Honors
- Combined Honors in Comparative Literature
- Combined Honors in Creative Writing
- Combined Honors in French and Spanish
- Combined Honors in French
- Combined Honors in German
- Combined Honors in Polish and Russian
- Combined Honors in Scandinavian Studies
- Combined Honors in Spanish
- History and Classics Combined Honors
- Honors in Comparative Literature
- Honors in French
- Honors in German
- Honors in Romance Languages

ITEM NO. 5A

- Honors in Spanish and Latin American Studies
-

EXECUTIVE SUMMARY:

Admission to all of these programs was suspended in 2018/19. Students already in the programs were personally informed about the change and advised on their options. They had five years to complete their old program. They also had the option to transfer to one of the new or existing programs which replaced the old programs. There are no students left in any of these programs. The programs must now be terminated, following the standard governance process.

The termination of programs which are “first-level specializations” must get final approval from Advanced Education. These are the two routes in the Bachelor of Design, Technical Theatre in the BFA in Drama, and the former MLCS majors in the Bachelor of Arts. The proposals are on Advanced Education’s “Proposal Template: Program Termination” form.

Programs in the BA Honors are “second-level specializations” and they do not have to go to the government for final approval. The Departments of English and Film Studies, History, Classics and Religion, and Modern Languages and Cultural Studies all have proposals for termination of an Honors program. The proposals are on the University’s “Internal Suspension and Termination Template” form.

in some cases there is Calendar text to be deleted and in other cases there is no Calendar change form. This is because the Calendar text was normally deleted in the first year after the last student graduated from the program.

Supporting Materials:

1. Proposal Templates
2. Ministry Approval Letters
3. Letter of support from Dr. Robert Wood, Dean of Arts

***See Schedule A for additional items to include if needed.**

SCHEDULE A:**Engagement and Routing**

Consultation and Stakeholder Participation / Approval Route (parties who have seen the proposal and in what capacity) <[Governance Resources Section Student Participation Protocol](#)>

Those who are actively participating:

- The Departments of Art & Design, Drama, English & Film Studies, History, Classics & Religion, and Modern Languages & Cultural Studies
 - Arts Undergraduate Student Services
-

GOVERNANCE OUTLINE



<p><u>Those who have been consulted:</u></p> <ul style="list-style-type: none"> ● Dr. Janice Causgrove Dunn, Vice-Provost (Programs) ● Program Support Team
<p><u>Those who have been informed:</u></p> <ul style="list-style-type: none"> ● Dr. Robert Wood, Dean of Arts ● Arts Faculty Council
<p><u>Approval Route:</u></p> <p>Department Councils</p> <ul style="list-style-type: none"> ● Art & Design – April 14, 2023 ● Drama – May 4, 2023 ● English & Film Studies – September 21, 2023 ● History, Classics & Religion – September 8, 2023 ● Modern Languages & Cultural Studies – September 11, 2023 <p>Arts Academic Affairs Committee – October 17, 2023 Arts Faculty Council – November 30, 2023 GFC Programs Committee – February 8, 2024</p> <p><u>For first-level specializations only:</u> GFC Academic Planning Committee General Faculties Council BLRSEC and Board of Governors</p>

Supplementary Notes / Context:

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Proposal Template: Program Termination

Use this template for proposals to terminate ministry-approved programs or specializations. Institutions should:

- ensure that submission content is concise. Any additional information may be appended;
- indicate “not applicable” when questions are not relevant to a particular proposal; and
- ensure that applicable supporting documents are attached to the proposal.

SECTION A: PROPOSAL INFORMATION

Fill in the table below:

Institution	University of Alberta, Department of Drama
Program Name	Bachelor of Fine Arts in Drama
Specialization Name	Technical Theatre
Credential Awarded	Bachelor of Fine Arts in Drama
Proposed effective date of termination	July 1, 2024

<p>a. Confirm whether (check applicable box(es)):</p>	<p><input checked="" type="checkbox"/> This termination proposal was preceded by a ministry- approved suspension period.</p> <p><input type="checkbox"/> This termination proposal was not preceded by a ministry-approved suspension period.</p> <p><input checked="" type="checkbox"/> No active students remain in the program.</p> <p><input type="checkbox"/> Active program students remain in the program</p>
<p>b. If this proposal was preceded by a suspension, attach approval letter.</p> <ul style="list-style-type: none"> • Please see attached 	
<p>c. If this proposal was not preceded by a suspension, explain why ministry approval for a suspension was not sought prior to requesting a termination.</p> <ul style="list-style-type: none"> • N/A 	
<p>d. If not preceded by suspension, indicate when students were last admitted into the program/specialization.</p> <ul style="list-style-type: none"> • N/A 	
<p>Reviewer’s Comment:</p>	

SECTION B: RATIONALE

<p>a. Identify reason(s) for termination with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, provincial priorities, etc.).</p> <ul style="list-style-type: none"> • Admission to the Technical Theatre specialization was suspended effective September 2019 as part of the restructuring of the core curricula across two of the Bachelor of Fine Arts (BFA) in Drama’s first-level specializations. This restructuring, and the
--

related suspension, was undertaken to improve pedagogy, create a better training environment for students, and to facilitate a better transition into the job market. Termination is being sought as the five-year period of suspension is coming to an end.

- There are no students remaining in the Technical Theatre specialization.

b. Provide specific information about which internal governance body approved the termination, and provide date of approval.

- Drama Council (Department of Drama) – May 4, 2023
- Academic Affairs – October 17, 2023
- Arts Faculty Council – November 30, 2023
- GFC Programs Committee
- GFC Academic Planning Committee
- General Faculties Council
- Board Learning, Research and Student Experience Committee

Reviewer's Comment:

SECTION C: ACCESS

- a. Identify student access considerations and risks for the Alberta Adult Learning System (include information about related programs or other avenues available to students to prepare for careers/employment and/or further educational opportunities).
- Students continue to study all aspects of theatrical production at the University of Alberta

b. If this program or specialization is unique in the province, describe the consultation(s) undertaken within the Alberta Adult Learning System to investigate the feasibility of program/specialization transfer.

- This program is not unique to the University of Alberta. For example, students may do a BFA in Drama at the University of Calgary in the School of Creative and Performing Arts.

- c. Briefly describe the consultation process that occurred with students at your institution regarding this programming change.
- Students were consulted at the time of suspension in three dedicated meetings.
 - Students expressed no concerns regarding the suspension and were supportive of the related program changes.

Reviewer's Comment:

SECTION D: IMPACT

- a. Briefly describe the consultation process that occurred with other stakeholders (e.g., advisory committees, regulatory bodies, employers, etc.) affected by this programming change.
- Meetings were held at the time of the original suspension with the Acting Coordinator and Directing Coordinator, as well as with Acting and Directing faculty members and Production staff members. Support for the suspension and related program changes was unanimous.
 - Faculty members that generated this proposal include active members of several national professional associations, including:
 - The Associated Designers of Canada
 - Canadian Actors' Equity
 - The Canadian Institute of Theatre Technology
- b. Briefly describe plans for communicating the termination decision to stakeholders, particularly regulatory bodies (if applicable) and other institutions within the Alberta Adult Learning System.
- Stakeholders have already been informed and are supportive.
- c. Briefly describe plans for reallocation of resources previously used for this program/specialization and identify budget and staffing impacts.
- Reallocation was not required. Courses in theatre production continue to be taught.

Reviewer's Comment:

SECTION E: OTHER CONSIDERATIONS

Other considerations

- a. Please indicate if there are additional factors you would like the ministry to consider when reviewing this proposal.
-

Reviewer's Comment:

RECOMMENDATION (FOR DEPARTMENT USE)

Recommendation(s):

Rationale for Recommendation:

Reviewer(s):

Date Completed: May 4, 2023

February 25, 2019

AR 56007

Dr. David Turpin
President and Vice-Chancellor
University of Alberta
2-24 South Academic Building
Edmonton AB T6G 2G7

Dear Dr. Turpin:

Advanced Education has completed its review of the University of Alberta's proposal to suspend the Technical Theatre specialization in the Bachelor of Fine Arts in Drama degree program. The department approves the suspension for the term July 1, 2019 to June 30, 2024.

The department approves the suspension of this specialization on the understanding that the Board of Governors or delegated institutional authority proposed suspension as a result of a review of existing specializations in the program that involved consultation with students, faculty, and potential employers of graduates. The department acknowledges the institution's commitment to support any active students that wish to complete their program of study.

Please advise the department six months prior to the suspension end date, through the Provider and Program Registry System, of the university's plan to reactivate, terminate, or extend the suspension of the Technical Theatre specialization.



.../2

Dr. David Turpin
Page 2

I appreciate the University of Alberta's commitment to high-quality programming and your ongoing processes of program review and renewal.

Sincerely,



Rod Skura
Deputy Minister

cc: Honourable Marlin Schmidt
Minister of Advanced Education

Michael Phair, Chair
Board of Governors, University of Alberta

Proposal Template: Program Termination

Use this template for proposals to terminate ministry-approved programs or specializations. Institutions should:

- ensure that submission content is concise. Any additional information may be appended;
- indicate “not applicable” when questions are not relevant to a particular proposal; and
- ensure that applicable supporting documents are attached to the proposal.

SECTION A: PROPOSAL INFORMATION

Fill in the table below:

Institution	University of Alberta
Program Name	Bachelor of Arts
Specialization Name	Combined French/Spanish
Credential Awarded	Bachelor of Arts
Proposed effective date of termination	July 1, 2024

<p>a. Confirm whether (check applicable box(es)):</p>	<p><input checked="" type="checkbox"/> This termination proposal was preceded by a ministry- approved suspension period.</p> <p><input type="checkbox"/> This termination proposal was not preceded by a ministry-approved suspension period.</p> <p><input checked="" type="checkbox"/> No active students remain in the program.</p> <p><input type="checkbox"/> Active program students remain in the program</p>
<p>b. If this proposal was preceded by a suspension, attach approval letter.</p> <ul style="list-style-type: none"> • Approval letter is attached. 	
<p>c. If this proposal was not preceded by a suspension, explain why ministry approval for a suspension was not sought prior to requesting a termination.</p> <ul style="list-style-type: none"> • N/A 	
<p>d. If not preceded by suspension, indicate when students were last admitted into the program/specialization.</p> <ul style="list-style-type: none"> • N/A 	
<p>Reviewer’s Comment:</p>	

SECTION B: RATIONALE

<p>a. Identify reason(s) for termination with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, provincial priorities, etc.).</p> <ul style="list-style-type: none"> • At the time of the suspension of this major, the Department of Modern Languages and Cultural Studies consolidated all existing majors into a single Major in Modern Languages and Cultural Studies. This change provided a more interdisciplinary approach, less compartmentalization, and made it easier for students to study multiple languages. Termination is being sought as the five-year period of

suspension is coming to an end.

- b. Provide specific information about which internal governance body approved the termination, and provide date of approval.
- Department Council, Modern Languages and Cultural Studies – September 11, 2023
 - Academic Affairs – October 17, 2023
 - Arts Faculty Council – November 30, 2023
 - GFC Programs Committee
 - GFC Academic Planning Committee
 - General Faculties Council
 - Board Learning, Research and Student Experience Committee

Reviewer’s Comment:

SECTION C: ACCESS

- a. Identify student access considerations and risks for the Alberta Adult Learning System (include information about related programs or other avenues available to students to prepare for careers/employment and/or further educational opportunities).
- Courses in French and Spanish continue to be offered at the University of Alberta.
- b. If this program or specialization is unique in the province, describe the consultation(s) undertaken within the Alberta Adult Learning System to investigate the feasibility of program/specialization transfer.
- Courses in French and Spanish are also offered elsewhere in Alberta; for example, at the University of Calgary.
- c. Briefly describe the consultation process that occurred with students at your institution regarding this programming change.
- At the time of the suspension, student feedback was solicited through class visits and at a special town hall meeting, in addition to an online questionnaire regarding program changes.
 - The notice of suspension of admission and the timeline for completion of program requirements has been published in the Calendar since the time of suspension.. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled have graduated and no students remain in this program.

Reviewer’s Comment:

SECTION D: IMPACT

- a. Briefly describe the consultation process that occurred with other stakeholders (e.g., advisory committees, regulatory bodies, employers, etc.) affected by this programming change.
- Consultation with students, faculty, and other Alberta post-secondary institutions took place prior to the suspension of the major in 2018.

b. Briefly describe plans for communicating the termination decision to stakeholders, particularly regulatory bodies (if applicable) and other institutions within the Alberta Adult Learning System.

- The termination of the major will be communicated to stakeholders via e-mail once the process is complete. The related Calendar listing will be removed.

c. Briefly describe plans for reallocation of resources previously used for this program/specialization and identify budget and staffing impacts.

- No reallocation of resources was required. Courses in French and Spanish continue to be taught.

Reviewer's Comment:

SECTION E: OTHER CONSIDERATIONS

Other considerations

a. Please indicate if there are additional factors you would like the ministry to consider when reviewing this proposal.

- The major in Modern Languages and Cultural Studies has been successful, and as was originally planned, students have been able to continue to pursue a focus in French and Spanish within it.

Reviewer's Comment:

RECOMMENDATION (FOR DEPARTMENT USE)

Recommendation(s):

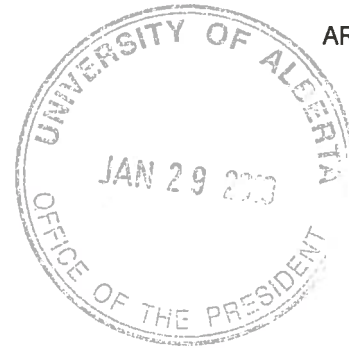
Rationale for Recommendation:

Reviewer(s):

Date Completed:

January 22, 2019

Dr. David Turpin
President and Vice-Chancellor
University of Alberta
2-24 South Academic Building
Edmonton AB T6G 2G7



AR 55809

Dear Dr. Turpin:

Advanced Education has completed its review of the University of Alberta's proposals to suspend ten majors in the Bachelor of Arts program. The department approves periods of suspensions for the following majors effective July 1, 2019 to June 30, 2024:

- Comparative Literature,
- Combined French/Spanish,
- French Language and Literature,
- German Language and Literature,
- German Linguistics,
- German Studies,
- Latin American Studies,
- Scandinavian Language and Literature,
- Spanish Language and Literature, and
- Romance Languages.

The department approves these program suspensions with the understanding that appropriate provisions are in place for active program students to complete their programs of study. The department is aware that the University of Alberta is suspending these Bachelor of Arts majors due to the introduction of a new major in Modern Languages.

Dr. David Turpin
Page 2

The department acknowledges that opportunities for students to study languages remain available at the University of Alberta through other Bachelor of Arts majors, minors, and individual courses.

I appreciate the University of Alberta's commitment to high-quality programming and your ongoing processes of program review and renewal.

Sincerely,



Rod Skura
Deputy Minister

cc: Honourable Marlin Schmidt
Minister of Advanced Education

Michael Phair, Chair
Board of Governors, University of Alberta

Proposal Template: Program Termination

Use this template for proposals to terminate ministry-approved programs or specializations. Institutions should:

- ensure that submission content is concise. Any additional information may be appended;
- indicate “not applicable” when questions are not relevant to a particular proposal; and
- ensure that applicable supporting documents are attached to the proposal.

SECTION A: PROPOSAL INFORMATION

Fill in the table below:

Institution	University of Alberta
Program Name	Bachelor of Arts
Specialization Name	Comparative Literature
Credential Awarded	Bachelor of Arts
Proposed effective date of termination	July 1, 2024

a. Confirm whether (check applicable box(es)):	<input checked="" type="checkbox"/> This termination proposal was preceded by a ministry- approved suspension period. <input type="checkbox"/> This termination proposal was not preceded by a ministry-approved suspension period. <input checked="" type="checkbox"/> No active students remain in the program. <input type="checkbox"/> Active program students remain in the program
b. If this proposal was preceded by a suspension, attach approval letter. • Approval letter is attached.	
c. If this proposal was not preceded by a suspension, explain why ministry approval for a suspension was not sought prior to requesting a termination. • N/A	
d. If not preceded by suspension, indicate when students were last admitted into the program/specialization. • N/A	
Reviewer’s Comment:	

SECTION B: RATIONALE

a. Identify reason(s) for termination with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, provincial priorities, etc.). • At the time of the suspension of this major, the Department of Modern Languages and Cultural Studies consolidated all existing majors into a single Major in Modern Languages and Cultural Studies. This change provided a more interdisciplinary approach, less compartmentalization, and made it easier for students to study multiple languages. Termination is being sought as the five-year period of suspension is coming to an end.

b. Provide specific information about which internal governance body approved the termination, and provide date of approval.

- Department Council, Modern Languages and Cultural Studies – September 11, 2023
- Academic Affairs Committee – October 17, 2023
- Arts Faculty Council – November 30, 2023
- GFC Programs Committee
- GFC Academic Planning Committee
- General Faculties Council
- Board Learning, Research and Student Experience Committee

Reviewer's Comment:

SECTION C: ACCESS

a. Identify student access considerations and risks for the Alberta Adult Learning System (include information about related programs or other avenues available to students to prepare for careers/employment and/or further educational opportunities).

- Courses in Comparative Literature continue to be offered at the University of Alberta.

b. If this program or specialization is unique in the province, describe the consultation(s) undertaken within the Alberta Adult Learning System to investigate the feasibility of program/specialization transfer.

- Courses in Comparative Literature are also offered elsewhere in Alberta; for example, at the University of Calgary.

c. Briefly describe the consultation process that occurred with students at your institution regarding this programming change.

- At the time of the suspension, student feedback was solicited through class visits and at a special town hall meeting, in addition to an online questionnaire regarding program changes.
- The notice of suspension of admission and the timeline for completion of program requirements has been published in the Calendar since the time of suspension. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled have graduated and no students remain in this program.

Reviewer's Comment:

SECTION D: IMPACT

a. Briefly describe the consultation process that occurred with other stakeholders (e.g., advisory committees, regulatory bodies, employers, etc.) affected by this programming change.

- Consultation with students, faculty, and other Alberta post-secondary institutions took place prior to the suspension of the major in 2018.

b. Briefly describe plans for communicating the termination decision to stakeholders, particularly regulatory bodies (if applicable) and other institutions within the Alberta Adult Learning System.

- The termination of the major will be communicated to stakeholders via e-mail once the process is complete. The related Calendar listing will be removed.

c. Briefly describe plans for reallocation of resources previously used for this program/specialization and identify budget and staffing impacts.

- No reallocation of resources was required. Courses in Comparative Literature continue to be taught.

Reviewer's Comment:

SECTION E: OTHER CONSIDERATIONS

Other considerations

a. Please indicate if there are additional factors you would like the ministry to consider when reviewing this proposal.

- The major in Modern Languages and Cultural Studies has been successful, and as was originally planned students have been able to continue to pursue a focus in Comparative Literature within it.

Reviewer's Comment:

RECOMMENDATION (FOR DEPARTMENT USE)

Recommendation(s):

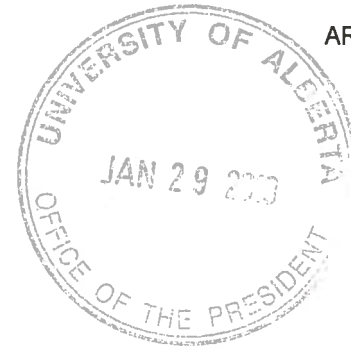
Rationale for Recommendation:

Reviewer(s):

Date Completed:

January 22, 2019

Dr. David Turpin
President and Vice-Chancellor
University of Alberta
2-24 South Academic Building
Edmonton AB T6G 2G7



AR 55809

Dear Dr. Turpin:

Advanced Education has completed its review of the University of Alberta's proposals to suspend ten majors in the Bachelor of Arts program. The department approves periods of suspensions for the following majors effective July 1, 2019 to June 30, 2024:

- Comparative Literature,
- Combined French/Spanish,
- French Language and Literature,
- German Language and Literature,
- German Linguistics,
- German Studies,
- Latin American Studies,
- Scandinavian Language and Literature,
- Spanish Language and Literature, and
- Romance Languages.

The department approves these program suspensions with the understanding that appropriate provisions are in place for active program students to complete their programs of study. The department is aware that the University of Alberta is suspending these Bachelor of Arts majors due to the introduction of a new major in Modern Languages.

Dr. David Turpin
Page 2

The department acknowledges that opportunities for students to study languages remain available at the University of Alberta through other Bachelor of Arts majors, minors, and individual courses.

I appreciate the University of Alberta's commitment to high-quality programming and your ongoing processes of program review and renewal.

Sincerely,



Rod Skura
Deputy Minister

cc: Honourable Marlin Schmidt
Minister of Advanced Education

Michael Phair, Chair
Board of Governors, University of Alberta

Proposal Template: Program Termination

Use this template for proposals to terminate ministry-approved programs or specializations. Institutions should:

- ensure that submission content is concise. Any additional information may be appended;
- indicate “not applicable” when questions are not relevant to a particular proposal; and
- ensure that applicable supporting documents are attached to the proposal.

SECTION A: PROPOSAL INFORMATION

Fill in the table below:

Institution	University of Alberta
Program Name	Bachelor of Design
Specialization Name	Computing Science Route
Credential Awarded	Bachelor of Design
Proposed effective date of termination	July 1, 2024

a. Confirm whether (check applicable box(es)):	<input checked="" type="checkbox"/> This termination proposal was preceded by a ministry-approved suspension period. <input type="checkbox"/> This termination proposal was not preceded by a ministry-approved suspension period. <input checked="" type="checkbox"/> No active students remain in the program. <input type="checkbox"/> Active program students remain in the program
b. If this proposal was preceded by a suspension, attach approval letter.	<ul style="list-style-type: none">• Letter attached
c. If this proposal was not preceded by a suspension, explain why ministry approval for a suspension was not sought prior to requesting a termination.	<ul style="list-style-type: none">•
d. If not preceded by suspension, indicate when students were last admitted into the program/specialization.	<ul style="list-style-type: none">•
Reviewer’s Comment:	

SECTION B: RATIONALE

a. Identify reason(s) for termination with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, provincial priorities, etc.).

<ul style="list-style-type: none"> ● Low student demand
<p>b. Provide specific information about which internal governance body approved the termination, and provide date of approval.</p> <ul style="list-style-type: none"> ● Art & Design Department Council – April 14, 2023 ● Academic Affairs – October 17, 2023 ● Arts Faculty Council – November 30, 2023 ● GFC Programs Committee ● GFC Academic Planning Committee ● General Faculties Council ● Board Learning, Research and Student Experience Committee
<p>Reviewer’s Comment:</p>

SECTION C: ACCESS

<p>a. Identify student access considerations and risks for the Alberta Adult Learning System (include information about related programs or other avenues available to students to prepare for careers/employment and/or further educational opportunities).</p> <ul style="list-style-type: none"> ● There are no student access considerations, as other BDes Routes exist and students are still able to access computing science courses.
<p>b. If this program or specialization is unique in the province, describe the consultation(s) undertaken within the Alberta Adult Learning System to investigate the feasibility of program/specialization transfer.</p> <ul style="list-style-type: none"> ● The program is not unique in Alberta.
<p>c. Briefly describe the consultation process that occurred with students at your institution regarding this programming change.</p> <p>There was extensive consultation with students in the governance process leading to the original suspension, including the Arts Students’ Association (OASIS), University of Alberta Students’ Union, and various committees that include student representation:</p> <ul style="list-style-type: none"> ● Academic Affairs Committee – Five Undergraduate Students, Three Graduate Students (March 29, 2017) ● Arts Executive Committee – Four Undergraduate Students (September 14, 2017) ● Arts Faculty Council – Up to 35 Undergraduate Students, Five Graduate Students (October 04, 2017) ● The Associate Dean (Student Programs and Teaching & Learning) consulted with the Arts Students’ Association (OASIS) ● The Associate Dean (Student Programs) consulted with Students’ Union Vice-Presidents Academic
<p>Reviewer’s Comment:</p>

SECTION D: IMPACT

<p>a. Briefly describe the consultation process that occurred with other stakeholders (e.g., advisory committees, regulatory bodies, employers, etc.) affected by this programming change.</p> <ul style="list-style-type: none"> • Discussions with faculty took place through Academic Affairs Committee, Arts Executive and Arts Faculty Council meetings. All faculty are voting members of Arts Faculty Council.
<p>b. Briefly describe plans for communicating the termination decision to stakeholders, particularly regulatory bodies (if applicable) and other institutions within the Alberta Adult Learning System.</p> <ul style="list-style-type: none"> • The notice of suspension of admission and the timeline for completion of program requirements has been published in the Calendar since the time of suspension. • The program information will be removed from the University Calendar and Faculty of Arts webpages.
<p>c. Briefly describe plans for reallocation of resources previously used for this program/specialization and identify budget and staffing impacts.</p> <ul style="list-style-type: none"> • Financial impacts are minimal, as courses continue to run and students continue to be able to take the Bachelor of Design degree and computing science courses. • Administrative costs include advising affected students and preparing required documents. Faculty staff and the Registrar's Office staff will update administrative systems to reflect the change.
<p>Reviewer's Comment:</p>

SECTION E: OTHER CONSIDERATIONS

<p>Other considerations</p>
<p>a. Please indicate if there are additional factors you would like the ministry to consider when reviewing this proposal.</p> <ul style="list-style-type: none"> •
<p>Reviewer's Comment:</p>

<p>RECOMMENDATION (FOR DEPARTMENT USE)</p>
<p>Recommendation(s):</p>
<p>Rationale for Recommendation:</p>

Reviewer(s):

Date Completed:

September 6, 2018

AR 55173

Dr. David Turpin
President and Vice-Chancellor
University of Alberta
2-24 South Academic Building
Edmonton AB T6G 2G7

Dear Dr. Turpin:

Advanced Education has completed its review of the University of Alberta's proposal to suspend the Computing Science Route and the Printmaking Route specializations in the Bachelor of Design program. The department approves these suspensions for the term September 1, 2019 to June 30, 2024.

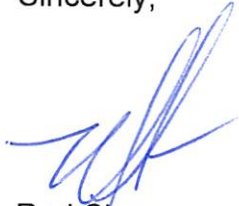
The department approves the suspension of these specializations within the Bachelor of Design degree program on the understanding that the Board of Governors or delegated institutional authority proposed suspension due to low enrolment. The department acknowledges the institution's commitment to support any active students that wish to complete their programs of study.

I request that the institution advises the department, through the Provider and Program Registry System, of its plan to reactivate, terminate, or extend the suspension of the specializations within appropriate timeframes as outlined in the ministry's suspension guideline. Copies of the operational guidelines regarding suspension, termination, and reactivation are available through the Post-Secondary Programs branch.

Dr. David Turpin
Page 2

I appreciate the University of Alberta's commitment to high-quality programming and your ongoing processes of program review and renewal.

Sincerely,



Rod Skura
Deputy Minister

cc: Honourable Marlin Schmidt
Minister of Advanced Education

Michael Phair
Chair, Board of Governors, University of Alberta

Faculty of Arts	Art & Design
Level of change	<input checked="" type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate
Type of Change	<input checked="" type="checkbox"/> Program <input type="checkbox"/> Regulation
Are there corresponding course changes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Additional Documentation Attached	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Contact Person:	Jesse Thomas
Department/Unit Approval Date:	April 14, 2023

Rationale for change (Indicate other consultation groups, departments, units or faculties)

Admission to the Computing Science and the Printmaking routes in the Bachelor of Design was suspended effective September 2019 because of low student demand. All students who were in those routes have graduated. Current students are still able to take courses in these areas. Please see the attached termination template for more information.

https://calendar.ualberta.ca/preview_program.php?catoid=39&poid=47339&returnto=12335

Calendar Copy

Current: Removed language (Include name of program)	Proposed: New language
<p>Bachelor of Design</p> <p>...</p> <p>Program Requirements</p> <p>Computing Science Route (120 units)</p> <p>Effective September 2019, there will be no further admissions to this route. Students who entered the program prior to September 2019 must complete studio courses by April 30, 2024 and must complete all program requirements by April 30, 2024. The last BDes degree with a Computing Science route will be granted at Spring Convocation 2024.</p> <p>Continuing students must refer to the Calendar under which they were admitted for program, promotion and graduation requirements.</p>	

Printmaking Route (120 units)

Effective September 2019, there will be no further admissions to this route. Students who entered the program prior to September 2019 must complete studio courses by April 30, 2024 and must complete all program requirements by April 30, 2024. The last BDes degree with a Printmaking route will be granted at Spring Convocation 2024.

Continuing students must refer to the Calendar under which they were admitted for program, promotion and graduation requirements.

Proposal Template: Program Termination

Use this template for proposals to terminate ministry-approved programs or specializations. Institutions should:

- ensure that submission content is concise. Any additional information may be appended;
- indicate “not applicable” when questions are not relevant to a particular proposal; and
- ensure that applicable supporting documents are attached to the proposal.

SECTION A: PROPOSAL INFORMATION

Fill in the table below:

Institution	University of Alberta
Program Name	Bachelor of Arts
Specialization Name	French Language and Literature
Credential Awarded	Bachelor of Arts
Proposed effective date of termination	July 1, 2024

a. Confirm whether (check applicable box(es)):	<input checked="" type="checkbox"/> This termination proposal was preceded by a ministry- approved suspension period. <input type="checkbox"/> This termination proposal was not preceded by a ministry-approved suspension period. <input checked="" type="checkbox"/> No active students remain in the program. <input type="checkbox"/> Active program students remain in the program
b. If this proposal was preceded by a suspension, attach approval letter.	<ul style="list-style-type: none">• Approval letter is attached.
c. If this proposal was not preceded by a suspension, explain why ministry approval for a suspension was not sought prior to requesting a termination.	<ul style="list-style-type: none">• N/A
d. If not preceded by suspension, indicate when students were last admitted into the program/specialization.	<ul style="list-style-type: none">• N/A
Reviewer’s Comment:	

SECTION B: RATIONALE

a. Identify reason(s) for termination with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, provincial priorities, etc.).	<ul style="list-style-type: none">• At the time of the suspension of this major, the Department of Modern Languages and Cultural Studies consolidated all majors into a single Major in Modern Languages and Cultural Studies. This change provided a more interdisciplinary approach, less compartmentalization, and made it easier for students to study multiple languages.
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- b. Provide specific information about which internal governance body approved the termination, and provide date of approval.
- Department Council, Modern Languages and Cultural Studies – September 11, 2023
 - Academic Affairs – October 17, 2023
 - Arts Faculty Council – November 30, 2023
 - GFC Programs Committee
 - GFC Academic Planning Committee
 - General Faculties Council
 - Board Learning, Research and Student Experience Committee

Reviewer's Comment:

SECTION C: ACCESS

- a. Identify student access considerations and risks for the Alberta Adult Learning System (include information about related programs or other avenues available to students to prepare for careers/employment and/or further educational opportunities).
- Courses in French Language and Literature continue to be offered at the University of Alberta.
- b. If this program or specialization is unique in the province, describe the consultation(s) undertaken within the Alberta Adult Learning System to investigate the feasibility of program/specialization transfer.
- Courses in French Language and Literature are also offered elsewhere in Alberta; for example, at the University of Calgary.
- c. Briefly describe the consultation process that occurred with students at your institution regarding this programming change.
- At the time of the suspension, student feedback was solicited through class visits and at a special town hall meeting, in addition to an online questionnaire regarding program changes.
 - The notice of suspension of admission and the timeline for completion of program requirements has been published in the Calendar since the time of suspension. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled have graduated and no students remain in this program.

Reviewer's Comment:

SECTION D: IMPACT

- a. Briefly describe the consultation process that occurred with other stakeholders (e.g., advisory committees, regulatory bodies, employers, etc.) affected by this programming change.
- Consultation with students, faculty, and other Alberta post-secondary institutions took place prior to the suspension of the major in 2018.
- b. Briefly describe plans for communicating the termination decision to stakeholders, particularly regulatory bodies (if applicable) and other institutions within the Alberta Adult Learning System.
- The termination of the major will be communicated to stakeholders via e-mail once the process is complete. The related Calendar listing will be removed.

- c. Briefly describe plans for reallocation of resources previously used for this program/specialization and identify budget and staffing impacts.
- No reallocation of resources was required. Courses in French Language and Literature continue to be taught.

Reviewer's Comment:

SECTION E: OTHER CONSIDERATIONS

Other considerations

- a. Please indicate if there are additional factors you would like the ministry to consider when reviewing this proposal.
- The major in Modern Languages and Cultural Studies has been successful, and as was originally planned students have been able to continue to pursue a focus in French Language and Literature within it.

Reviewer's Comment:

RECOMMENDATION (FOR DEPARTMENT USE)

Recommendation(s):

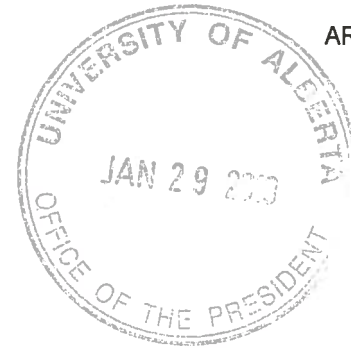
Rationale for Recommendation:

Reviewer(s):

Date Completed:

January 22, 2019

Dr. David Turpin
President and Vice-Chancellor
University of Alberta
2-24 South Academic Building
Edmonton AB T6G 2G7



AR 55809

Dear Dr. Turpin:

Advanced Education has completed its review of the University of Alberta's proposals to suspend ten majors in the Bachelor of Arts program. The department approves periods of suspensions for the following majors effective July 1, 2019 to June 30, 2024:

- Comparative Literature,
- Combined French/Spanish,
- French Language and Literature,
- German Language and Literature,
- German Linguistics,
- German Studies,
- Latin American Studies,
- Scandinavian Language and Literature,
- Spanish Language and Literature, and
- Romance Languages.

The department approves these program suspensions with the understanding that appropriate provisions are in place for active program students to complete their programs of study. The department is aware that the University of Alberta is suspending these Bachelor of Arts majors due to the introduction of a new major in Modern Languages.

Dr. David Turpin
Page 2

The department acknowledges that opportunities for students to study languages remain available at the University of Alberta through other Bachelor of Arts majors, minors, and individual courses.

I appreciate the University of Alberta's commitment to high-quality programming and your ongoing processes of program review and renewal.

Sincerely,



Rod Skura
Deputy Minister

cc: Honourable Marlin Schmidt
Minister of Advanced Education

Michael Phair, Chair
Board of Governors, University of Alberta

Proposal Template: Program Termination

Use this template for proposals to terminate ministry-approved programs or specializations. Institutions should:

- ensure that submission content is concise. Any additional information may be appended;
- indicate “not applicable” when questions are not relevant to a particular proposal; and
- ensure that applicable supporting documents are attached to the proposal.

SECTION A: PROPOSAL INFORMATION

Fill in the table below:

Institution	University of Alberta
Program Name	Bachelor of Arts
Specialization Name	German Language and Literature
Credential Awarded	Bachelor of Arts
Proposed effective date of termination	July 1, 2024

<p>a. Confirm whether (check applicable box(es)):</p>	<p><input checked="" type="checkbox"/> This termination proposal was preceded by a ministry- approved suspension period.</p> <p><input type="checkbox"/> This termination proposal was not preceded by a ministry-approved suspension period.</p> <p><input checked="" type="checkbox"/> No active students remain in the program.</p> <p><input type="checkbox"/> Active program students remain in the program</p>
<p>b. If this proposal was preceded by a suspension, attach approval letter.</p> <ul style="list-style-type: none"> • Approval letter is attached. 	
<p>c. If this proposal was not preceded by a suspension, explain why ministry approval for a suspension was not sought prior to requesting a termination.</p> <ul style="list-style-type: none"> • N/A 	
<p>d. If not preceded by suspension, indicate when students were last admitted into the program/specialization.</p> <ul style="list-style-type: none"> • N/A 	
<p>Reviewer’s Comment:</p>	

SECTION B: RATIONALE

<p>a. Identify reason(s) for termination with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, provincial priorities, etc.).</p> <ul style="list-style-type: none"> • At the time of the suspension of this major, the Department of Modern Languages and Cultural Studies consolidated all majors into a single Major in Modern Languages and Cultural Studies. This change provided a more interdisciplinary approach, less compartmentalization, and made it easier for students to study multiple languages. Termination is being sought as the five-year period of suspension is coming to an end.
--

- b. Provide specific information about which internal governance body approved the termination, and provide date of approval.
- Department Council, Modern Languages and Cultural Studies – September 11, 2023
 - Academic Affairs – October 17, 2023
 - Arts Faculty Council – November 30, 2023
 - GFC Programs Committee
 - GFC Academic Planning Committee
 - General Faculties Council
 - Board Learning, Research and Student Experience Committee

Reviewer's Comment:

SECTION C: ACCESS

- a. Identify student access considerations and risks for the Alberta Adult Learning System (include information about related programs or other avenues available to students to prepare for careers/employment and/or further educational opportunities).
- Courses in German Language and Literature continue to be offered at the University of Alberta.
- b. If this program or specialization is unique in the province, describe the consultation(s) undertaken within the Alberta Adult Learning System to investigate the feasibility of program/specialization transfer.
- Courses in German Language and Literature are also offered elsewhere in Alberta; for example, at the University of Calgary.
- c. Briefly describe the consultation process that occurred with students at your institution regarding this programming change.
- At the time of the suspension, student feedback was solicited through class visits and at a special town hall meeting, in addition to an online questionnaire regarding program changes.
 - The notice of suspension of admission and the timeline for completion of program requirements has been published in the Calendar since the time of suspension. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled have graduated and no students remain in this program.

Reviewer's Comment:

SECTION D: IMPACT

- a. Briefly describe the consultation process that occurred with other stakeholders (e.g., advisory committees, regulatory bodies, employers, etc.) affected by this programming change.
- Consultation with students, faculty, and other Alberta post-secondary institutions took place prior to the suspension of the major in 2018.
- b. Briefly describe plans for communicating the termination decision to stakeholders, particularly regulatory bodies (if applicable) and other institutions within the Alberta Adult Learning System.
- The termination of the major will be communicated to stakeholders via e-mail once the process is complete. The related Calendar listing will be removed.

- c. Briefly describe plans for reallocation of resources previously used for this program/specialization and identify budget and staffing impacts.
- No reallocation of resources was required. Courses in German Language and Literature continue to be taught.

Reviewer's Comment:

SECTION E: OTHER CONSIDERATIONS

Other considerations

- a. Please indicate if there are additional factors you would like the ministry to consider when reviewing this proposal.
- The major in Modern Languages and Cultural Studies has been successful, and as was originally planned students have been able to continue to pursue a focus in German Language and Literature within it.

Reviewer's Comment:

RECOMMENDATION (FOR DEPARTMENT USE)

Recommendation(s):

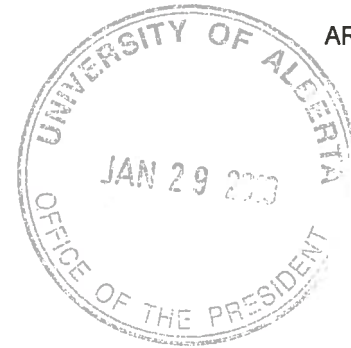
Rationale for Recommendation:

Reviewer(s):

Date Completed:

January 22, 2019

Dr. David Turpin
President and Vice-Chancellor
University of Alberta
2-24 South Academic Building
Edmonton AB T6G 2G7



AR 55809

Dear Dr. Turpin:

Advanced Education has completed its review of the University of Alberta's proposals to suspend ten majors in the Bachelor of Arts program. The department approves periods of suspensions for the following majors effective July 1, 2019 to June 30, 2024:

- Comparative Literature,
- Combined French/Spanish,
- French Language and Literature,
- German Language and Literature,
- German Linguistics,
- German Studies,
- Latin American Studies,
- Scandinavian Language and Literature,
- Spanish Language and Literature, and
- Romance Languages.

The department approves these program suspensions with the understanding that appropriate provisions are in place for active program students to complete their programs of study. The department is aware that the University of Alberta is suspending these Bachelor of Arts majors due to the introduction of a new major in Modern Languages.

Dr. David Turpin
Page 2

The department acknowledges that opportunities for students to study languages remain available at the University of Alberta through other Bachelor of Arts majors, minors, and individual courses.

I appreciate the University of Alberta's commitment to high-quality programming and your ongoing processes of program review and renewal.

Sincerely,



Rod Skura
Deputy Minister

cc: Honourable Marlin Schmidt
Minister of Advanced Education

Michael Phair, Chair
Board of Governors, University of Alberta

Proposal Template: Program Termination

Use this template for proposals to terminate ministry-approved programs or specializations. Institutions should:

- ensure that submission content is concise. Any additional information may be appended;
- indicate “not applicable” when questions are not relevant to a particular proposal; and
- ensure that applicable supporting documents are attached to the proposal.

SECTION A: PROPOSAL INFORMATION

Fill in the table below:

Institution	University of Alberta
Program Name	Bachelor of Arts
Specialization Name	German Linguistics
Credential Awarded	Bachelor of Arts
Proposed effective date of termination	July 1, 2024

<p>a. Confirm whether (check applicable box(es)):</p>	<p><input checked="" type="checkbox"/> This termination proposal was preceded by a ministry- approved suspension period.</p> <p><input type="checkbox"/> This termination proposal was not preceded by a ministry-approved suspension period.</p> <p><input checked="" type="checkbox"/> No active students remain in the program.</p> <p><input type="checkbox"/> Active program students remain in the program</p>
<p>b. If this proposal was preceded by a suspension, attach approval letter.</p> <ul style="list-style-type: none"> • Approval letter is attached. 	
<p>c. If this proposal was not preceded by a suspension, explain why ministry approval for a suspension was not sought prior to requesting a termination.</p> <ul style="list-style-type: none"> • N/A 	
<p>d. If not preceded by suspension, indicate when students were last admitted into the program/specialization.</p> <ul style="list-style-type: none"> • N/A 	
<p>Reviewer’s Comment:</p>	

SECTION B: RATIONALE

<p>a. Identify reason(s) for termination with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, provincial priorities, etc.).</p> <ul style="list-style-type: none"> • At the time of the suspension of this major, the Department of Modern Languages and Cultural Studies consolidated all existing majors into a single Major in Modern Languages and Cultural Studies. This change provided a more interdisciplinary approach, less compartmentalization, and made it easier for students to study multiple languages. Termination is being sought as the five-year period of suspension is coming to an end.

- b. Provide specific information about which internal governance body approved the termination, and provide date of approval.
- Department Council, Modern Languages and Cultural Studies – September 11, 2023
 - Academic Affairs – October 17, 2023
 - Arts Faculty Council – November 30, 2023
 - GFC Programs Committee
 - GFC Academic Planning Committee
 - General Faculties Council
 - Board Learning, Research and Student Experience Committee

Reviewer's Comment:

SECTION C: ACCESS

- a. Identify student access considerations and risks for the Alberta Adult Learning System (include information about related programs or other avenues available to students to prepare for careers/employment and/or further educational opportunities).
- Courses in German Linguistics continue to be offered at the University of Alberta.
- b. If this program or specialization is unique in the province, describe the consultation(s) undertaken within the Alberta Adult Learning System to investigate the feasibility of program/specialization transfer.
- Courses in German Linguistics are also offered elsewhere in Alberta; for example, at the University of Calgary.
- c. Briefly describe the consultation process that occurred with students at your institution regarding this programming change.
- At the time of the suspension, student feedback was solicited through class visits and at a special town hall meeting, in addition to an online questionnaire regarding program changes.
 - The notice of suspension of admission and the timeline for completion of program requirements has been published in the Calendar since the time of suspension. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled have graduated and no students remain in this program.

Reviewer's Comment:

SECTION D: IMPACT

- a. Briefly describe the consultation process that occurred with other stakeholders (e.g., advisory committees, regulatory bodies, employers, etc.) affected by this programming change.
- Consultation with students, faculty, and other Alberta post-secondary institutions took place prior to the suspension of the major in 2018.
- b. Briefly describe plans for communicating the termination decision to stakeholders, particularly regulatory bodies (if applicable) and other institutions within the Alberta Adult Learning System.
- The termination of the major will be communicated to stakeholders via e-mail once the process is complete. The related Calendar listing will be removed.

- c. Briefly describe plans for reallocation of resources previously used for this program/specialization and identify budget and staffing impacts.
- No reallocation of resources was required. Courses in German Linguistics continue to be taught.

Reviewer's Comment:

SECTION E: OTHER CONSIDERATIONS

Other considerations

- a. Please indicate if there are additional factors you would like the ministry to consider when reviewing this proposal.
- The major in Modern Languages and Cultural Studies has been successful, and as was originally planned students have been able to continue to pursue a focus in German Linguistics within it.

Reviewer's Comment:

RECOMMENDATION (FOR DEPARTMENT USE)

Recommendation(s):

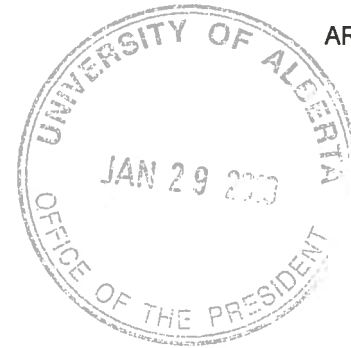
Rationale for Recommendation:

Reviewer(s):

Date Completed:

January 22, 2019

Dr. David Turpin
President and Vice-Chancellor
University of Alberta
2-24 South Academic Building
Edmonton AB T6G 2G7



AR 55809

Dear Dr. Turpin:

Advanced Education has completed its review of the University of Alberta's proposals to suspend ten majors in the Bachelor of Arts program. The department approves periods of suspensions for the following majors effective July 1, 2019 to June 30, 2024:

- Comparative Literature,
- Combined French/Spanish,
- French Language and Literature,
- German Language and Literature,
- German Linguistics,
- German Studies,
- Latin American Studies,
- Scandinavian Language and Literature,
- Spanish Language and Literature, and
- Romance Languages.

The department approves these program suspensions with the understanding that appropriate provisions are in place for active program students to complete their programs of study. The department is aware that the University of Alberta is suspending these Bachelor of Arts majors due to the introduction of a new major in Modern Languages.

Dr. David Turpin
Page 2

The department acknowledges that opportunities for students to study languages remain available at the University of Alberta through other Bachelor of Arts majors, minors, and individual courses.

I appreciate the University of Alberta's commitment to high-quality programming and your ongoing processes of program review and renewal.

Sincerely,



Rod Skura
Deputy Minister

cc: Honourable Marlin Schmidt
Minister of Advanced Education

Michael Phair, Chair
Board of Governors, University of Alberta

Proposal Template: Program Termination

Use this template for proposals to terminate ministry-approved programs or specializations. Institutions should:

- ensure that submission content is concise. Any additional information may be appended;
- indicate “not applicable” when questions are not relevant to a particular proposal; and
- ensure that applicable supporting documents are attached to the proposal.

SECTION A: PROPOSAL INFORMATION

Fill in the table below:

Institution	University of Alberta
Program Name	Bachelor of Arts
Specialization Name	German Studies
Credential Awarded	Bachelor of Arts
Proposed effective date of termination	July 1, 2024

a. Confirm whether (check applicable box(es)):	<input checked="" type="checkbox"/> This termination proposal was preceded by a ministry- approved suspension period. <input type="checkbox"/> This termination proposal was not preceded by a ministry-approved suspension period. <input checked="" type="checkbox"/> No active students remain in the program. <input type="checkbox"/> Active program students remain in the program
b. If this proposal was preceded by a suspension, attach approval letter.	<ul style="list-style-type: none"> • Approval letter is attached.
c. If this proposal was not preceded by a suspension, explain why ministry approval for a suspension was not sought prior to requesting a termination.	<ul style="list-style-type: none"> • N/A
d. If not preceded by suspension, indicate when students were last admitted into the program/specialization.	<ul style="list-style-type: none"> • N/A
Reviewer’s Comment:	

SECTION B: RATIONALE

a. Identify reason(s) for termination with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, provincial priorities, etc.).	<ul style="list-style-type: none"> • At the time of the suspension of this major, the Department consolidated all existing majors into a single Major in Modern Languages and Cultural Studies. This change provided a more interdisciplinary approach, less compartmentalization, and made it easier for students to study multiple languages. Termination is being sought as the five-year period of suspension is coming to an end.
---	---

- b. Provide specific information about which internal governance body approved the termination, and provide date of approval.
- Department Council, Modern Languages and Cultural Studies – September 11, 2023
 - Academic Affairs – October 17, 2023
 - Arts Faculty Council – November 30, 2023
 - GFC Programs Committee
 - GFC Academic Planning Committee
 - General Faculties Council
 - Board Learning, Research and Student Experience Committee

Reviewer's Comment:

SECTION C: ACCESS

- a. Identify student access considerations and risks for the Alberta Adult Learning System (include information about related programs or other avenues available to students to prepare for careers/employment and/or further educational opportunities).
- Courses in German Studies continue to be offered at the University of Alberta.
- b. If this program or specialization is unique in the province, describe the consultation(s) undertaken within the Alberta Adult Learning System to investigate the feasibility of program/specialization transfer.
- Courses in German Studies are also offered elsewhere in Alberta; for example, at the University of Calgary.
- c. Briefly describe the consultation process that occurred with students at your institution regarding this programming change.
- At the time of the suspension, student feedback was solicited through class visits and at a special town hall meeting, in addition to an online questionnaire regarding program changes.
 - The notice of suspension of admission and the timeline for completion of program requirements has been published in the Calendar since the time of suspension. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled have graduated and no students remain in this program.

Reviewer's Comment:

SECTION D: IMPACT

- a. Briefly describe the consultation process that occurred with other stakeholders (e.g., advisory committees, regulatory bodies, employers, etc.) affected by this programming change.
- Consultation with students, faculty, and other Alberta post-secondary institutions took place prior to the suspension of the major in 2018.
- b. Briefly describe plans for communicating the termination decision to stakeholders, particularly regulatory bodies (if applicable) and other institutions within the Alberta Adult Learning System.
- The termination of the major will be communicated to stakeholders via e-mail once the process is complete. The related Calendar listing will be removed.

- c. Briefly describe plans for reallocation of resources previously used for this program/specialization and identify budget and staffing impacts.
- No reallocation of resources was required. Courses in German Studies continue to be taught.

Reviewer's Comment:

SECTION E: OTHER CONSIDERATIONS

Other considerations

- a. Please indicate if there are additional factors you would like the ministry to consider when reviewing this proposal.
- The major in Modern Languages and Cultural Studies has been successful, and as was originally planned students have been able to continue to pursue a focus in German Studies within it.

Reviewer's Comment:

RECOMMENDATION (FOR DEPARTMENT USE)

Recommendation(s):

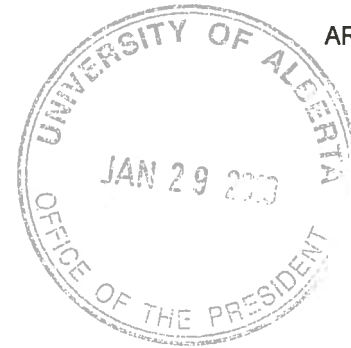
Rationale for Recommendation:

Reviewer(s):

Date Completed:

January 22, 2019

Dr. David Turpin
President and Vice-Chancellor
University of Alberta
2-24 South Academic Building
Edmonton AB T6G 2G7



AR 55809

Dear Dr. Turpin:

Advanced Education has completed its review of the University of Alberta's proposals to suspend ten majors in the Bachelor of Arts program. The department approves periods of suspensions for the following majors effective July 1, 2019 to June 30, 2024:

- Comparative Literature,
- Combined French/Spanish,
- French Language and Literature,
- German Language and Literature,
- German Linguistics,
- German Studies,
- Latin American Studies,
- Scandinavian Language and Literature,
- Spanish Language and Literature, and
- Romance Languages.

The department approves these program suspensions with the understanding that appropriate provisions are in place for active program students to complete their programs of study. The department is aware that the University of Alberta is suspending these Bachelor of Arts majors due to the introduction of a new major in Modern Languages.

Dr. David Turpin
Page 2

The department acknowledges that opportunities for students to study languages remain available at the University of Alberta through other Bachelor of Arts majors, minors, and individual courses.

I appreciate the University of Alberta's commitment to high-quality programming and your ongoing processes of program review and renewal.

Sincerely,



Rod Skura
Deputy Minister

cc: Honourable Marlin Schmidt
Minister of Advanced Education

Michael Phair, Chair
Board of Governors, University of Alberta

Proposal Template: Program Termination

Use this template for proposals to terminate ministry-approved programs or specializations. Institutions should:

- ensure that submission content is concise. Any additional information may be appended;
- indicate “not applicable” when questions are not relevant to a particular proposal; and
- ensure that applicable supporting documents are attached to the proposal.

SECTION A: PROPOSAL INFORMATION

Fill in the table below:

Institution	University of Alberta
Program Name	Bachelor of Arts
Specialization Name	Latin American Studies
Credential Awarded	Bachelor of Arts
Proposed effective date of termination	July 1, 2024

<p>a. Confirm whether (check applicable box(es)):</p>	<p><input checked="" type="checkbox"/> This termination proposal was preceded by a ministry- approved suspension period.</p> <p><input type="checkbox"/> This termination proposal was not preceded by a ministry-approved suspension period.</p> <p><input checked="" type="checkbox"/> No active students remain in the program.</p> <p><input type="checkbox"/> Active program students remain in the program</p>
<p>b. If this proposal was preceded by a suspension, attach approval letter.</p> <ul style="list-style-type: none"> • Approval letter is attached. 	
<p>c. If this proposal was not preceded by a suspension, explain why ministry approval for a suspension was not sought prior to requesting a termination.</p> <ul style="list-style-type: none"> • N/A 	
<p>d. If not preceded by suspension, indicate when students were last admitted into the program/specialization.</p> <ul style="list-style-type: none"> • N/A 	
<p>Reviewer’s Comment:</p>	

SECTION B: RATIONALE

<p>a. Identify reason(s) for termination with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, provincial priorities, etc.).</p> <ul style="list-style-type: none"> • At the time of the suspension of this major, the Department of Modern Languages and Cultural Studies consolidated all existing majors into a single Major in Modern Languages and Cultural Studies. This change provided a more interdisciplinary approach, less compartmentalization, and made it easier for students to study multiple languages. Termination is being sought as the five-year period of suspension is coming to an end.

- b. Provide specific information about which internal governance body approved the termination, and provide date of approval.
- Department Council, Modern Languages and Cultural Studies – September 11, 2023
 - Academic Affairs – October 17, 2023
 - Arts Faculty Council – November 30, 2023
 - GFC Programs Committee
 - GFC Academic Planning Committee
 - General Faculties Council
 - Board Learning, Research and Student Experience Committee

Reviewer's Comment:

SECTION C: ACCESS

- a. Identify student access considerations and risks for the Alberta Adult Learning System (include information about related programs or other avenues available to students to prepare for careers/employment and/or further educational opportunities).
- Courses in Latin American Studies continue to be offered at the University of Alberta.
- b. If this program or specialization is unique in the province, describe the consultation(s) undertaken within the Alberta Adult Learning System to investigate the feasibility of program/specialization transfer.
- Courses in Latin American Studies are also offered elsewhere in Alberta; for example, at the University of Calgary.
- c. Briefly describe the consultation process that occurred with students at your institution regarding this programming change.
- At the time of the suspension, student feedback was solicited through class visits and at a special town hall meeting, in addition to an online questionnaire regarding program changes.
 - The notice of suspension of admission and the timeline for completion of program requirements has been published in the Calendar since the time of suspension. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled have graduated and no students remain in this program.

Reviewer's Comment:

SECTION D: IMPACT

- a. Briefly describe the consultation process that occurred with other stakeholders (e.g., advisory committees, regulatory bodies, employers, etc.) affected by this programming change.
- Consultation with students, faculty, and other Alberta post-secondary institutions took place prior to the suspension of the major in 2018.
- b. Briefly describe plans for communicating the termination decision to stakeholders, particularly regulatory bodies (if applicable) and other institutions within the Alberta Adult Learning System.
- The termination of the major will be communicated to stakeholders via e-mail once the process is complete. The related Calendar listing will be removed.

- c. Briefly describe plans for reallocation of resources previously used for this program/specialization and identify budget and staffing impacts.
- No reallocation of resources was required. Courses in Latin American Studies continue to be taught.

Reviewer's Comment:

SECTION E: OTHER CONSIDERATIONS

Other considerations

- a. Please indicate if there are additional factors you would like the ministry to consider when reviewing this proposal.
- The major in Modern Languages and Cultural Studies has been successful, and as was originally planned students have been able to continue to pursue a focus in Latin American Studies within it.

Reviewer's Comment:

RECOMMENDATION (FOR DEPARTMENT USE)

Recommendation(s):

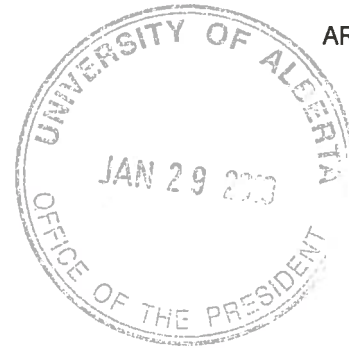
Rationale for Recommendation:

Reviewer(s):

Date Completed:

January 22, 2019

Dr. David Turpin
President and Vice-Chancellor
University of Alberta
2-24 South Academic Building
Edmonton AB T6G 2G7



AR 55809

Dear Dr. Turpin:

Advanced Education has completed its review of the University of Alberta's proposals to suspend ten majors in the Bachelor of Arts program. The department approves periods of suspensions for the following majors effective July 1, 2019 to June 30, 2024:

- Comparative Literature,
- Combined French/Spanish,
- French Language and Literature,
- German Language and Literature,
- German Linguistics,
- German Studies,
- Latin American Studies,
- Scandinavian Language and Literature,
- Spanish Language and Literature, and
- Romance Languages.

The department approves these program suspensions with the understanding that appropriate provisions are in place for active program students to complete their programs of study. The department is aware that the University of Alberta is suspending these Bachelor of Arts majors due to the introduction of a new major in Modern Languages.

Dr. David Turpin
Page 2

The department acknowledges that opportunities for students to study languages remain available at the University of Alberta through other Bachelor of Arts majors, minors, and individual courses.

I appreciate the University of Alberta's commitment to high-quality programming and your ongoing processes of program review and renewal.

Sincerely,



Rod Skura
Deputy Minister

cc: Honourable Marlin Schmidt
Minister of Advanced Education

Michael Phair, Chair
Board of Governors, University of Alberta

Proposal Template: Program Termination

Use this template for proposals to terminate ministry-approved programs or specializations. Institutions should:

- ensure that submission content is concise. Any additional information may be appended;
- indicate “not applicable” when questions are not relevant to a particular proposal; and
- ensure that applicable supporting documents are attached to the proposal.

SECTION A: PROPOSAL INFORMATION

Fill in the table below:

Institution	University of Alberta
Program Name	Bachelor of Design
Specialization Name	Printmaking Route
Credential Awarded	Bachelor of Design
Proposed effective date of termination	July 1, 2024

a. Confirm whether (check applicable box(es)):	<input checked="" type="checkbox"/> This termination proposal was preceded by a ministry-approved suspension period. <input type="checkbox"/> This termination proposal was not preceded by a ministry-approved suspension period. <input checked="" type="checkbox"/> No active students remain in the program. <input type="checkbox"/> Active program students remain in the program
b. If this proposal was preceded by a suspension, attach approval letter.	<ul style="list-style-type: none">• Letter attached
c. If this proposal was not preceded by a suspension, explain why ministry approval for a suspension was not sought prior to requesting a termination.	<ul style="list-style-type: none">•
d. If not preceded by suspension, indicate when students were last admitted into the program/specialization.	<ul style="list-style-type: none">•
Reviewer’s Comment:	

SECTION B: RATIONALE

a. Identify reason(s) for termination with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, provincial priorities, etc.).

<ul style="list-style-type: none"> ● Low student demand
<p>b. Provide specific information about which internal governance body approved the termination, and provide date of approval.</p> <ul style="list-style-type: none"> ● Art & Design Department Council – April 14, 2023 ● Academic Affairs – October 17, 2023 ● Arts Faculty Council – November 30, 2023 ● GFC Programs Committee ● GFC Academic Planning Committee ● General Faculties Council ● Board Learning, Research and Student Experience Committee
<p>Reviewer’s Comment:</p>

SECTION C: ACCESS

<p>a. Identify student access considerations and risks for the Alberta Adult Learning System (include information about related programs or other avenues available to students to prepare for careers/employment and/or further educational opportunities).</p> <ul style="list-style-type: none"> ● There are no student access considerations, as other BDes Routes exist and students are still able to access printmaking courses.
<p>b. If this program or specialization is unique in the province, describe the consultation(s) undertaken within the Alberta Adult Learning System to investigate the feasibility of program/specialization transfer.</p> <ul style="list-style-type: none"> ● The program is not unique in Alberta.
<p>c. Briefly describe the consultation process that occurred with students at your institution regarding this programming change.</p> <p>There was extensive consultation with students in the governance process leading to the original suspension, including the Arts Students’ Association (OASIS), University of Alberta Students’ Union, and various committees that include student representation:</p> <ul style="list-style-type: none"> ● Academic Affairs Committee – Five Undergraduate Students, Three Graduate Students (March 29, 2017) ● Arts Executive Committee – Four Undergraduate Students (September 14, 2017) ● Arts Faculty Council – Up to 35 Undergraduate Students, Five Graduate Students (October 04, 2017) ● The Associate Dean (Student Programs and Teaching & Learning) consulted with the Arts Students’ Association (OASIS) ● The Associate Dean (Student Programs) consulted with Students’ Union Vice-Presidents Academic
<p>Reviewer’s Comment:</p>

SECTION D: IMPACT

<p>a. Briefly describe the consultation process that occurred with other stakeholders (e.g., advisory committees, regulatory bodies, employers, etc.) affected by this programming change.</p> <ul style="list-style-type: none"> • Discussions with faculty took place through Academic Affairs Committee, Arts Executive and Arts Faculty Council meetings. All faculty are voting members of Arts Faculty Council.
<p>b. Briefly describe plans for communicating the termination decision to stakeholders, particularly regulatory bodies (if applicable) and other institutions within the Alberta Adult Learning System.</p> <ul style="list-style-type: none"> • The notice of suspension of admission and the timeline for completion of program requirements has been published in the Calendar since the time of suspension. • The program information will be removed from the University Calendar and Faculty of Arts webpages.
<p>c. Briefly describe plans for reallocation of resources previously used for this program/specialization and identify budget and staffing impacts.</p> <ul style="list-style-type: none"> • Financial impacts are minimal, as courses continue to run and students continue to be able to take the Bachelor of Design degree, including printmaking courses. • Administrative costs include advising affected students and preparing required documents. Faculty staff and the Registrar's Office staff will update administrative systems to reflect the change.
<p>Reviewer's Comment:</p>

SECTION E: OTHER CONSIDERATIONS

<p>Other considerations</p>
<p>a. Please indicate if there are additional factors you would like the ministry to consider when reviewing this proposal.</p> <ul style="list-style-type: none"> •
<p>Reviewer's Comment:</p>

RECOMMENDATION (FOR DEPARTMENT USE)

<p>Recommendation(s):</p>
<p>Rationale for Recommendation:</p>

Reviewer(s):

Date Completed:

September 6, 2018

AR 55173

Dr. David Turpin
President and Vice-Chancellor
University of Alberta
2-24 South Academic Building
Edmonton AB T6G 2G7

Dear Dr. Turpin:

Advanced Education has completed its review of the University of Alberta's proposal to suspend the Computing Science Route and the Printmaking Route specializations in the Bachelor of Design program. The department approves these suspensions for the term September 1, 2019 to June 30, 2024.

The department approves the suspension of these specializations within the Bachelor of Design degree program on the understanding that the Board of Governors or delegated institutional authority proposed suspension due to low enrolment. The department acknowledges the institution's commitment to support any active students that wish to complete their programs of study.

I request that the institution advises the department, through the Provider and Program Registry System, of its plan to reactivate, terminate, or extend the suspension of the specializations within appropriate timeframes as outlined in the ministry's suspension guideline. Copies of the operational guidelines regarding suspension, termination, and reactivation are available through the Post-Secondary Programs branch.

Dr. David Turpin
Page 2

I appreciate the University of Alberta's commitment to high-quality programming and your ongoing processes of program review and renewal.

Sincerely,



Rod Skura
Deputy Minister

cc: Honourable Marlin Schmidt
Minister of Advanced Education

Michael Phair
Chair, Board of Governors, University of Alberta

Faculty of Arts	Art & Design
Level of change	<input checked="" type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate
Type of Change	<input checked="" type="checkbox"/> Program <input type="checkbox"/> Regulation
Are there corresponding course changes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Additional Documentation Attached	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Contact Person:	Jesse Thomas
Department/Unit Approval Date:	April 14, 2023

Rationale for change (Indicate other consultation groups, departments, units or faculties)

Admission to the Computing Science and the Printmaking routes in the Bachelor of Design was suspended effective September 2019 because of low student demand. All students who were in those routes have graduated. Current students are still able to take courses in these areas. Please see the attached termination template for more information.

https://calendar.ualberta.ca/preview_program.php?catoid=39&poid=47339&returnto=12335

Calendar Copy

Current: Removed language (Include name of program)	Proposed: New language
<p>Bachelor of Design</p> <p>...</p> <p>Program Requirements</p> <p>Computing Science Route (120 units)</p> <p>Effective September 2019, there will be no further admissions to this route. Students who entered the program prior to September 2019 must complete studio courses by April 30, 2024 and must complete all program requirements by April 30, 2024. The last BDes degree with a Computing Science route will be granted at Spring Convocation 2024.</p> <p>Continuing students must refer to the Calendar under which they were admitted for program, promotion and graduation requirements.</p>	

Printmaking Route (120 units)

Effective September 2019, there will be no further admissions to this route. Students who entered the program prior to September 2019 must complete studio courses by April 30, 2024 and must complete all program requirements by April 30, 2024. The last BDes degree with a Printmaking route will be granted at Spring Convocation 2024.

Continuing students must refer to the Calendar under which they were admitted for program, promotion and graduation requirements.

Proposal Template: Program Termination

Use this template for proposals to terminate ministry-approved programs or specializations. Institutions should:

- ensure that submission content is concise. Any additional information may be appended;
- indicate “not applicable” when questions are not relevant to a particular proposal; and
- ensure that applicable supporting documents are attached to the proposal.

SECTION A: PROPOSAL INFORMATION

Fill in the table below:

Institution	University of Alberta
Program Name	Bachelor of Arts
Specialization Name	Romance Languages
Credential Awarded	Bachelor of Arts
Proposed effective date of termination	July 1, 2024

<p>a. Confirm whether (check applicable box(es)):</p>	<p><input checked="" type="checkbox"/> This termination proposal was preceded by a ministry- approved suspension period.</p> <p><input type="checkbox"/> This termination proposal was not preceded by a ministry-approved suspension period.</p> <p><input checked="" type="checkbox"/> No active students remain in the program.</p> <p><input type="checkbox"/> Active program students remain in the program</p>
<p>b. If this proposal was preceded by a suspension, attach approval letter.</p> <ul style="list-style-type: none"> • Approval letter is attached. 	
<p>c. If this proposal was not preceded by a suspension, explain why ministry approval for a suspension was not sought prior to requesting a termination.</p> <ul style="list-style-type: none"> • N/A 	
<p>d. If not preceded by suspension, indicate when students were last admitted into the program/specialization.</p> <ul style="list-style-type: none"> • N/A 	
<p>Reviewer’s Comment:</p>	

SECTION B: RATIONALE

<p>a. Identify reason(s) for termination with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, provincial priorities, etc.).</p> <ul style="list-style-type: none"> • At the time of the suspension of this major, the Department of Modern Languages and Cultural Studies consolidated all existing majors into a single Major in Modern Languages and Cultural Studies. This change provided a more interdisciplinary approach, less compartmentalization, and made it easier for students to study multiple languages. Termination is being sought as the five-year period of suspension is coming to an end.

- b. Provide specific information about which internal governance body approved the termination, and provide date of approval.
- Department Council, Modern Languages and Cultural Studies – September 11, 2023
 - Academic Affairs – October 17, 2023
 - Arts Faculty Council – November 30, 2023
 - GFC Programs Committee
 - GFC Academic Planning Committee
 - General Faculties Council
 - Board Learning, Research and Student Experience Committee

Reviewer's Comment:

SECTION C: ACCESS

- a. Identify student access considerations and risks for the Alberta Adult Learning System (include information about related programs or other avenues available to students to prepare for careers/employment and/or further educational opportunities).
- Courses in Romance Languages continue to be offered at the University of Alberta.
- b. If this program or specialization is unique in the province, describe the consultation(s) undertaken within the Alberta Adult Learning System to investigate the feasibility of program/specialization transfer.
- Courses in Romance Languages are also offered elsewhere in Alberta; for example, at the University of Calgary.
- c. Briefly describe the consultation process that occurred with students at your institution regarding this programming change.
- At the time of the suspension, student feedback was solicited through class visits and at a special town hall meeting, in addition to an online questionnaire regarding program changes.
 - The notice of suspension of admission and the timeline for completion of program requirements has been published in the Calendar since the time of suspension. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled have graduated and no students remain in this program.

Reviewer's Comment:

SECTION D: IMPACT

- a. Briefly describe the consultation process that occurred with other stakeholders (e.g., advisory committees, regulatory bodies, employers, etc.) affected by this programming change.
- Consultation with students, faculty, and other Alberta post-secondary institutions took place prior to the suspension of the major in 2018.
- b. Briefly describe plans for communicating the termination decision to stakeholders, particularly regulatory bodies (if applicable) and other institutions within the Alberta Adult Learning System.
- The termination of the major will be communicated to stakeholders via e-mail once the process is complete. The related Calendar listing will be removed.

- c. Briefly describe plans for reallocation of resources previously used for this program/specialization and identify budget and staffing impacts.
- No reallocation of resources was required. Courses in Romance Languages continue to be taught.

Reviewer's Comment:

SECTION E: OTHER CONSIDERATIONS

Other considerations

- a. Please indicate if there are additional factors you would like the ministry to consider when reviewing this proposal.
- The major in Modern Languages and Cultural Studies has been successful, and as was originally planned students have been able to continue to pursue a focus in Romance Languages within it.

Reviewer's Comment:

RECOMMENDATION (FOR DEPARTMENT USE)

Recommendation(s):

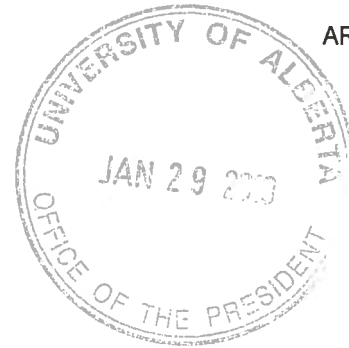
Rationale for Recommendation:

Reviewer(s):

Date Completed:

January 22, 2019

Dr. David Turpin
President and Vice-Chancellor
University of Alberta
2-24 South Academic Building
Edmonton AB T6G 2G7



AR 55809

Dear Dr. Turpin:

Advanced Education has completed its review of the University of Alberta's proposals to suspend ten majors in the Bachelor of Arts program. The department approves periods of suspensions for the following majors effective July 1, 2019 to June 30, 2024:

- Comparative Literature,
- Combined French/Spanish,
- French Language and Literature,
- German Language and Literature,
- German Linguistics,
- German Studies,
- Latin American Studies,
- Scandinavian Language and Literature,
- Spanish Language and Literature, and
- Romance Languages.

The department approves these program suspensions with the understanding that appropriate provisions are in place for active program students to complete their programs of study. The department is aware that the University of Alberta is suspending these Bachelor of Arts majors due to the introduction of a new major in Modern Languages.

Dr. David Turpin
Page 2

The department acknowledges that opportunities for students to study languages remain available at the University of Alberta through other Bachelor of Arts majors, minors, and individual courses.

I appreciate the University of Alberta's commitment to high-quality programming and your ongoing processes of program review and renewal.

Sincerely,



Rod Skura
Deputy Minister

cc: Honourable Marlin Schmidt
Minister of Advanced Education

Michael Phair, Chair
Board of Governors, University of Alberta

Proposal Template: Program Termination

Use this template for proposals to terminate ministry-approved programs or specializations. Institutions should:

- ensure that submission content is concise. Any additional information may be appended;
- indicate “not applicable” when questions are not relevant to a particular proposal; and
- ensure that applicable supporting documents are attached to the proposal.

SECTION A: PROPOSAL INFORMATION

Fill in the table below:

Institution	University of Alberta
Program Name	Modern Languages and Cultural Studies
Specialization Name	Scandinavian Language and Literature
Credential Awarded	Bachelor of Arts
Proposed effective date of termination	July 1, 2024

a. Confirm whether (check applicable box(es)):	<input checked="" type="checkbox"/> This termination proposal was preceded by a ministry- approved suspension period. <input type="checkbox"/> This termination proposal was not preceded by a ministry-approved suspension period. <input checked="" type="checkbox"/> No active students remain in the program. <input type="checkbox"/> Active program students remain in the program
b. If this proposal was preceded by a suspension, attach approval letter.	<ul style="list-style-type: none"> • Approval letter is attached.
c. If this proposal was not preceded by a suspension, explain why ministry approval for a suspension was not sought prior to requesting a termination.	<ul style="list-style-type: none"> • N/A
d. If not preceded by suspension, indicate when students were last admitted into the program/specialization.	<ul style="list-style-type: none"> • N/A
Reviewer’s Comment:	

SECTION B: RATIONALE

a. Identify reason(s) for termination with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, provincial priorities, etc.).	<ul style="list-style-type: none"> • At the time of the suspension of this major, the Department of Modern Languages and Cultural studies consolidated all existing majors into a single Major in Modern Languages and Cultural Studies. This change provided a more interdisciplinary approach, less compartmentalization, and made it easier for students to study multiple languages. Termination is being sought as the five-year period of suspension is coming to an end.
---	--

- b. Provide specific information about which internal governance body approved the termination, and provide date of approval.
- Department Council, Modern Languages and Cultural Studies – September 11, 2023
 - Academic Affairs – October 17, 2023
 - Arts Faculty Council – November 30, 2023
 - GFC Programs Committee
 - GFC Academic Planning Committee
 - General Faculties Council
 - Board Learning, Research and Student Experience Committee

Reviewer's Comment:

SECTION C: ACCESS

- a. Identify student access considerations and risks for the Alberta Adult Learning System (include information about related programs or other avenues available to students to prepare for careers/employment and/or further educational opportunities).
- Courses in Scandinavian Language and Literature continue to be offered at the University of Alberta.
- b. If this program or specialization is unique in the province, describe the consultation(s) undertaken within the Alberta Adult Learning System to investigate the feasibility of program/specialization transfer.
- This specialization is unique in the province; however, students continue to be able to focus on Scandinavian language and literature in the context of the Major in Modern Languages and Cultural Studies.
- c. Briefly describe the consultation process that occurred with students at your institution regarding this programming change.
- At the time of the suspension, student feedback was solicited through class visits and at a special town hall meeting, in addition to an online questionnaire regarding program changes.
 - The notice of suspension of admission and the timeline for completion of program requirements has been published in the Calendar since the time of suspension. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled have graduated and no students remain in this program.

Reviewer's Comment:

SECTION D: IMPACT

- a. Briefly describe the consultation process that occurred with other stakeholders (e.g., advisory committees, regulatory bodies, employers, etc.) affected by this programming change.
- Consultation with students, faculty, and other Alberta post-secondary institutions took place prior to the suspension of the major in 2018.

b. Briefly describe plans for communicating the termination decision to stakeholders, particularly regulatory bodies (if applicable) and other institutions within the Alberta Adult Learning System.

- The termination of the major will be communicated to stakeholders via e-mail once the process is complete. The related Calendar listing will be removed.

c. Briefly describe plans for reallocation of resources previously used for this program/specialization and identify budget and staffing impacts.

- No reallocation of resources was required. Courses in Scandinavian Language and Literature continue to be taught.

Reviewer's Comment:

SECTION E: OTHER CONSIDERATIONS

Other considerations

a. Please indicate if there are additional factors you would like the ministry to consider when reviewing this proposal.

- The major in Modern Languages and Cultural Studies has been successful, and as was originally planned students have been able to continue to pursue a focus in Scandinavian Language and Literature within it.

Reviewer's Comment:

RECOMMENDATION (FOR DEPARTMENT USE)

Recommendation(s):

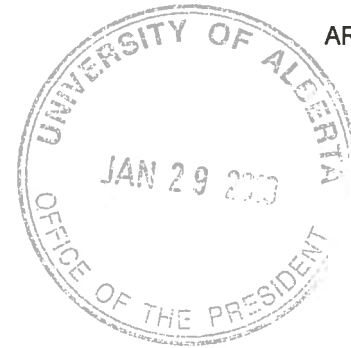
Rationale for Recommendation:

Reviewer(s):

Date Completed:

January 22, 2019

Dr. David Turpin
President and Vice-Chancellor
University of Alberta
2-24 South Academic Building
Edmonton AB T6G 2G7



AR 55809

Dear Dr. Turpin:

Advanced Education has completed its review of the University of Alberta's proposals to suspend ten majors in the Bachelor of Arts program. The department approves periods of suspensions for the following majors effective July 1, 2019 to June 30, 2024:

- Comparative Literature,
- Combined French/Spanish,
- French Language and Literature,
- German Language and Literature,
- German Linguistics,
- German Studies,
- Latin American Studies,
- Scandinavian Language and Literature,
- Spanish Language and Literature, and
- Romance Languages.

The department approves these program suspensions with the understanding that appropriate provisions are in place for active program students to complete their programs of study. The department is aware that the University of Alberta is suspending these Bachelor of Arts majors due to the introduction of a new major in Modern Languages.

Dr. David Turpin
Page 2

The department acknowledges that opportunities for students to study languages remain available at the University of Alberta through other Bachelor of Arts majors, minors, and individual courses.

I appreciate the University of Alberta's commitment to high-quality programming and your ongoing processes of program review and renewal.

Sincerely,



Rod Skura
Deputy Minister

cc: Honourable Marlin Schmidt
Minister of Advanced Education

Michael Phair, Chair
Board of Governors, University of Alberta

Proposal Template: Program Termination

Use this template for proposals to terminate ministry-approved programs or specializations. Institutions should:

- ensure that submission content is concise. Any additional information may be appended;
- indicate “not applicable” when questions are not relevant to a particular proposal; and
- ensure that applicable supporting documents are attached to the proposal.

SECTION A: PROPOSAL INFORMATION

Fill in the table below:

Institution	University of Alberta
Program Name	Bachelor of Arts
Specialization Name	Spanish Language and Literature
Credential Awarded	Bachelor of Arts
Proposed effective date of termination	July 1, 2024

<p>a. Confirm whether (check applicable box(es)):</p>	<p><input checked="" type="checkbox"/> This termination proposal was preceded by a ministry- approved suspension period.</p> <p><input type="checkbox"/> This termination proposal was not preceded by a ministry-approved suspension period.</p> <p><input checked="" type="checkbox"/> No active students remain in the program.</p> <p><input type="checkbox"/> Active program students remain in the program</p>
<p>b. If this proposal was preceded by a suspension, attach approval letter.</p> <ul style="list-style-type: none"> • Approval letter is attached. 	
<p>c. If this proposal was not preceded by a suspension, explain why ministry approval for a suspension was not sought prior to requesting a termination.</p> <ul style="list-style-type: none"> • N/A 	
<p>d. If not preceded by suspension, indicate when students were last admitted into the program/specialization.</p> <ul style="list-style-type: none"> • N/A 	
<p>Reviewer’s Comment:</p>	

SECTION B: RATIONALE

<p>a. Identify reason(s) for termination with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, provincial priorities, etc.).</p> <ul style="list-style-type: none"> • At the time of the suspension of this major, the Department of Modern Languages and Cultural Studies consolidated all existing majors into a single Major in Modern Languages and Cultural Studies. This change provided a more interdisciplinary approach, less compartmentalization, and made it easier for students to study multiple languages. Termination is being sought as the five-year period of suspension is coming to an end.

- b. Provide specific information about which internal governance body approved the termination, and provide date of approval.
- Department Council, Modern Languages and Cultural Studies – September 11, 2023
 - Academic Affairs – October 17, 2023
 - Arts Faculty Council – November 30, 2023
 - GFC Programs Committee
 - GFC Academic Planning Committee
 - General Faculties Council
 - Board Learning, Research and Student Experience Committee

Reviewer's Comment:

SECTION C: ACCESS

- a. Identify student access considerations and risks for the Alberta Adult Learning System (include information about related programs or other avenues available to students to prepare for careers/employment and/or further educational opportunities).
- Courses in Spanish Language and Literature continue to be offered at the University of Alberta.
- b. If this program or specialization is unique in the province, describe the consultation(s) undertaken within the Alberta Adult Learning System to investigate the feasibility of program/specialization transfer.
- Courses in Spanish Language and Literature are also offered elsewhere in Alberta; for example, at the University of Calgary.
- c. Briefly describe the consultation process that occurred with students at your institution regarding this programming change.
- At the time of the suspension, student feedback was solicited through class visits and at a special town hall meeting, in addition to an online questionnaire regarding program changes.
 - The notice of suspension of admission and the timeline for completion of program requirements has been published in the Calendar since the time of suspension. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled have graduated and no students remain in this program.

Reviewer's Comment:

SECTION D: IMPACT

- a. Briefly describe the consultation process that occurred with other stakeholders (e.g., advisory committees, regulatory bodies, employers, etc.) affected by this programming change.
- Consultation with students, faculty, and other Alberta post-secondary institutions took place prior to the suspension of the major in 2018.
- b. Briefly describe plans for communicating the termination decision to stakeholders, particularly regulatory bodies (if applicable) and other institutions within the Alberta Adult Learning System.
- The termination of the major will be communicated to stakeholders via e-mail once the

process is complete. The related Calendar listing will be removed.
c. Briefly describe plans for reallocation of resources previously used for this program/specialization and identify budget and staffing impacts. <ul style="list-style-type: none">• No reallocation of resources was required. Courses in Spanish Language and Literature continue to be taught.
Reviewer's Comment:

SECTION E: OTHER CONSIDERATIONS

Other considerations

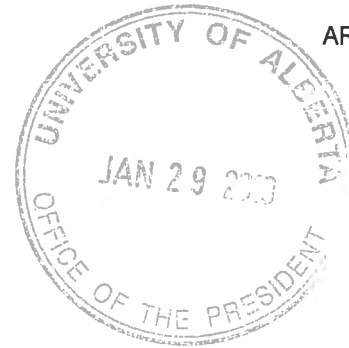
a. Please indicate if there are additional factors you would like the ministry to consider when reviewing this proposal. <ul style="list-style-type: none">• The major in Modern Languages and Cultural Studies has been successful, and as was originally planned students have been able to continue to pursue a focus in Spanish Language and Literature within it.
Reviewer's Comment:

RECOMMENDATION (FOR DEPARTMENT USE)

Recommendation(s):
Rationale for Recommendation:
Reviewer(s):
Date Completed:

January 22, 2019

Dr. David Turpin
President and Vice-Chancellor
University of Alberta
2-24 South Academic Building
Edmonton AB T6G 2G7



AR 55809

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- German Studies,
- Latin American Studies,
- Scandinavian Language and Literature,
- Spanish Language and Literature, and
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The department approves these program suspensions with the understanding that appropriate provisions are in place for active program students to complete their programs of study. The department is aware that the University of Alberta is suspending these Bachelor of Arts majors due to the introduction of a new major in Modern Languages.

Dr. David Turpin
Page 2

The department acknowledges that opportunities for students to study languages remain available at the University of Alberta through other Bachelor of Arts majors, minors, and individual courses.

I appreciate the University of Alberta's commitment to high-quality programming and your ongoing processes of program review and renewal.

Sincerely,



Rod Skura
Deputy Minister

cc: Honourable Marlin Schmidt
Minister of Advanced Education

Michael Phair, Chair
Board of Governors, University of Alberta

Internal Suspension and Termination Template
- for-credit programs not requiring Ministry approval -

This template is to be used for proposals to suspend or terminate the following program types that do not require Ministry approval:

- Second-level specializations (e.g., minors of undergraduate programs, Honors streams of existing undergraduate programs, and second-level specializations of graduate programs)
- Embedded certificates

Faculties and Departments must consult with the Portfolio Initiatives Manager in the Office of the Provost and Vice-President (Academic) (carley.roth@ualberta.ca) on the appropriate template and process. Graduate proposers must also consult with the Faculty of Graduate Studies and Research (fgsrgov@ualberta.ca).

PROPOSAL TYPE

This proposal is for a (select one):	
<input type="checkbox"/>	Suspension - Complete Section A only
<input checked="" type="checkbox"/>	Termination - Complete Section B only

SECTION A: SUSPENSION

Suspension of a program means to suspend admissions, thereby allowing currently enrolled students to complete the requirements while preventing new students from enrolling. Suspensions are typically implemented for a five-year period. A period of suspension must precede the termination of a program.

1: Basics		
Specialization/Embedded Certificate Name		
Faculty/Department		
Contact information	Name and Title	
	Phone	
	Email	
Proposed start date of suspension		
Proposed end date of suspension		



Attachments

- Proposed Calendar changes
- Letter of Support from the Dean of the Faculty

2: Rationale, Implications, and Impacts

Rationale for Suspension of Specialization / Embedded Certificate

Explain the reason for the suspension with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, need for program redevelopment, quality assurance review recommendation, etc.).

Document enrolments by head count for the most recent 5-year period

Enrolment	20XX	20XX	20XX	20XX	20XX
Total Headcount	0	0	0	0	0
• Year 1	0	0	0	0	0
• Year 2	0	0	0	0	0
• Year 3	0	0	0	0	0
• Year 4	0	0	0	0	0

Rationale for End date

Briefly explain the rationale for the proposed end date for the suspension.

Current Students

Describe how active students will be assisted in completing graduation requirements during the suspension period, as well as

information regarding formal communication plans.	
Stop-Out Students Describe how stop-out students will be managed, including information regarding communication plans.	
Consultation Briefly describe the consultation process that occurred with students and other relevant stakeholders, and the feedback received.	
Resource Implications Identify relevant financial impact, including reallocation of internal resources.	
Approval Process Indicate the internal governance path, including meeting dates	

SECTION B: TERMINATION

Termination of a program means that the program has been eliminated and can no longer be offered. Terminations must be preceded by a period of suspension, typically five years.

1: Basics		
Specialization / Embedded Certificate Name	Combined Honors in Comparative Literature	
Faculty/Department	Modern Languages and Cultural Studies	
Contact information	Name and Title	Professor Natalie Van Deusen Director of Undergraduate Programs
	Phone	(780) 660-8926
	Email	vandeuse@ualberta.ca

Proposed effective date of termination	July 1, 2024
Attachments	
<input type="checkbox"/> Proposed Calendar changes <input checked="" type="checkbox"/> Letter of Support from the Dean of the Faculty	

2: Rationale, Implications and Impacts	
Rationale for Termination Identify the reason(s) for the termination with supporting rationale and evidence.	The rationale for terminating the BA Combined Honors in Comparative Literature in the Department of Modern Languages and Cultural Studies is that in 2018 the department consolidated all major programs into one single Major in Modern Languages and Cultural Studies, with two routes: one language studies route and one cross-cultural studies route.
Was the proposal preceded by a suspension? If yes, please indicate the date of the suspension. If not, explain why a period of suspension was not implemented and indicate when students were last admitted to the program. <i>Note: terminations that are not preceded by a period of suspension must first be approved by the Vice-Provost (Programs) prior to entering the approval process.</i>	Yes; September 2018.
Consultation Describe the consultation process that occurred with relevant stakeholders.	Consultation took place prior to the suspension of the major in 2018.
Communications Describe plans for communicating the termination decision to relevant stakeholders.	The notice of suspension of admission and the timeline for completion of program requirements was listed in the Calendar up until the 2022-23 edition. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled in this program have graduated.
Resource Implications Describe plans for reallocation of resources previously used for	N/A

this Specialization/Embedded Certificate.	
Approval Process Indicate the internal governance path, including meeting dates	<ul style="list-style-type: none">• Department Council (September 11, 2023)• Academic Affairs• Program Support Team• Arts Faculty Council• GFC Programs

**Internal Suspension and Termination Template
- for-credit programs not requiring Ministry approval -**

This template is to be used for proposals to suspend or terminate the following program types that do not require Ministry approval:

- Second-level specializations (e.g., minors of undergraduate programs, Honors streams of existing undergraduate programs, and second-level specializations of graduate programs)
- Embedded certificates

Faculties and Departments must consult with the Portfolio Initiatives Manager in the Office of the Provost and Vice-President (Academic) (carley.roth@ualberta.ca) on the appropriate template and process. Graduate proposers must also consult with the Faculty of Graduate Studies and Research (fgsrgov@ualberta.ca).

PROPOSAL TYPE

This proposal is for a (select one):	
<input type="checkbox"/>	Suspension - Complete Section A only
x	Termination - Complete Section B only

SECTION A: SUSPENSION

Suspension of a program means to suspend admissions, thereby allowing currently enrolled students to complete the requirements while preventing new students from enrolling. Suspensions are typically implemented for a five-year period. A period of suspension must precede the termination of a program.

1: Basics		
Specialization/Embedded Certificate Name		
Faculty/Department		
Contact information	Name and Title	
	Phone	
	Email	
Proposed start date of suspension		
Proposed end date of suspension		



Attachme

Proposed Calendar changes
Letter of Support from the Dean of the Faculty

2: Rationale, Implications, and Impacts

Rationale for Suspension of Specialization / Embedded Certificate

Explain the reason for the suspension with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, need for program redevelopment, quality assurance review recommendation, etc.).

Document enrolments by head count for the most recent 5-year period

Enrolment	20	20	20	20	20
	X	X	X	X	X
	X	X	X	X	X
Total Headcount	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0



	0	0	0	0	0	
	0	0	0	0	0	

<p>Rationale for End date Briefly explain the rationale for the proposed end date for the suspension.</p>	
<p>Current Students Describe how active students will be assisted in completing graduation requirements during the suspension period, as well as</p>	



information regarding formal communication plans.	
Stop-Out Students Describe how stop-out students will be managed, including information regarding communication plans.	
Consultation Briefly describe the consultation process that occurred with students and other relevant stakeholders, and the feedback received.	
Resource Implications Identify relevant financial impact, including reallocation of internal resources.	
Approval Process Indicate the internal governance path, including meeting dates	

SECTION B: TERMINATION

Termination of a program means that the program has been eliminated and can no longer be offered. Terminations must be preceded by a period of suspension, typically five years.

1: Basics	
Specialization / Embedded Certificate Name	Combined Honors in Creative Writing
Faculty/Department	English and Film Studies
Contact information	Name and Title Karyn Ball, Director of Undergraduate Programs
	Phone (780)966-4740
	Email Karyn.ball@ualberta.ca
Proposed effective date of termination	July 1, 2024



Attachments
<input type="checkbox"/> Proposed Calendar changes <input type="checkbox"/> Letter of Support from the Dean of the Faculty

2: Rationale, Implications and Impacts	
<p>Rationale for Termination Identify the reason(s) for the termination with supporting rationale and evidence.</p>	<p>New students have not been allowed to enter the Combined Honors in Creative Writing since its formal suspension in 2019. Honors students interested in combining creative writing with another subject can still choose to complete a minor in Creative Writing.</p>
<p>Was the proposal preceded by a suspension? If yes, please indicate the date of the suspension. If not, explain why a period of suspension was not implemented and indicate when students were last admitted to the program. <i>Note: terminations that are not preceded by a period of suspension must first be approved by the Vice-Provost (Programs) prior to entering the approval process.</i></p>	<p>The current impetus to terminate the combined Honors in Creative Writing derives from the approaching conclusion of a five-year suspension of this program as indicated in the 2019-2020 Calendar. During this five-year period, all students who had opted to pursue the Combined Honors with Creative Writing have completed their requirements. Because of the suspension as of fall 2019, no students are pursuing this Honors configuration.</p>
<p>Consultation Describe the consultation process that occurred with relevant stakeholders.</p>	<p>The work of following through on the original decision to suspend the option for students to complete a Combined Honors in Creative Writing was undertaken by Christine Stewart in 2018-2019 (please note that Dr. Stewart has since retired). The current move to terminate Combined Honors in Creative Writing was instigated at the behest of and in consultation with the Associate Dean (Undergraduate), and in consultation with Craig Soars, the Undergraduate Advisor for EFS and East Asian Studies; Garrett Faulkner, the acting director of WRITE; and Julie Rak, the interim Chair of EFS. Further consultation transpired at the English and Film Studies meeting of the Chair's Advisory Council on September 14th, 2023 and at the monthly Council meeting of the Department of English and Film Studies as a whole on September 21st, 2023.</p>
<p>Communications Describe plans for communicating the termination decision to relevant stakeholders.</p>	<p>The decision to terminate will be disseminated by email to all instructors in the Department of English and Film Studies as well as all current majors (including Honors students). Information about the Combined Honors in Creative Writing will be removed from the Calendar.</p>



<p>Resource Implications Describe plans for reallocation of resources previously used for this Specialization/Embedded Certificate.</p>	<p>Not applicable.</p>
<p>Approval Process Indicate the internal governance path, including meeting dates</p>	<ul style="list-style-type: none">● EFS Chair's Advisory Council – September 14, 2023● EFS Department Council – September 21, 2023● Academic Affairs – October 17, 2023● Arts Faculty Council – November 30, 2023● GFC Programs Committee

Faculty of Arts	English and Film Studies
Level of change	<input checked="" type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate
Type of Change	<input checked="" type="checkbox"/> Program <input type="checkbox"/> Regulation
Are there corresponding course changes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Additional Documentation Attached	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Contact Person:	Karyn Ball
Department/Unit Approval Date:	September 21 st , 2023

Rationale for change (Indicate other consultation groups, departments, units or faculties)

<ul style="list-style-type: none"> The original decision to suspend the option for students to complete the Combined Honors in Creative Writing was undertaken by Christine Stewart in 2018-2019 (please note that Dr. Stewart has since retired). The current move to terminate the Combined Honors in Creative Writing was instigated at the behest of and in consultation with the Associate Dean (Undergraduate), and in consultation with Craig Soars, the Undergraduate Advisor for EFS and East Asian Studies; Garrett Faulkner, the acting director of WRITE; and Julie Rak, the interim Chair of EFS. Further consultation transpired at the English and Film Studies meeting of the Chair's Advisory Council on September 14th, 2023 and at the monthly Council meeting of the Department of English and Film Studies as a whole on September 21st, 2023.
https://calendar.ualberta.ca/preview_program.php?catoid=39&pooid=48186

Calendar Copy

Current: Removed language (Include name of program)	Proposed: New language
<p>Combined Honors in Creative Writing</p> <p>Effective September 2019, there will be no further admission to this major. Students who entered the program prior to September 2019 must complete all program requirements by April 30, 2024. The last BA Honors degree in Creative Writing combined with another major will be granted at Spring Convocation 2024.</p>	

Continuing students must refer to the Calendar under which they were admitted for program, promotion and graduation requirements.

Internal Suspension and Termination Template
- for-credit programs not requiring Ministry approval -

This template is to be used for proposals to suspend or terminate the following program types that do not require Ministry approval:

- Second-level specializations (e.g., minors of undergraduate programs, Honors streams of existing undergraduate programs, and second-level specializations of graduate programs)
- Embedded certificates

Faculties and Departments must consult with the Portfolio Initiatives Manager in the Office of the Provost and Vice-President (Academic) (carley.roth@ualberta.ca) on the appropriate template and process. Graduate proposers must also consult with the Faculty of Graduate Studies and Research (fgsrgov@ualberta.ca).

PROPOSAL TYPE

This proposal is for a (select one):	
<input type="checkbox"/>	Suspension - Complete Section A only
<input checked="" type="checkbox"/>	Termination - Complete Section B only

SECTION A: SUSPENSION

Suspension of a program means to suspend admissions, thereby allowing currently enrolled students to complete the requirements while preventing new students from enrolling. Suspensions are typically implemented for a five-year period. A period of suspension must precede the termination of a program.

1: Basics		
Specialization/Embedded Certificate Name		
Faculty/Department		
Contact information	Name and Title	
	Phone	
	Email	
Proposed start date of suspension		
Proposed end date of suspension		



Attachments

- Proposed Calendar changes
- Letter of Support from the Dean of the Faculty

2: Rationale, Implications, and Impacts

Rationale for Suspension of Specialization / Embedded Certificate

Explain the reason for the suspension with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, need for program redevelopment, quality assurance review recommendation, etc.).

Document enrolments by head count for the most recent 5-year period

Enrolment	20XX	20XX	20XX	20XX	20XX
Total Headcount	0	0	0	0	0
• Year 1	0	0	0	0	0
• Year 2	0	0	0	0	0
• Year 3	0	0	0	0	0
• Year 4	0	0	0	0	0

Rationale for End date

Briefly explain the rationale for the proposed end date for the suspension.

Current Students

Describe how active students will be assisted in completing graduation requirements during the suspension period, as well as

information regarding formal communication plans.	
Stop-Out Students Describe how stop-out students will be managed, including information regarding communication plans.	
Consultation Briefly describe the consultation process that occurred with students and other relevant stakeholders, and the feedback received.	
Resource Implications Identify relevant financial impact, including reallocation of internal resources.	
Approval Process Indicate the internal governance path, including meeting dates	

SECTION B: TERMINATION

Termination of a program means that the program has been eliminated and can no longer be offered. Terminations must be preceded by a period of suspension, typically five years.

1: Basics		
Specialization / Embedded Certificate Name	Combined Honors in French and Spanish	
Faculty/Department	Modern Languages and Cultural Studies	
Contact information	Name and Title	Professor Natalie Van Deusen Director of Undergraduate Programs
	Phone	(780) 660-8926
	Email	vandeuse@ualberta.ca



Proposed effective date of termination	July 1, 2024
Attachments	
<input type="checkbox"/> Proposed Calendar changes <input checked="" type="checkbox"/> Letter of Support from the Dean of the Faculty	

2: Rationale, Implications and Impacts	
Rationale for Termination Identify the reason(s) for the termination with supporting rationale and evidence.	The rationale for terminating the BA Combined Honors in French and Spanish in the Department of Modern Languages and Cultural Studies is that in 2018 the department consolidated all major programs into one single Major in Modern Languages and Cultural Studies, with two routes: one language studies route and one cross-cultural studies route.
Was the proposal preceded by a suspension? If yes, please indicate the date of the suspension. If not, explain why a period of suspension was not implemented and indicate when students were last admitted to the program. <i>Note: terminations that are not preceded by a period of suspension must first be approved by the Vice-Provost (Programs) prior to entering the approval process.</i>	Yes; September 2018.
Consultation Describe the consultation process that occurred with relevant stakeholders.	Consultation took place prior to the suspension of the major in 2018.
Communications Describe plans for communicating the termination decision to relevant stakeholders.	The notice of suspension of admission and the timeline for completion of program requirements was listed in the Calendar up until the 2022-23 edition. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled in this program have graduated.
Resource Implications Describe plans for reallocation of resources previously used for	N/A



this Specialization/Embedded Certificate.	
Approval Process Indicate the internal governance path, including meeting dates	<ul style="list-style-type: none">• Department Council (September 11, 2023)• Academic Affairs• Program Support Team• Arts Faculty Council• GFC Programs

Internal Suspension and Termination Template
- for-credit programs not requiring Ministry approval -

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PROPOSAL TYPE

This proposal is for a (select one):	
<input type="checkbox"/>	Suspension - Complete Section A only
<input checked="" type="checkbox"/>	Termination - Complete Section B only

SECTION A: SUSPENSION

Suspension of a program means to suspend admissions, thereby allowing currently enrolled students to complete the requirements while preventing new students from enrolling. Suspensions are typically implemented for a five-year period. A period of suspension must precede the termination of a program.

1: Basics		
Specialization/Embedded Certificate Name		
Faculty/Department		
Contact information	Name and Title	
	Phone	
	Email	
Proposed start date of suspension		
Proposed end date of suspension		



Attachments

- Proposed Calendar changes
- Letter of Support from the Dean of the Faculty

2: Rationale, Implications, and Impacts

Rationale for Suspension of Specialization / Embedded Certificate

Explain the reason for the suspension with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, need for program redevelopment, quality assurance review recommendation, etc.).

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• Year 3	0	0	0	0	0
• Year 4	0	0	0	0	0

Rationale for End date

Briefly explain the rationale for the proposed end date for the suspension.

Current Students

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Resource Implications Identify relevant financial impact, including reallocation of internal resources.	
Approval Process Indicate the internal governance path, including meeting dates	

SECTION B: TERMINATION

Termination of a program means that the program has been eliminated and can no longer be offered. Terminations must be preceded by a period of suspension, typically five years.

1: Basics		
Specialization / Embedded Certificate Name	Combined Honors in French	
Faculty/Department	Modern Languages and Cultural Studies	
Contact information	Name and Title	Professor Natalie Van Deusen Director of Undergraduate Programs
	Phone	(780) 660-8926
	Email	vandeuse@ualberta.ca



Proposed effective date of termination	July 1, 2024
Attachments	
<input type="checkbox"/> Proposed Calendar changes <input checked="" type="checkbox"/> Letter of Support from the Dean of the Faculty	

2: Rationale, Implications and Impacts	
Rationale for Termination Identify the reason(s) for the termination with supporting rationale and evidence.	The rationale for terminating the BA Combined Honors in French in the Department of Modern Languages and Cultural Studies is that in 2018 the department consolidated all major programs into one single Major in Modern Languages and Cultural Studies, with two routes: one language studies route and one cross-cultural studies route.
Was the proposal preceded by a suspension? If yes, please indicate the date of the suspension. If not, explain why a period of suspension was not implemented and indicate when students were last admitted to the program. <i>Note: terminations that are not preceded by a period of suspension must first be approved by the Vice-Provost (Programs) prior to entering the approval process.</i>	Yes; September 2018.
Consultation Describe the consultation process that occurred with relevant stakeholders.	Consultation took place prior to the suspension of the major in 2018.
Communications Describe plans for communicating the termination decision to relevant stakeholders.	The notice of suspension of admission and the timeline for completion of program requirements was listed in the Calendar up until the 2022-23 edition. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled in this program have graduated.
Resource Implications Describe plans for reallocation of resources previously used for	N/A



this Specialization/Embedded Certificate.	
Approval Process Indicate the internal governance path, including meeting dates	<ul style="list-style-type: none">• Department Council (September 11, 2023)• Academic Affairs• Program Support Team• Arts Faculty Council• GFC Programs

Internal Suspension and Termination Template
- for-credit programs not requiring Ministry approval -

This template is to be used for proposals to suspend or terminate the following program types that do not require Ministry approval:

- Second-level specializations (e.g., minors of undergraduate programs, Honors streams of existing undergraduate programs, and second-level specializations of graduate programs)
- Embedded certificates

Faculties and Departments must consult with the Portfolio Initiatives Manager in the Office of the Provost and Vice-President (Academic) (carley.roth@ualberta.ca) on the appropriate template and process. Graduate proposers must also consult with the Faculty of Graduate Studies and Research (fgsrgov@ualberta.ca).

PROPOSAL TYPE

This proposal is for a (select one):	
<input type="checkbox"/>	Suspension - Complete Section A only
<input checked="" type="checkbox"/>	Termination - Complete Section B only

SECTION A: SUSPENSION

Suspension of a program means to suspend admissions, thereby allowing currently enrolled students to complete the requirements while preventing new students from enrolling. Suspensions are typically implemented for a five-year period. A period of suspension must precede the termination of a program.

1: Basics		
Specialization/Embedded Certificate Name		
Faculty/Department		
Contact information	Name and Title	
	Phone	
	Email	
Proposed start date of suspension		
Proposed end date of suspension		



Attachments

- Proposed Calendar changes
- Letter of Support from the Dean of the Faculty

2: Rationale, Implications, and Impacts

Rationale for Suspension of Specialization / Embedded Certificate

Explain the reason for the suspension with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, need for program redevelopment, quality assurance review recommendation, etc.).

Document enrolments by head count for the most recent 5-year period

Enrolment	20XX	20XX	20XX	20XX	20XX
Total Headcount	0	0	0	0	0
• Year 1	0	0	0	0	0
• Year 2	0	0	0	0	0
• Year 3	0	0	0	0	0
• Year 4	0	0	0	0	0

Rationale for End date

Briefly explain the rationale for the proposed end date for the suspension.

Current Students

Describe how active students will be assisted in completing graduation requirements during the suspension period, as well as

information regarding formal communication plans.	
Stop-Out Students Describe how stop-out students will be managed, including information regarding communication plans.	
Consultation Briefly describe the consultation process that occurred with students and other relevant stakeholders, and the feedback received.	
Resource Implications Identify relevant financial impact, including reallocation of internal resources.	
Approval Process Indicate the internal governance path, including meeting dates	

SECTION B: TERMINATION

Termination of a program means that the program has been eliminated and can no longer be offered. Terminations must be preceded by a period of suspension, typically five years.

1: Basics		
Specialization / Embedded Certificate Name	Combined Honors in German	
Faculty/Department	Modern Languages and Cultural Studies	
Contact information	Name and Title	Professor Natalie Van Deusen Director of Undergraduate Programs
	Phone	(780) 660-8926
	Email	vandeuse@ualberta.ca

Proposed effective date of termination	July 1, 2024
Attachments	
<input type="checkbox"/> Proposed Calendar changes <input checked="" type="checkbox"/> Letter of Support from the Dean of the Faculty	

2: Rationale, Implications and Impacts	
Rationale for Termination Identify the reason(s) for the termination with supporting rationale and evidence.	The rationale for terminating the BA Combined Honors in German in the Department of Modern Languages and Cultural Studies is that in 2018 the department consolidated all major programs into one single Major in Modern Languages and Cultural Studies, with two routes: one language studies route and one cross-cultural studies route.
Was the proposal preceded by a suspension? If yes, please indicate the date of the suspension. If not, explain why a period of suspension was not implemented and indicate when students were last admitted to the program. <i>Note: terminations that are not preceded by a period of suspension must first be approved by the Vice-Provost (Programs) prior to entering the approval process.</i>	Yes; September 2018.
Consultation Describe the consultation process that occurred with relevant stakeholders.	Consultation took place prior to the suspension of the major in 2018.
Communications Describe plans for communicating the termination decision to relevant stakeholders.	The notice of suspension of admission and the timeline for completion of program requirements was listed in the Calendar up until the 2022-23 edition. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled in this program have graduated.
Resource Implications Describe plans for reallocation of resources previously used for	N/A



this Specialization/Embedded Certificate.	
Approval Process Indicate the internal governance path, including meeting dates	<ul style="list-style-type: none">• Department Council (September 11, 2023)• Academic Affairs• Program Support Team• Arts Faculty Council• GFC Programs

Internal Suspension and Termination Template
- for-credit programs not requiring Ministry approval -

This template is to be used for proposals to suspend or terminate the following program types that do not require Ministry approval:

- Second-level specializations (e.g., minors of undergraduate programs, Honors streams of existing undergraduate programs, and second-level specializations of graduate programs)
- Embedded certificates

Faculties and Departments must consult with the Portfolio Initiatives Manager in the Office of the Provost and Vice-President (Academic) (carley.roth@ualberta.ca) on the appropriate template and process. Graduate proposers must also consult with the Faculty of Graduate Studies and Research (fgsrgov@ualberta.ca).

PROPOSAL TYPE

This proposal is for a (select one):	
<input type="checkbox"/>	Suspension - Complete Section A only
<input checked="" type="checkbox"/>	Termination - Complete Section B only

SECTION A: SUSPENSION

Suspension of a program means to suspend admissions, thereby allowing currently enrolled students to complete the requirements while preventing new students from enrolling. Suspensions are typically implemented for a five-year period. A period of suspension must precede the termination of a program.

1: Basics		
Specialization/Embedded Certificate Name		
Faculty/Department		
Contact information	Name and Title	
	Phone	
	Email	
Proposed start date of suspension		
Proposed end date of suspension		



Attachments

- Proposed Calendar changes
- Letter of Support from the Dean of the Faculty

2: Rationale, Implications, and Impacts

Rationale for Suspension of Specialization / Embedded Certificate

Explain the reason for the suspension with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, need for program redevelopment, quality assurance review recommendation, etc.).

Document enrolments by head count for the most recent 5-year period

Enrolment	20XX	20XX	20XX	20XX	20XX
Total Headcount	0	0	0	0	0
• Year 1	0	0	0	0	0
• Year 2	0	0	0	0	0
• Year 3	0	0	0	0	0
• Year 4	0	0	0	0	0

Rationale for End date

Briefly explain the rationale for the proposed end date for the suspension.

Current Students

Describe how active students will be assisted in completing graduation requirements during the suspension period, as well as

information regarding formal communication plans.	
Stop-Out Students Describe how stop-out students will be managed, including information regarding communication plans.	
Consultation Briefly describe the consultation process that occurred with students and other relevant stakeholders, and the feedback received.	
Resource Implications Identify relevant financial impact, including reallocation of internal resources.	
Approval Process Indicate the internal governance path, including meeting dates	

SECTION B: TERMINATION

Termination of a program means that the program has been eliminated and can no longer be offered. Terminations must be preceded by a period of suspension, typically five years.

1: Basics		
Specialization / Embedded Certificate Name	Combined Honors in Polish and Russian	
Faculty/Department	Modern Languages and Cultural Studies	
Contact information	Name and Title	Professor Natalie Van Deusen Director of Undergraduate Programs
	Phone	(780) 660-8926
	Email	vandeuse@ualberta.ca



Proposed effective date of termination	July 1, 2024
Attachments	
<input type="checkbox"/> Proposed Calendar changes <input checked="" type="checkbox"/> Letter of Support from the Dean of the Faculty	

2: Rationale, Implications and Impacts	
Rationale for Termination Identify the reason(s) for the termination with supporting rationale and evidence.	The rationale for terminating the BA Combined Honors in Polish and Russian in the Department of Modern Languages and Cultural Studies is that in 2018 the department consolidated all major programs into one single Major in Modern Languages and Cultural Studies, with two routes: one language studies route and one cross-cultural studies route.
Was the proposal preceded by a suspension? If yes, please indicate the date of the suspension. If not, explain why a period of suspension was not implemented and indicate when students were last admitted to the program. <i>Note: terminations that are not preceded by a period of suspension must first be approved by the Vice-Provost (Programs) prior to entering the approval process.</i>	Yes; September 2018.
Consultation Describe the consultation process that occurred with relevant stakeholders.	Consultation took place prior to the suspension of the major in 2018.
Communications Describe plans for communicating the termination decision to relevant stakeholders.	The notice of suspension of admission and the timeline for completion of program requirements was listed in the Calendar up until the 2022-23 edition. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled in this program have graduated.
Resource Implications Describe plans for reallocation of resources previously used for	N/A



this Specialization/Embedded Certificate.	
Approval Process Indicate the internal governance path, including meeting dates	<ul style="list-style-type: none">• Department Council (September 11, 2023)• Academic Affairs• Program Support Team• Arts Faculty Council• GFC Programs

Internal Suspension and Termination Template
- for-credit programs not requiring Ministry approval -

This template is to be used for proposals to suspend or terminate the following program types that do not require Ministry approval:

- Second-level specializations (e.g., minors of undergraduate programs, Honors streams of existing undergraduate programs, and second-level specializations of graduate programs)
- Embedded certificates

Faculties and Departments must consult with the Portfolio Initiatives Manager in the Office of the Provost and Vice-President (Academic) (carley.roth@ualberta.ca) on the appropriate template and process. Graduate proposers must also consult with the Faculty of Graduate Studies and Research (fgsrgov@ualberta.ca).

PROPOSAL TYPE

This proposal is for a (select one):	
<input type="checkbox"/>	Suspension - Complete Section A only
<input checked="" type="checkbox"/>	Termination - Complete Section B only

SECTION A: SUSPENSION

Suspension of a program means to suspend admissions, thereby allowing currently enrolled students to complete the requirements while preventing new students from enrolling. Suspensions are typically implemented for a five-year period. A period of suspension must precede the termination of a program.

1: Basics		
Specialization/Embedded Certificate Name		
Faculty/Department		
Contact information	Name and Title	
	Phone	
	Email	
Proposed start date of suspension		
Proposed end date of suspension		



Attachments

- Proposed Calendar changes
- Letter of Support from the Dean of the Faculty

2: Rationale, Implications, and Impacts

Rationale for Suspension of Specialization / Embedded Certificate

Explain the reason for the suspension with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, need for program redevelopment, quality assurance review recommendation, etc.).

Document enrolments by head count for the most recent 5-year period

Enrolment	20XX	20XX	20XX	20XX	20XX
Total Headcount	0	0	0	0	0
• Year 1	0	0	0	0	0
• Year 2	0	0	0	0	0
• Year 3	0	0	0	0	0
• Year 4	0	0	0	0	0

Rationale for End date

Briefly explain the rationale for the proposed end date for the suspension.

Current Students

Describe how active students will be assisted in completing graduation requirements during the suspension period, as well as

information regarding formal communication plans.	
Stop-Out Students Describe how stop-out students will be managed, including information regarding communication plans.	
Consultation Briefly describe the consultation process that occurred with students and other relevant stakeholders, and the feedback received.	
Resource Implications Identify relevant financial impact, including reallocation of internal resources.	
Approval Process Indicate the internal governance path, including meeting dates	

SECTION B: TERMINATION

Termination of a program means that the program has been eliminated and can no longer be offered. Terminations must be preceded by a period of suspension, typically five years.

1: Basics		
Specialization / Embedded Certificate Name	Combined Honors in Scandinavian Studies	
Faculty/Department	Modern Languages and Cultural Studies	
Contact information	Name and Title	Professor Natalie Van Deusen Director of Undergraduate Programs
	Phone	(780) 660-8926
	Email	vandeuse@ualberta.ca



Proposed effective date of termination	July 1, 2024
Attachments	
<input type="checkbox"/> Proposed Calendar changes <input checked="" type="checkbox"/> Letter of Support from the Dean of the Faculty	

2: Rationale, Implications and Impacts	
Rationale for Termination Identify the reason(s) for the termination with supporting rationale and evidence.	The rationale for terminating the BA Combined Honors in Scandinavian Studies in the Department of Modern Languages and Cultural Studies is that in 2018 the department consolidated all major programs into one single Major in Modern Languages and Cultural Studies, with two routes: one language studies route and one cross-cultural studies route.
Was the proposal preceded by a suspension? If yes, please indicate the date of the suspension. If not, explain why a period of suspension was not implemented and indicate when students were last admitted to the program. <i>Note: terminations that are not preceded by a period of suspension must first be approved by the Vice-Provost (Programs) prior to entering the approval process.</i>	Yes; September 2018.
Consultation Describe the consultation process that occurred with relevant stakeholders.	Consultation took place prior to the suspension of the major in 2018.
Communications Describe plans for communicating the termination decision to relevant stakeholders.	The notice of suspension of admission and the timeline for completion of program requirements was listed in the Calendar up until the 2022-23 edition. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled in this program have graduated.
Resource Implications Describe plans for reallocation of resources previously used for	N/A



this Specialization/Embedded Certificate.	
Approval Process Indicate the internal governance path, including meeting dates	<ul style="list-style-type: none">• Department Council (September 11, 2023)• Academic Affairs• Program Support Team• Arts Faculty Council• GFC Programs

Internal Suspension and Termination Template
- for-credit programs not requiring Ministry approval -

This template is to be used for proposals to suspend or terminate the following program types that do not require Ministry approval:

- Second-level specializations (e.g., minors of undergraduate programs, Honors streams of existing undergraduate programs, and second-level specializations of graduate programs)
- Embedded certificates

Faculties and Departments must consult with the Portfolio Initiatives Manager in the Office of the Provost and Vice-President (Academic) (carley.roth@ualberta.ca) on the appropriate template and process. Graduate proposers must also consult with the Faculty of Graduate Studies and Research (fgsrgov@ualberta.ca).

PROPOSAL TYPE

This proposal is for a (select one):	
<input type="checkbox"/>	Suspension - Complete Section A only
<input checked="" type="checkbox"/>	Termination - Complete Section B only

SECTION A: SUSPENSION

Suspension of a program means to suspend admissions, thereby allowing currently enrolled students to complete the requirements while preventing new students from enrolling. Suspensions are typically implemented for a five-year period. A period of suspension must precede the termination of a program.

1: Basics		
Specialization/Embedded Certificate Name		
Faculty/Department		
Contact information	Name and Title	
	Phone	
	Email	
Proposed start date of suspension		
Proposed end date of suspension		



Attachments

- Proposed Calendar changes
- Letter of Support from the Dean of the Faculty

2: Rationale, Implications, and Impacts

Rationale for Suspension of Specialization / Embedded Certificate

Explain the reason for the suspension with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, need for program redevelopment, quality assurance review recommendation, etc.).

Document enrolments by head count for the most recent 5-year period

Enrolment	20XX	20XX	20XX	20XX	20XX
Total Headcount	0	0	0	0	0
• Year 1	0	0	0	0	0
• Year 2	0	0	0	0	0
• Year 3	0	0	0	0	0
• Year 4	0	0	0	0	0

Rationale for End date

Briefly explain the rationale for the proposed end date for the suspension.

Current Students

Describe how active students will be assisted in completing graduation requirements during the suspension period, as well as

information regarding formal communication plans.	
Stop-Out Students Describe how stop-out students will be managed, including information regarding communication plans.	
Consultation Briefly describe the consultation process that occurred with students and other relevant stakeholders, and the feedback received.	
Resource Implications Identify relevant financial impact, including reallocation of internal resources.	
Approval Process Indicate the internal governance path, including meeting dates	

SECTION B: TERMINATION

Termination of a program means that the program has been eliminated and can no longer be offered. Terminations must be preceded by a period of suspension, typically five years.

1: Basics		
Specialization / Embedded Certificate Name	Combined Honors in Spanish	
Faculty/Department	Modern Languages and Cultural Studies	
Contact information	Name and Title	Professor Natalie Van Deusen Director of Undergraduate Programs
	Phone	(780) 660-8926
	Email	vandeuse@ualberta.ca

Proposed effective date of termination	July 1, 2024
Attachments	
<input type="checkbox"/> Proposed Calendar changes <input checked="" type="checkbox"/> Letter of Support from the Dean of the Faculty	

2: Rationale, Implications and Impacts	
Rationale for Termination Identify the reason(s) for the termination with supporting rationale and evidence.	The rationale for terminating the BA Combined Honors in Spanish in the Department of Modern Languages and Cultural Studies is that in 2018 the department consolidated all major programs into one single Major in Modern Languages and Cultural Studies, with two routes: one language studies route and one cross-cultural studies route.
Was the proposal preceded by a suspension? If yes, please indicate the date of the suspension. If not, explain why a period of suspension was not implemented and indicate when students were last admitted to the program. <i>Note: terminations that are not preceded by a period of suspension must first be approved by the Vice-Provost (Programs) prior to entering the approval process.</i>	Yes; September 2018.
Consultation Describe the consultation process that occurred with relevant stakeholders.	Consultation took place prior to the suspension of the major in 2018.
Communications Describe plans for communicating the termination decision to relevant stakeholders.	The notice of suspension of admission and the timeline for completion of program requirements was listed in the Calendar up until the 2022-23 edition. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled in this program have graduated.
Resource Implications Describe plans for reallocation of resources previously used for	N/A



this Specialization/Embedded Certificate.	
Approval Process Indicate the internal governance path, including meeting dates	<ul style="list-style-type: none">• Department Council (September 11, 2023)• Academic Affairs• Program Support Team• Arts Faculty Council• GFC Programs

**Internal Suspension and Termination Template
- for-credit programs not requiring Ministry approval -**

This template is to be used for proposals to suspend or terminate the following program types that do not require Ministry approval:

- Second-level specializations (e.g., minors of undergraduate programs, Honors streams of existing undergraduate programs, and second-level specializations of graduate programs)
- Embedded certificates

Faculties and Departments must consult with the Portfolio Initiatives Manager in the Office of the Provost and Vice-President (Academic) (carley.roth@ualberta.ca) on the appropriate template and process. Graduate proposers must also consult with the Faculty of Graduate Studies and Research (fgsrgov@ualberta.ca).

PROPOSAL TYPE

This proposal is for a (select one):	
<input type="checkbox"/>	Suspension - Complete Section A only
X <input checked="" type="checkbox"/>	Termination - Complete Section B only

SECTION A: SUSPENSION

Suspension of a program means to suspend admissions, thereby allowing currently enrolled students to complete the requirements while preventing new students from enrolling. Suspensions are typically implemented for a five- year period. A period of suspension must precede the termination of a program.

1: Basics		
Specialization/Embedded Certificate Name		
Faculty/Department		
Contact information	Name and Title	
	Phone	
	Email	
Proposed start date of suspension		
Proposed end date of suspension		



Attachments

- X Proposed Calendar changes
Letter of Support from the Dean of the Faculty

2: Rationale, Implications, and Impacts

Rationale for Suspension of Specialization / Embedded Certificate

Explain the reason for the suspension with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, need for program redevelopment, quality assurance review recommendation, etc.).

Document enrolments by head count for the most recent 5-year period

Rationale for End date

Briefly explain the rationale for the proposed end date for the suspension.

Current Students

Describe how active students will be assisted in completing graduation requirements during the suspension period,

as well as information regarding formal communication plans.	
Stop-Out Students Describe how stop-out students will be managed, including information regarding communication plans.	
Consultation Briefly describe the consultation process that occurred with students and other relevant stakeholders, and the feedback received.	
Resource Implications Identify relevant financial impact, including reallocation of internal resources.	
Approval Process Indicate the internal governance path, including meeting dates	

SECTION B: TERMINATION

Termination of a program means that the program has been eliminated and can no longer be offered. Terminations must be preceded by a period of suspension, typically five years.

1: Basics		
Specialization / Embedded Certificate Name	Combined Honors in History and Classics	
Faculty/Department	Department of History, Classics, and Religion	
Contact information	Name and Title	Prof. Jane Samson, Director, Undergraduate Programs
	Phone	2-2966
	Email	jane.samson@ualberta.ca



Proposed effective date of termination	1 July, 2024
Attachments	
<input checked="" type="checkbox"/> Proposed Calendar changes <input type="checkbox"/> Letter of Support from the Dean of the Faculty	

2: Rationale, Implications and Impacts	
Rationale for Termination Identify the reason(s) for the termination with supporting rationale and evidence.	Termination is being sought as the five-year period of suspension is coming to an end. No students remain in the program.
Was the proposal preceded by a suspension? If yes, please indicate the date of the suspension. If not, explain why a period of suspension was not implemented and indicate when students were last admitted to the program. <i>Note: terminations that are not preceded by a period of suspension must first be approved by the Vice-Provost (Programs) prior to entering the approval process.</i>	Yes: September 2019-30 June, 2024
Consultation Describe the consultation process that occurred with relevant stakeholders.	Department Council discussion and approval on 8 September, 2023. There is undergraduate student representation on Department Council. There was consultation with students at the time of the suspension and student representation on the governance committees which approved the suspension. .
Communications Describe plans for communicating the termination decision to relevant stakeholders.	The suspension has been indicated in the Calendar since its initiation, including timelines for completion. Upon termination the Calendar listing will be removed. There are no current students.




<p>Resource Implications Describe plans for reallocation of resources previously used for this Specialization/Embedded Certificate.</p>	N/A
<p>Approval Process Indicate the internal governance path, including meeting dates</p>	<ul style="list-style-type: none">• Department Council, History, Classics, and Religion – September 8, 2023• Academic Affairs – October 17, 2023• Arts Faculty Council – November 30, 2023• GFC Programs Committee

Faculty of Arts	History, Classics, and Religion
Level of change	<input checked="" type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate
Type of Change	<input checked="" type="checkbox"/> Program <input type="checkbox"/> Regulation
Are there corresponding course changes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Additional Documentation Attached	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Contact Person:	Jane Samson
Department/Unit Approval Date:	8 September, 2023


Rationale for change (Indicate other consultation groups, departments, units or faculties)

Context: This program has been suspended for the required five-year period from 2019 to 2024. It now needs to be deleted from the Calendar for 2024-25.

Consultation and approval trajectory: Suspension was undertaken after extensive consultation. Department council discussed and approved deletion.



https://calendar.ualberta.ca/preview_program.php?catoid=39&poid=47393&returnto=12335



Calendar Copy

Current: Removed language (Include name of program)	Proposed: New language
<p>Combined Honors in History and Classics</p> <hr/> <p>Effective September 2019, there will be no further admission to this specific Combined Honors major. Students may, however, pursue a general Combined</p>	

Honors program where one program is History and the other is Classics. Students who entered the program prior to September 2019 must complete all program requirements by April 30, 2024. The last degree with this specific combined Honors major will be granted at Spring Convocation 2024.

Continuing students must refer to the Calendar under which they were admitted for program, promotion and graduation requirements.

Internal Suspension and Termination Template
- for-credit programs not requiring Ministry approval -

This template is to be used for proposals to suspend or terminate the following program types that do not require Ministry approval:

- Second-level specializations (e.g., minors of undergraduate programs, Honors streams of existing undergraduate programs, and second-level specializations of graduate programs)
- Embedded certificates

Faculties and Departments must consult with the Portfolio Initiatives Manager in the Office of the Provost and Vice-President (Academic) (carley.roth@ualberta.ca) on the appropriate template and process. Graduate proposers must also consult with the Faculty of Graduate Studies and Research (fgsrgov@ualberta.ca).

PROPOSAL TYPE

This proposal is for a (select one):	
<input type="checkbox"/>	Suspension - Complete Section A only
<input checked="" type="checkbox"/>	Termination - Complete Section B only

SECTION A: SUSPENSION

Suspension of a program means to suspend admissions, thereby allowing currently enrolled students to complete the requirements while preventing new students from enrolling. Suspensions are typically implemented for a five-year period. A period of suspension must precede the termination of a program.

1: Basics		
Specialization/Embedded Certificate Name		
Faculty/Department		
Contact information	Name and Title	
	Phone	
	Email	
Proposed start date of suspension		
Proposed end date of suspension		



Attachments

- Proposed Calendar changes
- Letter of Support from the Dean of the Faculty

2: Rationale, Implications, and Impacts

Rationale for Suspension of Specialization / Embedded Certificate

Explain the reason for the suspension with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, need for program redevelopment, quality assurance review recommendation, etc.).

Document enrolments by head count for the most recent 5-year period

Enrolment	20XX	20XX	20XX	20XX	20XX
Total Headcount	0	0	0	0	0
• Year 1	0	0	0	0	0
• Year 2	0	0	0	0	0
• Year 3	0	0	0	0	0
• Year 4	0	0	0	0	0

Rationale for End date

Briefly explain the rationale for the proposed end date for the suspension.

Current Students

Describe how active students will be assisted in completing graduation requirements during the suspension period, as well as

information regarding formal communication plans.	
Stop-Out Students Describe how stop-out students will be managed, including information regarding communication plans.	
Consultation Briefly describe the consultation process that occurred with students and other relevant stakeholders, and the feedback received.	
Resource Implications Identify relevant financial impact, including reallocation of internal resources.	
Approval Process Indicate the internal governance path, including meeting dates	

SECTION B: TERMINATION

Termination of a program means that the program has been eliminated and can no longer be offered. Terminations must be preceded by a period of suspension, typically five years.

1: Basics		
Specialization / Embedded Certificate Name	Honors in Comparative Literature	
Faculty/Department	Modern Languages and Cultural Studies	
Contact information	Name and Title	Professor Natalie Van Deusen Director of Undergraduate Programs
	Phone	(780) 660-8926
	Email	vandeuse@ualberta.ca

Proposed effective date of termination	July 1, 2024
Attachments	
<input type="checkbox"/> Proposed Calendar changes <input checked="" type="checkbox"/> Letter of Support from the Dean of the Faculty	

2: Rationale, Implications and Impacts	
Rationale for Termination Identify the reason(s) for the termination with supporting rationale and evidence.	The rationale for terminating the BA Honors in Comparative Literature in the Department of Modern Languages and Cultural Studies is that in 2018 the department consolidated all major programs into one single Major in Modern Languages and Cultural Studies, with two routes: one language studies route and one cross-cultural studies route.
Was the proposal preceded by a suspension? If yes, please indicate the date of the suspension. If not, explain why a period of suspension was not implemented and indicate when students were last admitted to the program. <i>Note: terminations that are not preceded by a period of suspension must first be approved by the Vice-Provost (Programs) prior to entering the approval process.</i>	Yes; September 2018.
Consultation Describe the consultation process that occurred with relevant stakeholders.	Consultation took place prior to the suspension of the major in 2018.
Communications Describe plans for communicating the termination decision to relevant stakeholders.	The notice of suspension of admission and the timeline for completion of program requirements was listed in the Calendar up until the 2022-23 edition. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled in this program have graduated.
Resource Implications Describe plans for reallocation of resources previously used for	N/A

this Specialization/Embedded Certificate.	
Approval Process Indicate the internal governance path, including meeting dates	<ul style="list-style-type: none">• Department Council (September 11, 2023)• Academic Affairs• Program Support Team• Arts Faculty Council• GFC Programs

Internal Suspension and Termination Template
- for-credit programs not requiring Ministry approval -

This template is to be used for proposals to suspend or terminate the following program types that do not require Ministry approval:

- Second-level specializations (e.g., minors of undergraduate programs, Honors streams of existing undergraduate programs, and second-level specializations of graduate programs)
- Embedded certificates

Faculties and Departments must consult with the Portfolio Initiatives Manager in the Office of the Provost and Vice-President (Academic) (carley.roth@ualberta.ca) on the appropriate template and process. Graduate proposers must also consult with the Faculty of Graduate Studies and Research (fgsrgov@ualberta.ca).

PROPOSAL TYPE

This proposal is for a (select one):	
<input type="checkbox"/>	Suspension - Complete Section A only
<input checked="" type="checkbox"/>	Termination - Complete Section B only

SECTION A: SUSPENSION

Suspension of a program means to suspend admissions, thereby allowing currently enrolled students to complete the requirements while preventing new students from enrolling. Suspensions are typically implemented for a five-year period. A period of suspension must precede the termination of a program.

1: Basics		
Specialization/Embedded Certificate Name		
Faculty/Department		
Contact information	Name and Title	
	Phone	
	Email	
Proposed start date of suspension		
Proposed end date of suspension		



Attachments

- Proposed Calendar changes
- Letter of Support from the Dean of the Faculty

2: Rationale, Implications, and Impacts

Rationale for Suspension of Specialization / Embedded Certificate

Explain the reason for the suspension with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, need for program redevelopment, quality assurance review recommendation, etc.).

Document enrolments by head count for the most recent 5-year period

Enrolment	20XX	20XX	20XX	20XX	20XX
Total Headcount	0	0	0	0	0
• Year 1	0	0	0	0	0
• Year 2	0	0	0	0	0
• Year 3	0	0	0	0	0
• Year 4	0	0	0	0	0

Rationale for End date

Briefly explain the rationale for the proposed end date for the suspension.

Current Students

Describe how active students will be assisted in completing graduation requirements during the suspension period, as well as

information regarding formal communication plans.	
Stop-Out Students Describe how stop-out students will be managed, including information regarding communication plans.	
Consultation Briefly describe the consultation process that occurred with students and other relevant stakeholders, and the feedback received.	
Resource Implications Identify relevant financial impact, including reallocation of internal resources.	
Approval Process Indicate the internal governance path, including meeting dates	

SECTION B: TERMINATION

Termination of a program means that the program has been eliminated and can no longer be offered. Terminations must be preceded by a period of suspension, typically five years.

1: Basics		
Specialization / Embedded Certificate Name	Honors in French	
Faculty/Department	Modern Languages and Cultural Studies	
Contact information	Name and Title	Professor Natalie Van Deusen Director of Undergraduate Programs
	Phone	(780) 660-8926
	Email	vandeuse@ualberta.ca



Proposed effective date of termination	July 1, 2024
Attachments	
<input type="checkbox"/> Proposed Calendar changes <input checked="" type="checkbox"/> Letter of Support from the Dean of the Faculty	

2: Rationale, Implications and Impacts	
Rationale for Termination Identify the reason(s) for the termination with supporting rationale and evidence.	The rationale for terminating the BA Honors in French in the Department of Modern Languages and Cultural Studies is that in 2018 the department consolidated all major programs into one single Major in Modern Languages and Cultural Studies, with two routes: one language studies route and one cross-cultural studies route.
Was the proposal preceded by a suspension? If yes, please indicate the date of the suspension. If not, explain why a period of suspension was not implemented and indicate when students were last admitted to the program. <i>Note: terminations that are not preceded by a period of suspension must first be approved by the Vice-Provost (Programs) prior to entering the approval process.</i>	Yes; September 2018.
Consultation Describe the consultation process that occurred with relevant stakeholders.	Consultation took place prior to the suspension of the major in 2018.
Communications Describe plans for communicating the termination decision to relevant stakeholders.	The notice of suspension of admission and the timeline for completion of program requirements was listed in the Calendar up until the 2022-23 edition. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled in this program have graduated.
Resource Implications Describe plans for reallocation of resources previously used for	N/A



this Specialization/Embedded Certificate.	
Approval Process Indicate the internal governance path, including meeting dates	<ul style="list-style-type: none">• Department Council (September 11, 2023)• Academic Affairs• Program Support Team• Arts Faculty Council• GFC Programs

Internal Suspension and Termination Template
- for-credit programs not requiring Ministry approval -

This template is to be used for proposals to suspend or terminate the following program types that do not require Ministry approval:

- Second-level specializations (e.g., minors of undergraduate programs, Honors streams of existing undergraduate programs, and second-level specializations of graduate programs)
- Embedded certificates

Faculties and Departments must consult with the Portfolio Initiatives Manager in the Office of the Provost and Vice-President (Academic) (carley.roth@ualberta.ca) on the appropriate template and process. Graduate proposers must also consult with the Faculty of Graduate Studies and Research (fgsrgov@ualberta.ca).

PROPOSAL TYPE

This proposal is for a (select one):	
<input type="checkbox"/>	Suspension - Complete Section A only
<input checked="" type="checkbox"/>	Termination - Complete Section B only

SECTION A: SUSPENSION

Suspension of a program means to suspend admissions, thereby allowing currently enrolled students to complete the requirements while preventing new students from enrolling. Suspensions are typically implemented for a five-year period. A period of suspension must precede the termination of a program.

1: Basics		
Specialization/Embedded Certificate Name		
Faculty/Department		
Contact information	Name and Title	
	Phone	
	Email	
Proposed start date of suspension		
Proposed end date of suspension		



Attachments
<input type="checkbox"/> Proposed Calendar changes <input type="checkbox"/> Letter of Support from the Dean of the Faculty

2: Rationale, Implications, and Impacts

<p>Rationale for Suspension of Specialization / Embedded Certificate</p> <p>Explain the reason for the suspension with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, need for program redevelopment, quality assurance review recommendation, etc.).</p>	
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Document enrolments by head count for the most recent 5-year period

Enrolment	20XX	20XX	20XX	20XX	20XX
Total Headcount	0	0	0	0	0
• Year 1	0	0	0	0	0
• Year 2	0	0	0	0	0
• Year 3	0	0	0	0	0
• Year 4	0	0	0	0	0

<p>Rationale for End date</p> <p>Briefly explain the rationale for the proposed end date for the suspension.</p>	
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<p>Current Students</p> <p>Describe how active students will be assisted in completing graduation requirements during the suspension period, as well as</p>	
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information regarding formal communication plans.	
Stop-Out Students Describe how stop-out students will be managed, including information regarding communication plans.	
Consultation Briefly describe the consultation process that occurred with students and other relevant stakeholders, and the feedback received.	
Resource Implications Identify relevant financial impact, including reallocation of internal resources.	
Approval Process Indicate the internal governance path, including meeting dates	

SECTION B: TERMINATION

Termination of a program means that the program has been eliminated and can no longer be offered. Terminations must be preceded by a period of suspension, typically five years.

1: Basics		
Specialization / Embedded Certificate Name	Honors in German	
Faculty/Department	Modern Languages and Cultural Studies	
Contact information	Name and Title	Professor Natalie Van Deusen Director of Undergraduate Programs
	Phone	(780) 660-8926
	Email	vandeuse@ualberta.ca

Proposed effective date of termination	July 1, 2024
Attachments	
<input type="checkbox"/> Proposed Calendar changes <input checked="" type="checkbox"/> Letter of Support from the Dean of the Faculty	

2: Rationale, Implications and Impacts	
Rationale for Termination Identify the reason(s) for the termination with supporting rationale and evidence.	The rationale for terminating the BA Honors in German in the Department of Modern Languages and Cultural Studies is that in 2018 the department consolidated all major programs into one single Major in Modern Languages and Cultural Studies, with two routes: one language studies route and one cross-cultural studies route.
Was the proposal preceded by a suspension? If yes, please indicate the date of the suspension. If not, explain why a period of suspension was not implemented and indicate when students were last admitted to the program. <i>Note: terminations that are not preceded by a period of suspension must first be approved by the Vice-Provost (Programs) prior to entering the approval process.</i>	Yes; September 2018.
Consultation Describe the consultation process that occurred with relevant stakeholders.	Consultation took place prior to the suspension of the major in 2018.
Communications Describe plans for communicating the termination decision to relevant stakeholders.	The notice of suspension of admission and the timeline for completion of program requirements was listed in the Calendar up until the 2022-23 edition. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled in this program have graduated.
Resource Implications Describe plans for reallocation of resources previously used for	N/A



this Specialization/Embedded Certificate.	
Approval Process Indicate the internal governance path, including meeting dates	<ul style="list-style-type: none">• Department Council (September 11, 2023)• Academic Affairs• Program Support Team• Arts Faculty Council• GFC Programs

Internal Suspension and Termination Template
- for-credit programs not requiring Ministry approval -

This template is to be used for proposals to suspend or terminate the following program types that do not require Ministry approval:

- Second-level specializations (e.g., minors of undergraduate programs, Honors streams of existing undergraduate programs, and second-level specializations of graduate programs)
- Embedded certificates

Faculties and Departments must consult with the Portfolio Initiatives Manager in the Office of the Provost and Vice-President (Academic) (carley.roth@ualberta.ca) on the appropriate template and process. Graduate proposers must also consult with the Faculty of Graduate Studies and Research (fgsrgov@ualberta.ca).

PROPOSAL TYPE

This proposal is for a (select one):	
<input type="checkbox"/>	Suspension - Complete Section A only
<input checked="" type="checkbox"/>	Termination - Complete Section B only

SECTION A: SUSPENSION

Suspension of a program means to suspend admissions, thereby allowing currently enrolled students to complete the requirements while preventing new students from enrolling. Suspensions are typically implemented for a five-year period. A period of suspension must precede the termination of a program.

1: Basics		
Specialization/Embedded Certificate Name		
Faculty/Department		
Contact information	Name and Title	
	Phone	
	Email	
Proposed start date of suspension		
Proposed end date of suspension		



Attachments
<input type="checkbox"/> Proposed Calendar changes <input type="checkbox"/> Letter of Support from the Dean of the Faculty

2: Rationale, Implications, and Impacts

<p>Rationale for Suspension of Specialization / Embedded Certificate</p> <p>Explain the reason for the suspension with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, need for program redevelopment, quality assurance review recommendation, etc.).</p>	
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Document enrolments by head count for the most recent 5-year period

Enrolment	20XX	20XX	20XX	20XX	20XX
Total Headcount	0	0	0	0	0
• Year 1	0	0	0	0	0
• Year 2	0	0	0	0	0
• Year 3	0	0	0	0	0
• Year 4	0	0	0	0	0

<p>Rationale for End date</p> <p>Briefly explain the rationale for the proposed end date for the suspension.</p>	
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<p>Current Students</p> <p>Describe how active students will be assisted in completing graduation requirements during the suspension period, as well as</p>	
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information regarding formal communication plans.	
Stop-Out Students Describe how stop-out students will be managed, including information regarding communication plans.	
Consultation Briefly describe the consultation process that occurred with students and other relevant stakeholders, and the feedback received.	
Resource Implications Identify relevant financial impact, including reallocation of internal resources.	
Approval Process Indicate the internal governance path, including meeting dates	

SECTION B: TERMINATION

Termination of a program means that the program has been eliminated and can no longer be offered. Terminations must be preceded by a period of suspension, typically five years.

1: Basics		
Specialization / Embedded Certificate Name	Honors in Romance Languages	
Faculty/Department	Modern Languages and Cultural Studies	
Contact information	Name and Title	Professor Natalie Van Deusen Director of Undergraduate Programs
	Phone	(780) 660-8926
	Email	vandeuse@ualberta.ca



Proposed effective date of termination	July 1, 2024
Attachments	
<input type="checkbox"/> Proposed Calendar changes <input checked="" type="checkbox"/> Letter of Support from the Dean of the Faculty	

2: Rationale, Implications and Impacts	
Rationale for Termination Identify the reason(s) for the termination with supporting rationale and evidence.	The rationale for terminating the BA Honors in Romance Languages in the Department of Modern Languages and Cultural Studies is that in 2018 the department consolidated all major programs into one single Major in Modern Languages and Cultural Studies, with two routes: one language studies route and one cross-cultural studies route.
Was the proposal preceded by a suspension? If yes, please indicate the date of the suspension. If not, explain why a period of suspension was not implemented and indicate when students were last admitted to the program. <i>Note: terminations that are not preceded by a period of suspension must first be approved by the Vice-Provost (Programs) prior to entering the approval process.</i>	Yes; September 2018.
Consultation Describe the consultation process that occurred with relevant stakeholders.	Consultation took place prior to the suspension of the major in 2018.
Communications Describe plans for communicating the termination decision to relevant stakeholders.	The notice of suspension of admission and the timeline for completion of program requirements was listed in the Calendar up until the 2022-23 edition. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled in this program have graduated.
Resource Implications Describe plans for reallocation of resources previously used for	N/A



this Specialization/Embedded Certificate.	
Approval Process Indicate the internal governance path, including meeting dates	<ul style="list-style-type: none">• Department Council (September 11, 2023)• Academic Affairs• Program Support Team• Arts Faculty Council• GFC Programs

Internal Suspension and Termination Template
- for-credit programs not requiring Ministry approval -

This template is to be used for proposals to suspend or terminate the following program types that do not require Ministry approval:

- Second-level specializations (e.g., minors of undergraduate programs, Honors streams of existing undergraduate programs, and second-level specializations of graduate programs)
- Embedded certificates

Faculties and Departments must consult with the Portfolio Initiatives Manager in the Office of the Provost and Vice-President (Academic) (carley.roth@ualberta.ca) on the appropriate template and process. Graduate proposers must also consult with the Faculty of Graduate Studies and Research (fgsrgov@ualberta.ca).

PROPOSAL TYPE

This proposal is for a (select one):	
<input type="checkbox"/>	Suspension - Complete Section A only
<input checked="" type="checkbox"/>	Termination - Complete Section B only

SECTION A: SUSPENSION

Suspension of a program means to suspend admissions, thereby allowing currently enrolled students to complete the requirements while preventing new students from enrolling. Suspensions are typically implemented for a five-year period. A period of suspension must precede the termination of a program.

1: Basics		
Specialization/Embedded Certificate Name		
Faculty/Department		
Contact information	Name and Title	
	Phone	
	Email	
Proposed start date of suspension		
Proposed end date of suspension		



Attachments

- Proposed Calendar changes
- Letter of Support from the Dean of the Faculty

2: Rationale, Implications, and Impacts

Rationale for Suspension of Specialization / Embedded Certificate

Explain the reason for the suspension with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, need for program redevelopment, quality assurance review recommendation, etc.).

Document enrolments by head count for the most recent 5-year period

Enrolment	20XX	20XX	20XX	20XX	20XX
Total Headcount	0	0	0	0	0
• Year 1	0	0	0	0	0
• Year 2	0	0	0	0	0
• Year 3	0	0	0	0	0
• Year 4	0	0	0	0	0

Rationale for End date

Briefly explain the rationale for the proposed end date for the suspension.

Current Students

Describe how active students will be assisted in completing graduation requirements during the suspension period, as well as

information regarding formal communication plans.	
Stop-Out Students Describe how stop-out students will be managed, including information regarding communication plans.	
Consultation Briefly describe the consultation process that occurred with students and other relevant stakeholders, and the feedback received.	
Resource Implications Identify relevant financial impact, including reallocation of internal resources.	
Approval Process Indicate the internal governance path, including meeting dates	

SECTION B: TERMINATION

Termination of a program means that the program has been eliminated and can no longer be offered. Terminations must be preceded by a period of suspension, typically five years.

1: Basics		
Specialization / Embedded Certificate Name	Honors in Spanish and Latin American Studies	
Faculty/Department	Modern Languages and Cultural Studies	
Contact information	Name and Title	Professor Natalie Van Deusen Director of Undergraduate Programs
	Phone	(780) 660-8926
	Email	vandeuse@ualberta.ca

Proposed effective date of termination	July 1, 2024
Attachments	
<input type="checkbox"/> Proposed Calendar changes <input checked="" type="checkbox"/> Letter of Support from the Dean of the Faculty	

2: Rationale, Implications and Impacts	
Rationale for Termination Identify the reason(s) for the termination with supporting rationale and evidence.	The rationale for terminating the BA Honors in Spanish and Latin American Studies in the Department of Modern Languages and Cultural Studies is that in 2018 the department consolidated all major programs into one single Major in Modern Languages and Cultural Studies, with two routes: one language studies route and one cross-cultural studies route.
Was the proposal preceded by a suspension? If yes, please indicate the date of the suspension. If not, explain why a period of suspension was not implemented and indicate when students were last admitted to the program. <i>Note: terminations that are not preceded by a period of suspension must first be approved by the Vice-Provost (Programs) prior to entering the approval process.</i>	Yes; September 2018.
Consultation Describe the consultation process that occurred with relevant stakeholders.	Consultation took place prior to the suspension of the major in 2018.
Communications Describe plans for communicating the termination decision to relevant stakeholders.	The notice of suspension of admission and the timeline for completion of program requirements was listed in the Calendar up until the 2022-23 edition. Students were advised of their option to complete their current program or to transfer to the new major in Modern Languages and Cultural Studies. All students who were enrolled in this program have graduated.
Resource Implications Describe plans for reallocation of resources previously used for	N/A



this Specialization/Embedded Certificate.	
Approval Process Indicate the internal governance path, including meeting dates	<ul style="list-style-type: none">• Department Council (September 11, 2023)• Academic Affairs• Program Support Team• Arts Faculty Council• GFC Programs

**Internal Suspension and Termination Template
- for-credit programs not requiring Ministry approval -**

This template is to be used for proposals to suspend or terminate the following program types that do not require Ministry approval:

- Second-level specializations (e.g., minors of undergraduate programs, Honors streams of existing undergraduate programs, and second-level specializations of graduate programs)
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Faculties and Departments must consult with the Portfolio Initiatives Manager in the Office of the Provost and Vice-President (Academic) (carley.roth@ualberta.ca) on the appropriate template and process. Graduate proposers must also consult with the Faculty of Graduate Studies and Research (fgsrgov@ualberta.ca).

PROPOSAL TYPE

This proposal is for a (select one):	
<input type="checkbox"/>	Suspension - Complete Section A only
X <input checked="" type="checkbox"/>	Termination - Complete Section B only

SECTION A: SUSPENSION

Suspension of a program means to suspend admissions, thereby allowing currently enrolled students to complete the requirements while preventing new students from enrolling. Suspensions are typically implemented for a five- year period. A period of suspension must precede the termination of a program.

1: Basics		
Specialization/Embedded Certificate Name		
Faculty/Department		
Contact information	Name and Title	
	Phone	
	Email	
Proposed start date of suspension		
Proposed end date of suspension		



Attachments

Proposed Calendar changes
Letter of Support from the Dean of the Faculty

2: Rationale, Implications, and Impacts

Rationale for Suspension of Specialization / Embedded Certificate

Explain the reason for the suspension with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, need for program redevelopment, quality assurance review recommendation, etc.).

Document enrolments by head count for the most recent 5-year period

Enrolment	20	20	20	20	20
	X	X	X	X	X
Total Headcount	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0



	0	0	0	0	0	
	0	0	0	0	0	

<p>Rationale for End date Briefly explain the rationale for the proposed end date for the suspension.</p>	
<p>Current Students Describe how active students will be assisted in completing graduation requirements during the suspension period,</p>	



as well as information regarding formal communication plans.	
Stop-Out Students Describe how stop-out students will be managed, including information regarding communication plans.	
Consultation Briefly describe the consultation process that occurred with students and other relevant stakeholders, and the feedback received.	
Resource Implications Identify relevant financial impact, including reallocation of internal resources.	
Approval Process Indicate the internal governance path, including meeting dates	

SECTION B: TERMINATION

Termination of a program means that the program has been eliminated and can no longer be offered. Terminations must be preceded by a period of suspension, typically five years.

1: Basics		
Specialization / Embedded Certificate Name	Honors in Classical Languages	
Faculty/Department	Department of History, Classics, and Religion	
Contact information	Name and Title	Prof. Jane Samson, Director, Undergraduate Programs
	Phone	2-2966
	Email	jane.samson@ualberta.ca



Proposed effective date of termination	1 July, 2024
Attachments	
<input checked="" type="checkbox"/> Proposed Calendar changes <input type="checkbox"/> Letter of Support from the Dean of the Faculty <input type="checkbox"/>	

2: Rationale, Implications and Impacts	
Rationale for Termination Identify the reason(s) for the termination with supporting rationale and evidence.	Termination is being sought as the five-year period of suspension is coming to an end. No students remain in the program.
Was the proposal preceded by a suspension? If yes, please indicate the date of the suspension. If not, explain why a period of suspension was not implemented and indicate when students were last admitted to the program. <i>Note: terminations that are not preceded by a period of suspension must first be approved by the Vice-Provost (Programs) prior to entering the approval process.</i>	Yes: September 2019 - 30 June, 2024
Consultation Describe the consultation process that occurred with relevant stakeholders.	Department Council discussion and approval on 8 September, 2023. There is undergraduate student representation on Department Council. There was consultation with students at the time of the suspension and student representation on the governance committees which approved the suspension.
Communications Describe plans for communicating the termination decision to relevant stakeholders.	The suspension has been indicated in the Calendar since its initiation, including timelines for completion. Upon termination the Calendar listing will be removed.




<p>Resource Implications Describe plans for reallocation of resources previously used for this Specialization/Embedded Certificate.</p>	N/A
<p>Approval Process Indicate the internal governance path, including meeting dates</p>	<ul style="list-style-type: none">• Department Council, History, Classics, and Religion – September 8, 2023• Academic Affairs – October 17, 2023• Arts Faculty Council – November 30, 2023• GFC Programs Committee

Faculty of Arts	History, Classics, and Religion
Level of change	<input checked="" type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate
Type of Change	<input checked="" type="checkbox"/> Program <input type="checkbox"/> Regulation
Are there corresponding course changes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Additional Documentation Attached	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Contact Person:	Jane Samson
Department/Unit Approval Date:	8 September, 2023


Rationale for change (Indicate other consultation groups, departments, units or faculties)

Context: This program has been suspended for the required five-year period from 2019 to 2024. It now needs to be deleted from the Calendar for 2024-25.

Consultation and approval trajectory: Suspension was undertaken after extensive consultation. Department council discussed and approved deletion.



https://calendar.ualberta.ca/preview_program.php?catoid=39&poid=47393&returnto=12335



Calendar Copy

Current: Removed language (Include name of program)	Proposed: New language
<p>Honors in Classics [Arts]</p> <p>Honors in Classical Languages</p> <hr/> <p>Effective September 2019, there will be no further admission to this major. Students who entered the program prior to</p>	

September 2019 must complete all program requirements by April 30, 2024. The last BA Honors degree with a Classical Languages major will be granted at Spring Convocation 2024.

Continuing students must refer to the Calendar under which they were admitted for program, promotion and graduation requirements.



ITEM NO. 5B

Decision **Discussion** **Information**

ITEM OBJECTIVE: To approve the termination of the Faculty of Law Joint Degree with the University of Colorado.

DATE	February 8, 2024
TO	GFC Programs Committee
RESPONSIBLE PORTFOLIO	Provost & Vice President (Academic)

MOTION:

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the termination proposals of the Joint Degree with the University of Colorado, as submitted by the Faculty of Law, to take effect upon final approval:

The Faculty of Law is seeking to terminate a joint degree programme that has had no enrolment for several years. The University of Colorado, Boulder, no longer admits students to counterpart dual degree and no longer lists the programme on their [website](#).

Supporting Materials:

Calendar Change Request Form

Faculty (& Department or Academic Unit):	LAW
Contact Person:	James Muir
Level of change: (choose one only)	<ul style="list-style-type: none"> • Undergraduate •
Type of change request: (check all that apply)	<ul style="list-style-type: none"> • Program •
For which term is this intended to take effect?	ASAP
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The joint degree programme has been moribund for several years. Neither Faculty admits students to the programme and there are no current students in the programme. University of Colorado, Boulder, Faculty of Law no longer lists the programme <
<https://www.colorado.edu/law/academics/degrees/dual-degrees-and-certifications>>.

Calendar Copy

https://calendar.ualberta.ca/preview_entity.php?catoid=36&ent_oid=4618&returnto=11394 https://calendar.ualberta.ca/content.php?catoid=36&navoid=11243#the-dual-degree-program-in-law	
Current Copy: Removed language	Proposed Copy: New language
<u>General Information</u> <ul style="list-style-type: none"> • The Faculty of Law • Members of the Faculty • Moot Court • Graduate Programs • The Dual Degree Program in Law <u>Courses</u>	<u>General Information</u> <ul style="list-style-type: none"> • The Faculty of Law • Members of the Faculty • Moot Court • Graduate Programs <u>Courses</u>

The Dual Degree Program in Law

The University of Alberta Faculty of Law (“Alberta Law”) and the University of Colorado Law School (“Colorado Law”) offer a program of study which permits qualified students to earn both the Alberta JD and the Colorado JD degrees in four years. Each student must apply separately to Alberta Law (for admission into the JD program) and to Colorado Law (for admission into the JD program). See [Faculty of Law Admission Requirements](#) of the Calendar for details respecting Alberta Law admissions and see the Colorado Law admissions website (www.colorado.edu/law/admissions) for details concerning Colorado Law admissions. In addition, students must complete an Application to Participate in the Dual Degree Program form and associated documents. In addition to new entrants, students in the first year of the regular Alberta Law and Colorado Law programs are eligible to apply for admission to the Dual Degree Program.

Entrance Requirements

Acceptance by Alberta Law (for admission into the Alberta JD program) and by Colorado Law (for admission into the Colorado JD program) separately, are prerequisites for admission into the Dual Degree Program in Law. Admission into each program will be determined by the same selection process and criteria as for other students.

Program Requirements

The first two years are taken entirely within one program (Alberta Law or Colorado Law), and the third and fourth years are taken entirely within the other program (Colorado Law or Alberta Law). The Dual Degree Program involves four years of full-time study, requiring the equivalent of eight terms with (approximately) a normal load of five courses per term.

A total of 89 credit hours is required for the JD degree from Colorado Law School, with at least 45 credit hours taken in residence at Colorado Law School; a

total of 92 credit hours is required for the JD degree from the University of Alberta with at least 60 credit hours taken in residence at the University of Alberta. Colorado Law shall grant credit toward the JD degree for up to 32 credit hours of acceptable performance in preapproved law courses taken by a Dual Degree Student at Alberta Law. Alberta Law shall grant credit toward the JD degree for up to 32 credit hours of acceptable performance in preapproved law courses taken by a Dual Degree Student at Colorado Law. Dual Degree students who commence the Dual Degree Program at Alberta Law must complete the following courses at Alberta Law: the entire First Year Curriculum (Contracts, Constitutional Law, Criminal Law, Torts, Property Law, Foundations to Law, Legal Research and Writing), Evidence, Professional Responsibility, Civil Procedure, Corporations, Conflict of Laws, Administrative Law, one of either Jurisprudence or Legal History, and complete the written work requirement. Dual Degree students who commence the Dual Degree Program at Colorado Law must complete the following courses at Colorado Law: the entire First Year Curriculum (Contracts, Civil Procedure I and II, Property I and II, Torts, Legal Writing, Appellate Advocacy, Constitutional Law and Criminal Law), Civil Procedure, Evidence, Legal Ethics, at least one seminar, and satisfy a Practise Course Requirement and Professionalism requirement. Dual Degree students may petition the Dean at either Law school to waive a specific requirement if the equivalent course has been completed at the other Law school. Dual Degree students may complete requirements of both programs by completing designated courses at one Law school or the other. All Dual Degree students, whether commencing at Alberta Law or Colorado Law must complete Constitutional Law at both Law schools. A student must have earned a grade of C or better in each course at Alberta Law for the performance to be acceptable for Colorado Law credit. Colorado Law credit shall be given on a pass basis, and shall not be counted in the computation of class rank or in the computation of the cumulative 72 grade point average graduation requirement for the JD degree. A student must have earned a grade of C or better in each course at Colorado Law for the performance to

be acceptable for Alberta Law credit. Alberta Law credit shall be given on a pass basis, and shall not be counted in the computation of the grade point average requirement for the University of Alberta degree. No student in the Dual Degree Program may take fewer than 10 credit hours or more than 15 credit hours during any term without consent. Registration in fewer than 10 credit hours in a term may result in the student being terminated from the Dual Degree Program.

Academic Standing

A Dual Degree Program student is subject to the academic standing regulations and routes of appeal for grades and academic standing of the Law school in which the student is resident and taking courses.

Discipline

Dual Degree Program students are, regardless of their University of residence, subject to the Colorado Honor Code and the Alberta Code of Student Behaviour.

Termination of Dual Degree Program Status

If a student withdraws from one of the degree programs or is required to withdraw because of unsatisfactory academic standing but wishes to remain in the other degree program, the student may be permitted to continue the program of study in the Law school in which the student retains good academic standing.

Length of Program

Students will normally finish all the requirements for the Dual Degree Program by the end of the fourth year. All Dual Degree students must complete their entire course of study within five (5) years of commencement of the Dual Degree Program; however, under extraordinary circumstances and with written permission from both Alberta Law and Colorado Law, this time period may be extended.

Further Information

Inquiries respecting the Dual Degree Program may be directed to the Vice-Dean at the Faculty of Law of the University of Alberta, or to the Associate Dean for

<p>Academic Affairs at the University of Colorado Law School.</p>	
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Reviewed/Approved by:

<p>REQUIRED: Faculty Council approval, March 21, 2023</p>

<p>OPTIONAL: n/a</p>



Decision **Discussion** **Information**

ITEM OBJECTIVE: To share the updated, Non-credit and Micro-credential Framework for information, feedback, support, and approval.

DATE	February 8, 2024
TO	GFC Programs Committee
RESPONSIBLE PORTFOLIO	Provost and Vice-President (Academic)

MOTION: THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, an updated Non-credit and Micro-credential Framework as set out in Attachment 1, for implementation upon approval.

Background

The Vice-Provost (Programs) and Associate Vice-President, Online Learning & Continuing Education launched a Non-credit Micro-credential Action Group in February 2023 – with the goal of updating and simplifying the University of Alberta’s (U of A) current *Non-credit/Micro-credential Framework* which was established in 2020. The updated *Framework* was co-created by the Micro-credential Action Group which includes representation from the U of A’s Colleges, Faculties, and Units currently delivering and supporting non-credit learning. The updated *Framework* is also supported by a development guide with clear steps and identified supports available for proponents seeking to develop a non-credit micro-credential.

Analysis / Discussion

The development and delivery of non-credit micro-credentials at the U of A gained momentum and attention with the Government of Alberta’s *Calls for Funding* to support non-credit micro-credential development in 2021, 2022. The *Calls for Funding* proposals developed by U of A team members showcased the widespread interest in developing micro-credentials at the U of A. The proposals also showed the vast difference in how U of A team members are interpreting a micro-credential, its purpose, its structure, and the cost to develop a high-quality offering.

An outcome of the Micro-credential Action Group was to update the existing framework to ensure it reflects recent current practice in Alberta and across the country, as well as the creation of a new development guide to support proponents on how to develop non-credit micro-credentials, specifying the steps required and support available to move from ideation to implementation.

The updated *Framework* provides information including best-practice recommendations for the design and development of non-credit micro-credentials and is complimented by a supportive development guide.

GOVERNANCE OUTLINE

Risk Discussion / Mitigation of the Risk

The updated *Framework* includes the same number of non-credit programming categories as the original *Framework*, however, it simplifies the programming language. There will be a need to convert some current programming, most notably “Series” will be converted to “Certificates”. This will require the proponent to move through institutional governance and meet the principles in the *Framework*. This change primarily impacts the Continuing Education department.

Next Steps

Following approval of the *Framework*, the Continuing Education unit and the Office of the Provost will work on a case-by-case basis with the home Faculties of existing non-credit programming to ensure alignment with the updated *Framework* before the start of the 2025 fall semester.

Supporting Materials:

Attachment 1 - Updated – U of A Non-credit Programming Framework – [link](#)

1. U of A Non-credit/Micro-Credential Framework – 2020 - [link](#)
2. Non-credit Micro-credential Development Guide - [link](#)

SCHEDULE A:

Engagement and Routing

Consultation and Stakeholder Participation / Approval Route (parties who have seen the proposal and in what capacity) <[Governance Resources Section Student Participation Protocol](#)>

Those who are actively participating:

The MC Guide was co-created by the Micro-credential Action Group - which resulted in a one-university approach to defining, developing, implementing, and promoting non-credit micro-credentials at the U of A. The Micro-credential Action Group includes representation by U of A Faculties and Units. Their contributions, time, and commitment are greatly appreciated and acknowledged.

Co-leads - Janice Causgrove Dunn (Office of the Provost and Vice-President (Academic)) and Jessica Butts Scott (Online Learning & Continuing Education)

Action Group - Allen Ball (Faculty of Arts, Online Learning & Continuing Education), Avery Letendre (Faculty of Native Studies), Bernadette Martin (Faculty of Rehabilitation Medicine), Emilie Champagne (Campus Saint-Jean), Anne McIntosh (Augustana Faculty), Kristin Mulligan (Online Learning & Continuing Education), Jane Lee (Office of the Registrar), Kate Peters (General Faculties Council), Michael Maier (Alberta School of Business), Heather Richholt (General Faculties Council), Sandra Lacza (Online Learning & Continuing Education), Tracy Raivio (Faculty of Science, College of Natural and Applied Sciences), Andrea Davila Cervantes (Faculty of Medicine & Dentistry), Carla Prado (Faculty of Agriculture, Life and Environmental Sciences), Frances Plane (Faculty of Graduate and Postdoctoral Studies, Faculty of Medicine &



ITEM NO. 6

Dentistry), Scott Key (Faculty of Education), Norma Rodenburg (Office of the Registrar), Brian Pardell (Online Learning & Continuing Education), Jason Carey (Campus Saint-Jean), Nathalie Kermoal (Faculty of Native Studies), Ivan Fair (Faculty of Engineering), Michelle Berg (Alberta School of Business), and Shawn Drefs (Faculty of Rehabilitation Medicine)

Those who have been consulted:

- Chairs' Council (April 18, 2023)
- GFC Programs Committee (PC) (June 22, 2023)
- Deans' Council (August 21, 2023)
- GFC Programs Committee (PC) (October 12, 2023)
- Provost's Council (October 16, 2023)
- GFC Academic Planning Committee (APC) (November 1, 2023)
- General Faculties Council (GFC) (November 20, 2023)
- Program Support Team (PST) (January 25, 2024)
- GFC Programs Committee (PC) (February 8, 2024)

Approval Route:

GFC Programs Committee (PC)

Supplementary Notes / Context:

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Non-Credit Programming Framework

	Event / Workshop / Conference	Micro-credential Programming Categories			
		Micro-Course	Course	Certificate	Diploma
Description	A learning experience where information is shared or knowledge is gained through an informal setting.	A micro learning experience that is self-directed, enabling access to learning anytime, anywhere. A micro-course focuses on a specific topic, identified skills gap, and/or a defined competency or a sub-component of a competency.	A course that is focused on developing specific knowledge, skills, and competencies. Typically, courses are intended to stack into certificates, although a course may be taken as a standalone offering.	A non-credit credential earned for the completion of specific courses, leading to the achievement of a certificate. A certificate is a credential intended to be immediately valuable to learners and employers.	A non-credit credential earned for the completion of specific courses, leading to the achievement of a diploma. A diploma is a credential intended to be developed only when required (due to length) that is immediately valuable to learners and employers.
Learner Value Proposition	Opportunity for learning to be gained.	The learning experience is self-directed, enabling the learner to personalize their learning journey to one that is just-enough, just-for-me, and just-in-time.	Learners develop specific competencies, leading to enhanced skills through short courses.	Learners stack micro-courses and courses into pre-aligned certificates.	Learners stack courses into a pre-aligned diploma.
	Best Practice: Goals are established for the learning event, workshop, or conference.	Best Practice: Micro-courses are developed and delivered "on-demand" and are self-directed.	Best Practice: Courses are developed with flexibility at their core, and are structured in alignment with the learner persona.	Best Practice: Courses stack into certificates that develops specific competencies. Certificates are regularly reviewed and are designed/delivered flexibly to meet the needs of core learner personas.	Best Practice: Courses stack into a diploma that develops specific competencies. Diplomas are regularly reviewed and are designed/delivered flexibly to meet the needs of core learner personas.
Assessment of Learning	NA	Assessment is required for micro-credential programming. Meaningful assessment ensures proof of competency development.	Assessment is required for micro-credential programming. Meaningful assessment ensures proof of competency development.	Assessment is required for micro-credential programming. Meaningful assessment ensures proof of competency development.	Assessment is required for micro-credential programming. Meaningful assessment ensures proof of competency development.
		Minimum: assessment of knowledge and comprehension of knowledge, skills, and capabilities.	Minimum: assessment of knowledge and comprehension of knowledge, skills, and capabilities.	Minimum: assessment of knowledge and comprehension of knowledge, skills, and capabilities.	Minimum: assessment of knowledge and comprehension of knowledge, skills, and capabilities.
		Best Practice: assessment of learning related to application, analysis, and synthesis.	Best Practice: assessment of learning related to application, analysis, and synthesis - WIL activities may be included.	Best Practice: assessment of learning related to application, analysis, and synthesis - WIL activities may be included.	Best Practice: assessment of learning related to application, analysis, and synthesis - WIL activities may be included.

Non-Credit Programming Framework

	Event / Workshop / Conference	Micro-credential Programming Categories			
		Micro-Course	Course	Certificate	Diploma
Stackability	N/A	Encouraged Best Practice: stack or blend micro-courses to align to a specific certificate, meeting the certificate's best practice hours.	Encouraged Best Practice: stack 3 courses to align to a specific certificate, meeting the certificate's best practice hours.	Intention - Certificates ladder into credit offerings - governance TBD Best Practice: certificate ladders into a strategically aligned graduate credit program.	Intention - Diplomas ladder into credit offerings - governance TBD Best Practice: diploma ladders into a strategically aligned graduate credit program.
Credential Owner	Faculty and / or Unit	Faculty and / or Unit Best Practice: Cross-faculty / Unit collaboration / Industry Involvement			
Hours	Variable, normally hours to 1/2 day	Maximum: 12 hours Best Practice: 4 - 8 hours	Maximum: 39 hours Best Practice: 12 - 24 hours	Maximum: 117 hours Best Practice: 3 Courses 36 - 72 hours	Normally: 390 hours or more Best Practice: Variable
Grading Scheme	None	Graded (alpha or CR/NC) Formative and / or summative feedback			
Delivery Modality	Variable	Online Delivery: U of A's LMS and / or platform distribution partner such as Coursera (if green-lit).	Online Delivery: Asynchronous, Bichronous, or Synchronous instruction through U of A's LMS and / or platform distribution partner such as Coursera (if green lit) In-person Delivery: On-campus Hybrid Delivery: A blend of online and on-campus		
Credential Achievement Award	Digital badge as per U of A Digital Badge Framework	Digital badge as per U of A Digital Badge Framework		Faculty and / or Unit uses a standard U of A branded downloadable certificate, available immediately upon completion	

Non-Credit Programming Framework

	Event / Workshop / Conference	Micro-credential Programming Categories			
		Micro-Course	Course	Certificate	Diploma
Quality Assurance	Faculty and / or Unit	Micro-credential programming is rooted in quality assurance standards.			
Learner / Organizational Registration	Variable (up to individual unit)	<p>Micro-credential offerings will be promoted and easily searchable on the U of A's enterprise-approved Continuing Education web portal - integrated with the U of A's website, and offerings available for purchase through Destiny One e-commerce platform. Faculties, Units, and external partner organizations (where applicable) are encouraged to promote the micro-credential offering.</p> <p>Learners and organizations will seamlessly register through the U of A's enterprise-approved Continuing Education PCI-compliant e-commerce site - Destiny One by Modern Campus.</p>			
Non-credit Transcript / Student Record	NA	<p>Non-credit transcripts and student records are available through the U of A's enterprise-approved Continuing Education operational system Destiny One by Modern Campus.</p> <p>Student information is ported into the U of A's SIS to enable one-learner record.</p>			
Convocation	NA	Does not participate in U of A's convocation - some programs may offer a learner recognition ceremony.			
Associate Alumni Status	NA	NA		Non-credit micro-credential learners currently earn Associate Alumni status. This will be under review to	Non-credit micro-credential learners currently earn Associate Alumni status. This will be under review to
Financial Planning Considerations	Faculty or Unit retains 85% of revenue, 15% of revenue supports University-wide services.	<p>U of A Offered Micro-credential: Faculty or Unit retains 85% of revenue, 15% of revenue supports institution-wide services.</p> <p>Coursera Offered Micro-credential: Coursera retains 50% of total revenue, of U of A 50% revenue 85% is retained by Faculty or Unit with 15% of revenue supporting University-wide services.</p>			
Approval Pathway	Department / Unit	Department/Unit		Department/Unit - Faculty Council* - GFC Programs Committee *Academic Units that do not have a Faculty Council, approval is granted by the Vice-Provost (Programs) as delegate of Provost	

Non-Credit Programming Framework

	Event / Workshop / Conference	Micro-credential Programming Categories			
		Micro-Course	Course	Certificate	Diploma
Course Change Process	Variable (often none)	For courses not part of approved programs, desk approval by designated academic or unit staff		Approved on a regular cycle in Unit/Faculty. Faculties/Units provide on an annual basis, a list of updated program changes to the Vice-Provost (Programs) by July 1 of each year.	
Suspension/Termination Process	Variable (often none)	Variable for courses that are not offered as part of established certificate or diploma programs. For courses offered as part of a program, additional program change processes may need to be followed.		Department/Unit - Faculty Council* Approval - GFC (for information). Learners are notified and normally given 1 year to complete their program. *Academic Units that do not have a Faculty Council, approval is granted by the Vice-Provost (Programs) as delegate of Provost. The Vice-Provost will then inform GFC of the approval at the next scheduled GFC meeting.	

FINAL ITEM NO. 7Decision Discussion Information **ITEM OBJECTIVE:** To approve a new accredited major in Chemistry in the Bachelor of Science.

DATE	February 8, 2024
TO	GFC Programs Committee
RESPONSIBLE PORTFOLIO	Provost and Vice-President (Academic)

MOTION: THAT the GFC Programs Committee, with delegated authority from General Faculties Council, approve the proposed Accredited Major in Chemistry, as proposed by the Faculty of Science, for inclusion in the 2024-2025 University Calendar.

EXECUTIVE SUMMARY:

The purpose of these calendar changes is to introduce a new option, Major in Chemistry - Accredited option, and to modify the standard Major in Chemistry. The purpose of both changes is to maintain a suite of Chemistry programs that serves students with broad interests in Chemistry, who may not need an accredited program; while maintaining an accredited option for students who may seek professional accreditation.

Prior to the Science BSc renewal, Chemistry students were in three programs: Honors, Specialization, and BSc General (Chemistry major). These three programs enroll about 360 students (as of 2022), of which approximately 80% are in General Science with a Chemistry major and either another major or a minor in a second area of interest. Many of these are pre-professional students with the end goal of pharmacy, medicine, or dentistry. The revised programs in the 2024 calendar currently maintain two accredited programs: Honors in Chemistry and Major in Chemistry. This plan lacks a non-accredited option with more flexibility to serve our previous students in the BSc General program with a Chemistry major, one of our largest enrollments.

To address this shortcoming, the changes below introduce the Major in Chemistry - Accredited option [60 units] that will allow students to obtain an accredited degree [also see: Internal program Proposal]. In conjunction with this change, we are proposing a revision to the existing Major in Chemistry to provide a chemistry-focused degree option with fewer designated requirements than our accredited degree programs (e.g., not two terms of calculus, not two terms of physics, not required courses in all chemistry areas, and not 400 chemistry lab hours) [48 units]. This revision provides an updated version of the previous BSc General Chemistry major. These two programs will expand choices for Chemistry students by providing an accredited and non-accredited track for students.

Supporting Materials:

- 1.) Internal Program Proposal Template
- 2.) Calendar Change Request Form

GOVERNANCE OUTLINE



3.) Letter of support from the Dean of the Faculty of Science

SCHEDULE A:

Engagement and Routing

Consultation and Stakeholder Participation / Approval Route (parties who have seen the proposal and in what capacity) <[Governance Resources Section Student Participation Protocol](#)>

Those who are actively participating:

- Jocelyn Hall, Assoc Dean, Undergraduate, Faculty of Science
- Chris Cairo, Assoc Chair, Chemistry

Those who have been consulted:

- Department council
- Associate Dean Undergraduate, Faculty of Science
- Science Undergraduate Programs Committee
- Declan Ali, Dean of Science
- Florence Glanfield, Vice-Provost (Indigenous Programming & Research)
- Carrie Smith, Vice-Provost (Equity, Diversity & Inclusion)
- Program Support Team (PST)

Those who have been informed:

-

Approval Route:

Department Council, Chemistry (July 6, 2021; May 20, 2022)

Science Undergraduate Programs committee (Nov 24, 2023)

Supplementary Notes / Context:

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Internal Program Proposal Template
- for-credit programs not requiring Ministry approval -

This template is to be used for proposals to create or modify programs that do not require Ministry of Advanced Education approval.

Faculties and Departments must consult with the Portfolio Initiatives Manager in the Office of the Provost and Vice-President (Academic) (carley.roth@ualberta.ca) on the appropriate template and process. Graduate proposers must also consult with the Faculty of Graduate Studies and Research (fgsrgov@ualberta.ca). All program proponents must also consult with the Vice-Provost (Indigenous Programming & Research) during the early development stage.

PROPOSAL TYPE

This proposal is for a (select one):	
<input checked="" type="checkbox"/>	Creation of a new second-level specialization (e.g., minors of undergraduate programs and second-level specializations of graduate programs)
<input type="checkbox"/>	The addition of an Honors stream to an existing undergraduate program
<input type="checkbox"/>	Creation of a combined degree program where both contributing degrees have been approved by the Ministry of Advanced Education
<input type="checkbox"/>	Substantive program changes that do not require Ministry approval

1: Basics		
Program/Specialization/ Combined Degree Name	Major in Chemistry will have a new option: Major in Chemistry - Accredited option	
Faculty/Department	Science/Chemistry	
Contact information	Name and Title	Dr. Christopher Cairo, Associate Chair, Chemistry
	Phone	
	Email	chemacu@ualberta.ca
Proposed effective date	JULY 1, 2024	
Attachments		
<ul style="list-style-type: none"> Letter of Support from the Dean of the Faculty Proposed Calendar changes 		

2: Rationale, Implications, and Impacts
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Rationale for the Proposal

Identify the purpose of the proposal with supporting rationale and evidence of demand.

The purpose of this program change is to introduce a new option, **Accredited Option**, to be available only for the Chemistry major. In conjunction with this change, we will modify the standard **Chemistry major**. The purpose of both changes is to maintain a suite of Chemistry programs that serves students with broad interests in Chemistry, who may not need an accredited program; while maintaining an accredited option for students who may seek professional accreditation.

Prior to the Science BSc renewal, Chemistry students were in three programs: Honors, Specialization, and BSc General (Chemistry major). These three programs enroll about 360 students (as of 2022), of which approximately 80% are in General Science with a Chemistry major and either another major or a minor in a second area of interest. Many of these are pre-professional students with the end goal of pharmacy, medicine, or dentistry. The revised programs in the 2024 calendar currently maintain two accredited programs: **Honors in Chemistry** and **Major in Chemistry**. This plan lacks a non-accredited option with more flexibility to serve our previous students in the BSc General program with a Chemistry major, one of our largest enrollments.

To address this shortcoming, this proposal introduces the **Accredited Option** that will allow students to obtain an accredited degree. In conjunction with this change, we are proposing a revision to the existing **Chemistry major** to provide a chemistry-focused degree option with fewer designated requirements than our accredited degree programs (e.g., not two terms of calculus, not two terms of physics, not required courses in all chemistry areas, and not 400 chemistry lab hours) [48 units.] These two programs will expand choices for Chemistry students and provide improved options for those in a professional track.

Previous and proposed Chemistry programs:

Previous (Terminated for 2024)	Current BSc Renewal (2024)	THIS PROPOSAL (2024)
BSc in Chemistry (Non-accredited)		BSc in Chemistry [48 units] (Non-accredited)
BSc with Specialization in Chemistry (Accredited)	BSc in Chemistry (Accredited) [60 units]	BSc in Chemistry - Accredited Option [60 units]
BSc with Honors in Chemistry (Accredited)	BSc with Honors in Chemistry (Accredited) [72 units]	BSc with Honors in Chemistry (Accredited) [72 units]

Length of the Program

Identify the length of the program in years and credit units per year.

Students in the **Major in Chemistry - Accredited option** can complete the program in four years, with 30 credits per year.

Provide the anticipated enrolments by head count for the next 5 years
Chemistry Major (Accredited Option), Anticipated enrollment (based on 2023 Specialization enrollment):

Enrolment	2024	2025	2026	2027	2028
Total Headcount	34	40	51	60	70
• Year 1	6	10	12	15	16
• Year 2	9	10	12	15	18
• Year 3	7	10	12	15	18
• Year 4	12	10	15	15	18

Work-Integrated Learning

Describe how learners in this program will have access to Work-Integrated Learning (see [CEWIL definitions](#)).

The **Major in Chemistry - Accredited option**, has a minimum of 400 active laboratory hours as part of the Canadian Society for Chemistry (CSC) accreditation requirements, which is why the list of mandatory course work and possible options is more restrictive versus the **Major in Chemistry** program; the listed courses and options in the accredited option all include laboratory hours so that the 400-hour minimum is met.

For both types of Chemistry Majors, we will maintain the same type of research structure as was previously available in the Chemistry Honors and Specialization and General Science (Concentration in Chemistry programs). The Chemistry Honors and Specialization programs were reviewed in 2017 and the following comment is from the External Review Committee report, "The programs include many high impact practices, especially in experiential learning opportunities in the form of laboratory-based learning, instrumental skill development and extensive and varied undergraduate research experiences. Access to modern and advanced instrumentation is among the best in the country. At a time when many universities are cutting back on experiential research opportunities the department provides access into the research culture as early as year two, with the opportunity for students to further enhance their research experience in years three and four. This model is outstanding and sets them apart from most other departments in Canada." The research courses, CHEM 299, 399, 401, 403 will be available in both types of Chemistry major programs and are popular Chemistry options, even though research is not required in either program.

As with all programs in the Faculty of Science, internship opportunities are available to students upon completion of 48 units of credit via the Science Internship Program (SIP). Chemistry students from both types of major programs will be eligible and competitive for chemistry internship positions due to the level of experiential training received in second and third year chemistry coursework. Students who are interested in networking with local industry representatives and gaining information on resumé and interview preparation skills have the option of completing CHEM 300, Introduction to Industrial Chemistry.

<p>Consultation</p> <p>Describe the consultation process that occurred with students and other relevant stakeholders, and the feedback received.</p>	<p>The Chemistry programs were reviewed in 2017 and the following recommendation was made in the External Review Committee report, “It is recommended that the Chemistry Department lead a review of the degree structures with a careful eye to finding synergy between the Honors and Specialization degrees and explore how a B.Sc.(General) chemistry majors may find a path to accredited (or accreditable) chemistry degrees.” The introduction of the Accredited Option for the Major in Chemistry is part of the process of resolving the recommendation while maintaining sufficient choices for students.</p> <p>These programs were reviewed and discussed by the Undergraduate Curriculum Committee (UCC). In addition to faculty, the UCC includes student and external industry representation. UCC representatives from each division of the Department (Analytical, Chemical Biology, Organic, Inorganic, Physical) discussed proposals with faculty and students in these divisions. Final review and approval was provided by the Department Council, which also includes Graduate and Undergraduate student representatives.</p> <p>The introduction of the Accredited Option will allow for us to modify the Major in Chemistry to introduce flexibility that many students emphasized to the Department in consultations. Many students were concerned about prerequisite requirements in MATH and PHYS, as well as a lack of flexibility in upper-level CHEM courses. The UCC developed a plan to maintain an accredited path for students that require it, but also identified a need for maintaining a non-accredited path.</p>
<p>Indigenous Perspectives</p> <p>Describe the outcomes of the consultation with the Vice Provost (Indigenous Programming and Research) regarding how the program will integrate/include indigenous perspectives and content, and any action items that may result.</p>	<p>The Faculty of Science aspires to indigenize its curriculum. We recognize this has to occur at the course level, and that it may also occur at the program requirement level.</p> <p>To address indigenization at the course level, Acting Dean Frederick West (2022-2023) tasked our Teaching and Learning Committee (TLC), chaired by Jocelyn Hall (Professor, Biological Sciences), with beginning the important process of decolonizing and indigenizing Science courses. The Faculty of Science recognizes that indigenization must be Indigenous led. While the scope of the committee is still being fine-tuned, some goals have been identified. First, survey Science teaching staff to determine (a) what is currently being done to decolonize/indigenize their courses, (b) what are barriers to decolonize/indigenize, and (c) what do instructors need to further the decolonization/indigenization of their courses. Second, the committee will make recommendations on some next steps in the process of decolonization/indigenization of Faculty of Science courses. Also, the committee will facilitate connecting our instructors to resources on indigenization and decolonization (Centre for Teaching and Learning, Office of the Vice-Provost [Indigenous Programming and Research], etc.).</p> <p>To address indigenization at the program requirement level, the Faculty of Science established the indigenization of the Bachelor of Science Curriculum Working Group, chaired by Tara McGee (Professor and Associate Dean,</p>

	<p>Engagement & EDI) and co-chaired by Shawn Desaulniers (Faculty Service Officer, Mathematical and Statistical Sciences). The working group's task was to address the following question: Will indigenization occur only at the course level or should an explicitly-stated, faculty-level program requirement (i.e. at least 3 units worth of a 120-unit degree) also be implemented?</p> <p>The working group strongly recommended that the Faculty of Science implement a faculty-level Indigenous course requirement for all BSc programs. This recommendation was accepted and the Faculty of Science and the Calendar change that implements this recommendation was approved by the GFC Programs Committee on September 14, 2023. All BSc students admitted to the Faculty of Science from Fall 2024 onwards must complete at least 3 units (one course) from a curated list of Indigenous courses. The curated list consists of courses that focus on themes such as Indigenous knowledge, ways of knowing, culture, history, languages, and contemporary Indigenous issues. Courses fulfilling this Indigenous course requirement contain substantial Indigenous content (by consideration of the contact hours, reading list, learning objectives, and general syllabus material).</p> <p>The Faculty of Science recognizes that it should play a role in increasing collective enrolment capacity on campus in courses for general audiences, but the nature of the role is unclear at this time. Possibilities include developing its own Indigenous course(s), with the understanding that this initiative would need to be Indigenous led, and collaborating with other units to jointly develop new Indigenous courses.</p> <p>This program proposal was discussed with Dr. Florence Glanfield's office. Additional initiatives will include working to include readings and reference to the work of indigenous chemists. This may include highlighting indigenous faculty in the Department (Prof. W Chalifoux, hired 2023) and elsewhere in Canada. Discussions in the program related to standards and expectations of professional chemists will incorporate the duty to consult as a principle in governmental regulation.</p>
<p>Equity, Diversity and Inclusion Perspectives</p> <p>Describe the outcomes of the consultation with the Vice-Provost (Equity, Diversity and Inclusion) regarding how the program will integrate/include EDI perspectives and content, and any action items that may result.</p>	<p>This proposal was discussed with Dr. Carrie Smith's office. The Department of Chemistry has worked toward fostering an inclusive community in which students play a leading role. UAlberta Working Toward Inclusivity in Chemistry (UAWIC) is a student group within the department with a goal to promote an open and inclusive environment through activities such as seminars and workshops with strong role models. As of July 2020, a formal Equity, Diversity, and Inclusion (EDI) committee was established within the department to evolve the department's commitment to EDI challenges. Undergraduate students are integral to the department's environment, and undergraduate representatives sit on the Undergraduate Curriculum Committee (UCC) and Department Council. The Chemistry Students Association (CSA) is a valuable resource for advice on undergraduate issues, including the accessibility to advising and resources in the department. Undergraduate student-led events have been hugely successful, such as the undergraduate chemistry conference (Western Canadian Undergraduate Chemistry Conference, Summer 2023), and</p>

	<p>annual Meet the Prof Night and Research Night events. The CSA was voted Student Group of the Year for 2022-2023 by the Students' Union. Faculty and instructors for the Department will benefit from training available from the UofA Foundations of Equity, Diversity, and Inclusion module, and activities organized by UAWIC. We will also plan to set a focus group, in conjunction with UAWIC, to consider strategies to improve accessibility for disabled students.</p> <p>As part of the external Departmental review in 2017, the Committee stated that, "There is a growing population of nontraditional, and adult learners. These students are in desperate need of more flexible learning opportunities, such as on-line classes. The University could be more innovative in developing more chances to engage and promote the success of these types of students." The department's growth in online resource development over the pandemic years was rapid and, with the addition of new students via the two different majors programs, course sizes at the 300 and 400 levels are expected to grow. New 3rd year courses were established as part of the BSc Renewal and will provide opportunities for more students to complete our programs (CHEM 306, Green Chemistry; CHEM 351, Introduction to Chemical Biology). The CHEM 299 and CHEM 399 (independent research courses) are expected to have increased enrollment, exposing more students to research opportunities. These courses will also provide engagement and mentoring of students that may not have previously considered research as a career path. Many of our courses have expanded use of online materials through our LMS since 2021, and this aspect of all coursework continues to evolve. The changes proposed here (introduction of the Accredited Option; and changes to the Major in Chemistry for a more flexible course load) will continue and expand access for more students to Chemistry programs.</p>
<p>Resource Implications Identify financial impacts and internal resource requirements, particularly staff and classroom and lab space. Also identify any external resource requirements such as practicum or internship placements, etc.</p>	<p>The proposed Accredited Option for the Major in Chemistry does not include the creation of any further courses. Total registrations in Chemistry degree programs are expected to remain comparable to current enrollment, along with standard projected growth rates in Chemistry and the Faculty of Science.</p>
<p>Approval Process Indicate the internal governance path, including meeting dates</p>	<p>Proposals for this program were reviewed and approved by the Chemistry Undergraduate Curriculum Committee (UCC) as part of the Faculty of Science BSc Renewal process. UCC members circulated these proposals for discussion with individual faculty and students. Final proposals were voted on at the Department Council.</p> <p>Important dates in the consultation process are summarized below:</p> <ul style="list-style-type: none"> ● Nov 10, 2020; Initial proposals developed by UCC ● Dec 9, 2020; UCC Review and revision ● Jan 19, 2021; UCC Review and revision ● Feb 11, 2021; UCC Review and revision



	<ul style="list-style-type: none">• Mar 26, 2021; UCC Review and revision• Apr 30, 2021; UCC Review and revision• Mar 31, 2022; UCC Review and revision• July 6, 2021; Review and approval by Department Council, (Major and Honors)• May 20, 2022; Review and approval by Department Council, (Non-accredited program)
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APPENDIX A: COMPARISON OF CHEMISTRY PROGRAMS AND OPTIONS

The table below presents a comparison of the course requirements between the proposed Chemistry streams including the revised Chemistry Major[48 units], the Chemistry Major (Accredited option)[60 units], and the Chemistry Honors programs.

units	Major in Chemistry	Major in Chemistry Accredited Option	Honors in Chemistry
3	CHEM 101	CHEM 101	CHEM 101
3	CHEM 102	CHEM 102	CHEM 102
3	CHEM 261	CHEM 261	CHEM 261
3	CHEM 263	CHEM 263	CHEM 263
3	CHEM 211	CHEM 211	CHEM 211
3	CHEM 241	CHEM 241	CHEM 241
3	CHEM OR BIOCH 2XX+	BIOCH 200	BIOCH 200
3	CHEM OR BIOCH 2XX+	CHEM 213	CHEM 213
3	CHEM OR BIOCH 2XX+	CHEM 282 OR 371	CHEM 282
3	CHEM OR BIOCH 2XX+	CHEM 2XX OR 3XX FROM LIST	CHEM 361
3	CHEM OR BIOCH 3XX+	CHEM 2XX OR 3XX FROM LIST (<i>must be 3XX if 282 chosen above</i>)	CHEM 371
3	CHEM 3XX+	CHEM 3XX+ FROM LIST	CHEM 333 or 343
			CHEM 313
3	CHEM 3XX+	CHEM 3XX+ FROM LIST	CHEM or BIOCH 3XX+
3	CHEM 3XX+	CHEM 3XX+ FROM LIST	CHEM 401 or 499
3	CHEM 4XX	CHEM 4XX	CHEM 403 or 499
			CHEM 4XX
			CHEM 4XX
			CHEM 4XX
3	----	MATH 134 OR 144	MATH 134 or 144
3	----	MATH 136 OR 146	MATH 136 or 146
			MATH 125
3	----	PHYS 124 OR 144	PHYS 124 or 144
3	----	PHYS 126, 146, OR 181	PHYS 126, 146, or 181
Total units	48	60	72
Units at the 300 level or above	18	18	30
Units at the 400 level	6	6	15

Faculty (& Department or Academic Unit):	Faculty of Science Department of Chemistry
Contact Person:	Christopher Cairo, Associate Chair, Department of Chemistry Christie McDermott, Assistant Chair, Student Services, Department of Chemistry
Level of change: (choose one only)	• Undergraduate
	• Graduate
Type of change request: (check all that apply)	• Program
	• Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The purpose of these calendar changes is to introduce a new option, **Major in Chemistry - Accredited option**, and to modify the standard **Major in Chemistry**. The purpose of both changes is to maintain a suite of Chemistry programs that serves students with broad interests in Chemistry, who may not need an accredited program; while maintaining an accredited option for students who may seek professional accreditation.

Prior to the Science BSc renewal, Chemistry students were in three programs: Honors, Specialization, and BSc General (Chemistry major). These three programs enroll about 360 students (as of 2022), of which approximately 80% are in General Science with a Chemistry major and either another major or a minor in a second area of interest. Many of these are pre-professional students with the end goal of pharmacy, medicine, or dentistry. The revised programs in the 2024 calendar currently maintain two accredited programs: **Honors in Chemistry** and **Major in Chemistry**. This plan lacks a non-accredited option with more flexibility to serve our previous students in the BSc General program with a Chemistry major, one of our largest enrollments.

To address this shortcoming, the changes below introduce the **Major in Chemistry - Accredited option** [60 units] that will allow students to obtain an accredited degree [also see: Internal program Proposal]. In conjunction with this change, we are proposing a revision to the existing **Major in Chemistry** to provide a chemistry-focused degree option with fewer designated requirements than our accredited degree programs (e.g., not two terms of calculus, not two terms of physics, not required courses in all chemistry areas, and not 400 chemistry lab hours) [48 units]. This revision provides an updated version of the previous BSc General Chemistry major. These two programs will expand choices for Chemistry students by providing an accredited and non-accredited track for students.

Previous and proposed Chemistry programs:

Previous (Terminated for 2024)	Current BSc Renewal (2024)	THIS PROPOSAL (2024)
BSc in Chemistry (Non-accredited)		BSc in Chemistry [48 units] (Non-accredited)
BSc with Specialization in Chemistry (Accredited)	BSc in Chemistry (Accredited) [60 units]	BSc in Chemistry - Accredited Option [60 units]
BSc with Honors in Chemistry (Accredited)	BSc with Honors in Chemistry (Accredited) [72 units]	BSc with Honors in Chemistry (Accredited) [72 units]

Calendar Copy

URL in current Calendar (or "New page") https://calendar.ualberta.ca/preview_program.php?catoid=39&poid=50433	
Current Copy: Removed language	Proposed Copy: New language
<h2>Bachelor of Science Chemistry Subject Area</h2> <h3>General Information</h3> <hr/> <p>.</p> <p>.</p> <p>.</p> <h3>Subject Area Courses</h3> <hr/> <p>.</p> <p>.</p> <p>.</p> <h3>Requirements</h3>	<h2>Bachelor of Science Chemistry Subject Area</h2> <h3>General Information</h3> <hr/> <p>.</p> <p>.</p> <p>.</p> <h3>Subject Area Courses</h3> <hr/> <p>.</p> <p>.</p> <p>.</p> <h3>Requirements</h3>

- Honors in Chemistry (72 units)
- Major in Chemistry (60 units)
- Minor in Chemistry (24 units)

Honors in Chemistry Requirements

Major in Chemistry Requirements

Foundation Courses

- CHEM 101 - Introductory University Chemistry I
- CHEM 102 - Introductory University Chemistry II

3 units from:

- MATH 134 - Calculus for the Life Sciences I
- MATH 144 - Calculus for the Mathematical and Physical Sciences I

3 units from:

- MATH 136 - Calculus for the Life Sciences II
- MATH 146 - Calculus for the Mathematical and Physical Sciences II

3 units from:

- PHYS 124 - Particles and Waves

- Honors in Chemistry (72 units)
- Major in Chemistry (48 units)
- Major in Chemistry - Accredited Option (60 units)
- Minor in Chemistry (24 units)

Honors in Chemistry Requirements

Major in Chemistry Requirements

Foundation Courses

- CHEM 101 - Introductory University Chemistry I
- CHEM 102 - Introductory University Chemistry II

- ~~PHYS 144 - Newtonian Mechanics and Relativity~~

3 units from:

- ~~PHYS 126 - Fluids, Fields, and Radiation~~
- ~~PHYS 146 - Fluids and Waves~~

Senior Courses

- ~~BIOCH 200 - Introductory Biochemistry~~
- CHEM 211 - Quantitative Analysis I
- ~~CHEM 213 - Quantitative Analysis II~~
- CHEM 241 - Introduction to Inorganic Chemistry
- CHEM 261 - Organic Chemistry I
- CHEM 263 - Organic Chemistry II

3 units from:

- ~~CHEM 282 - Atomic and Molecular Structure~~
- ~~CHEM 371 - Energetics of Chemical Reactions~~

15 units from:

- any of the following courses (with no more than 6 units total from CHEM 299, CHEM 399, CHEM 401, CHEM 403, and CHEM 499):
 - CHEM 299 - Research Opportunity Program in Chemistry
 - CHEM 282 - Atomic and Molecular Structure
 - CHEM 305 - Environmental Chemistry II
 - CHEM 313 - Instrumentation in Chemical Analysis
 - CHEM 333 - Inorganic Materials Chemistry
 - CHEM 343 - Advanced Inorganic Chemistry
 - CHEM 361 - Organic Chemistry
 - CHEM 371 - Energetics of Chemical Reactions
 - CHEM 373 - Physical Properties and Dynamics of Chemical Systems

Senior Courses

- CHEM 211 - Quantitative Analysis I
- CHEM 241 - Introduction to Inorganic Chemistry
- CHEM 261 - Organic Chemistry I
- CHEM 263 - Organic Chemistry II

24 units from:

- any of the following courses (with no more than 6 units total from CHEM 299, **CHEM 300**, CHEM 399, CHEM 401, CHEM 403, and CHEM 499):
 - BIOCH 200 - Introductory Biochemistry
 - BIOCH 310 - Bioenergetics and Metabolism
 - BIOCH 320 - Structure and Catalysis
 - BIOCH 330 - Nucleic Acids and Molecular Biology
 - **CHEM 213 - Quantitative Analysis II**
 - CHEM 282 - Atomic and Molecular Structure
 - CHEM 299 - Research Opportunity Program in Chemistry
 - **CHEM 300 - Introduction to Industrial Chemistry**
 - **CHEM 303 - Environmental Chemistry**

<ul style="list-style-type: none"> ○ CHEM 398 - Molecular Spectroscopy ○ CHEM 399 - Research Experience in Chemistry ○ CHEM 401 - Introduction to Chemical Research ○ CHEM 403 - Chemical Research ○ CHEM 460 - Contemporary Organic Chemistry ○ CHEM 461 - Qualitative Organic Analysis ○ CHEM 499 - Advanced Chemical Research and Training 	<ul style="list-style-type: none"> ○ CHEM 305 - Environmental Chemistry II ○ CHEM 306 - Green Chemistry ○ CHEM 313 - Instrumentation in Chemical Analysis ○ CHEM 333 - Inorganic Materials Chemistry ○ CHEM 343 - Advanced Inorganic Chemistry ○ CHEM 351 - Introduction to Chemical Biology ○ CHEM 361 - Organic Chemistry ○ CHEM 371 - Energetics of Chemical Reactions ○ CHEM 373 - Physical Properties and Dynamics of Chemical Systems ○ CHEM 398 - Molecular Spectroscopy ○ CHEM 399 - Research Experience in Chemistry ○ CHEM 401 - Introduction to Chemical Research ○ CHEM 403 - Chemical Research ○ CHEM 405 - Special Topics in Chemistry ○ CHEM 424 - Optical Spectroscopy and Electrochemistry ○ CHEM 425 - Separations and Mass Spectrometry ○ CHEM 434 - X-ray Crystallography ○ CHEM 436 - Synthesis and Applications of Inorganic and Nano-materials ○ CHEM 437 - Transition Metal Chemistry ○ CHEM 438 - Solid State Chemistry ○ CHEM 443 - Asymmetric Catalysis ○ CHEM 444 - Characterization Methods in Nanoscience ○ CHEM 451 - Chemical Biology ○ CHEM 454 - Bioconjugate Chemistry ○ CHEM 460 - Contemporary Organic Chemistry ○ CHEM 461 - Qualitative Organic Analysis ○ CHEM 462 - Physical Organic Chemistry ○ CHEM 463 - Organic Synthesis ○ CHEM 477 - Molecular Symmetry and Spectroscopy ○ CHEM 479 - Molecular Kinetics ○ CHEM 493 - Computational Chemistry
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6 units from:

- any 400-level CHEM course

Notes:

1. Some courses appear in more than one requirement. Students may not use the same course to satisfy more than one requirement.
2. CHEM 299 can be taken twice; CHEM 399 can be taken up to four times.
3. ~~The Major in Chemistry degree program is accredited by the Canadian Society for Chemistry.~~

- CHEM 495 - Molecular Dynamics and its Applications
- CHEM 499 - Advanced Chemical Research and Training

6 units from:

- any 400-level CHEM course

Notes:

1. Some courses appear in more than one requirement. Students may not use the same course to satisfy more than one requirement.
2. CHEM 299 can be taken twice; CHEM 399 can be taken up to four times.

Major in Chemistry - Accredited Option Requirements

Foundation Courses

- CHEM 101 - Introductory University Chemistry I
- CHEM 102 - Introductory University Chemistry II

3 units from:

- MATH 134 - Calculus for the Life Sciences I
- MATH 144 - Calculus for the Mathematical and Physical Sciences I

3 units from:

- MATH 136 - Calculus for the Life Sciences II

- MATH 146 - Calculus for the Mathematical and Physical Sciences II

3 units from:

- PHYS 124 - Particles and Waves
- PHYS 144 - Newtonian Mechanics and Relativity

3 units from:

- PHYS 126 - Fluids, Fields, and Radiation
- PHYS 181 - Relativity, Electricity and Magnetism
- PHYS 146 - Fluids and Waves

Senior Courses

- BIOCH 200 - Introductory Biochemistry
- CHEM 211 - Quantitative Analysis I
- CHEM 213 - Quantitative Analysis II
- CHEM 241 - Introduction to Inorganic Chemistry
- CHEM 261 - Organic Chemistry I
- CHEM 263 - Organic Chemistry II

3 units from:

- CHEM 282 - Atomic and Molecular Structure
- CHEM 371 - Energetics of Chemical Reactions

15 units from:

- any of the following courses (with no more than 6 units total from CHEM 299, CHEM 399, CHEM 401, CHEM 403, and CHEM 499):
 - CHEM 299 - Research Opportunity Program in Chemistry
 - CHEM 282 - Atomic and Molecular Structure
 - CHEM 305 - Environmental Chemistry II
 - CHEM 313 - Instrumentation in Chemical Analysis

<p>Minor in Chemistry Requirements</p> <hr/> <p>.</p> <p>.</p>	<ul style="list-style-type: none"> ○ CHEM 333 - Inorganic Materials Chemistry ○ CHEM 343 - Advanced Inorganic Chemistry ○ CHEM 361 - Organic Chemistry ○ CHEM 371 - Energetics of Chemical Reactions ○ CHEM 373 - Physical Properties and Dynamics of Chemical Systems ○ CHEM 398 - Molecular Spectroscopy ○ CHEM 399 - Research Experience in Chemistry ○ CHEM 401 - Introduction to Chemical Research ○ CHEM 403 - Chemical Research ○ CHEM 460 - Contemporary Organic Chemistry ○ CHEM 461 - Qualitative Organic Analysis ○ CHEM 499 - Advanced Chemical Research and Training <p>6 units from:</p> <hr/> <ul style="list-style-type: none"> ● any 400-level CHEM course <p>Notes:</p> <hr/> <ol style="list-style-type: none"> 1. Some courses appear in more than one requirement. Students may not use the same course to satisfy more than one requirement. 2. CHEM 299 can be taken twice; CHEM 399 can be taken up to four times. 3. The Major in Chemistry - Accredited Option degree program is accredited by the Canadian Society for Chemistry. <p>Minor in Chemistry Requirements</p> <hr/> <p>.</p> <p>.</p> <p>.</p>
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URL in current Calendar (or "New page")

https://calendar.ualberta.ca/preview_program.php?catoid=39&poid=50469&returnto=12349

Current Copy: Removed language

Note: Proposed Copy is below [two-column format does not work for the table to which changes need to be made]

Bachelor of Science (Major and Honors)

Subject Areas Offered by the Faculty of Science:

	Honors	Major	Minor	Eligible for Double Major	Minor & Double Major Exceptions
.					
.					
.					
Cell Biology	X	X	X	X	May not be combined with Bioinformatics - Biological Sciences Focus (Minor)
Chemistry	X	X	X	X	
Climate Dynamics			X		
.					
.					
.					

Proposed Copy: **New language**

Note: Current Copy is above [two-column format does not work for the table to which changes need to be made]

Bachelor of Science (Major and Honors)

Subject Areas Offered by the Faculty of Science:

	Honors	Major	Minor	Eligible for Double Major	Minor & Double Major Exceptions
Cell Biology	X	X	X	X	May not be combined with Bioinformatics - Biological Sciences Focus (Minor)
Chemistry	X	X	X	X	
Chemistry - Accredited Option		X		X	May not be combined with Chemistry (Minor)
Climate Dynamics			X		

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Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date. Approved by Science Undergraduate Programs Committee on November 29, 2023

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.



Office of the Dean
Faculty of Science
College of Natural and Applied Sciences
6-188 Centennial Centre for Interdisciplinary Science (CCIS)

T 780.492.4459
F 780.492.9434
dean.science@ualberta.ca
ualberta.ca/science

Date: Friday, December 8, 2023

To: University Governance

From: Declan Ali, Dean

Re: Letter of Support for Department of Chemistry - New Second-level Specialization

To whom it may concern:

I am writing to provide support for the Department of Chemistry's proposal for a new Second-level specialization, the "**Major in Chemistry - Accredited option**". This new program, in addition to relaxation of requirements for the standard **Major in Chemistry** will provide a more comprehensive set of options for undergraduate students. By relaxing the requirements in the **Major in Chemistry**, more students will be able to access a rigorous program in Chemistry. While the Accredited option will allow students that seek a professional accreditation will be able to do so easily.

These changes to the programs in Chemistry are aligned with the [Faculty of Science Strategic Plan](#). By introducing a more flexible program with reduced requirements (the revised Major in Chemistry), this program should allow for increased enrollment and should make for a more inclusive environment. These two programs include options for students to engage in experiential learning, both in laboratory classes in independent research courses (CHEM 299, 399, 401, 403, 499). Finally, the resulting program options for the BSc in Chemistry (Honors in Chemistry, Major in Chemistry - Accredited Option, Major in Chemistry) will be clearer for students to navigate and should improve student learning, success, and experience in the Faculty of Science. These proposed changes have been reviewed by our Science Undergraduate Programs committee and should have no negative impacts on students within or outside of Science. Furthermore, more than 80% of students currently enrolled in Chemistry programs are in General Sciences, and this proposal will provide a non-accredited path for those students.

Sincerely,

Declan W. Ali
Dean of Science

cc: Christopher Cairo, Associate Chair, Department of Chemistry, Faculty of Science
Gerda de Vries, Associate Dean, Undergraduate, Faculty of Science
Jocelyn Hall, Associate Dean, Undergraduate, Faculty of Science



Decision **Discussion** **Information**

ITEM OBJECTIVE: To seek approval of the suspension of two specializations under the EdD: Educational Policy Studies and Elementary Education.

DATE	February 8, 2024
TO	GFC Programs Committee
RESPONSIBLE PORTFOLIO	Provost & Vice-President (Academic)

MOTION: Be it resolved that GFC Programs Committee recommend the suspension of the specializations of Educational Policy Studies and Elementary Education under the EdD, for implementation upon final approval.

EXECUTIVE SUMMARY:

The rationale for suspending the EdD specializations in Educational Policy Studies (EDPS) and Elementary Education (EDEL) is as follows: There has been considerable confusion and misinformation about the differences between the EdD and PhD within EDEL and EDPS given the similarity in program requirements. Enrolment in the EdD specialization in Educational Policy Studies and Elementary Education has dropped to very low levels and the programs are judged to be unsustainable. Recognizing the need for advanced professional training, the Faculty of Education is developing a new, course-based Doctor of Education (EdD) specialization in Educational Studies which is not restricted to any particular academic program within the newly non-departmentalized Faculty of Education, targeted towards working professionals/educators who are not interested in working in the academy but desire a higher degree to assist them in work-related research, writing and thinking. Students who wish to pursue more traditional advanced scholarly work in Elementary Education or Educational Policy Studies may still enroll in the PhD in these programs.

Supporting Materials:

1. Suspension EdD Educational Policy Studies Specialization - EDPS EdD program-suspension-template
2. Suspension EdD Elementary Ed Specialization - EDEL EdD program-suspension-template



SCHEDULE A:

Engagement and Routing

Consultation and Stakeholder Participation / Approval Route (parties who have seen the proposal and in what capacity) <[Governance Resources Section Student Participation Protocol](#)>

Approval Route:

- Department Council (EDPS) - April 8, 2022
- Department Council (EDEL) - April 8, 2022
- Graduate Academic Affairs Council – November 7, 2022
- FGPS - GPST - December 11, 2023
- FGPS Council - January 17, 2024
- GFC - Programs Committee - February 8, 2024
- GFC Academic Planning Committee (APC) - March 6, 2024 (anticipated)
- GFC - April 29, 2024 (anticipated)
- Board Learning, Research and Student Experience Committee (BLRSEC) - May 31, 2024 (anticipated)

Proposal Template: Program Suspension and Extension of Suspension

Use this template for proposals to suspend approved programs or specializations or to propose an extension to a current suspension.

Fill in the section below that is relevant to your proposal:

- Section A: if you are proposing a suspension of a ministry-approved program or specialization;
- Section B: if you are proposing an extension to a suspension previously approved by the ministry which is still in effect for a program or specialization.

Institutions should:

- ensure that submission content is concise. Any additional information may be appended;
- indicate “not applicable” when questions are not relevant to a particular proposal; and
- ensure that applicable supporting documents are attached to the proposal.

Basic Information (all proposals must complete this section)

Institution	University of Alberta
Program Name	Doctor of Education (EdD)
Specialization Name	Educational Policy Studies
Credential Awarded	Doctor of Education
Proposed start date of suspension	July 1, 2024
Proposed end date of suspension	June 30, 2029

SECTION A: PROGRAM SUSPENSION

SECTION A: RATIONALE

1. Suspension Rationale

- a. Identify the purpose for the suspension with supporting rationale and evidence (e.g., low student demand, declining labour market demand, institutional capacity, need for program redevelopment, quality assurance review recommendation, etc.).

The rationale for suspending the EdD specialization in Policy Studies is threefold. First, the Faculty of Education is developing a new, course-based Doctor of Education (EdD) specialization in Educational Studies. This new EdD specialization is targeted towards working professionals/educators who are not interested in working in the academy but desire a higher degree to assist them in work-related research, writing and thinking. Some of our competitors like the Universities of Calgary and Portland have robust EdD programs for professionals and there is room and desire for an innovative program in the Faculty of Education at the University of Alberta. University of Alberta Masters’ graduates and contacts in the field have been asking for such a program[1]. Second, there has been considerable confusion and misinformation about the differences between the EdD and PhD within this specialization given the similarity in program requirements. Third, enrolment in the EdD specialization in Educational Policy Studies has been very low (see table below).

- b. Document enrolments (by head count) for the most recent 5-year period, including the current academic year if available.

Enrolment	2023	2022	2021	2020	2019
Total Head count	1	2	3	3	2
● 1 st Year of Study	0	0	0	1	1
● 2 nd Year of Study	0	0	1	1	1
● 3 rd Year of Study	0	1	1	1	0
● 4 th Year of Study	1	1	1	0	0
Reviewer's Comment:					

<p>a. Indicate when admissions into program/specialization will be or were closed.</p> <ul style="list-style-type: none"> ● Admissions will be closed as of July 1, 2024. 	
<p>b. Briefly explain how the proposed end date of the suspension was determined.</p> <ul style="list-style-type: none"> ● There are 5 students currently registered, and the typical five-year suspension period will ensure adequate time for any necessary teach-out. 	
<p>c. Provide specific information about which internal governance body approved the suspension, and provide date of approval.</p> <ul style="list-style-type: none"> ● Department Council (EDPS) - April 8, 2022 ● Graduate Academic Affairs Council – November 7, 2022 ● FGPS - GPST - December 11, 2023 ● FGPS Council - January 17, 2024 ● GFC - Programs Committee - February 8, 2024 ● GFC Academic 	

<p>Planning Committee (APC) - March 6, 2024</p> <ul style="list-style-type: none"> ● GFC - April 29, 2024 ● Board Learning, Research and Student Experience Committee (BLRSEC) - May 31, 2024 	
<p>d. Check the applicable box to specify the longer-term plan.</p>	<p><input checked="" type="checkbox"/> To terminate the program.</p> <p><input type="checkbox"/> To reactivate the program.</p>

SECTION B: ACCESS

<p>a. Identify potential student access considerations and risks to the Alberta Adult Learning System that the suspension of this program could pose (include both (a) information about related programs available to prospective students internally at your institution; and (b) externally at other Alberta institutions).</p> <ul style="list-style-type: none"> ● Students wishing to complete advanced study and research in the area of Educational Policy Studies will continue to have access to the PhD specialization in Educational Policy Studies at the University of Alberta. And as previously mentioned, the Faculty of Education is developing a new course-based EdD in Educational Studies that, if approved, will provide opportunity and access for professional educators wishing to pursue an advanced degree and engage in work-related educational research. ● In addition, parallel programs exist at Werklund (UCalgary) if students so choose.
<p>b. If the program or specialization is unique in the province, briefly describe consultation within the Alberta Adult Learning System to investigate feasibility of program/specialization transfer.</p> <ul style="list-style-type: none"> ● The specialization is not unique in the province; the University of Alberta offers a PhD specialization in Educational Policy Studies.
<p>c. Briefly describe the consultation process that occurred with students at your institution regarding this programming change.</p> <ul style="list-style-type: none"> ● Conversations have occurred broadly across the Faculty over the past two years. Students were included in the larger conversations and also consulted separately, including some individual conversations. ● First, we engaged in a doctoral survey of educational leaders and potential students beginning in 2017 that identified a clear desire for a course-based EdD program in the Faculty. ● We engaged in town hall sessions with graduate students in the Faculty about the suspension of the specialization in Educational Policy Studies and the creation of a new one, better suited to student needs. ● Students in the Educational Policy Studies specialization were provided with opportunities to attend town halls and consultations
<p>d. Briefly describe your institution's plans to assist active students, if any remain, in completing graduation requirements during the suspension period, including information about formal communication and student advising plans.</p> <ul style="list-style-type: none"> ● The Faculty of Education will ensure that all active students that may remain in the program will receive continued support from advising staff and supervising faculty to

ensure they can complete their program within the proposed period of suspension.
e. Briefly describe your institution's plans to accommodate stop-out students, if any have been identified, including information about formal communication plans. <ul style="list-style-type: none"> ● No stop-out students have been identified.
Reviewer's Comment:

SECTION C: IMPACT

a. Identify which stakeholder groups were consulted regarding demand/need for this program:	
<input checked="" type="checkbox"/> Faculty <input type="checkbox"/> Regulator and/or accreditation bodies	<input type="checkbox"/> Employers and professional associations <input checked="" type="checkbox"/> Advisory Committee(s) <input checked="" type="checkbox"/> Other: potential students
b. Briefly describe the consultation process conducted with these stakeholders and summarize the feedback received. <ul style="list-style-type: none"> ● Consultation with the field began with a Faculty of Graduate Studies and Research-funded doctoral microgrant in 2017, which recommended the creation of a new EdD specialization designed for professionals. ● The micro-grant included interviews with competing programs and surveys of over 170 potential students. The survey was released in the summer of 2018 and received 170 responses between the 28th of May and the 25th of June. Of the 170 people who responded, 144 of those responses were able to be used in this analysis. From a demographic perspective, the majority of respondents came from Zone 2 / 3 in Alberta, are less than 100 kilometres from the University of Alberta (north campus), are currently employed as teachers, and have been teaching for 11 to 20 years. For those respondents who were interested in obtaining an EdD, 38% were interested in a program focused on leadership, followed by 19% interested in administration, 17% in curriculum, and 13% in health and wellness. All other specializations 	

received interest by less than 10% of respondents. Respondents indicated they would prefer an EdD program that would take 3 to 4 years, was offered in a blended format, was offered in a cohort model, and would prefer an "action research and extended report" project. Although, the majority who were interested in a blended format would also be interested in an online format, and vice versa. The majority of respondents also indicated that they felt it was very important or somewhat important to be able to take all courses at the University of Alberta. Over half of respondents have not explored other EdD options, 77% would be willing to pay a tuition premium, 68% do not have the option to take an educational leave from their place of employment, and 82% do not have any financial support from their employer.

- We also engaged in a Faculty wide consultation process that involved faculty members, ATS, students and staff. This process included multiple town halls, meetings with each of the specializations, including Policy Studies, and presentations to the Education Faculty Council. There was agreement about the confusion between the PhD and EdD specializations. Students in particular wished to see more clarity and a distinct differentiation between expectations and acceptability of final products (i.e. dissertation). Faculty and ATS shared that such clarity would enhance recruitment and the development of a new EdD specialization that is designed for working professionals would enhance the goals of the Faculty. Given the very low number of students in these EdD specializations, there were no concerns relating to the suspension and eventual closure of them.

c. Identify financial impacts and plans for reallocation of internal resources,

<p>particularly staff and classroom and lab space.</p> <ul style="list-style-type: none"> Given the low numbers within this specialization in the past and the fact that the program was very closely aligned with the PhD specialization, no significant reallocations will be necessary with this suspension. 	
<p>Reviewer's Comment:</p>	

<p>RECOMMENDATION (FOR DEPARTMENT USE)</p>
<p>Recommendation(s):</p>
<p>Rationale for Recommendation:</p>
<p>Reviewer(s):</p>
<p>Date Completed:</p>

Proposal Template: Program Suspension and Extension of Suspension

Use this template for proposals to suspend approved programs or specializations or to propose an extension to a current suspension.

Fill in the section below that is relevant to your proposal:

- Section A: if you are proposing a suspension of a ministry-approved program or specialization;
- Section B: if you are proposing an extension to a suspension previously approved by the ministry which is still in effect for a program or specialization.

Institutions should:

- ensure that submission content is concise. Any additional information may be appended;
- indicate “not applicable” when questions are not relevant to a particular proposal; and
- ensure that applicable supporting documents are attached to the proposal.

Basic Information (all proposals must complete this section)

Institution	University of Alberta
Program Name	Doctor of Education (EdD)
Specialization Name	Elementary Education
Credential Awarded	Doctor of Education
Proposed start date of suspension	July 1, 2024
Proposed end date of suspension	June 30, 2029

SECTION A: PROGRAM SUSPENSION

SECTION A: RATIONALE

1. Suspension Rationale

- a. Identify the purpose for the suspension with supporting rationale and evidence (e.g., low student demand, declining labour market demand, institutional capacity, need for program redevelopment, quality assurance review recommendation, etc.).

The rationale for suspending the EdD specialization in Elementary Education is threefold. First, the Faculty of Education is developing a new, course-based Doctor of Education (EdD) in Educational Studies. This new EdD specialization is targeted towards working professionals/educators who are not interested in working in the academy but desire a higher degree to assist them in work related research, writing and thinking. Some of our competitors like the Universities of Calgary and Portland have robust EdD programs for professionals and there is room and desire for an innovative program in the Faculty of Education at the University of Alberta. University of Alberta Masters' graduates and contacts in the field have been asking for such a program[1]. Second, there has been considerable confusion and misinformation about the differences between the EdD and PhD within this specialization given the similarity in program requirements. Historically, more students have pursued the PhD option specifically in Elementary Education. Third, enrollment in the EdD specialization in Elementary Education has

been very low; there are no students currently registered, and the only student registered since 2019 completed their degree in 2022.

b. Document enrolments (by head count) for the most recent 5-year period, including the current academic year if available.

Enrolment	2023	2022	2021	2020	2019
Total Head count	0	0	0	0	0
● 1 st Year of Study	0	0	0	0	1
● 2 nd Year of Study	0	0	0	1	0
● 3 rd Year of Study	0	0	1	0	0
● 4 th Year of Study	0	1	0	0	0
Reviewer's Comment:					

a. Indicate when admissions into program/specialization will be or were closed.

- Admissions will be closed as of July 1, 2024.

b. Briefly explain how the proposed end date of the suspension was determined.

- There are no students currently registered, and the only student registered since 2019 completed their degree in 2022, thus the standard suspension period of 5 years will be sufficient.

c. Provide specific information about which internal governance body approved the suspension, and provide date of approval.

- Department Council (EDEL) - April 8, 2022
- Graduate Academic Affairs Council – November 7, 2022
- FGPS-GPST - December 11, 2023
- FGPS Council - January 17, 2024
- GFC - Programs Committee - February 8, 2024
- GFC Academic Planning Committee (APC) - March 6, 2024
- GFC - April 29, 2024
- Board Learning, Research and Student Experience Committee (BLRSEC) - May 31, 2024

d. Check the applicable box to specify the longer-term plan.

To terminate the program.

To reactivate the program.

SECTION B: ACCESS

a. Identify potential student access considerations and risks to the Alberta Adult Learning System that the suspension of this program could pose (include both (a) information about related programs available to prospective students internally at your institution; and (b) externally at other Alberta institutions).

- Students wishing to complete advanced study and research in the area of Elementary Education will continue to have access to the PhD specialization in Elementary Education (historically the preferred option) at the University of Alberta. And as previously mentioned, the Faculty of Education is developing a new course-based EdD in Educational Studies that will provide opportunity and access for professional

educators wishing to pursue an advanced degree and engage in work-related educational research.
<p>b. If the program or specialization is unique in the province, briefly describe consultation within the Alberta Adult Learning System to investigate feasibility of program/specialization transfer.</p> <p>The specialization is not unique in the province; the University of Alberta offers a PhD specialization in Elementary Education.</p>
<p>c. Briefly describe the consultation process that occurred with students at your institution regarding this programming change.</p> <ul style="list-style-type: none"> • Conversations have occurred broadly across the Faculty over the past two years. Students were included in the larger conversations and also consulted separately, including some individual conversations. • First, we engaged in a doctoral survey of educational leaders and potential students beginning in 2017 that identified a clear desire for a course-based EdD program in the Faculty. • We engaged in town hall sessions with graduate students in the Faculty about the suspension of current EdD specializations and the creation of a new one, better suited to student needs. • Students in the EdD specialization (EDPS) were provided with opportunities to attend town halls and consultations.
<p>d. Briefly describe your institution's plans to assist active students, if any remain, in completing graduation requirements during the suspension period, including information about formal communication and student advising plans.</p> <ul style="list-style-type: none"> • The Faculty of Education will ensure that the active students that may remain in the program will receive continued support from advising staff and supervising faculty related to the Calendar year in which they enrolled in the program to ensure they can complete their program within the proposed period of suspension.
<p>e. Briefly describe your institution's plans to accommodate stop-out students, if any have been identified, including information about formal communication plans.</p> <ul style="list-style-type: none"> • No stop-out students have been identified.
Reviewer's Comment:

SECTION C: IMPACT

<p>a. Identify which stakeholder groups were consulted regarding demand/need for this program:</p> <p><input checked="" type="checkbox"/> Faculty <input type="checkbox"/> Employers and professional associations</p> <p><input type="checkbox"/> Regulator and/or accreditation bodies <input checked="" type="checkbox"/> Advisory Committee(s)</p> <p><input type="checkbox"/> Other (please identify)</p>
<p>b. Briefly describe the consultation process conducted with these stakeholders and summarize the feedback received.</p> <ul style="list-style-type: none"> • Consultation with the field began with a Faculty of Graduate Studies and Research-funded doctoral microgrant in 2017, which recommended the creation of a new EdD specialization designed for professionals. • The micro-grant included interviews with competing programs and surveys of over 170 potential students. The survey asking potential students about an alternative delivery EdD

<p>program at the University of Alberta, was released in the summer of 2018 and received 170 responses between the 28th of May and the 25th of June. Of the 170 people who responded, 144 of those responses were able to be used in this analysis. From a demographic perspective, the majority of respondents came from Zone 2 / 3 in Alberta, are less than 100 kilometres from the University of Alberta (north campus), are currently employed as teachers, and have been teaching for 11 to 20 years. For those respondents who were interested in obtaining an EdD, 38% were interested in a program focused on leadership, followed by 19% interested in administration, 17% in curriculum, and 13% in health and wellness. All other specializations received interest by less than 10% of respondents. Respondents indicated they would prefer an EdD program that would take 3 to 4 years, was offered in a blended format, was offered in a cohort model, and would prefer an "action research and extended report" project. Although, the majority who were interested in a blended format would also be interested in an online format, and vice versa. The majority of respondents also indicated that they felt it was very important or somewhat important to be able to take all courses at the University of Alberta. Over half of respondents have not explored other EdD options, 77% would be willing to pay a tuition premium, 68% do not have the option to take an educational leave from their place of employment, and 82% do not have any financial support from their employer.</p> <ul style="list-style-type: none"> • We also engaged in a Faculty wide consultation process that involved faculty members, ATS, students and staff. This process included multiple town halls, meetings with each of the specializations including Elementary and presentations to the Education Faculty Council. There was agreement about the confusion between the PhD and EdD specializations. Students in particular wished to see more clarity and a distinct differentiation between expectations and acceptability of final products (i.e. dissertation). Faculty and ATS shared that such clarity would enhance recruitment and the development of a new EdD specialization that is designed for working professionals would enhance the goals of the Faculty. Given the very low number of students in these EdD specializations, there were no concerns relating to the suspension and eventual closure of them.
<p>C. Identify financial impacts and plans for reallocation of internal resources, particularly staff and classroom and lab space.</p> <ul style="list-style-type: none"> • Given the low numbers within this specialization in the past and the fact that the program was very closely aligned with the PhD specialization, no significant reallocations will be necessary with this suspension.
<p>Reviewer's Comment:</p>

RECOMMENDATION (FOR DEPARTMENT USE)
Recommendation(s):
Rationale for Recommendation:
Reviewer(s):
Date Completed:



Decision Discussion Information

ITEM OBJECTIVE: To approve the creation of a new Master of Management Analytics Program

DATE	February 8, 2024
TO	GFC Programs Committee
RESPONSIBLE PORTFOLIO	Faculty of Business Faculty of Graduate & Postdoctoral Studies (GPS)

MOTION:

THAT the GFC Programs Committee, with delegated authority of General Faculties Council, recommend that the Board of Governors approve the new Master of Management Analytics (MMA) program in the Alberta School of Business for implementation upon final approval.

EXECUTIVE SUMMARY:

Despite the increasing awareness of data's crucial role in business success, most firms have not effectively transformed their organizations to harness its full potential. This sobering fact is likely due to the realization that simply having data and computing capacity is not enough to make effective data-driven managerial decisions. There is a critical need for management training programs that align with the technological and social changes surrounding data utilization. Such programs are essential to equip individuals with the skills and knowledge required to make effective, responsible, competitive, and ethical use of data.

The Master of Management Analytics (MMA) program will focus on training managers to design, lead and execute data driven projects across organizations. The program is designed around four key pillars, each essential for a comprehensive understanding of business analytics. These pillars encompass business analytics fundamentals, providing a solid foundation; business analytics process and management, ensuring effective implementation; analytics applications across various business functional areas, demonstrating versatility; and experiential learning, offering hands-on, real-world experience.

The MMA is a 1-year program without internship and 16 months with internship, full-time, course-based master's degree program. This program is designed for students who have recently graduated with an undergraduate degree in STEM, and/or Business. The program will be conducted and offered through the Alberta School of Business (ASB), which boasts of a significant background in both research and teaching, particularly in areas where business and technology intersect. The program is led by the program's dedicated Academic Director from the ASB and will be overseen by an Advisory Committee consisting primarily of seasoned industry experts. These individuals play a pivotal role in shaping the program's curriculum, ensuring its alignment with real-world business needs, and maintaining its relevance in the dynamic field of analytics.

GOVERNANCE OUTLINE



ITEM NO. 9

The program will be pioneering in the Prairie provinces, and our university is uniquely poised to address the existing skills gap. By doing so, we will actively contribute to the Government of Alberta's strategic vision, which places a strong emphasis on advancing innovation, prioritizing artificial intelligence (AI), and promoting technological diversification. The program's objective is to equip students with the skills to excel in the realm of big data, AI and machine learning (ML) enabling them to comprehend business obstacles, formulate effective solutions, and convey them to achieve the highest impact through data analysis.

Moreover, this proposed program is in perfect alignment with both the University's and the School of Business's strategic priorities. It complements the burgeoning AI and ML hub in Edmonton and throughout Alberta. Importantly, its development was a collaborative effort involving a diverse range of stakeholders, including industry experts, academics, students, alumni, and representatives from Equity, Diversity, and Inclusion (EDI), and Indigenous representatives.

The proposed program has considered both the needs of learners and the demand in the job market for such a degree. This was achieved by conducting external market research, consulting with industry experts, school of business faculty and staff, and soliciting input from students and alumni through surveys. Additionally, job market statistics have been incorporated into the program's planning.

In the first two years of the program, the goal is to enroll a minimum of 25 new students each year. The emphasis during this initial phase is on maintaining a manageable cohort size to ensure personalized attention and a high-quality education. This approach also allows for gathering feedback, making necessary adjustments, and progressively improving the program. In the third year, the plan is to incrementally increase the intake to 35 new students, reflecting a gradual scaling up of the program based on feedback and refinements from the initial years. As the program matures, in the fourth and fifth years, the aim is to further expand the annual intake to 50 and 75 students, respectively. This expansion aligns with the goal of extending the program's impact while ensuring that the capacity to provide a high-quality educational experience for a larger student cohort is in place, building on the experience and systems established in the previous years.

Supporting Materials:

Template A (System Coordination Review)

Template B (Campus Alberta Quality Council Review)

[Appendices 1-13](#)

SCHEDULE A:

Engagement and Routing

GOVERNANCE OUTLINE



Consultation and Stakeholder Participation / Approval Route (parties who have seen the proposal and in what capacity) <[Governance Resources Section Student Participation Protocol](#)>

Those who are actively participating:

- Dr. Vikas Mehrotra, Dean, Alberta School of Business
- Dr. Trish Reay, Vice-Dean, Alberta School of Business
- Dr. Michael Maier, Associate Dean, Masters programs and executive education, Alberta School of Business
- Dr. Borzou Rostami, Assistant Professor and Academic Director for MMA, Department of Accounting and Business Analytics, Alberta School of Business
- Roveena Mecwan, Program Coordinator,, Masters programs office, Alberta School of Business

Those who have been consulted:

- Members of the Office of the Provost and VP Academic (Janice Causgrove-Dunn, Carley Roth and Suzanne French)
- Dr. Tracy Raivio, GPS Dean
- Department of Accounting and Business Analytics faculty members
- Business community (Appendix 4A, B and C)
- Dr. Ali Shiri, Vice Dean, GPS
- Faculty of Business Department Chairs
- Students (Survey sent out to BCom and Masters' Students). Student representatives on the school's GSPC (Graduate Students Policy Committee).
- Carrie Smith, Vice-Provost (Equity, Diversity & Inclusion)
- Florence Glanfield, Vice-Provost (Indigenous Programming & Research)
- Edith Finczak, Director Academic Budget and Planning, Office of Provost and VP Academic
- Andrea Menard, Lead Educational Developer, Provost & Vice-President Academic, Centre for Teaching and Learning
- Lori Ireland, Educational Developer, Provost & Vice-President Academic - Centre for Teaching and Learning
- School of Business-Careers and Work Integrated Learning Team- Amber Nicholson, Paul Taylor and Melanie Tymofichuk
- Dr. Leo Wong, Associate Dean- Education, School of Business
- Heather Braid and Sara Rashidian, Office of Education, School of Business
- Yuliia Malanych, Finance Partner, School of Business



- Xiao Cheng, Director, Analysis and Admissions, MBA office
- Celine Gareau-Brennan, Business Librarian
- Graduate Student Policy Committee Members- School of Business
- Rebecca Liaw, Calendar Editor, Office of the Registrar
- RACF members

Those who have been informed:

- Business Council Members
- School of Business Faculty and Staff via town hall conducted.
- Andrea Riewe, Executive Coordinator, GPS
- Masters' Program Office Staff

Approval Route: Graduate Student Policy Committee (GSPC)- November 16, 2023

- Graduate Program Support Team (GPST): December 11, 2023
- Business Faculty Council: Approved January 8, 2024
- Faculty of Graduate and Postdoctoral Studies (GPS) Council: January 17, 2024
- RACF: January 23, 2024
- General Faculties Council (GFC) Programs Committee (PC): February 8, 2024

Supplementary Notes / Context:

Calendar copy for new proposed MMA program approved by Business Council- January 8, 2024

**Proposal Template: New Master’s and Doctoral Degree Programs
(Part A: System Coordination Review)**

Complete this template for proposals for new master’s and doctoral degree programs or specializations.

Institutions should:

- ensure that submission content is concise. Any additional information may be appended;
- indicate “not applicable” in cases where questions are not relevant to the particular proposal; and
- ensure that applicable supporting documents are attached to the proposal.

SECTION A: PROPOSAL OVERVIEW

Basic Information *(Complete the table below)*

Institution	University of Alberta
Program Name	Master of Management Analytics
Specialization Name	Analytics
Credential Awarded	Master of Management Analytics
Proposed Effective Date	Summer 2025

1. Type of Initiative *(Answer the following questions)*

This is a proposal for (select one from the drop-down menu):

New master's program

SECTION B: OVERVIEW OF PROPOSED PROGRAM OF STUDY

1. Program Description <i>(Answer the following questions)</i>
<p>a. Refer to Appendix 1 – a concise program description document that includes:</p> <ul style="list-style-type: none"> • 3-4 sentence calendar description • whether the program is course-based or thesis-based • a proposed program of study including course names, descriptions, credits, and prerequisites, by year of study, • program location (i.e., campus locations), and delivery mode (i.e., face-to-face, online, or blended); and • program learning outcomes. <p>b. Identify any special requirements for accreditation/certification of the program.</p> <ul style="list-style-type: none"> • The Alberta School of Business is the longest continuously accredited (by the Association to Advance Collegiate Schools of Business (AACSB)) business school in Canada. AACSB accreditation represents the highest standard of achievement for business schools worldwide and stands as a testament to the diversity of programs, research strength and career

development of alumni. The Alberta School of Business follows the continuous improvement guideline and reviews all its course curriculums every five years.

c. Where applicable, identify any collaborations with other institutions/organizations and whether there are synergies with other graduate programs at your institution.

- The Alberta School of Business is working closely with the Alberta Machine Intelligence Institute (AMii). Within this collaboration, AMii has been playing a significant role in supporting the program with the possibility of assisting delivery of an essential course on Responsible AI and Ethics, and will actively participate in conducting the introductory bootcamp. Furthermore, leveraging their expertise as industry leaders, AMii could potentially provide guidance and support to the School of Business in the process of securing capstone projects. Collaboration and consultations with AMii are ongoing.
- The Master of Management Analytics targets recent graduates of quantitative undergraduate degrees such as STEM, computer science, economics, or business, including students with a Bachelor of Commerce concentrating in business analytics, business technology management or other quantitative areas from within the Alberta School of Business and other institutions as well.

Reviewer's Comment:

2. Work Integrated Learning (WIL) (e.g. internships, clinical placements) (If applicable, answer the following questions)

a. Specify which program learning outcomes map into WIL components of the program.

Work Integrated Learning (WIL) components are integrated throughout our Master's program in Management Analytics to ensure students can apply academic learning to real-world professional contexts. The following are the program learning outcomes that map directly into the WIL components of the program:

- **Practical Application of Theoretical Concepts**: The coding bootcamp, capstone project, and optional internships all provide opportunities for students to apply the theoretical knowledge gained in class to practical, industry-based scenarios. This enhances their understanding of how coding and data analytics play out in real-world business contexts. Moreover, the experiential pillar, including two, 8-week internships, a capstone management analytics project, and potential community engagements, offers students the platform to apply classroom-learned concepts to genuine professional scenarios. This approach facilitates a thorough understanding of how analytics theories translate into business practice.
- **Proficiency in Analytics Tools and Techniques**: Through hands-on projects and exposure to actual business data and analytics software in the WIL components, students develop a robust command of analytics tools and techniques. This proficiency is crucial for performing efficient and effective business analytics tasks in a professional setting.
- **Critical Thinking and Problem-Solving Skills**: Real-world business problems encountered during the course projects, internships and the capstone project bolster students' abilities to employ data analytics for informed problem-solving and decision-making.

- **Professional Communication and Collaboration Skills:** The case studies, group-based course projects, and the experiential pillar of the program encourage teamwork and require students to present their findings and insights to peers, faculty, and potentially industry professionals. This experience enhances students' ability to communicate complex management analytics concepts clearly and effectively and to collaborate productively with diverse teams.
- **Ethical Considerations in Data Analytics:** Through the WIL components, students are exposed to real-world scenarios where they must consider and navigate ethical issues related to data collection, analysis, and use. This reinforces the program's learning outcome of understanding and applying ethical standards in business analytics.

- b. Identify the number of placements required in the program (including evidence that placements will be available when needed).
- The new Master of Management Analytics program is expected to start with a cohort of about 25-30 students in its initial years, offering both internship and non-internship paths. We anticipate planning for around 15 internship placements, as the initial cohort size is smaller. Although students will be responsible for finding their own internships, our work integrated learning team will offer support to help them secure positions that align with their professional ambitions and personal needs.
 - Preliminary discussions with potential employer partners, such as AMii , AltaML, ATB Financial have shown a positive response and a readiness to support students for placements. We aim to establish partnership agreements with these employers and more to ensure a steady availability of placements for our students.

Supports for Student Placements

If students are selected for the internship stream, they are responsible for finding their own work term and are subject to employer interview processes. Our CWIL team also sources internship opportunities which are posted on the careerconnect website for students to choose and apply. These opportunities can be located in Edmonton or other Canadian cities as well. Additionally, there are a large number of supports in place to set students up for success in securing the internship and throughout its duration.

For example, CWIL provides students with support in developing their resumes and interview skills, while continually building relationships with employers to understand trends and what employers are looking for. CWIL staff will work to connect employers and students to find the right internship opportunity, while paying careful attention to the individual circumstances and experiences. Working with students in order to learn about their skills and strengths will also help ensure all students have equitable access to opportunities.

Additionally, CWIL offers a range of career exploration, experiential learning and employer networking events and programming to help students connect with prospective internship employers. Below are employment statistics of our BCom, MBA and Master of Accounting graduates.

- Our Work-Integrated Learning (WIL) team is actively engaged in posting opportunities on our Career Connect websites. From September 2020 to September 2021 Careers and Work Integrated Learning posted a total of 1,450 postings for over 500 employers.¹ Internship opportunities are posted on the careerconnect portal.

Fig 1: Bachelor of Commerce Employment Statistics 2018-2022

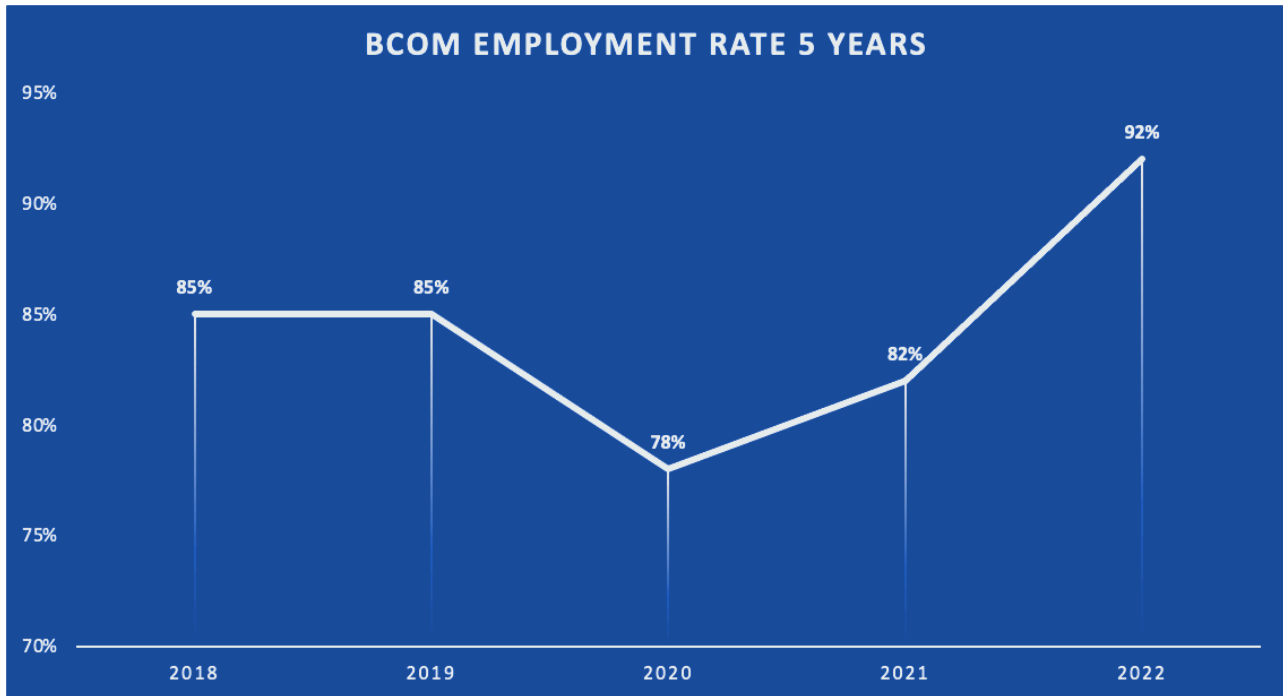
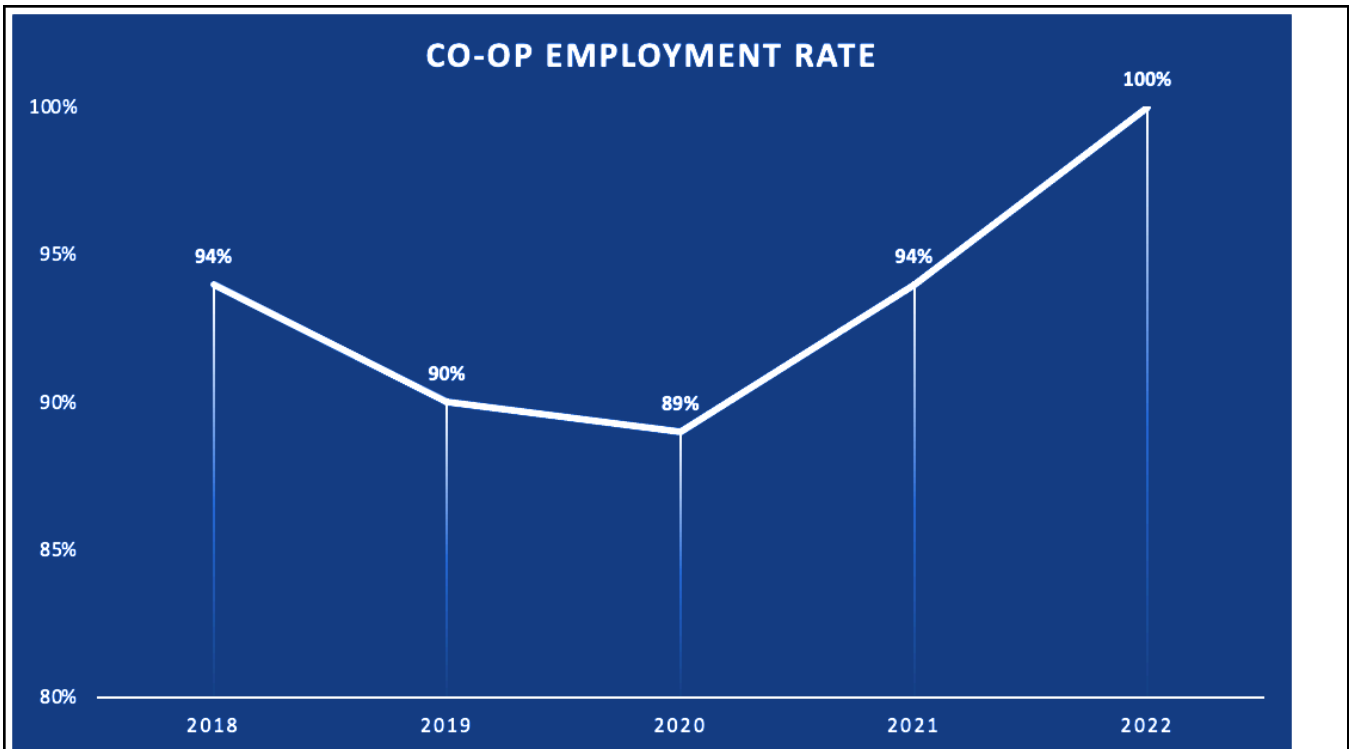


Fig 2: Co-op employment rate 2018-2022

¹ [Employment Statistics | Alberta School of Business](#)



- The MMA advisory committee will also actively engage in conducting networking sessions with industry professionals.
- As substantiated by our MBA employment report for 2022, 84% of our full-time graduates secured employment within three months of graduation.²
- The Master of Accounting students have been employed at organizations like PricewaterhouseCoopers (PWC), Klynveld Peat Marwick Goerdeler (KPMG), Ernst and Young (EY), Origami, Royal Bank of Canada (RBC), Meyers Norris Penny (MNP), Grant Thornton, Colby-Steckly.³

c. Comment on whether/how WIL placements in other programs may be impacted as a result of this program.

- Currently this is the only Master's program offered by the Alberta School of Business with a specific focus on management/data analytics. The MBA program is the only other Masters-level program with an internship component, and, due to its interdisciplinarity MBA internships target applicants from a broad range of fields; therefore, a significant overlap is not anticipated. The timing of these internship offerings are also offset with the proposed Master of Management Analytics work terms offered from September to December, and MBA internships from May to August.

²[ASB Employment Report](#)

³[Organizations Represented | Alberta School of Business](#)

- The scope of work would also be different for students who participate in undergraduate level data analytics internships, as compared to those studying at a Master's level. We anticipate employer agreements may also help to delineate opportunities for these populations.

Reviewer's Comment:

SECTION C: ENROLMENT PLANNING

1. (a) Projected Student Enrolment *(Complete the table below as applicable).*

- Below, Table 2 outlines our projected full-time enrollment strategy for the proposed Master of Management Analytics. The rationale behind the progression is:
 - **Year 1 and Year 2:** We plan to enroll a minimum of 25 new students in each of the first two years. As a newly established program, our initial priority is to maintain a manageable cohort size to ensure personalized attention and high-quality education for each student. This will also allow us to gather feedback, make necessary adjustments, and progressively enhance the program's effectiveness based on our experiences with the initial cohorts.
 - **Year 3:** In the third year, we aim to incrementally increase the intake to 35 new students. This reflects our intention to gradually scale up the program, capitalizing on the improvements and refinements implemented based on feedback from the first two years.
 - **Year 4 and Year 5:** By the fourth and fifth years, we plan to further expand our annual intake to 50 and 75 students, respectively. This increase aligns with our objective to extend the program's impact and reach, whilst being confident of our capacity to provide a high-quality educational experience for a larger student cohort. This growth will be sustained with the experience and systems put in place in the previous years.

• Table 2: PROJECTED FULL-TIME ENROLLMENT

Proposed Enrolment/year	No. of Students (without Internship)	Continuing Students	Total (Anticipated No. of Graduates)
• Year 1	25	0	25
• Year 2	25	0	25
• Year 3	35	0	35
• Year 4	50	0	50
• Year 5	75	0	75

Reviewer's Comment:

*Note that the numbers of continuing students are zero as this is a one-year program, therefore, each academic year starts with a new cohort. This ensures a consistent and comprehensive learning journey for all students in a given year.

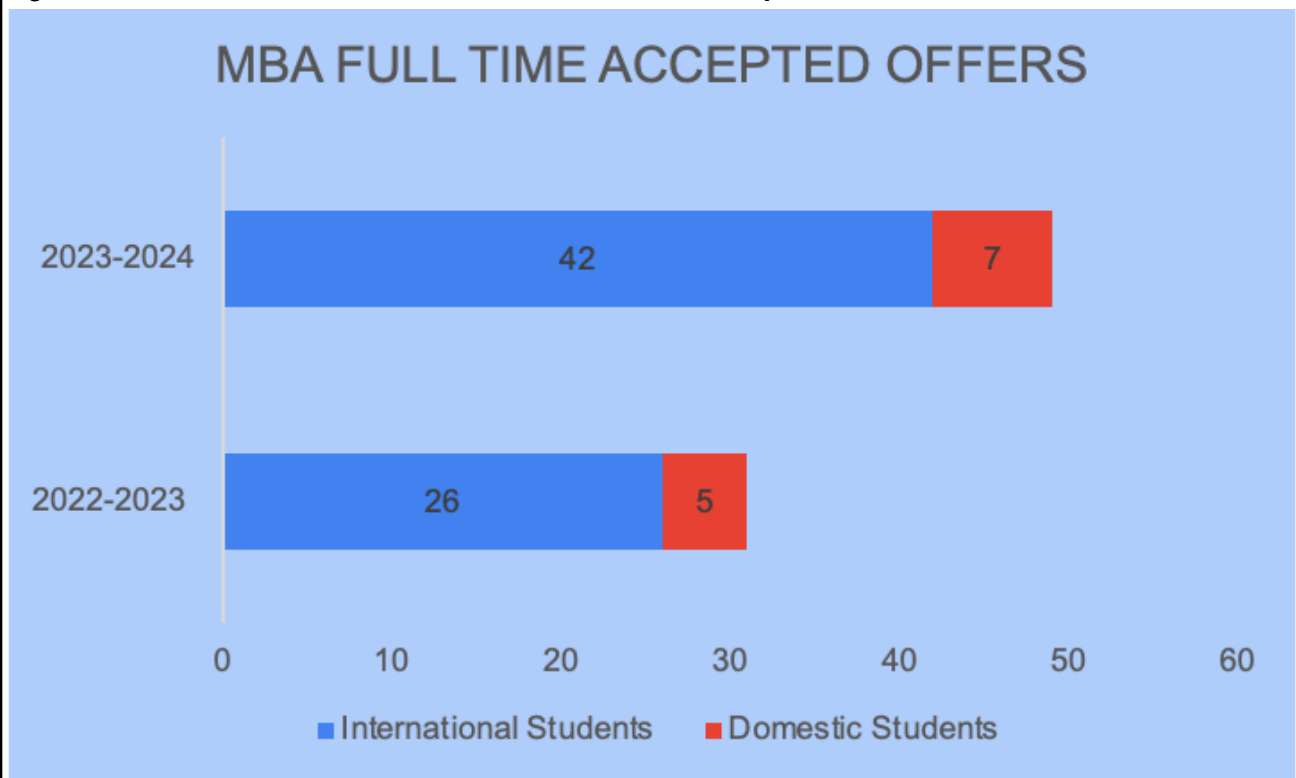
*Students who choose to opt for an internship to gain experiential learning will add an additional 4 months to the program before graduation making it a total of 16 months. No additional credit for choosing this option.

- a. Indicate the percentage of international students in the enrolment projections and provide a rationale regarding how the percentage was established.
- The University of Alberta School of Business has consistently tries to pursue a 50:50 ratio of domestic to international students in our MBA program, usually with an average class size of approximately 60 students. We anticipate commencing with a smaller cohort size for the proposed Master of Management Analytics in the initial two years, and remain committed to achieving a diverse blend of domestic and international students. Please note that due to a number of factors outside of the University's control, this ratio may fluctuate from year to year and, therefore, cannot be assured.
 - Our examination of other Canadian institutions offering analogous programs has revealed that international students constitute a substantial portion of their current analytics cohort sizes (please refer to Appendix 2A and 2B).
 - Within the Alberta School of Business BCom program, 18.42% are international students and 81.58% are domestic students.
 - The historical enrollment data for international students in our MBA program highlights its current popularity among students from around the world, as evidenced by the graphs below. The University is confident that the introduction of the proposed Master of Management Analytics program will further enhance our well-established reputation.
 - Therefore, we anticipate roughly 40% of international students in the MMA program.

Fig. 3: International Students MBA Full-time Applications 5-year Summary Statistics

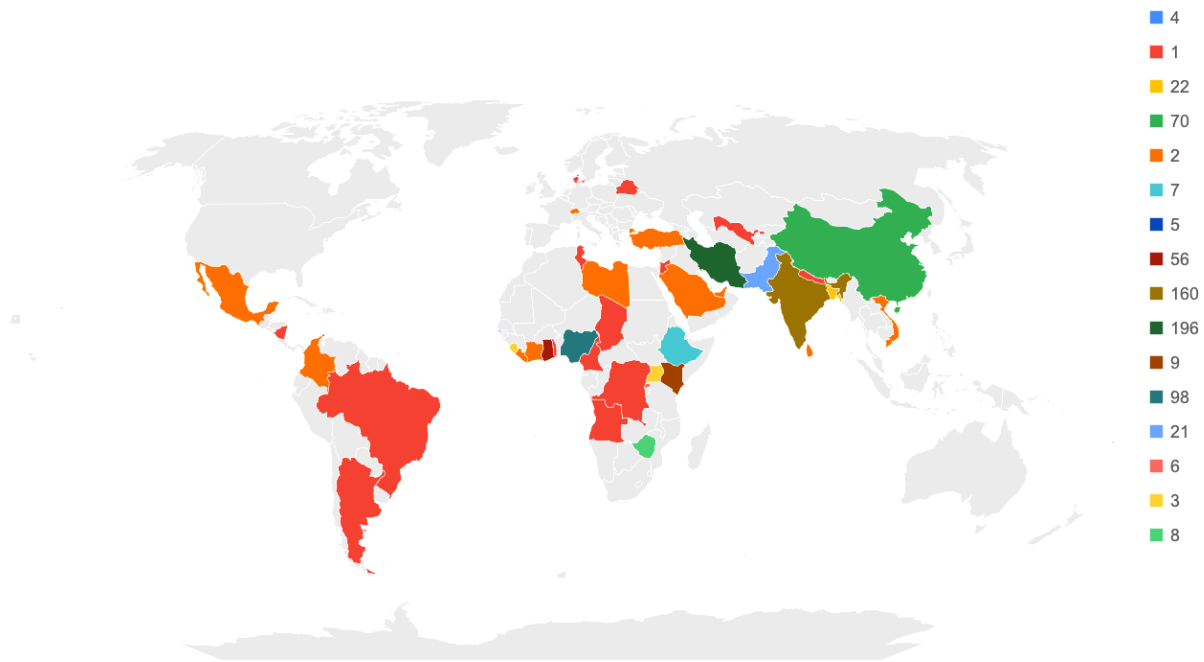
Source: Alberta School of Business, Masters' Program Office

Fig. 4: Full-Time MBA International/Domestic Students per Cohort 2022-2024



- The map below illustrates that Bangladesh, China, Ghana, India, Iran, Nigeria, and Pakistan are the primary source countries responsible for a significant portion of our Master's program applications. Secondary source countries encompass nations such as: Afghanistan, Colombia, Ethiopia, Gambia, Kenya, Rwanda, Uganda, and Zimbabwe. This data indicates the possibility of future expansion and potential interest emerging from these countries.

SOURCE COUNTRIES-INTERNATIONAL STUDENTS



Powered by Bing
© Australian Bureau of Statistics, GeoNames, Microsoft, Navinfo, Open Places, OpenStreetMap, TomTom, Zenrin

Source Countries for International Applications (MBA full time, Master of Accounting, MBA/JD dual degrees)

- As of August 31, 2023, the Masters' Program Office recorded a total of 836 applications for all masters programs. Notably, 701 of these applications, accounting for 84%, are from international candidates.

Additionally, the proposed program includes an introductory boot camp component, which can be especially beneficial for students as they embark on their academic journey. Finally, the Work Integrated Learning opportunities, such as the capstone project, offer students valuable hands-on work experience within Canada.

b. Briefly comment upon whether the program is primarily designed to:

i. cater to graduates of your institution

- This program is designed to cater to individuals possessing undergraduate degrees in STEM and/or business, and have aspirations to build careers in the fields of business analytics, machine learning (ML), data visualization, and artificial intelligence. Additionally, it serves as an excellent fit for professionals already engaged in such roles, offering them the chance to augment their skill set and acquire a well-rounded knowledge foundation that can propel their careers to new heights.
- Prospective students can be categorized into distinct groups, each with quantitative backgrounds in STEM, economics, or business disciplines. This includes those at the

undergraduate or graduate level at the University of Alberta who are looking to expand their comprehension of both the technical and managerial aspects of business analytics.

- Below, Figure 3 illustrates the comparison between the number of students registered and the total available seats for undergraduate-level courses focused on analytics.

Fig 3: OM 420 Predictive Business Analytics Course Demand

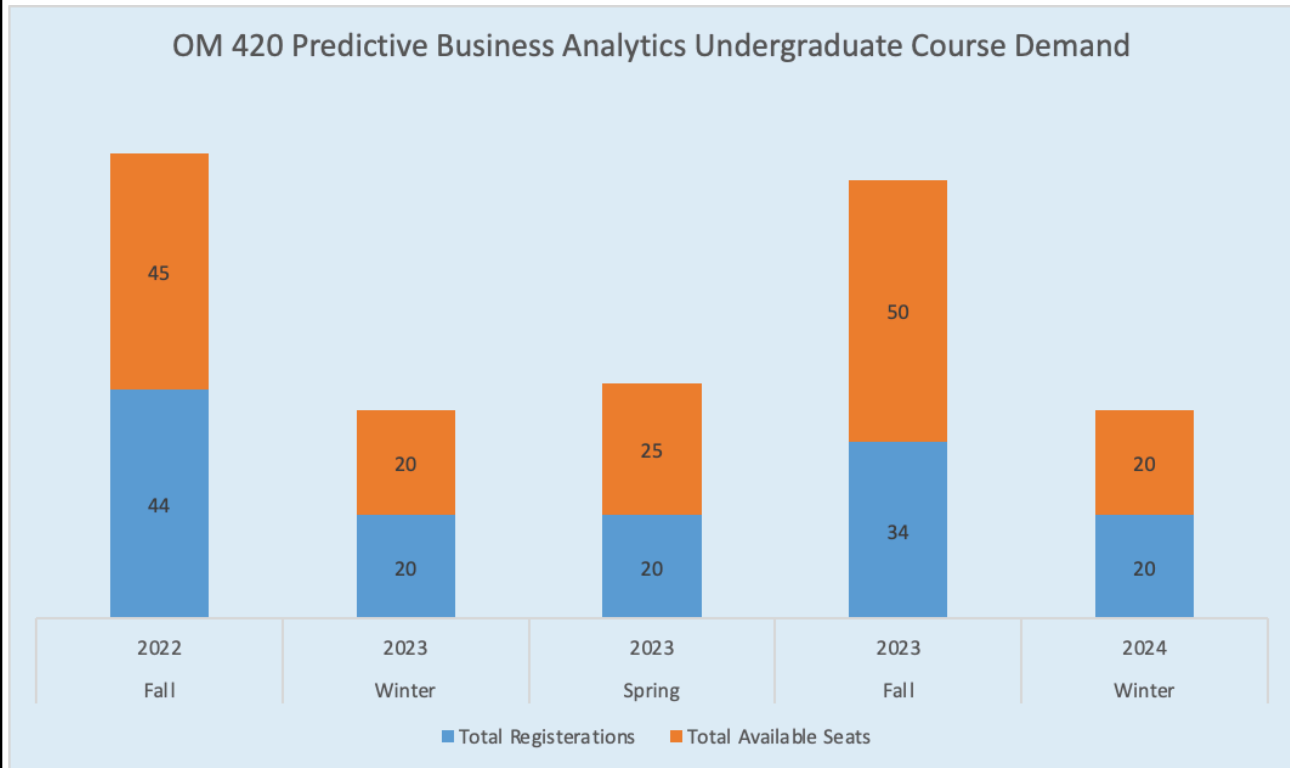
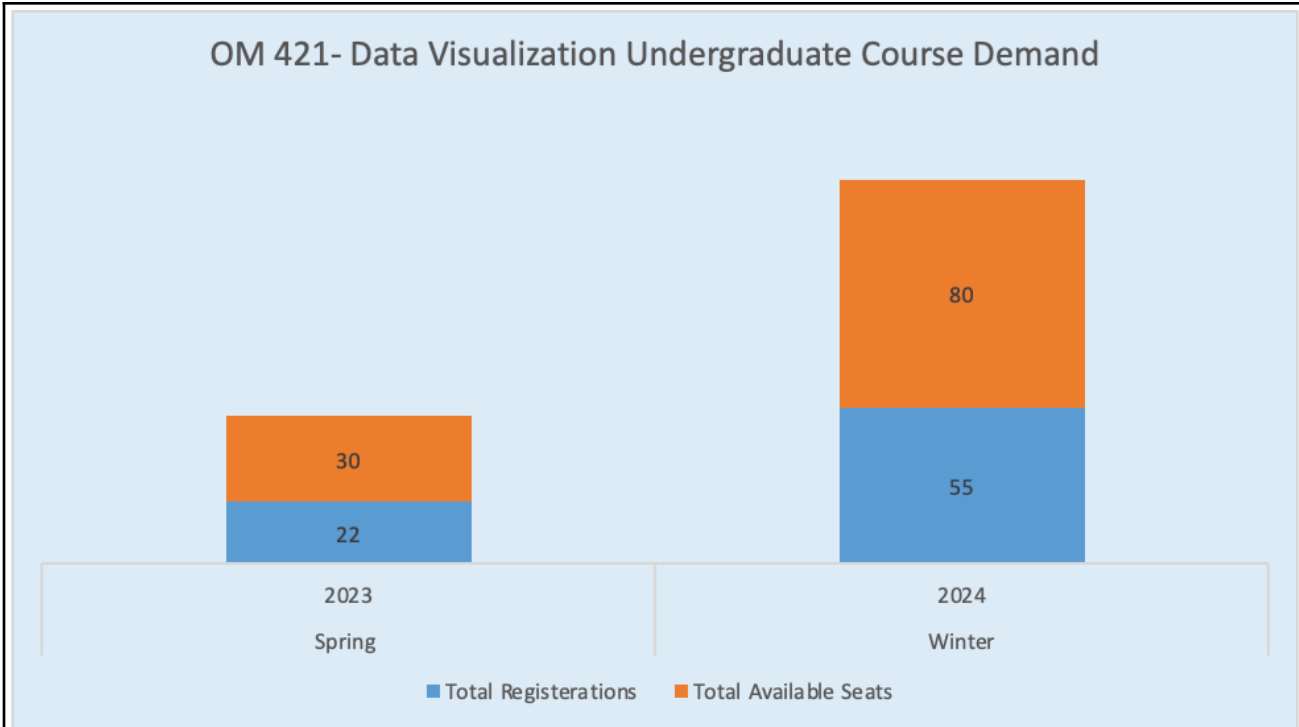


Fig 4: OM 421 Data Visualization Undergraduate Course Demand



ii. to meet a local demand

- The program is strategically situated to meet the demands of the expanding ML, innovation, and AI hub within the province. Recognizing that ML and business analytics are applicable in diverse industries, this program is crafted to address the skills gap essential for such roles, not only within the province but also nationwide in Canada. The overarching objective in launching this program is to deliver top-tier education while fostering crucial soft skills necessary for effective business leadership. This program will help retain graduates within the province while also fulfilling the workforce requirements of businesses across the entire country.
- Alberta is currently missing out on an important educational opportunity as it lacks a Master of Management Analytics program that goes beyond mere data analysis. Such a program would focus on harnessing data-driven insights to aid business decision-making, encompassing a wider range of activities like forecasting, predictive modeling, optimization, and using data to address specific business challenges and propel strategic initiatives.
- Additionally, Alberta is a world leader in post-secondary research across multiple sectors such as: agriculture and agri-foods, energy, health sciences, advanced technology, and more where these skill sets can be applied. The province is also recognized as a hotspot for innovation, and is one of the three major hubs for AI in Canada.

- The University of Alberta ranks third in terms of research that is heavily focused on AI and machine learning.⁴
- Edmonton is also home to the “Alberta Machine Intelligence Institute (AMii) that envisions and supports world-class research and training; growing machine intelligence capacity in business; creating a network of global innovators; and boosting machine intelligence literacy in business.”⁵
- Edmonton.ai is a community-based organization established with the aim of fostering the growth of 100 AI and ML companies in Edmonton. This initiative is driven by the notable achievements of researchers, educational institutions, and professionals in the region. It is evident that the job prospects in the field of AI and ML are poised for significant growth and advancement in Edmonton.⁶

iii. to meet a national demand

The realm of analytics finds practical application across a wide array of industries, leading to the existence of numerous job titles within this field. The career opportunities for analysts are incredibly diverse, as virtually every industry requires their expertise, including healthcare, aviation, media, finance, consulting, technology, and more.

- Our investigation into the job outlook for a specific role, that of "database analysts," as conducted on the jobbank.ca website, indicates that this occupation is poised to face a shortage of skilled professionals in the coming decade, spanning from 2022 to 2031.⁷
- Moreover, when performing a specific keyword search across various job titles on the jobbank.ca website, the results demonstrate a demand for positions related to "analyst, business management" throughout Canada, falling within the "Good to very good" range. Notably, the Prairie provinces exhibit a particularly high demand, rated as "Very good." Comparable outcomes were observed when conducting a keyword search for "Management Analysts."⁸
- The proposed Master in Management Analytics aligns with the thriving business intelligence and ML industry and community in the Edmonton region, extending its impact across the entire province and benefiting both students and the wider community within the Prairie provinces and nationwide.
- It's worth highlighting that no other business school in Alberta presently offers a program like this, positioning it as a pioneering initiative within the region.

iv. meet an international demand (some points cover national demand)

- Despite the growing demand trend for business/management analytics graduates, the admission rates for top North American business analytics programs remain highly competitive. According to the Graduate Management Admission Council (GMAC), the

⁴ <https://edmonton.ai/>

⁵ [About | Alberta Machine Intelligence Institute](#)

⁶ [Edmonton.AI](#)

⁷ [Job prospects Database Analyst in Canada](#)

⁸ [Jobbank outlook.](#)

demand for business analytics programs has increased significantly in recent years. The reports published by GMAC show that the number of applications for graduate management education (GME) has increased globally in 2020 and 2021 compared to the previous years⁹. In 2022, Canadian programs received a median of 4.4 applications per seat and accepted a median of 37 percent applicants¹⁰. This means that the acceptance rate is even lower for more trending and prestigious programs. For example, the admission rate at Massachusetts Institute of Technology's (MIT) Master of Business Analytics is 4%¹¹. The University of Southern California (USC) is expected to have an acceptance rate of 12.4% for 2023-2024¹². Canadian business schools also receive many more inquiries and applications than they can accept. Queen's University, for instance, is accepting 30 to 40% of its applicants¹³, and the York University graduate acceptance rate is 11%¹⁴. The University of British Columbia's Sauder School of Business accepts only 6% of applicants.¹⁵

- According to the Bureau of Labor Statistics, there is a projected 36% increase in employment for data scientists by 2031. Additionally, findings from the GMAC Corporate Recruiters Survey, which represents the perspectives of nearly 1,000 corporate recruiters and staffing firms worldwide, indicate that 92% of corporate recruiters and 95% of staffing firms have plans to hire new business analysts. This same report also demonstrates a high level of confidence, with 87% of corporate recruiters expressing confidence, or even high confidence, in the ability of business schools to prepare students for success in their organizations.¹⁶
- According to a LinkedIn report, business analytics ranks among the top 10 most sought-after skills by employers worldwide. The same report highlights that Python, SQL, and data analysis are considered highly desirable hard skills in demand¹⁷
- Figure below shows that a masters degree in analytics is one of the rising areas of study.¹⁸

⁹ [GMAC Report- Increase in Graduate Applications](#)

¹⁰ [GMAC Survey-Median Applications](#)

¹¹ [MIT Master of Business Analytics Acceptance Rate](#)

¹² [university-of-southern-california acceptance rate](#)

¹³ [Queen's Acceptance Rate](#)

¹⁴ [York Acceptance Rate](#)

¹⁵ [UBC Acceptance Rate](#)

¹⁶

¹⁷ [The Most In-Demand Skills for 2023 | LinkedIn](#)

¹⁸ [Rising areas of study](#)

RAPIDLY RISING AREAS OF STUDY

FASTEST-GROWING DEGREES



Bachelor's Degrees PUBLIC HEALTH NURSING

For the third year, this program is one of the two fastest-growing bachelor's programs in the nation. The lingering impact of COVID-19 and increased attention to reducing health disparities have fueled strong student interest in public health/community nursing.



Master's Degrees INTELLIGENCE

After several years of rapid growth at the undergraduate level, the intelligence field is now experiencing booming interest among graduate students.

FASTEST-GROWING FIELDS



Bachelor's Degrees PUBLIC SERVICE

Half of the nation's fastest growing undergraduate programs are in fields that would contribute to the community or public good.



Master's Degrees DATA ANALYTICS

The rapid expansion of data available to organizations in support of their missions has fueled a cottage industry of analytics. Both business statistics and management science programs are developing graduates to meet this need.

EMERGING FIELDS



Bachelor's Degrees PHARMACEUTICAL SCIENCES

With stagnating demand for PharmD programs, pharmacy schools are giving increased attention to the undergraduate student market.



Master's Degrees HUMAN BEHAVIOR

The range of programs focused on human behavior speaks to student motivations and research applications to improve people's quality of life through therapeutic, business, and social science approaches.

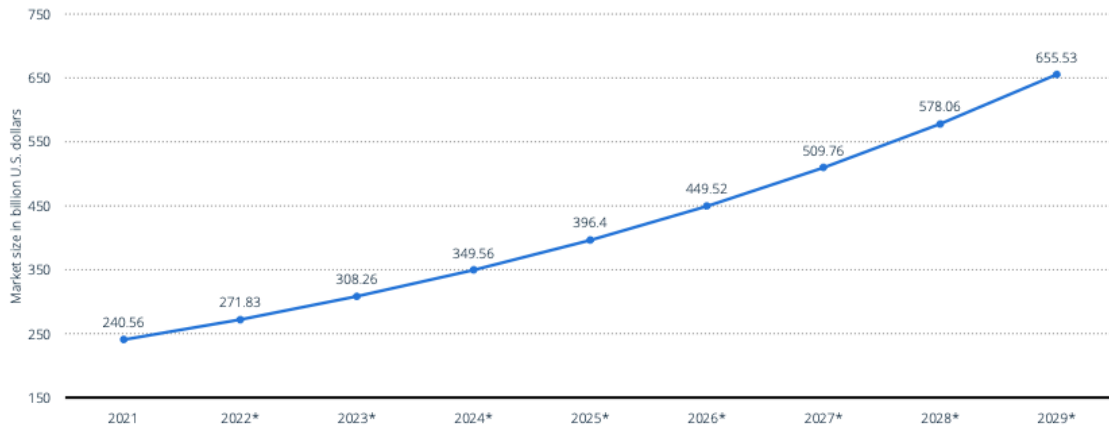
Reviewer's Comment:

2. Learner and Labour Market Demand *(Answer the following questions)*

- a. Provide evidence of labor market demand for graduates, detailing how such demand was forecasted and substantiated regionally and provincially. (Append supporting documentation, as appropriate.)
- The proposed Master of Management Analytics will equip students with a comprehensive and interdisciplinary curriculum that covers topics such as data management, data analysis, data visualization, business intelligence, and decision-making. The program responds to the high demand for graduates with data science and analytical skills in today's job market, as employers from diverse sectors and regions look for talent who can leverage data to drive innovation and growth.
 - The global big data market is indeed a rapidly growing industry, and the figures provided reflect significant growth potential. See the breakdown included below:

Size of the big data analytics market worldwide from 2021 to 2029 (in billion U.S. dollars)

Global big data analytics market size 2021-2029



Note(s): Worldwide; 2021
Further information regarding this statistic can be found on [page 8](#)
Source(s): Fortune Business Insights; Statista; [ID 1336002](#)

6

statista

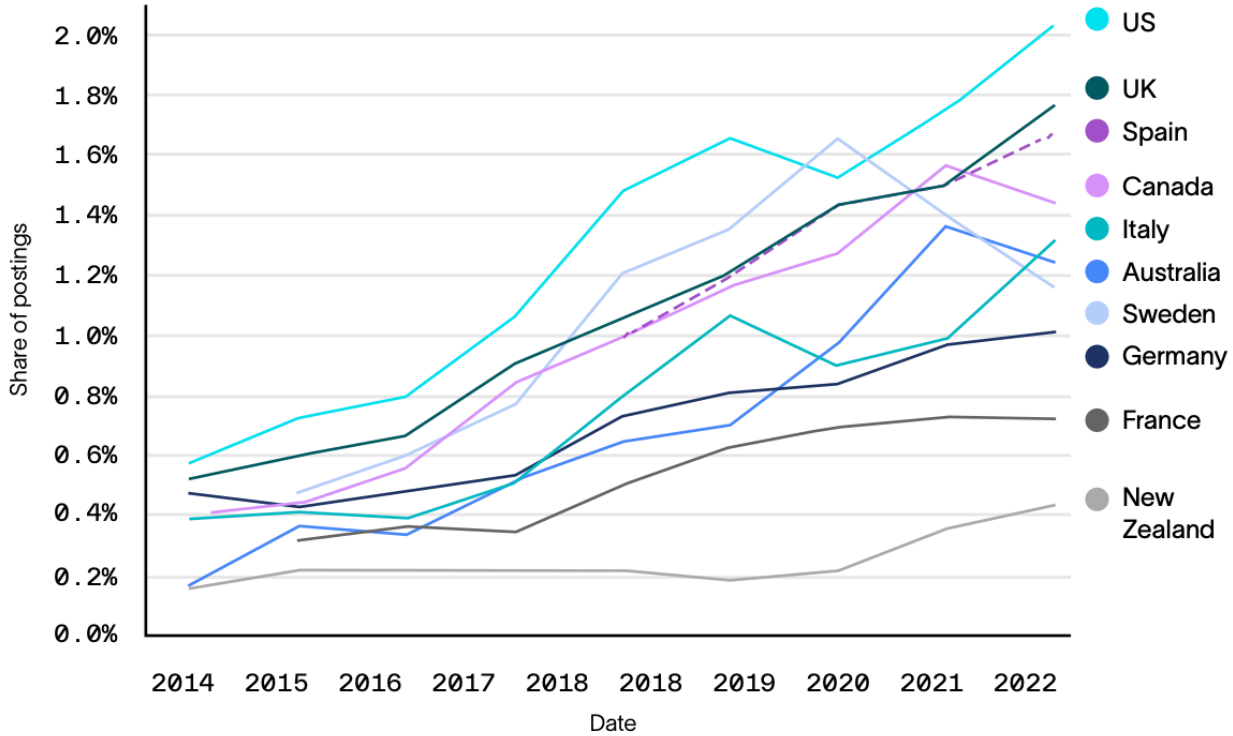
- Data visualization has seen a rise in popularity across various professions, gaining significance even in roles unrelated to conventional data-focused careers. Examples include actuary, compensation and benefits manager, talent acquisition manager, tax specialist.¹⁹
- The realm of AI is generating fresh employment opportunities, with a growing demand for skills associated with it. Since 2014, the number of AI-related jobs has tripled in the United States, United Kingdom, and Canada.²⁰

Fig 5

¹⁹ [Shifting Skills, Moving Targets, and Remaking the Workforce](#)

²⁰ [AI Job Postings Worldwide](#)

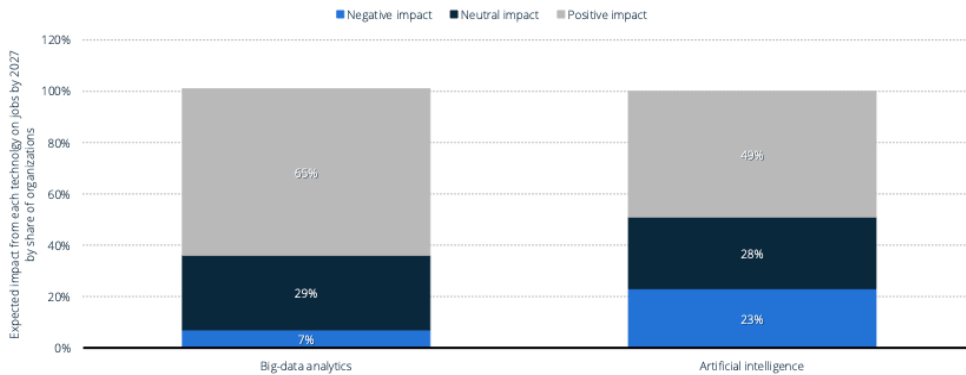
AI share of total postings



Source: [Lightcast](#)

Impact expected from AI and big-data analytics on jobs by companies worldwide from 2023 to 2027

Global impact of AI and big-data analytics on jobs 2023-2027



Note(s): Worldwide; November 2022 - February 2023; 803 global companies; Responses represent over 11.3 million employees worldwide. Further information regarding this statistic can be found on [page 8](#). Source(s): World Economic Forum; [ID: 1383919](#)

2

statista

- The figure above shows that artificial intelligence and big data analytics will have a positive global impact on jobs.²¹
- Business Analysts job falls under top 5 job postings in various cities of Canada. Refer Appendix 3 A-F
- A search on indeed.com using the keywords "predictive analytics jobs" yielded a total of 351 job listings spanning across various locations in Canada, displaying various job titles.²²
- Another keyword "analytics" search yielded a total of 8862 job listings spanning across various locations in Canada, displaying various job titles.²³
- A search for "business analysts" jobs across Canada produced a total of 1,770 job listings, showcasing a variety of innovative job titles within the general category.²⁴
- The demand for a relatively recent role, that of Chief Data Officers (CDOs), is steadily increasing. Organizations are actively seeking individuals for this position to lead teams in maximizing the effective utilization of data. The appointment of individuals to this job role at 2500 publicly listed firms has seen a global increase, rising from 21% in 2021 to 27% in 2022.²⁵ In recent years, this role has garnered heightened attention, particularly as large organizations aim to incorporate an effective data strategy as a crucial component of their broader digital transformation initiatives.
- Management Analysts are also considered amongst the top 5 job occupations by volume²⁶
- As per a recent report released by MIT, Chief executives are increasingly expecting their technology investments, including those in data and AI, to yield greater value and productivity for their organizations than in the past. The survey results also state various sectors adapting to the use of AI/ML technologies at a greater speed. These sectors include, retail, energy, telecommunications, healthcare, financial services, manufacturing, media, and government/public sectors. ²⁷
- See the table below, listing the top 10 industries that rely on data and analytics based skills to make informed decisions:

Industry	Job Role
----------	----------

²¹ [Positive Impact on Jobs](#)

²² [Predictive Analytics Job Roles](#)

²³ [Analytics Job Postings](#)

²⁴ [Business Analysts Job Postings Canada](#)

²⁵ [Share of leading global firms with a CDO 2022 | Statista](#)

²⁶ [Top Career Skills Report.](#)

²⁷ [MIT Survey](#)

Healthcare	Enables predictive analytics for patient care and resource allocation.
Finance and Banking	Enhances risk assessment, fraud detection, and investment strategies.
E-commerce	Personalizes recommendations, optimizes supply chains, and tracks customer behavior.
Manufacturing	Optimizes production processes, quality control, and predictive maintenance.
Retail	Improves inventory management, customer insights, and demand forecasting.
Telecommunications	Enhances network optimization, customer experience, and market analysis.
Mining and Quarrying	There are many phases of the mining process where data analytics can be put to practical use. The mining industry is increasingly using advanced analytics (AA) and AI applications to optimize processes, enhance decision-making, derive value from data, and improve safety.
Energy and Utilities	Enables energy consumption monitoring, grid management, and asset maintenance.
Transportation and Logistics	Optimizes route planning, fleet management, and supply chain visibility.
Media and Entertainment	Personalized content recommendations and measures audience engagement.
Government and Public Sector	Enhances policy formulation, resource allocation, and citizen services.

b. Identify which stakeholder groups were consulted regarding demand/need for this program:

- ✓ Student/learners
- ✓ Faculty
- ✓ Employers and professional institutions
- ✓ Community Organizations

✓ Other post-secondary institutions
Program advisory committee
Regulator and/or accreditation bodies

- c. Summarize the results of the identified consultations and attach supporting documentation (e.g., minutes of meetings, letters of support, etc.), when available.
- See Appendix 4 A, B and C for internal and external consultations
 - Letters of Support See Appendix 12 (More to be received)
- d. Provide evidence of student demand for the program. (e.g., survey results, waitlists, demand in similar programs at other institutions etc.).
- External research into Canadian educational institutions has revealed that nearly every university's school of business offering graduate programs includes a program similar to the one we are proposing, with the notable exception being the Prairie region. Among the top institutions in the country offering such programs are the University of Toronto's Rotman School of Management, Queen's University's Smith School of Business (who recently celebrated 10 years of their MMA program), York University's Schulich School of Business, McGill University's Desautels Faculty of Management, the Ivey Business School, and the Sauder School of Business at the University of British Columbia (see Appendix 5 for program comparison table)..
 - These existing programs typically maintain an average class size of approximately 60 students each year. Furthermore, employment reports from these institutions consistently indicate near-perfect employment rates for their graduates, approaching 100%. (See Appendices 2A,2B for class size.). This not only reflects the high demand from students, but also underscores the strong demand for graduates by employers in the field.
 - According to a recent report, there is a notable surge in demand for master's degrees in analytics, making it one of the most rapidly expanding academic programs. This trend is driven by students' desire to enter the swiftly growing field of data related employment opportunities.²⁸
 - Similar trends have been observed in institutions in the United States as well. Highly regarded institutions like the McCombs School of Business at the University of Texas at Austin and the Marshall School of Business at the University of Southern California have reported receiving a substantial number of applications for their programs²⁹
 - According to a 2022 report from the Ministry of External Affairs, Government of India, there are currently 1,324,954 Indian students pursuing their education in 79 foreign countries, making it one of the most extensive international student populations globally of which Canada is second on the list of top five preferred destinations. ³⁰The majority of these students gravitate towards STEM fields and finance and business studies. With the rise of technologies such as the Metaverse, Blockchain, and AI-driven platforms, there is an

²⁸ [Demand for Masters Degree in Analytics](#)

²⁹

[What does the future hold for master's degree programs in business analytics? | Fortune](#)

³⁰ [Top 5 Study Abroad Destinations for Indian Students - Times of India](#)

increasing interest among Indian students in studying AI and ML abroad. The survey indicates that nearly 24% of these students show an inclination towards pursuing advanced technologies overseas. Additionally, contemporary specializations like Business Analytics, Data Analytics, Cybersecurity, Digital Marketing, and Ecotechnology are becoming popular alongside the conventional MBA courses.³¹

- Appendix 6 includes student comments received from the current Alberta School of Business student survey.
- A recent report highlights an increasing demand for master's degree programs that equip students with the skills to make informed decisions using data.³² Figure below:

DEGREES RISING TO THE TOP

FASTEST-GROWING DEGREES



Bachelor's Degrees **ECONOMETRICS AND QUANTITATIVE ECONOMICS**

As the field of economics becomes more empirical and employers increasingly seek workers with quantitative skillsets, econometrics programs have grown in popularity.

FASTEST-GROWING FIELDS



Bachelor's Degrees **MULTI/INTERDISCIPLINARY PROGRAMS**

Four of the top 10 fastest-growing undergraduate degrees are multi- or interdisciplinary, revealing student interest in programs that combine the study of multiple fields.

EMERGING FIELDS



Bachelor's Degrees **SUSTAINABILITY PROGRAMS**

Sustainability-focused undergraduate programs have become more popular because of growing public awareness about environmental concerns. Relatedly, as interest in green building grows, more students are demanding programs in architecture and building sciences.



Master's Degrees **BEHAVIORAL SCIENCES**

Increasing awareness of how human behavior affects business, policy, and everyday life has fueled growth for graduate programs in the interdisciplinary field of behavioral sciences.



Master's Degrees **ANALYTICAL AND DATA-BASED PROGRAMS**

Graduate programs in analytical and data-based fields, including cyber operations and database administration, have grown in popularity as students prepare to enter rapidly evolving



Master's Degrees **MANAGEMENT SCIENCES**

As businesses increasingly seek ways to make data-driven decisions, graduate programs in management science and related fields are seeing increased student demand.

- The table presented below provides a comprehensive summary of comparator institutions that have introduced degree programs similar to ours and the dates when they launched these programs. This table highlights the fact that analytics is not a newly emerging skillset; instead, the demand for it has been evident for over a decade. It underscores that both domestic and international students seek this skillset. Therefore, it is crucial for the Alberta School of Business to address these evolving demands by offering this highly sought-after degree as soon as possible.

Institution	First Cohort/Launch Date
Rotman school of management, University of Toronto	Fall 2018 ³³

³¹ [Courses that top the list for Indian students planning to study abroad - The Economic Times](#)

³² [Demand for degrees offering skills specific to data driven decision making](#)

³³ [The Management Analytics Practicum Fall presentations](#)

Smith school of Business, Queen's University	Fall 2013 (Celebrated 10 year anniversary September 2023) ³⁴
Sauder School of Business, University of British Columbia	Fall 2017 ³⁵
Ivey Business School, Western University	Fall 2021 ³⁶
Desautels School of Management, McGill University	Summer 2018 ³⁷ . Also, expanded the degree to a complete online delivery format in September 2023 ³⁸
Schulich School of Business, York University	First Canadian business school to launch in 2012 ³⁹

e. Identify and discuss any additional factors that may impact student demand for this proposed program.

- Interprovincial migration
- Growing tech hub in Edmonton and Alberta
- As mentioned, a master's degree in analytics is highly sought after by students.

f. Comment on the overall sustainability of learner demand for this program over the longer term.

- Analytics is not just an industry per se; it is a highly specialized profession that holds relevance across multiple industries. As businesses continually strive to make well-informed decisions to foster future growth, the proposed program becomes a valuable opportunity for both recent graduates and working professionals to augment their skill sets and amass a wealth of knowledge that can significantly propel their careers within the business realm.
- For students with little to no prior experience, who aspire to enter the analytics field, this program provides a diverse range of choices when it comes to industry preferences. Likewise, for working professionals seeking to switch industries, the enhanced skills acquired through this program can be instrumental in facilitating a successful transition.
- Given the small cohort size in the initial years and Edmonton's as well as Alberta's increasing status as a ML/AI/technology center in Canada, the learner demand sustainability of the proposed Master of Management Analytics is strong. The program's elective course offerings and the ability to add new in-demand electives provide flexibility to remain current with changes in this industry.

g. Describe how the enrolment plan takes into account relevant labor market demand and societal benefit factors.

³⁴ [Smith School of Business Launch](#)

³⁵ [UBC Sauder launches UBC Master of Business Analytics](#)

³⁶ [Ivey launches advanced masters degree for analytics professionals | News & Events](#)

³⁷ [Specialty graduate degrees spring up to meet emerging needs - The Globe and Mail](#)

³⁸ [McGill University expands its business analytics degree with online delivery](#)

³⁹ [Schulich launches new Master of Science in Business Analytics program - Research & Innovation](#)

- The Master of Management Analytics program offers significant societal benefits by enhancing the skills of individuals in the Edmonton and Alberta regions. The province of Alberta is growing and developing exponentially. It enables some to acquire a more profound understanding and expertise in data analytics, machine learning and artificial intelligence, while others can transition into this field. Additionally, the program is attractive to students due to its program duration, the inclusion of a real world capstone project that prepares students for employment and its ability to position graduates in the booming technological development market not only in Alberta but also nationwide.

Reviewer's Comment:

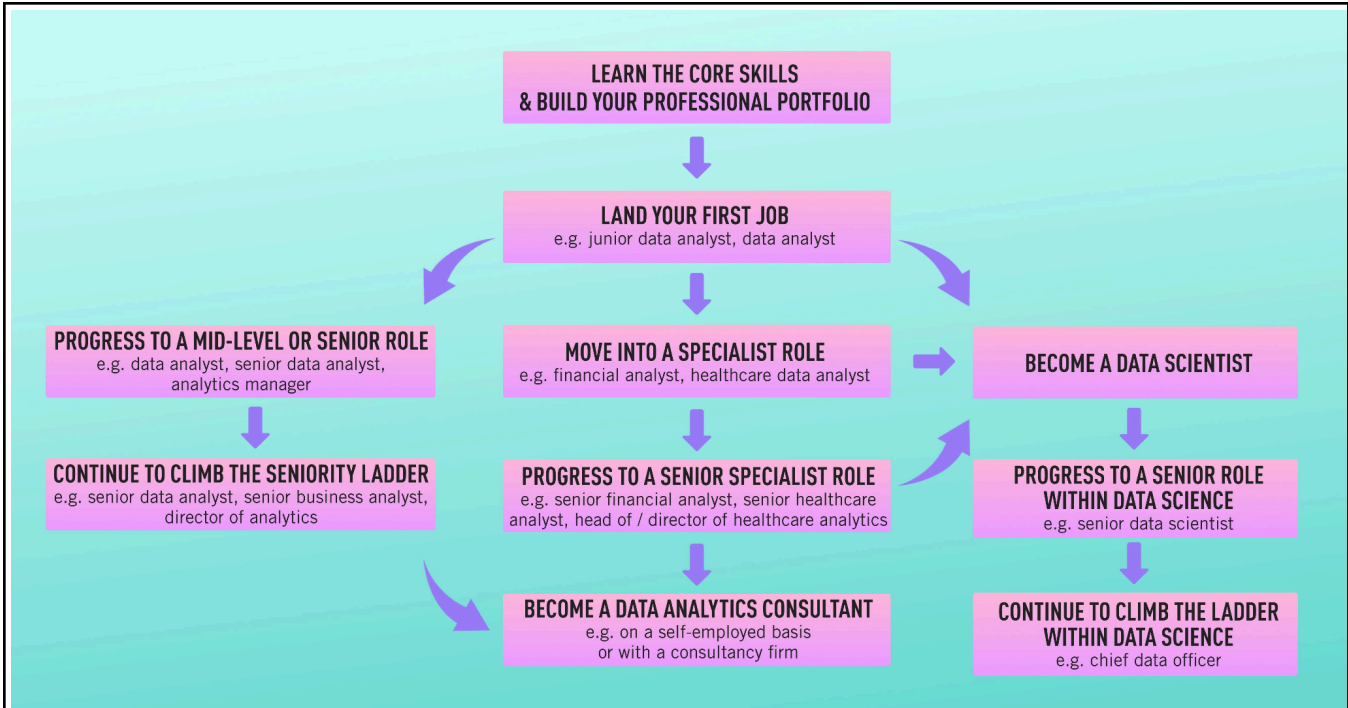
SECTION D: GRADUATE OUTCOMES AND PATHWAYS

1. Employment Outcomes *(Answer the following questions)*

- a. Are the majority of graduates expected to enter directly into the labor market upon graduation or continue on to further study? (Elaborate as needed).
- The program anticipates that a significant portion of its graduates will directly enter the workforce. This expectation is based on the program's practical curriculum, which is highly relevant to the increasing demand for analytical roles in most industries. These roles necessitate both technical expertise and management skills to make data-driven decisions that drive business growth.
 - A master's degree in management analytics is designed to serve as a robust foundation for entering the analytics field or further advancing the careers of individuals who already possess experience in this domain. Graduates from this program will find employment opportunities across a wide spectrum of industries, including but not limited to manufacturing, financial and insurance services, retail, healthcare, information technology, public administration, education, and research and development.
- b. What types of academic/professional positions does the proposed program prepare graduates for?
- This degree program is crafted to offer students an immersive experience in the most cutting-edge concepts and practices. Through a carefully designed curriculum, tailored to their career aspirations, students are empowered to stay at the forefront of knowledge in the dynamic fields of global business and artificial intelligence, analytics, machine learning and data-driven decision-making.
 - Below are just a few examples, and the job titles can vary depending on the specific industry and organization. A Master's in Management Analytics provides a versatile skill set that can be applied to a wide range of roles in various sectors. Some more sample roles include:

*Source: Employment reports of comparator institutions and job postings on Indeed.com

- Manager, Fraud Analytics
- Senior Associate, Venture Capital
- Business Insights Analyst
- Data Engineer
- Project Manager
- Application Architect
- Business Intelligence Officer
- Product Management
- Management Analyst
- Machine Learning Engineer
- Data Architect
- Statistician
- Chief Technology Officer
- Product Owner
- Senior Analysts
- Technology Consultants
- Senior Business Intelligence Consultant
- Students can also utilize the Master of Management Analytics degree and learnings/skillset to venture into entrepreneurship by contributing to Alberta's booming ML/AI startup ecosystem.
- Anticipating that our graduates will be exceptionally well-prepared for future career opportunities, we recognize that this program confers a significant advantage. A management analytics degree is uniquely versatile, appealing to a wide array of industries and employers. It equips students with highly sought-after technical skills, including proficiency in machine learning and optimization. Importantly, these technical skills are not merely theoretical but are harnessed to deliver tangible results in real-world contexts.
- In addition to career opportunities in various industries, students interested in pursuing further academic studies have the option to pursue a Ph.D. with a specialization in Operations and Information Systems at the Alberta School of Business.
- For industry professionals seeking new avenues, the possibility of securing lecturer positions can be explored, particularly in analytics courses, at the University of Alberta.
- Graduates with a Master's in Management Analytics can hold various job titles depending on their specific roles and responsibilities within organizations. (See appendix 7)
- In conclusion, an MMA degree equips graduates with the capabilities to enter the analytics field even without prior experience, enhances existing skills to pave the way for career advancement, provides opportunities for further academic pursuits and careers in academia, and fosters innovation and entrepreneurship. (For information on the entrepreneurship component refer to section 2b.)
- The image below shows a typical career path for an analytics professional:



*Source: [What is the Typical Data Analyst Career Path? \[2023 Guide\]](#)

These are just a few examples, and the job titles can vary depending on the specific industry and organization. A Master's in Management Analytics provides a versatile skill set that can be applied to a wide range of roles in various sectors.

c. Identify program supports that assist graduates to successfully transition from university to employment.

Career Centre: The University of Alberta Career Centre is the source for career and employment information and expertise at the University of Alberta. The Centre strives to empower students, postdoctoral fellows, and alumni to develop the skills, knowledge, experiences, and connections they need to confidently manage their careers. Students can receive individual advising on career management and work search strategies, work search tools, graduate school applications, interview preparation for industry or academia, and their LinkedIn profile. Students who require prolonged career support to address complex issues can access career coaching services with the option of accessing online modules for added support. A suite of experiential learning programs including speaker series, career information interviews, career mentoring, job shadowing, internships and work experience programs, and undergraduate research put students in contact with professionals from their field of interest to explore career options at a deeper level. Students can also access funding to offset the costs of professional or leadership activities. The Career Centre offers an extensive online job board, several online resources, and two multi-disciplinary career fairs per year. Career support is also offered to alumni for life.

[Careers and Work Integrated Learning | Alberta School of Business](#), and [Career Connect](#)

International Student Services: University of Alberta International (UAI) provides immigration advice and advises degree-seeking international students, short term visiting students, and visiting interns on their eligibility to work in Canada while studying, while in a short term internship, and after graduation. UAI offers additional support such as an online orientation for international students with components focused on navigating working in Canada, information on applying for a social insurance number and filing income taxes, as well as webinars on intercultural competencies for living and working in Canada. UAI developed the International Student Work Experience Program that currently resides in the Career Centre.

In addition to the above:

- It is anticipated that a number of graduates will have basic technical skills for students hailing from STEM background, as well as students hailing from a business background will have basic knowledge about business management. Alternatively, some students may already be employed in entry-level positions and looking to advance their career paths. Alternatively, for those who are not already employed, the analytics program and the Alberta School of Business has very strong ties to industry and would continue to work with those contacts to develop opportunities for graduates.
- The proposed program includes a capstone project that will bring students in contact with industry partners to work on real life projects.
- Within the Alberta School of Business, there are multiple student groups dedicated to organizing networking events and hosting guest speaker sessions tailored for our graduate students. These student organizations also oversee an experiential learning portfolio, which involves the coordination of both internal and external case competitions. [Student Organizations | Alberta School of Business](#)
- Our Careers and Work Integrated Learning team is dedicated to establishing industry Memoranda of Understanding (MOUs) to facilitate the hiring of our students. They also oversee the Career Connect portal, where a multitude of job postings are regularly featured. [Career Connect](#)
- Our career coaches and work integrated learning team play a crucial role in assisting students. They help students identify their core strengths, provide guidance in resume building, aid in creating LinkedIn profiles, and conduct mock interviews to enhance interview preparedness. [Careers and Work Integrated Learning | Alberta School of Business](#)
- The eHub entrepreneurship center plays a vital role in providing education, support, and comprehensive mentorship to University of Alberta students, fostering their development as innovative and entrepreneurial thinkers. In collaboration with our partners, mentors, faculty, and fellow students, eHub is dedicated to assisting students in their journey to identify and

implement solutions to challenges within their communities, workplaces, and organizations.

[About eHUB](#)

- Finally, the creation of an MMA Advisory Committee serves a vital function by providing industry experts with the opportunity to take on mentorship roles. This, in turn, helps forge valuable connections, promotes networking, and enhances employment prospects for our students.

Reviewer's Comment:

2. Societal Benefits and Pathways (*Answer the following questions*)

- a. In cases where labor market demand is not the primary reason for this program, identify anticipated social and community benefits (in addition to employment outcomes) within local, national or international contexts.

A recent Wharton School of Business report⁴⁰ The panel discussed how analytics help in societal good. A few areas highlighted were :

1. Machine learning tools have been instrumental in enabling the Greek government to monitor the arrival of COVID patients.
2. The analysis of sex trafficking data has yielded valuable insights. Previously, efforts were primarily focused on wealthier urban areas where victims were frequently exploited. However, the new data indicates that redirecting preventive and remedial resources toward less affluent areas, where victims are often ensnared, proves to be a more effective strategy. This shift in emphasis acknowledges the underlying causes and vulnerabilities within these impoverished communities, thereby addressing sex trafficking at its source and providing more meaningful support to those in jeopardy.
3. Analytics can also serve a pivotal role in dispelling long-held misconceptions, as exemplified by a recent study. Contrary to prevailing beliefs, the study employing analytics uncovered that TV broadcasts have a significantly greater impact in disseminating biased reports compared to social media. This revelation challenges prior assumptions regarding the relative influence of different media sources in shaping public opinion.
4. The utilization of GPS tagging and camera traps represents a potent tool for gathering real-time data on the movements and behaviors of some of the planet's most critically endangered animals. This technology empowers conservation groups with crucial information needed to potentially safeguard these species from extinction. Data scientists can employ this data to track migration patterns, monitor fluctuations in population size, assess trends of growth or decline, and identify potential risks that pose threats to these endangered species. In doing so, they make a substantial contribution to the protection and preservation of these invaluable creatures.

⁴⁰ [Data Analytics Is Changing The World - Here's Why You Should Care | Ironhack Blog](#)

5. The United Nations has emphasized that the abundant availability of data and the advancement of analytical tools will play a significant role in making substantial progress towards achieving the UN Sustainable Development Goals.⁴¹

Benefits to Women:

- According to a report by the Boston Consulting Group, the current employment rate for women in the field of AI and analytics stands at a mere 15%.⁴² To address this gender gap, the logical starting point is to introduce a specialized degree program in this domain. The introduction of this program will give an opportunity to women interested in having a career in analytics/AI/ML.

Edmonton Community Benefits:

1. Recently, the Bissell Centre used the help of data analytics to help lower poverty levels in the community. The center offers valuable insights and 20 different programs to make pivots in existing programs.⁴³
2. Eugene Chen has created a 3D map using the 2016 Edmonton census data. This innovative map serves the purpose of assisting business owners in making informed decisions about potential locations for opening new branches within the city. By incorporating various demographic factors, the map provides valuable insights into the city's population distribution and characteristics, enabling business owners to identify strategic areas for expansion based on their target market and customer base.⁴⁴
3. Amii and Canada Wildfire collaborated to leverage data by building a machine learning predictive model for identifying extreme fire risks. This initiative's goal is to provide firefighters with advanced insights, enabling them to allocate resources more effectively to areas that require immediate attention.⁴⁵
4. The School of Business's Assistant Professor in the Department of Business Analytics, Dr. Ilbin Lee, conducted research utilizing data analytics to determine the optimal allocation of limited resources during the early stages of wildfire suppression. This study aimed to identify the most effective utilization of resources for combating wildfires in their initial phases.⁴⁶

⁴¹ [Big Data for Sustainable Development | United Nations](#)

⁴² [It's a Numbers Game – Why Businesses Need More Women in Data and Analytics - insideBIGDATA](#)

⁴³ [Edmonton-based Bissell Centre uses data and analytics to help eliminate poverty in the community | IT World Canada News](#)

⁴⁴ [Developer turns data into 'useful and magical things' - Taproot Edmonton](#)

⁴⁵ [Fighting fire with data: building a machine learning model to predict wildfire risk | Amii | News](#)

⁴⁶ [New research could help firefighters improve their plan of attack | Folio](#)

Benefits to the business community:

A Master of Management Analytics has a large target market, particularly in finance, insurance, healthcare, manufacturing, technical services, and retail. Opportunities for business analytics have increased dramatically as major organizations have adopted data driven and technology-focused approaches:

- **Increasing Demand for Analytics Professionals:** In today's data-driven world, organizations across various sectors are relying on analytics to make informed decisions. There is a growing demand for skilled professionals who can effectively analyze complex data sets and derive valuable insights to drive business strategies, optimize operations, and solve critical problems.
- **Advancing Technological Landscape:** Rapid advancements in technology, including artificial intelligence, ML, and big data analytics, have created immense opportunities for organizations to leverage data for competitive advantage. A specialized graduate program in management analytics equips students with the necessary knowledge and skills to navigate and harness these emerging technologies effectively.
- **Decision-Making in Complex Business Environments:** Businesses face increasingly complex challenges, and the ability to make data-driven decisions is crucial for success. A graduate program in management analytics helps develop professionals who can tackle intricate problems, uncover patterns and trends in data, and provide evidence-based recommendations for strategic decision-making.
- **Addressing Talent Shortage:** The demand for digital skills in the workplace during the pandemic era has evolved well beyond fundamental digital literacy. Organizations now require employees who possess enhanced proficiency and a more profound comprehension of advanced digital domains, including data analysis.⁴⁷ One skill that analytics-enabled jobs require is hands-on experience with reporting and visualization software to aid in the collection and examination of data. Another skill is the ability to identify areas where data mining could yield useful insights and/or result in greater efficiency. A Master of Management Analytics can combine the technical and communication skills required in the current job market environment. By offering a dedicated graduate program in this field, a pool of highly skilled individuals who can contribute to the growth and competitiveness of organizations across industries, fostering economic development, can be nurtured.
- **Industry-University Collaboration:** A graduate program in management analytics can foster collaboration between academia and industry. This collaboration enables students to gain practical experience through internships, industry projects, and guest lectures by professionals. It also facilitates knowledge transfer, research partnerships, and the development of solutions to real-world challenges faced by organizations.

⁴⁷ [Canada's critical 'skills gap' problem explained in 6 charts](#)

- **Enhancing Alberta's Competitiveness:** By offering a specialized graduate program in management analytics, Alberta can position itself as a hub for analytics expertise, attracting international talent, researchers, and organizations seeking to leverage the province's talent pool and capabilities.

INDIGENOUS COMMUNITIES

It is essential to engage Indigenous community members in the data analytics process to ensure that their perspectives, needs, and preferences are considered, and that data is collected and used in a culturally-sensitive and respectful manner. Collaboration between Indigenous communities, government agencies, non-profit organizations, and academic institutions can help harness the power of data analytics to improve the well-being of Indigenous communities in Alberta and Canada.

- **Healthcare Planning:** Data analytics can be used to analyze healthcare data within Indigenous communities. By identifying health trends and needs, policymakers and healthcare providers can allocate resources more effectively, ensuring that the community's health needs are adequately addressed.
- **Cultural Preservation:** Data analytics can assist in preserving and promoting Indigenous languages, cultures, and traditions. This can be done by analyzing data related to cultural practices, languages spoken, and historical records.
- **Economic Development:** Data analytics can identify economic opportunities within Indigenous communities, such as identifying potential markets for traditional products, optimizing land use for agriculture, or supporting local entrepreneurship.

Overall, a graduate program in management analytics in Canada addresses the increasing demand for analytics professionals, supports decision-making in complex business environments, addresses talent shortages, promotes industry collaboration, helps communities, and enhances the country's global competitiveness. It plays a vital role in meeting the societal need for skilled professionals who can leverage data analytics to drive innovation, efficiency, and growth in organizations across Canada's economy.

Women in Artificial Intelligence:

- This initiative also aims to support women in acquiring an education in the AI domain. There is a growing community of women showing interest in the field of artificial intelligence. Additionally, Women in AI, a global organization dedicated to women in this field, has a branch in Canada. This organization plays a crucial role in providing mentorship and facilitating networking opportunities for women to progress in the AI field.⁴⁸

⁴⁸ [Canada | Women in AI \(WAI\)](#)

- Data analytics can also be instrumental in measuring the gender gap in executive positions and facilitating efforts to bridge that gap through identification and analysis.⁴⁹

- b. Comment on how the program creates opportunities for graduates in areas such as entrepreneurship, innovation, and/or social/community development.
- Alberta is establishing itself as a burgeoning hub for innovative startups, with a notable focus on analytics. These startups are harnessing the potential of data to facilitate informed decision-making and unearth valuable insights across a wide spectrum of industries. Therefore, a Master of Management Analytics degree will also empower students to become entrepreneurs. The table below showcases a roster of 15 startups in Alberta that center their operations on the utilization of analytics. This highlights the substantial potential for our graduates to actively participate in the entrepreneurial network by establishing businesses with a core emphasis on analytics.

Startup	Key Functional Area
Arbor	Utilizing analytics for improving products sustainability.
Ownly	Specializes in big data, data analytics, customer experience, sales and real estate analytics.
imMail	Company communications. Chat and video solutions for enterprises.
HonestDoor	HonestDoor employs predictive analytics and real estate data science to estimate property values.
Naiad Lab	Using AI to connect healthcare providers with remote patients.
E.O.I Technologies	Addresses predictive analytics and data collection needs in industries like food and beverage and machinery manufacturing.
Orennia	Focused on the renewable power sector, the startup is contributing to a greener future through data-driven insights.

⁴⁹ [Boosting Diversity](#)

Vellgus	AI powered web and mobile solutions for businesses.
Jamh	Brings artificial intelligence and machine learning to content research and communication services.
Rolling Insights	Envisions enhancing the fantasy sports experience through analytics.
Moogle	Specializes in machine learning-powered data analytics.
Risk Alive Analytics	Risk Alive Analytics is at the forefront of risk management software, delivering solutions that enable businesses to navigate through uncertain circumstances. Through their analytics-powered risk management tools, this startup plays a pivotal role in facilitating well-informed decision-making and enhancing business resilience.
RA2	This startup excels in the realms of public opinion research, social network analysis, and applied moral psychology and behavioral science. The company utilizes analytics to gain insights into public sentiment, ultimately providing valuable information to decision-makers.
Nerder	The startup's focus on analytics-driven UX design sets the stage for intuitive and engaging user interactions.
Provision Analytics	Focuses on creating precise software solutions for food processors and manufacturers. The startup caters to the agriculture and food and beverage industries.

* Source- [From Bytes to Brilliance: 15 Alberta Startups Revolutionizing Analytics – Canadian Venture](#)

These business ideas showcase the versatility of analytics skills, which can be applied to various industries and sectors. Success in these ventures often depends on a combination of technical expertise, domain knowledge, critical thinking and problem solving soft skills, and entrepreneurial acumen.

- c. Indicate whether the proposed program offers new or expanded pathway opportunities for students in the Alberta Adult Learning System. (Elaborate as needed).
- The Master of Management Analytics program presents a unique opportunity for students within the Alberta Adult Learning System to access a new pathway towards careers in the Artificial Intelligence/Machine Learning/Business Analytics sector. This distinct pathway is not currently available through other programs, including the Master of Business Administration (MBA), Master of Financial Management, and Master of Accounting programs offered by the Alberta School of Business. Notably, the Master of Management Analytics program will be the exclusive offering from a business faculty in Alberta. It's important to clarify that this program is not focused on teaching coding. Instead, its primary objective is to educate students in the specific skill of translating data to make informed decisions using AI/ML tools, which is a critical aspect of the field.

Reviewer's Comment:

SECTION E: FINANCIAL VIABILITY AND SUSTAINABILITY

1. Budget and Funding Sources *(Answer the following questions)*

- a. Describe how the institution plans to finance the program, including any applicable sources of funds such as tuition, grants etc.:
- Finance for the program will be entirely funded through student tuition. The school will also explore opportunities to secure funding from the Campus Alberta Grant and SIV funding sources.
- b. Discuss risk mitigation plans should full revenue(s) not be achieved or should costs exceed amounts budgeted.
- The costs for this program are primarily variable and tied to student enrollment. .

Reviewer's Comment:

2. Financial Aid and Support for Students *(If funding support is provided to students, answer the following questions)*

- a. Indicate the percentage of students who are likely to receive funding (fully-funded, partially funded, or un-funded)?
- The Alberta School of Business strives to establish entrance awards for students who demonstrate exceptional academic achievements through their applications. 10% of the program revenue will be directed towards awarding entrance scholarships. Additionally, our Advancement team will actively seek funding opportunities for scholarships. In the interim, students may have the option to rely on student loans, where applicable.
- b. Estimate the typical level of funding provided to students admitted into the proposed program. (Indicate if there is a minimum).

<ul style="list-style-type: none"> 10% of cohort revenue will be directed towards entrance awards to academically exceptional applicants.
<p>c. Identify external awards (e.g., SSHRC or NSERC fellowships) that students are eligible for and can reasonably expect to be awarded.</p> <ul style="list-style-type: none"> The industry supports the introduction of this program and Advancement will be working toward establishing funds to provide partial scholarships to attract well qualified students.
<p>Reviewer's Comment:</p>
<p>3. Tuition and Student Cost Considerations (Answer the following questions)</p>
<p>a. Document tuition and fee projections for students (specify domestic student tuition fees, international student tuition fees, compulsory student fees, and other costs likely to be incurred by students (texts, equipment, equipment, travel for research or conference etc.). Provide rationale where appropriate such as comparisons with similar programs. (Consult with the Ministry as needed.):</p> <ul style="list-style-type: none"> University of Alberta - Master of Management Analytics <ul style="list-style-type: none"> Proposed tuition is expected to be \$40,000 for the full program for domestic students and \$60,000 for international students. (NOTE: please refer to Appendix 4 for price comparisons with other programs). Comparing to our current full-time MBA instructional fees for Canadian citizens and permanent residents are evaluated per 3- credit course and non instructional fees are detailed Here. Total program fee @\$56,000 CAD. For international students in the MBA, instructional and non-instructional fees are assessed on a yearly basis. Total program fee @\$70,000 CAD. In addition to instructional and non-instructional fees, students are responsible for the cost of course materials and textbooks. Depending on specific course selection, these costs can vary, but students should budget at least \$2,000 for textbook and material fees over and above the program cost.⁵⁰
<p>b. Does the proposed program align with the Tuition and Fees Regulation? <input checked="" type="checkbox"/> Yes; or <input type="checkbox"/> No</p>
<p>c. Please elaborate on the above answer, if necessary.</p> <ul style="list-style-type: none"> NA
<p>Reviewer's Comment:</p>

SECTION F: INSTITUTIONAL IMPACT

<p>1. Institutional Mandate, Strategy Alignment, and Capacity (Answer the following questions)</p>
<p>a. Briefly describe how the proposed program aligns with the institution's mandate and government priorities.</p> <ol style="list-style-type: none"> On September 19,2023, the University of Alberta, unveiled its new 2023-2030 strategic plan: Shape: A Strategic Plan of Impact. This includes three pillars that will transform the University's future and make an impact globally. The three pillars include: educating with

⁵⁰ [Financial Investment | Alberta School of Business](#)

purpose, research with purpose, and engagement with purpose.⁵¹ Our program aligns well with two of the three pillars:

2. **Educating with purpose:** Guided by the principle of purposeful education, the envisioned MMA program aligns seamlessly with this pillar. The University is dedicated to broadening the scope of its program offerings, particularly within the social sciences unit, where the Alberta School of Business plays a pivotal role. This expansion will be achieved by leveraging the technological expertise of our faculty specializing in business analytics, who will be instrumental in instructing these courses. Furthermore, the MMA program is in harmony with another crucial facet of this pillar, which involves maintaining a position of leadership in experiential and work-integrated learning throughout all its programs.
3. **Engagement with purpose:** In accordance with this guiding principle, the MMA program assumes a crucial role in fostering enhanced integration with the business community. This integration, in turn, leads to increased economic growth, expanded employment opportunities, wealth creation, and technological advancement.

Alberta School of Business Strategy Alignment:

- The MMA program aligns seamlessly with the institution's strategic plan and fundamental values, which are centered around cultivating and motivating entrepreneurial leaders from Alberta. This goal will be realized by infusing innovative thinking into our programs and formulating meaningful and effective teaching and learning objectives. Notably, the program strongly aligns with our core principle of "impactful teaching and learning," which emphasizes expanding educational opportunities for non-business students as well. This alignment is particularly fitting since the MMA program is both relevant and inclusive, welcoming individuals with backgrounds in STEM, other faculties of the College of Social Sciences and Humanities, such as arts, law and education, including the faculty of business.⁵²
- The University of Alberta's MMA program is expected to contribute to the university's objective of raising student enrollment to 50,000 by 2026, up from the current 42,000. This effort is part of the Target Enrollment Expansion Program, which plays a pivotal role in the broader Alberta Work Initiative. The government of Alberta has also committed funding to bolster undergraduate and graduate programs across multiple faculties, including the Faculty of Business.⁵³

b. To what extent does the program build on the institution's existing programs, infrastructure, resources, and experience from offering programs in related fields?

The program incorporates several key existing components to enhance the student experience:

⁵¹ [University Strategic Plan](#)

⁵² [Alberta School of Business Strategic Plan](#)

⁵³ [From the President's Desk: Growing our student and faculty community | The Quad](#)

- **Bootcamp Session:**
There will be a 15-day bootcamp session utilizing the in-house Business Technology Lab and the currently under renovation Analytics Lab on the second floor of the Business Building. This session aims to develop and refine programming language skills before the program officially commences in September.
- **Capstone Project:**
The program features a 6-credit capstone project spread over two terms. Students will work on real-life business projects, offering practical solutions to industry partners. This collaboration will be in partnership with the CWIL (Careers and Work-Integrated Learning) office.
- **Experienced Faculty:**
The Department of Accounting and Business Analytics boasts a team of renowned faculty members who are already proficient in teaching analytics courses at both undergraduate and graduate levels.
- **Extracurricular Activities:**
Students will have the opportunity to engage in internal case competitions, benefit from guest speaker sessions, and participate in networking events.
- **MMA Advisory Committee:**
The development team will be working towards establishing an MMA Advisory Board comprising industry experts in the field of analytics. This board will serve as mentors to students and provide valuable advice to the school on an ongoing basis. The advisory board will also include professors from the faculty of business to provide valuable academic insight, along with two student representatives.
- **Current Rankings:**
The School of Business at the University of Alberta currently offers a robust portfolio of master's programs, including an MBA, Master of Accounting, and Master of Financial Management. These programs have earned significant recognition and rankings both in Canada and globally. The introduction of the MMA program is seen as a valuable addition that will facilitate growth and further enhance the global reach of the University of Alberta's School of Business.
- **AI center for Decision Analytics:**
The recently established center in downtown Edmonton, headed by Professor Borzou Rostami, will provide MMA program students with access to cutting-edge tools and technology during their enrollment.

Reviewer's Comment:

2. Internal Review and Approval

- a. Indicate which internal governance body recommended approval and specify date of approval.
- Graduate Student Policy Committee (Alberta School of Business): Approved November 16, 2023
 - Alberta School of Business Council:
 - Graduate Program Support Team (GSPT): December 11, 2023
 - Faculty of Graduate and Postdoctoral Studies (GPS) Council: TBD
 - General Faculties Council (GFC) Programs Committee (PC): TBD

- To be confirmed: Registrar’s Advisory Committee on Fees (RACF): TBC To be confirmed: GFC Academic Planning Committee: TBC
- GFC: TBD
- Board Learning, Research and Student Experience Committee (BLRSEC): TBD
- Board of Governors: TBD

Reviewer’s Comment:

SECTION G: SYSTEM IMPACT

1. Impact on Alberta Adult Learning System *(Answer the following questions)*

a. How does this program support provincial priorities for the Alberta post-secondary system?

The MMA program aligns seamlessly with the Alberta government's vision for 2030⁵⁴, which encompasses several key objectives as follows:

1. **Improve Access and Student Experience:** The Master of Management Analytics program presents a unique opportunity for students within the Alberta Adult Learning System to access a new pathway towards careers in the Artificial Intelligence/Machine Learning/Business Analytics field. Primarily for students' access, the Master of Management Analytics program will be an offering from a business faculty in Alberta. It's important to clarify that this program is not focused on teaching coding. Instead, its primary objective is to educate students in the specific skill of translating data to make informed decisions using AI/ML tools, which is a critical aspect of the field.
2. **Skill Development for Employment:** The program plays a pivotal role in addressing the increasing demand for both hard and soft skills in data-driven business decision-making across diverse industries. It fosters robust relationships among employers, industries, and post-secondary institutions in Canada, thereby enhancing the education system's capacity to reskill and upskill the workforce effectively.
3. **Strengthening Internationalization:** By attracting international students to our academic programs and equipping them with globally recognized skills, the Master of Management Analytics program significantly contributes to the goal of strengthening internationalization. This not only benefits individual students but also enhances Alberta's reputation on the global stage as a globally recognized institution. The university has established a strategic plan that places a strong emphasis on internationalization.⁵⁵
4. **Fostering Innovation:** ML and AI tools are pivotal drivers of innovation. The program's capacity to attract talented students and faculty members positions Alberta to effectively compete in vital and high-demand sectors, as the Alberta School of Business’s vision is to offer

⁵⁴ [Alberta 2030: Building Skills for Jobs Strategy](#)

⁵⁵ [University of Alberta International Strategy Implementation Plan](#)

innovative and impactful programs. This aligns with the Alberta School of Business's vision of offering innovative programs. Additionally, the school emphasizes innovation and entrepreneurship in its teaching, research, and problem-solving practices⁵⁶, in line with the province's goals to enhance innovation. Graduates from the program are expected to contribute significantly to Alberta's technology and AI sector, reflecting the school's commitment to fostering entrepreneurship and equipping students to become future leaders in the economy.

5. **Improving Sustainability and Affordability:** Importantly, the Master of Management Analytics program will enable the School of Business to generate its own source of revenue.

In essence, the Master of Management Analytics program serves as a cornerstone in realizing the Alberta 2030 vision, effectively addressing workforce skills, global recognition, and innovation needs within a rapidly evolving landscape driven by data-driven decision-making.

- b. Describe what distinguishes the proposed program from similar or related programs in the Alberta Adult Learning system.
 - Currently, the nearest alternative option is the MSc in Data Science and Analytics program offered by the Faculty of Science at the University of Calgary. This program offers a broad curriculum covering various aspects of data science, including health data science, biostatistics, business analytics, and financial and energy markets data modeling. Here are the main distinctions:
 - Unlike the more general approach of the UC program at Faculty of Science, the proposed MMA program is exclusively housed within the Alberta School of Business and features a distinctive structure with a clear emphasis on decision-making processes in business. Even the fundamental core courses in the MMA are designed with a business-centric perspective, emphasizing the practical application of data science techniques in real business scenarios. Therefore, it is more streamlined towards business applications, ensuring a deep understanding of how analytics can drive business strategies.
 - While the UC program may cover business analytics, the proposed MMA program at UA stands out by integrating case studies and practical applications throughout the curriculum. This ensures that students not only understand theoretical concepts but also see their real-world applications in business contexts. This approach enhances the relevance of the program for future business leaders.
 - The MMA program explicitly emphasizes the role of analytics in decision-making. This focus aligns with the growing demand for professionals who can not only analyze data but also translate insights into strategic decisions that drive business success. This emphasis on decision-making sets the MMA program apart in terms of its practical business applications.
 - The MMA program is designed to closely align with industry needs, particularly in the business sector. By focusing on business applications from the foundational courses,

⁵⁶ [School Strategic Plan \(2019-2023\) | Alberta School of Business](#)

the program ensures that graduates are well-equipped to address the specific challenges faced by businesses in today's data-driven environment.

Overall, the proposed MMA program fills a specific niche in the market by addressing the increasing demand for professionals with expertise in applying analytics and AI to business decision-making. Emphasizing the practical and business-centric approach, The MMA is tailored to produce graduates with a unique skill set suited for leadership roles in the business analytics domain. Moreover, the MMA program takes advantage of the following essential features:

- Prior to commencing the program, there is a 15-day bootcamp crafted to impart proficiency in analytical tools. Furthermore, it incorporates a 2-term capstone project, fostering collaboration with industry partners to address real-world decision-making challenges using data. It is noteworthy that the proposed MMA program also offers an optional internship component.
- A notable feature of this program is the MMA Advisory Committee, comprising prominent business professionals and academic experts from the Alberta School of Business and the support offered by Alberta Machine Intelligence Institute.
- Additional features include the newly-designed analytics lab and AI center for decision analytics as approved centers of ASB that will facilitate hands-on learning experiences.
- Additionally, the MMA program at ASB offers an optional internship stream.
- Particularly notable is the program's pioneering status in the Prairie region, being a program solely within a business faculty to offer this specialized curriculum. The program's objective is to enhance students' existing skills, and be able to apply those skills in making better business decisions. This is further supported by our comparator program analysis (Appendix 5) from other business schools in the country. Whether for entry into the workforce or to leverage their degree for advancement in their current careers.

c. If proposed program/specialization potentially constitutes program duplication, explain why such duplication is appropriate and beneficial in this circumstance.

- Not applicable

d. Summarize the outcomes of consultations with other institutions offering related programs. (Attach copies of relevant documents – e.g. letters, meeting summaries, etc.).

- Preliminary consultation in the proposal development stage done with Associate Professor Mike Palvin and the academic director of the Master of Management Analytics program at Wilfrid Laurier University. See Appendix 4C for a meeting summary.

Reviewer's Comment:

SECTION H: OTHER CONSIDERATIONS

Other considerations

a. Are there other factors or considerations the Ministry should take into account when reviewing this proposal?

- Not applicable

Reviewer's Comment:

REVIEW COMPLETE: RECOMMENDATION (FOR DEPARTMENT USE)

Recommendation(s):

Rationale for Recommendation:

Reviewer(s):

Date Completed:

Proposal Template: New Degree Programs and Specializations
(Part B: Campus Alberta Quality Council Review)

If a proposed program receives a positive outcome from the System Coordination Review, the Minister may refer the program to the Campus Alberta Quality Council for quality assessment, the second stage of review.

The onus is on the applicant institution to satisfy CAQC that the level of learning to be achieved is consistent with that which is expected at the proposed degree level, that the program has sufficient breadth and rigor to meet national and international standards as outlined in, for example, the Canadian Degree Qualifications Framework (CDQF) and the Alberta Credential Framework (ACF), and that the program is comparable in quality to similar programs (if any) offered in Alberta and elsewhere. The program proposal should demonstrate how CAQC's program quality standards and any applicable guidelines have been addressed and describe any unique dimensions that set the program apart from similar programs thus providing new educational opportunities for students.

NOTE: Part A of the program proposal may undergo changes as a result of the System Coordination Review. It is important that Part A be up-to-date and complete before it is forwarded to CAQC. Building on the information provided in Part A, the program proposal that is sent to CAQC should contain the additional information requested below. When possible, links to existing policy documents and institutional policies should be provided, rather than recopying them in response to questions.

SECTION A: PROGRAM SPECIFICS

1. Program Learning Outcomes (PLO)

- a. Provide the program's learning outcomes (as presented in Part A of the proposal).

The Master of Management Analytics (MMA) program is designed to equip students with a comprehensive skill set and deep understanding of the field. Program learning outcomes are as follows:

- **Data Analytics Proficiency:** Graduates will possess a strong foundation in data analytics concepts, methodologies, and techniques, enabling them to effectively collect, analyze, and interpret data to drive informed decision-making across various business domains.
- **Business Integration:** Students will learn how data analytics can be seamlessly integrated into different functional business areas, enhancing their ability to apply analytics solutions to real-world problems in areas such as finance, marketing, operations, and more.
- **Research and Quantitative Skills:** Graduates will be adept at conducting rigorous quantitative research, allowing them to explore complex business challenges, frame

relevant questions, and leverage data-driven insights to optimize processes and strategies.

- **Project Management and Execution:** Graduates will demonstrate the skills to identify, manage, and successfully execute business analytics projects. Graduates will be proficient project managers, capable of overseeing end-to-end project lifecycles.
- **Effective Communication:** Recognizing the vital role of communication and collaboration in analytics projects, students will develop strong communication skills. They will be able to convey data-driven insights visually, in writing, and through verbal presentations, ensuring effective knowledge sharing within organizations.
- **Ethical and Lifelong Learning:** Graduates will demonstrate ethical awareness by identifying potential risks and limitations in analytics projects, promoting responsible data usage. They will also recognize the dynamic nature of the field, emphasizing the importance of continuous learning and staying updated with evolving analytics trends

These program learning outcomes underscore our commitment to fostering well-rounded analytics professionals who possess not only technical prowess but also the ability to translate data insights into strategic advantages for businesses while upholding ethical standards and adaptability in an ever-evolving landscape.

2. Program Structure

- a. Provide a comprehensive outline of the entire program curriculum, listing the course names, course numbers, and credits for all required courses and specified electives. Indicate which courses are new for this program. Where applicable, specify the requirements for any minors, work-integrated learning (WIL), specific general education or breadth elements, or other elements that are part of the program.
 - In cases where the proposed program ladders on top of an existing diploma or certificate, a similar outline must be provided for that credential.
 - In an appendix, list the calendar entries for all required courses and specified electives, including the calendar designation for credits and numbers of lecture, lab seminar, tutorial hours, etc. For new courses under development, provide a tentative calendar entry.-- Refer to Appendix 8.

The program will focus on training managers to design, lead and execute data driven projects across industries. The main objective of the MMA program is to equip students with comprehensive knowledge and practical skills to effectively apply state-of-the-art analytics tools. By doing so, students will be able to leverage available resources, gain valuable business insights, and make informed operational and strategic decisions. Throughout the program, students will successfully demonstrate their ability to design and move data analytics projects from conception to application. Students will solve a real-world business problem with their student team and learn from expert faculty from a range of backgrounds

about how analytics can improve business performance. A key focus of the program is to enable students to identify and evaluate opportunities and risks associated with data analytics projects. By developing a deep understanding of the potential benefits and challenges, students will be equipped to make informed decisions and contribute to the success of data analytics initiatives.

To achieve these learning objectives, the program emphasizes the project development life cycle. Through engaging case studies, course projects, and a field project, students will have the opportunity to apply their knowledge and skills in practical settings. This hands-on approach will enable them to navigate the various stages of project development, gaining valuable experience and proficiency in executing data analytics projects effectively. By the end of the program, students will have not only acquired theoretical knowledge but also demonstrated their ability to apply it in real-world scenarios. They will possess the necessary skills to design and execute data analytics projects and contribute to improved decision making processes within organizations.

Kicking off in August, the program's first month offers a comprehensive introduction to both coding and business fundamentals. Students will participate in an immersive, 2-week coding bootcamp, designed to equip them with a solid foundation in programming logic and essential concepts. This coding bootcamp serves as a vital launchpad for the entire program, ensuring that all participants are well-prepared for the more advanced segments of the curriculum. By gaining a strong grasp of coding principles, students will have the necessary skills to tackle complex analytical challenges throughout the duration of the Master of Management Analytics program.

Length	August	Fall	Winter	Spring	Summer	Fall
Option 1	Coding Bootcamp and Intro To Business	Pillar 1	Pillar 2	Pillars 3 and 4	Pillars 3 and 4	-
Option 2	Coding Bootcamp and Intro To Business	Pillar 1	Pillar 2	Pillars 3 and 4	Pillars 3 and 4	Internship

Table 1: The MMA offers two options: (1) one year, and (2) 16-month option that includes an internship for students interested in gaining additional professional experience prior to graduation.

In addition to the coding bootcamp, the first month also includes an in-depth introduction to the core principles of business. This aims to provide students with a well-rounded understanding of the business landscape, enhancing their ability to analyze data in a broader organizational context.

Following the bootcamp, students will then enter the Fall term, where they'll delve into the core curriculum of the MMA program. The MMA is structured around four major pillars, providing comprehensive knowledge and training in various aspects of analytics.

- **Business analytics fundamentals:**

This pillar covers the essentials of data interpretation, visualization, and statistical analysis. This pillar also reinforces the coding and data manipulation skills introduced in the bootcamp, enabling students to engage more effectively with analytics tools and models.

- **Business analytics process and management:**

This pillar emphasizes the complete lifecycle of analytics projects, from data collection and mindful consideration of ethical issues to data-informed decision making and insight generation. It aims to impart best practices in orchestrating these multifaceted processes efficiently and effectively.

- **Analytics applications across functional areas:**

This pillar delves into the multifaceted applications of analytics across various operational domains. It equips students with the ability to apply analytical concepts and tools contextually to solve problems and drive efficiency in diverse business functions such as finance, marketing, operations and supply chain, and human resources. Through this, students gain a comprehensive understanding of how data-driven insights can propel strategic decision making in any functional area of an organization.

- **Experiential learning:**

This pillar is designed to provide students with real-world experience in one of Canada's thriving tech and digital economies through two 8-week internships. Incorporating a capstone management analytics project, community engagement or an internship, the experiential pillar facilitates practical application of theoretical concepts in real-world contexts. Additionally, this segment serves as a dynamic platform for students, offering them an invaluable opportunity to network and interact with seasoned professionals from leading analytics organizations, enriching their overall learning experience.

While students will be exposed to each pillar in all terms, the emphasis will change in the subsequent terms. In the fall term, students take business analytics fundamentals courses: Machine learning for business I (structured data); Database fundamentals for Business Analysts; Data Visualization and Business Communications; and Statistics Analytics and Causal Inference. Courses in the winter term emphasize analytics process and management: Machine Learning for Business II (unstructured data), Business Applications of Artificial Intelligence, Prescriptive Analytics, and Responsible AI and ethical issues in data analytics. In the spring and summer terms, students take functional area elective courses: Accounting analytics, Operations and supply chain analytics, Financial Analytics, Marketing Analytics, and Healthcare analytics. An experiential education field project performed in groups of 3-4 will be completed over the spring and summer semesters.

Required courses:

MMA 600 - Bootcamp coding (Python, R)

MMA 601 - Business Foundations and Strategic Decision Making (One week intensive course)

MMA 602 - Data Visualization and Business Communications (Tableau, Power BI)

MMA 603 - Machine Learning for Business I (Python)

MMA 604 - Database Fundamentals for Business Analysts (SQL)

MMA 605 - Statistics Analytics and Causal Inference (R)

MMA 606 - Machine learning for Business II (Python)

MMA 607 - Prescriptive Analytics (Python)

MMA 608 - Business Applications of Artificial Intelligence

MMA 609 - Responsible AI & Ethical Issues in Data Analytics (addresses Indigenous elements)

MMA 610 - Analytics Capstone Project

Elective courses:

MMA 611 - Accounting Analytics

MMA 612 - Financial Analytics

MMA 613 - Operations and Supply Chain Analytics

MMA 614 - Marketing Analytics

MMA 615 - Healthcare Analytics

MMA 616 - Strategy Analytics

The program follows a one-year master's structure, offering coursework in each term. The courses are strategically arranged to complement and build upon one another, facilitating the achievement of the program's objectives. This structured approach ensures that students have well-defined progression requirements to meet and aligns with the expectations associated with earning a degree.

Table 2: GRADUATE PROGRAM STRUCTURE - One year

August	Fall Term	Winter Term	Spring Term	Summer Term
			(select 1 elective course)	(select 1 elective course)
MMA 600	MMA 602	MMA 606	MMA 610	MMA 610
MMA 601	MMA 603	MMA 607	MMA 611 (elective)	MMA 611 (elective)
	MMA 604	MMA 608	MMA 612 (elective)	MMA 612 (elective)
	MMA 605	MMA 609	MMA 613 (elective)	MMA 613 (elective)
			MMA 614 (elective)	MMA 614 (elective)

			MMA 615 (elective)	MMA 615 (elective)
			MMA 616 (elective)	MMA 616 (elective)

Table 3: GRADUATE PROGRAM STRUCTURE - 16 Months

August	Fall Term	Winter Term	Spring Term (select 1 elective course)	Summer Term (select 1 elective course)	Fall - Year 2
MMA 600	MMA 602	MMA 606	MMA 610	MMA 610	Internship
MMA 601	MMA 603	MMA 607	MMA 611 (elective)	MMA 611 (elective)	
	MMA 604	MMA 608	MMA 612 (elective)	MMA 612 (elective)	
	MMA 605	MMA 609	MMA 613 (elective)	MMA 613 (elective)	
			MMA 614 (elective)	MMA 614 (elective)	
			MMA 615 (elective)	MMA 615 (elective)	
			MMA 616 (elective)	MMA 616 (elective)	

- b. If the curriculum includes a WIL component(s), provide the following information:
- i. how placements will be arranged, and what resources and/or personnel the institution will make available to undertake these processes.

An initial cohort of 25-30 students is anticipated in the first year of the new Master of Management Analytics. The program would include both internship and non internship streams. Up to 20 students are anticipated in the internship stream. While students would be expected to secure their own internships, work integrated learning staff would assist students and help them to find an internship that suits their professional goals and personal circumstances. Opportunities are sourced through our career center and posted on careerconnect portal for students to access and apply.

Initial conversations with prospective employer partners, including AMii and AltaML, indicated an interest and willingness to hire this student population for internship work terms. Other potential partnerships include public sector organizations, such as the City of Edmonton and Government of Alberta. Partnership agreements with employers would be sought to secure a reliable pool of internship opportunities for students.

Feedback from the Alberta School of Business Careers and Work Integrated Learning (CWIL) unit indicates that internships are incredibly valuable to international students. This proposed 16-month program with no scheduled breaks provides international students with eligibility for a three-year post-graduate work permit.

If students are selected for the internship stream, they are responsible for finding their own work term and are subject to employer interview processes. However, there are a large number of supports in place to set students up for success in securing the internship and throughout its duration.

For example, CWIL provides students with support developing their resumes and interview skills, while continually building relationships with employers to understand trends and what employers are looking for. CWIL staff will work to connect employers and students to try to find the right internship opportunity, while paying careful attention to the individual circumstances and experiences. Working with students in order to learn about their skills and strengths will also help ensure all students have equitable access to opportunities.

Additionally, CWIL offers a range of career exploration, experiential learning and employer networking events and programming to help students connect with prospective internship employers.

The MMA advisory committee will also actively engage in conducting networking sessions with industry professionals and securing capstone projects.

ii. expectations and obligations of student and host and how these will be coordinated.
Expectations of students:

Students must actively participate in the internship recruitment process on their own as well as in collaboration with the WIL team. Students are expected to conduct themselves professionally regarding all aspects of their job search and employment term.

Employer responsibilities:

- Hiring a student for an internship is just like hiring any other temporary employee and employers must follow all labor laws and regulations.
- The employer must facilitate a mid-point review with students and act as mentors.
- The employer can also request for feedback from the students to ensure that both parties have an invaluable experience.

iii. how mentoring and supervision of students during their WIL experience will take place.

Career coaches can provide valuable guidance and support in several ways:

The mentoring and supervision of students during their Work Integrated Learning (WIL) experience will be carefully structured and overseen to ensure their development and success. Here's how it will take place:

- **Regular Meetings:**
Students and their coaches and supervisors will have regular meetings, which may occur on a regular basis, to discuss progress, challenges, and goals. These meetings may be conducted in person or virtually, depending on the circumstances.
- **Project Supervisors:**
Faculty teaching the capstone project will act as supervisors for regular checkup on the progress. These supervisors will provide guidance and feedback on the practical aspects of the work before the final project is presented to the project sponsors.
- **Structured Learning Objectives:**
Clear learning objectives will be established at the beginning of the WIL experience. These objectives will serve as a roadmap for both the student and their mentors, ensuring that the learning experience is purposeful and aligned with educational goals.
- **Feedback and Evaluation:**
Continuous feedback will be provided to students throughout their WIL experience. This feedback will help them understand their strengths and areas for improvement, fostering their professional development.
- **Reflection Assignments:**
Students may be encouraged to engage in reflective exercises to document their experiences, insights, and lessons learned during their WIL.

- **Support Resources:**

Students will have access to resources and support services within the institution, such as career counseling, to help them navigate any challenges they encounter during their WIL placement.

- **Monitoring and Assessment:**

The institution may periodically assess the progress of students during their WIL to ensure that they are meeting their educational goals and receiving the necessary support.

By implementing these mentoring and supervision practices, the institution can ensure that students derive maximum educational value from their Work Integrated Learning experiences and are well-prepared for their future careers. Moreover, networking opportunities, guest speaker sessions, and case competitions will be organized collaboratively by industry professionals serving on the advisory committee members and the academic director, the CWIL office, and various student groups. The School of Business frequently hosts alumni mixers as well, facilitating connections between students and successful alumni who have achieved excellence in this field. This interaction with accomplished alumni will prove to be a valuable resource for students.

iv. how evaluation of student performance will occur.

It's essential to communicate the evaluation process and criteria clearly to both students and their workplace mentors to ensure a transparent and productive WIL experience. Additionally, regular communication and feedback throughout the placement are crucial for students' development and success. Students will be required to conduct mid point meetings with their mentors (for internship) and supervisors (for capstone project) and career coaches where feedback will be provided and guidance for the path ahead.

- **Establish Clear Learning Objectives:**

Supervisors will define specific learning objectives that students should achieve during their WIL placement. These objectives will align with the educational goals of the program and the skills required for the industry.

- **Project Deliverables:**

Assessing students based on the quality, completeness, and timeliness of project deliverables they are responsible for during their WIL. This will help evaluate how well they apply theoretical knowledge to practical tasks.

- **Presentations or Demonstrations:**

Students may also be asked to present their work, share their experiences, or demonstrate specific skills they've acquired during their WIL. This will assess their ability to communicate effectively and showcase their learning.

- **Peer and Colleague Feedback:**

Feedback from colleagues or team members who have interacted will be included in capstone projects as well as case competitions and in class group projects. This can provide additional perspectives on their performance.

- **Developing Evaluation Criteria:**
Each project will be different, hence a general as well as specific evaluation criteria will be developed over the course of the WIL experience.
 - **Assessment Rubrics:**
For capstone projects, clear and well-defined assessment rubrics to ensure consistency and fairness in evaluating students.
- v. how opportunities will be afforded to students to reflect on how the WIL experience contributed to their degree program.
- During the midpoint evaluation meeting between students and their supervisors, students will have the chance to reflect on how their Work Integrated Learning (WIL) experience contributes to their degree program. They will be presented with questions related to their experiences and engage in classroom discussions. This could take the form of a self-reflection assignment as well.
- vi. If not already included above, indicate the resources and/or personnel that the institution will make available to undertake these processes as well as any other relevant features of the WIL component.
- c. Provide a summary outline of the program structure and requirements in a table that indicates the number of junior and senior courses, and credit totals, for the components listed in the sample table below. Additional components, such as minors or general education may be added as appropriate.
- There is no major or minor course requirement within the proposed MMA program. Instead the program includes a set of 11 core courses and 2 electives with a requirement of a capstone project to graduate.

Table 4: Program structure

Component ¹	Core courses	Credits	Elective Courses (2 electives only))	Credits
Major requirements	9 courses	3 credits*9	2 courses	3 credits *2
	Total	27 credits	Total	6 credits

Additional requirements (Capstone Project)	1 course	6 credits	XX	XX
Introductory Boot camp	1 course	0 credits	XX	XX
Total	11 courses	33	2 courses	6 credit
Total		39 credits		

¹ The names of the components in this column are only applicable to some programs at some institutions, and should be modified accordingly for the proposed program.

- d. For undergraduate degrees, demonstrate (in a table, if possible) how the program meets the structural requirements for the relevant degree type as set out in CAQC's Expectations for Design and Structure of Undergraduate Degrees (Handbook s. 4.3.3.).

Not Applicable

3. PLO Mapping

- a. Provide a mapping of the courses to the PLOs. Although proponents may choose alternative ways to present a curriculum map, the following example represents one way required and elective courses in a specialization can be mapped to PLOs to demonstrate
- how the courses that fulfill the requirements for the specialization (major) contribute to the achievement of the learning outcomes, and
 - a progression in the development of the PLOs across these courses.

Although all courses in a program contribute to PLOs, the focus in this map is on the courses that constitute the specialization.

Table 5: Curriculum mapping of the PLOs to courses constituting the specialization in the proposed program

Course number and abbreviated name	Program learning outcomes					
	PLO 1 Data Analytics Proficiency	PLO 2 Business Integration	PLO 3 Research and Quantitative Skills	PLO 4 Project Management and Execution	PLO 5 Effective Communication	PLO 6 Ethical and Lifelong Learning
Required core courses in the specialization						
MMA 601, Business Foundations and Strategic Decision Making	I	I,D	I	I		I,D
MMA 602 Machine Learning for Business I (Python)	I,D	I, D	I, D	I	I,D	D
MMA 603 Data Visualization and Business Communications (Tableau, Power BI)	I,D	D		I,D	D	D
MMA 604 Database Fundamentals for Business Analysts (SQL)	I,D	D	D	D	D	D, M

MMA 605 Statistics Analytics and Causal Inference (R)	D,M	M	D,M	M	M	M
MMA 606 Machine learning for Business II (Python)	D,M	M	D,M	M	M	M
MMA 607- Prescriptive Analytics (Python)	D, M	M	M	M	M	M
MMA 608-Business Applications of Artificial Intelligence	I,D	M	M	M	M	M
MMA 609 Responsible AI & Ethical Issues in Data Analytics (addresses Indigenous data handling ethics)	D				M	M
MMA 610 Capstone Project	M	M	M	M	M	M
Elective courses in the specialization ¹						
MMA 611 Accounting Analytics	D,M	D,M	M	M	M	M
MMA 612 Financial Analytics	D,M	D,M	M	M	M	M
MMA 613 Operations and supply chain Analytics	M	M	M	M	M	M
MMA 614 Marketing Analytics	D,M	D,M	M	M	M	M
MMA 615 Healthcare Analytics	D,M	D,M	M	M	M	M
MMA 616 Strategy Analytics	D,M	D,M		M	M	M

Legend

- I: Indicates that knowledge and skills to help learners achieve this PLO are introduced in this course
- D: Indicates that knowledge and skills to help learners achieve this PLO are further developed in this course

¹ Elective courses in the specialization are courses presented in a list from which students must choose a specific number.



M: Indicates that knowledge and skills to help learners achieve this PLO are mastered (appropriate to the degree level) in this course

4. Alignment with Alberta Credential Framework (ACF)

Graduates are also expected to demonstrate the degree-level expectations in each of the six knowledge and skill areas set out in the ACF (see the CAQC Handbook), describe how the proposed program meets the expectations in each of the areas listed below, and how the academic culture helps learners achieve these expectations.

a. Depth and breadth of knowledge:

The MMA program will provide students with an extensive grasp of various aspects within the area of data analytics, machine learning, and artificial intelligence tools and techniques, while also emphasizing the application of these skills in data interpretation for informed decision-making. This approach ensures that students acquire a holistic understanding of the field and the capability to apply their knowledge in resolving intricate challenges. This comprehensive education is imparted through boot camp sessions, class-based case studies and discussions, presentations, capstone projects, and, for those students opting for internships, hands-on experience working with industry partners. The program is strategically designed to maintain a harmonious balance between theoretical and practical depth and breadth.

b. Conceptual awareness and/or knowledge of research: (i.e., knowledge of approaches to inquiry and/or creative work)

The MMA program features practical projects where students must put their knowledge into action by utilizing programming tools and analyzing data to foster organizational development. This approach is designed to foster the development of students' technical proficiency and problem-solving capabilities, effectively preparing them for situations that demand a combination of technical skills and business acumen to resolve intricate challenges.

c. Communication skills:

The MMA program incorporates a curriculum that encompasses coursework, case studies, and team-based projects and capstone experiences, all of which demand students to engage in presenting their work, collaborating with diverse groups, and effectively communicating with various audiences, including peers, clients, and instructors. This multifaceted approach is aimed at enhancing students' communication abilities and equipping them for real-world scenarios.

d. Application of knowledge:

The MMA program incorporates practical projects that necessitate students to employ their knowledge in making business decisions. This approach aims to foster the development of students' technical expertise and problem-solving capabilities, effectively equipping them for real-world employment in the business sector.

e. Professional capacity and autonomy:

The MMA program encompasses coursework and projects that demand self-reliance, fostering a sense of accountability for one's own learning, and the cultivation of

professional competencies. This approach is geared toward enhancing students' professional development and preparing them for self-directed roles in a professional environment. Our commitment extends to integrating Indigenization strategies and diverse case studies throughout the curriculum, which will equip graduates with a more inclusive worldview and a broader spectrum of perspectives. This, in turn, will shape their understanding of personal responsibility and accountability, both at the individual and group levels.

f. Awareness of limits of knowledge:

The Master of Management Analytics program offers courses that serve as an introduction to the fields of Analytics, Machine Learning (ML), and Artificial Intelligence (AI). These courses also provide students with opportunities to explore the limitations and uncertainties inherent in various data methodologies. This exploration enables students to develop an awareness of the boundaries of their expertise, preparing them for a journey of continuous learning and ongoing professional development.

The program kicks off with an introductory boot camp, focusing on the practical application of tools and techniques. Following this, there is an introduction to business concepts for students without a business background, which includes a component on indigenous business practices. Moreover, the MMA 609 course, "Responsible AI and Ethics," specifically addresses ethical considerations in data and AI usage, including the ethical use of indigenous community data. The overarching goal is not only to educate students for the sake of earning a degree but to nurture responsible business leaders.

5. Requirements and Pathways for Admission and Academic Progression

a. Provide the following information:

i. Admission criteria (including any provision for prior learning assessment)

- Prospective students should possess an undergraduate degree in a relevant field such as business, STEM, computer science, displaying a degree of quantitative understanding. Applicants will be expected to have maintained a minimum GPA of 3.0 on a 4.0 scale during their final two years of undergraduate study.
- At the time of application, individuals must demonstrate a solid understanding of calculus, and statistics, having earned a grade of at least B+ in each of these courses.
- Applications should be accompanied by official transcripts and recommendations from at least two referees.
- Interviews will be conducted for the admission process to assess the analytical and critical thinking skills of prospective students.
- Work experience is recommended but not required.
- International students must obtain a study visa to enroll at the institution.
- For international applicants, a minimum IELTS score of 7 in each band and a TOEFL score of at least 100 are necessary

ii. Residency Requirements:

- The Master of Management Analytics program is exclusively offered as a full-time, on-campus program. This means that students must physically attend classes on campus and participate in program-related activities, class lectures, exams and presentations for all four semesters of the program. There is no online alternative available.

iii. Academic Performance Progression Requirements:

In this one-year, four-semester master's program, a student's academic performance is evaluated after they complete their studies in both the Fall/Winter and Spring/Summer semesters, which are integral to their degree program. This assessment is conducted by examining their GPA for each of the Fall/Winter and Spring/Summer terms.

iv. Graduation Requirements applicable to the Program:

- Successful completion of 39 credits is necessary for eligibility for graduation.
- A mandatory capstone project consisting of 6 credits is required.
- To graduate, students must attain a cumulative GPA of 2.7 or higher.

Table 6: University of Alberta's Graduate Programs Grading Scale/System

Descriptor	Letter Grade	Grade point value
Excellent	A+	4.0
	A	4.0
	A-	3.7
Good	B+	3.3
	B	3.0
Satisfactory	B-	2.7
	C+	2.3
Failure	C	2.0
	C-	1.7
	D+	1.3
	D	1.0
	F	0.0

- b. Note any program specific regulations (e.g., for doctoral programs, note any candidacy or dissertation requirements, examination requirements, time to completion requirements, etc.).
- As part of the University of Alberta community, graduate students are expected to maintain the highest standards of ethical conduct in their education, research, workplace interactions, and professional engagements. To ensure that students are aware of their rights, responsibilities, and commitments, all graduate students are now required to fulfill an ethics requirement. Starting from the Fall of 2022, the previous Academic Integrity and Ethics Training Requirement has been replaced by the new Ethics and Academic Citizenship Requirement. This updated requirement will involve completing two self-paced online courses prior to program commencement both with zero credits: INT D 710: Ethics and Academic Citizenship. Importantly, there will be no instructional fees associated with these courses. These changes apply to both master's and doctoral students.
 - The Program Specific Capstone Course is mandatory for masters students. This is a 6 credit course that needs to be completed in order to graduate.
 - The Master of Management Analytics program will be offered on a full time basis, hence the program should be completed within the set time frame i.e. one year without internship and 16 months if students choose the internship option.
 - Each course will have its specific exam requirements- these usually include, individual and or group projects/presentations, mid term exams, case studies, and final exam. All courses will use one or more of the following methods of assessing student achievement as listed below.
 - **Traditional Assignments and Exams:** Problem-sets and exams will be utilized where relevant.
 - **Case Study Assignments:** These assignments will involve real-world scenarios, highlighting the significance of the organizational context in analytics projects. Students will apply diverse analytical techniques to address key management issues and produce reports accessible to those with limited analytics knowledge.
 - **Projects and Presentations:** Courses may require group projects on real-world analytics challenges, often too complex for an individual. These projects will result in either written reports or presentations, or both.

The student is responsible for successfully completing all course work and the capping exercise. Where the capping exercise involves a project, the student is responsible for producing a typed report of the project or some other finished product to be retained by the department.

It is the responsibility of the department to:

- verify that all courses and the capping exercise have been successfully completed before recommending a student for graduation; and
- submit to the FGPS a Report of Completion of Course-based Master's Degree form.

This information must be received and verified by the FGPS before the student's name is placed on the convocation list.²

The following figure outlines the essential minimum academic standards for graduate students as established by the Faculty of Graduate & Postdoctoral Studies. These criteria must be met satisfactorily for a graduate candidate to be eligible for the award of their intended degree.(GPS)³

Course-Based Master's Programs

The student must successfully complete all coursework at the graduate level as required by their program.

The student must complete a capstone project or capping exercise as required by their program and commensurate with the degree being sought.

The student must complete the ethics and academic citizenship training ([INT D 710](#)) as required by FGSR.

- c. Identify potential opportunities for transfer/laddering into the proposed program from other institutions or other programs within the institution, and for transfer/laddering from the proposed program to other programs within the institution or at other institutions. List any formal agreements for internal or inter-institutional transfer/laddering that have been negotiated to this point.
- No laddering option at this stage.

6. Engaged and Active Learning / Delivery Methods

² [Regulations of the Faculty of Graduate Studies and Research - University of Alberta - Acalog ACMST™](#)

³ [Faculty of Graduate Studies and Research General Information - University of Alberta - Acalog ACMST™](#)

- a. Discuss the pedagogical strategies used in the program, including rationale and resource implications where possible.

The program is built on robust pedagogical strategies that align with its core objective: training managers to design, lead, and execute data-driven projects across various industries. These strategies are designed to provide students with comprehensive knowledge and practical skills, enabling them to effectively apply state-of-the-art analytics tools in managerial decision making:

- **Project-Based Learning:** Central to our pedagogical approach is the emphasis on project-based learning. Throughout the program, students engage in real-world case studies, course projects, and a field project. This hands-on approach allows students to navigate the complete project development life cycle, from conception to application, gaining valuable experience and proficiency in executing data analytics projects effectively. Students, in collaboration with expert faculty, tackle real-world business problems, fostering practical decision-making skills.
- **Skill Development:** A critical aspect of the program is skill development. In the initial month, students participate in a coding bootcamp. This immersive 2-week program equips them with essential programming skills, providing a solid foundation in coding.
- **Multidisciplinary Learning:** The MMA program is structured around four major pillars, each focusing on different aspects of analytics. The interdisciplinary approach ensures that students have a well-rounded understanding of data interpretation, visualization, statistical analysis, and business analytics process management. They also learn how to apply analytical concepts to solve problems in diverse business functions, such as finance, marketing, operations, and human resources. This approach enhances students' ability to analyze data in broader organizational contexts and fosters strategic decision-making skills.
- **Experiential Learning:** The experiential learning pillar offers students real-world experience through internships. This practical application of theoretical concepts is conducted in Canada's thriving tech and digital economies. It includes a capstone management analytics project, community engagement, or internships. Experiential learning provides students with a dynamic platform to interact with professionals from leading analytics organizations, enriching their overall learning experience. It also necessitates resource allocation for arranging internships and maintaining industry partnerships.

The program's pedagogical strategies prioritize project-based learning, skill development, multidisciplinary education, and experiential learning. While these strategies have resource implications, they ensure that students graduate with both theoretical knowledge and the ability to apply it effectively in real-world scenarios, contributing to improved decision-making processes within organizations.

- b. Describe how engaged, active, and experiential learning will be encouraged.

At the heart of our program lies a commitment to fostering engaged, active, and experiential learning experiences that empower our students to thrive in the dynamic world of analytics. Our approach is designed to actively involve students in their educational journey, emphasizing practical applications of analytical skills.

- **Internships:** Students will have the opportunity to apply their classroom knowledge in real-world environments during two 8-week internships. These internships are strategically designed to encourage active learning. Students work on actual business problems, interact with industry professionals, and gain hands-on experience in data analytics. This practical exposure not only enhances their skills but also reinforces their understanding of how analytics is used in different industry sectors.
- **Capstone Management Analytics Project:** The capstone project is a culmination of students' learning journey, where they tackle complex analytics challenges. This project encourages students to actively engage with data, apply advanced analytical techniques, and work collaboratively to find innovative solutions. They learn how to define project scopes, gather and analyze data, and present their findings. This active involvement in a substantial project prepares them for real-world problem-solving scenarios.
- **Networking Opportunities:** Experiential learning extends to networking. Students have the chance to interact with professionals from leading analytics organizations. These interactions expose students to diverse perspectives, emerging trends, and real-world challenges, through a two-way exchange where students actively seek insights while sharing their own perspectives.
- **Reflective Learning:** Throughout their experiential learning journey, students are engaged in reflective practices. They document their experiences, challenges, and successes, actively analyzing how their classroom learning translates into practical solutions. This reflective approach enables them to fine-tune their analytical skills and adapt their knowledge to different contexts.
- **Feedback and Coaching:** Active learning also encompasses the provision of consistent feedback and guidance from both faculty members and career coaches. Throughout their internships and project assignments, students have the opportunity to receive valuable constructive feedback from industry mentors and faculty. This continuous feedback process enables students to actively adjust and refine their approaches, thereby enriching their overall learning experience.

By incorporating these elements, the program ensures that students are not passive recipients of knowledge but actively engaged participants in their learning journey. They apply their skills, interact with the community, and actively contribute to the field of analytics, making the learning process dynamic and enriching.

- c. Where applicable, demonstrate how CAQC's Additional Quality Assessment Standards for Programs Delivered in Blended, Distributed or Distance Modes will be met (Handbook s. 4.5).

Not Applicable. The MMA program will be conducted entirely in an in-person, on-campus format.

7. Program Comparison

- a. Provide a comparative analysis of the proposed program (curriculum, structure, admission requirements, etc.) with similar programs offered in Alberta or elsewhere (see sample table below). Provide a rationale for which comparator programs were chosen. Illustrate the similarities and differences. Include hyperlinks to comparator programs, if possible.

We selected the comparator programs listed below based on their ranking as the top 7 business schools in Canada, according to Macleans Education's Top Business Programs-University Rankings 2024⁴. Among these, the University of Alberta School of Business holds the 6th position. These universities/business schools were chosen due to their similar curriculum offerings, program length and structure, entrance and graduation requirements.

Table 7: Program Comparison- Canadian Universities

Institution	University of Alberta (Applicant Institution)	York University- Schulich School of Business	University of British Columbia - Sauder school of business	University of Western Ontario- Ivey Business School	McGill University	University of Toronto-Ro tman school of management	Smith School of Business- Queen's University
Name of Credential	Masters in Management Analytics	Master in Business Analytics	Masters in Business Analytics	Msc in Management-Business Analytics	Master of Management in Analytics	Master of Management in Analytics	Master of Management in Analytics
Enrollment	Full-time	Full-time	Full-time	Full-Time	Full-time	Full time	Full time
Delivery Format	On campus	On-campus	On-campus	On campus	On Campus	On Campus	On-campus/ blended

⁴ [2024 Maclean's University Rankings: Business Programs - SchoolFinder.com!](#)

Time to complete	One year without internship; 16 months with internship	12 months	12 months	16 months	1 year Also offers 1.5 year option that includes internship	11 months	12 months
Entrance Requirements	Undergraduate degree GMAT/GRE not required A minimum of 3.0 GPA English proficiency: TOEFL minimum score 100 (minimum 23 in each dimension); or IELTS score of 7.5; minimum 6.5 in each dimension.	4 year undergraduate degree. Must be 2 years full time study with an accredited institution where English is the official language of instruction, Does not require GMAT or GRE A minimum 3.0 GPA and above/B+ grade English proficiency: TOEFL minimum score 100 (minimum 23 in each dimension); or IELTS	Three or four-year Bachelor's degree with a B+ average, or recognized equivalent from an accredited institution, Due to the rigorous nature of the program, it is strongly recommended that applicants have some exposure to university-level courses in topics like statistics, calculus, and linear algebra	An undergraduate degree completed within the past four years . TOEFL (minimum internet-based score of 100) IELTS General OR Academic (minimum total score of 7). Strong course work in: Calculus, Linear Algebra, Statistics and	GMAT or GRE required, but not required for students graduating from U.S or Canadian universities Undergraduate degree IELTS Test score of 6.5 (or greater) if English is not your first language OR TOEFL (IBT); 86 overall, no less than 20 in each of the four components.	Appropriate four-year undergraduate degree or equivalent Relevant program such as (but not limited to) Computer Science, Statistics, Mathematics , Engineering, Physical Science, Economics or Commerce. Minimum B average across courses in the final year. Evidence of proficiency in linear algebra, probability, statistics	Undergraduate degree from an accredited university in mathematics , business, computer science, economics, engineering or science. Including at least one mathematics or statistics course that covers hypothesis testing, linear regression, and their applications. GMAT not required but recommended. English language proficiency tests.

		<p>score of 7.5; minimum 6.5 in each dimension.</p> <p>Work experience recommended, but not required</p>	<p>(or other courses in mathematics and statistics). Experience in computer programming, data analytics or mathematical modeling is also an asset.</p> <p>550 GMAT with at least a 50th percentile in the quantitative and verbal sections of the test.</p> <p>155 GRE score on both the verbal and quantitative sections.</p> <p>Test of English as a Foreign</p>	<p>Computer Science (with programming focus).</p> <p>GMAT/GRE optional</p>		<p>and calculus. Proficiency can be demonstrated through university level courses completed, with a minimum B grade in courses that cover the relevant topics.</p> <p>Evidence of proficiency in computer programming. Proficiency can be demonstrated through academic history, projects, work experience or extra-curricular activities.</p> <p>GMAT or GRE encouraged.</p>	
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			<p>language (TOEFL): 100, IELTS Indicator: 7.0 overall band, There is no minimum work experience requirement for entry into the UBC MBAN.</p> <p>Candidates with a lower academic average may be accepted if they have significant professional experience and/or a high GMAT/GR E score.</p>			<p>English language proficiency, Minimum TOEFL score of 100 is required, with a minimum of 22 in both writing and speaking, or a minimum IELTS Academic Test with a score of 7.0 with at least 6.5 across all bands.</p>	
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Areas of Study / curriculum	Introductory boot camp, Machine Learning for Business I (Programming: R), Data Visualization and Business Communications (Tableau), Database Fundamentals for Business Analysts (SQL), Probabilistic Models and Descriptive Analytics, Responsible AI & Ethical Issues in Data Analytics, Machine Learning for Business II (mainly unstructured data)	Artificial Intelligence Fundamentals, Database Fundamentals, Data Science I, Project Management, Case Analysis and Presentation Skills, Predictive Modelling, Data Science II, Analytics Consulting Project, Models & Applications in Operational Research, Visual Analytics and Modelling Management Accounting, Economic Forecasting and Analysis, Managerial Finance, Applications of Data Science in Finance,	Career Development, Analyzing and Modeling Uncertainty, Business Analytics Programming, Optimal Decision Making I, Descriptive and Predictive Business Analytics, Data Management for Business Analytics, Data Driven Marketing, Optimal Decision Making II, Decision Analysis Under Uncertainty, Business Immersion, Advanced Predictive	Art of Modelling; Business Statistics; Business Essentials; Accounting; Business Communications; Finance; Leadership / Organizational Behavior; Marketing; Operations; Strategy; Big Data Analytics; Simulation and Risk Analysis; Prescriptive Analytics and Optimization; Accounting; Governance &	Coding Foundations for Analytics, Database and Distributed Systems for Analytics, Data Mining and Visualization, Mathematical and Statistical Foundations for Analytics, Multivariate Statistical Analysis, Decision Analytics, Managing Data Teams Ethical Leadership and Leading Change Data Analytics in Accounting,	Analytics in Management, Data-Based Management Decisions, Analytics Colloquia, Management Analytics Practicum, Structuring and Visualizing Data for Analytics, Modeling Tools for Predictive Analytics, Machine Learning Analytics, Tools for Probabilistic Models and Prescriptive Analytics, Improving Customer Value with Analytics to Leveraging AI and Deep Learning Tools in Marketing, Analytics for Marketing Strategy, Analytic	Acquisition and management of data, AI Ethic and Policy, Analytics for Financial Market, Big Data Analytics, Intro to Management, Intro to Analytical Modeling, ML and AI, Operations & Supply Chain Analytics, Predictive Modeling, Pricing Analytics, Entrepreneurship & Innovation, Creating High-performance Teams, marketing Analytics, Leading Change
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	<p>including text analytics, network analytics, and image processing- Python) , Business Applications of Artificial Intelligence (Python) , Prescriptive Analytics (Python) , Capstone project</p>	<p>Management of Risk in Financial Institutions , Enterprise Risk Management & Strategy, Artificial Intelligence in Business I, Artificial Intelligence in Business II, Marketing Management Research , Consumer Behaviour , Business Marketing , Service Marketing , Marketing Metrics , Advanced Spreadsheet Modelling & Programming for Business , Supply Chain Management, Digital Transformation in Services , Service Operations</p>	<p>Business Analytics, Database Applications in Business Systems, Business Applications of Machine Learning, Process Fundamentals, Forecasting and Time Series Prediction , Customer Analytics, Simulation Modeling I: Data Processing and Monte Carlo Simulation, Supply Chain Management, Data Driven Investments, Pricing Analytics, Simulation</p>	<p>Risk; Causal Inference ; Competing in and with China; Data Driven Management; Data Management; Entrepreneurship & Growth; Frontier Markets; Global Corporate Finance; Global Financial Markets; Global Supply Chain Management; Inequality and Business; Leading Responsibility; Macroec</p>	<p>t Studies in Analytics 2, Financial Valuation Analytics for Startups, Advanced Topics in Finance Analytics 1 , Text Analytics , Social Media Analytics , Analytics and Open Innovation , Healthcare Analytics , Security Analytics , Advanced Topics in Information Systems,, Advanced Topics in Strategy Analytics , Revenue Management , Operations and Supply Chain Analytics , Introduction to Artificial Intelligence</p>	<p>Insights using Accounting and Financial Data, Optimizing Supply Chain Management and Logistics, Service Analytics for Management Analysis.</p>	
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		Management, Managing Change, Negotiations .	n Modeling II: Queueing and Discrete Event Simulation, Analytics Leadership, and Analytics Internship .	conomics for Managers; Managing Risk in Organizations; Predictive Analytics; Pricing & Revenue Analytics; Social Media Analytics and Digital Marketing; Sustainability; Systems Thinking; Technology and Humanity .	and Deep Learning , Advanced Marketing Analytics , Internet Marketing Analytics,, Pricing Analytics , Retail Analytics , Advanced Topics in Marketing Analytics , Talent Analytics , Organizational Network Analysis , Advanced Topics in Organizational Behaviour , Analytics and Solution Consulting Practicum , Analytics Internship,, Community Analytics Project		
Graduation Requirements	Students must complete a capstone project and	Students must complete a total of 45 credits	Successful Completion of all	Completion of 36 credits	Completion of 45 credits	Completion of 36 credits	Completion of 39 credits

	a total of 39 credits		courses. 39 credits				
			8-16 week internship				
Total Tuition	Proposed \$40,000 for domestic and \$60,000 for international students.	\$54,000 CAD for domestic students \$84,100 CAD for international students.	\$42,795 for domestic students \$63,261 for international students	\$38,250 CAD for Domestic students \$73,800 for international students.	\$49,256 for domestic students, \$61,168 for international students	\$41,400 CAD for Domestic students \$72,630 for international students.	\$43,840 for domestic students \$79,900 CAD for international students

Furthermore, the table below illustrates that a similar program has been available in the eastern provinces and British Columbia. Notably, there exists a geographical and skills gap between these regions that we aim to bridge. The Alberta School of Business is a highly regarded business school, and our decision to use these institutions as comparisons stems from our desire to offer similarly competitive and sought-after programs that align with our commitment to providing high-quality education to graduate students. Our primary objective is to support the thriving innovation-driven business community in Alberta.

Table 8: Analogous Programs Launch Year

Institution	First Cohort/Launch Date
Rotman school of management, University of Toronto	Fall 2018 ⁵
Smith school of Business, Queen's University	Fall 2013 (Celebrated 10 year anniversary September 2023) ⁶
UBC, Sauder School of Business	Fall 2017 ⁷
Ivey Business School	Fall 2021 ⁸

⁵ [The Management Analytics Practicum Fall presentations](#)

⁶ <https://smith.queensu.ca/magazine/issues/spring-2023/file/SmithMagazine-Spring2023.pdf>

⁷ [UBC Sauder launches UBC Master of Business Analytics](#)

⁸ [Ivey launches advanced masters degree for analytics professionals | News & Events](#)

Desautels School of Management, McGill University	Summer 2018⁹ . Also, expanded the degree to a complete online delivery format in September 2023¹⁰
Schulich School of Business, York University	First Canadian business school to launch in 2012 ¹¹

8. Other Elements Affecting Quality

- a. Note any other relevant aspects of the proposed program that might affect quality (e.g., fast-tracking, individual study, parts of the program to be offered in cooperation with another institution, prior learning assessment, transfer agreements (e.g., 2+2 type programs, etc.).

At present, the only external institution in collaboration will be the Alberta Machine Learning Institute (AMii) which will provide assistance in teaching 1-2 introductory courses. The involvement of the Alberta Machine Learning Institute (AMii) in these introductory courses is likely to positively impact the program's quality in several ways:

- **Expertise:** AMii's expertise in machine learning can enhance the quality of course content and instruction.
- **Industry-Relevance:** Collaboration with AMii ensures that course materials align with industry trends and demands.
- **Networking:** Students can benefit from networking opportunities and access to resources within AMii's ecosystem.
- **Improved Learning:** High-quality instruction can lead to improved student comprehension and skills development.

Overall, AMii's involvement is expected to contribute to a more robust and industry-relevant program.

SECTION B: IMPLEMENTATION AND RESOURCES

1. Program Implementation Plan

⁹ [Specialty graduate degrees spring up to meet emerging needs - The Globe and Mail](#)

¹⁰ [McGill University expands its business analytics degree with online delivery](#)

¹¹ [Schulich launches new Master of Science in Business Analytics program - Research & Innovation](#)

- a. Provide a program implementation plan by academic year (start to maturity) that includes any elements to be phased in (e.g., new academic staff hires, courses, minors, co-op option). If introduction of this program is dependent on a similar program being phased out, the implementation plan should include how both programs are being supported until the phase out and start up are completed. Confirm that students will be given the option to complete the program in which they are originally registered, within the normal time to degree completion regulations, or to transfer to the new program. If this will not be the case, explain why.

Academic Year: Start to Maturity

Year 1

Month 1: August

The program begins with a one-month intensive introductory phase in August, which serves as the program's launchpad, where students embark on a transformative learning experience. During this initial phase, students participate in a coding bootcamp, equipping them with essential programming and data manipulation skills. Simultaneously, they are introduced to core business principles, which establish a robust foundation for the entire program.

Fall Term

Transitioning from the introductory phase, the Fall term initiates the core curriculum of the MMA program. Emphasis is placed on the first pillar, Business Analytics Fundamentals. Throughout this term, students engage with courses that delve into data interpretation, data visualization, statistical analysis, machine learning in business, and advanced programming. This comprehensive approach equips students with the analytical tools and knowledge required to excel in the dynamic field of analytics.

Winter Term

As students progress into the Winter term, the focus shifts to the second pillar, Analytics Process and Management. This term is a deep dive into the complete analytics project lifecycle, emphasizing ethical considerations and data-informed decision-making. Students acquire not only the technical skills necessary for analytics but also the strategic insights required to make data-driven decisions within ethical frameworks.

Spring and Summer Terms

The Spring and Summer terms offer a unique and transformative opportunity for students to tailor their educational journey to their specific aspirations. These terms are designed to empower students, allowing them to select elective courses that align with their individual interests and career goals. Elective courses span a wide spectrum of functional areas, from finance to marketing, operations to healthcare, and beyond. This flexibility ensures that each student's Master of Management Analytics experience is uniquely customized, reflecting their distinct ambitions and aspirations.

Beyond the breadth of elective options, these terms also mark a crucial phase in the MMA program where students embark on their capstone projects. These projects represent the culmination of their academic journey, providing students with a hands-on opportunity to apply the skills, methodologies, and insights acquired throughout the program. Students work collaboratively in small teams, often alongside industry partners, to tackle real-world challenges. These projects are an invaluable opportunity to make a meaningful impact in various industries, such as finance, healthcare, marketing, or operations.

Year 2 (Optional Internship ~ 4 months)

For students who opt to pursue the internship (4 months). This internship opportunity provides students with a bridge between theory and practice, offering real-world experience in the thriving tech and digital economies. This practical exposure not only enhances students' skill sets but also facilitates their transition into the professional realm, ensuring they are well-prepared to meet the challenges of the analytics industry. No additional credit requirements associated with the internship.

New Academic Staff Hires:

To maintain a leadership position in the evolving field of Business Analytics, we have strategic plans to hire three tenure-track faculty members specializing in Business Analytics. These additions will bolster the program's development and research endeavors, extending their roles beyond teaching to encompass research, curriculum enhancement, and student mentorship. These faculty members will bring academic expertise and industry insights and connections, actively engaging in cutting-edge research. This commitment ensures that the MMA program remains at the forefront of emerging trends and technologies in Business Analytics, contributing to the program's academic environment and ongoing excellence.

Notes:

As the program matures, we are open to enhancing the curriculum by introducing new courses that align with emerging industry trends and student demands. This proactive approach ensures that the MMA program remains at the forefront of analytics education.

In addition, we are open to exploring the introduction of certificate programs in Analytics to complement students' core MMA curriculum.

The MMA program is not dependent on the phase-out of any other program. As a result, there are no obligations to support any transition from existing programs.

2. Staffing Plan

- a. Provide a comprehensive staffing plan. Show how the number (headcount and FTE) and qualifications of teaching staff meet CAQC's requirements and the objectives of the program as a whole. If the hiring of additional staff is planned, include the academic staff

expertise to be recruited. Provide summary information of current academic staff and new hires who will be teaching in the proposed program in the following format (see sample table below).

The faculty structure for the MMA program is designed to provide students with a diverse and dynamic learning experience. At its core, the Department of Accounting and Business Analytics will serve as the primary academic home for the program, with faculty members from this department taking on key instructional roles. They bring a wealth of expertise in analytics, data-driven decision-making, and business fundamentals.¹²

In addition to the core faculty members, the MMA program is committed to offering students a comprehensive education in analytics by harnessing the extensive expertise available within the Alberta School of Business. Faculty members from various departments within the School will be actively involved in teaching elective courses that align with their areas of specialization. This interdisciplinary approach ensures that students receive specialized knowledge and insights across multiple fields, enhancing their ability to apply analytics in diverse business contexts.

To maintain a leadership position in the evolving field of Business Analytics, we have strategic plans to hire three tenure-track faculty members specializing in Business Analytics to match with increasing the student intake. These additions will significantly bolster the program's development and research endeavors, extending their roles beyond teaching to encompass research, curriculum enhancement, and student mentorship. These faculty members will bring academic expertise but invaluable industry insights and connections, actively engaging in cutting-edge research. This commitment ensures that the MMA program remains at the forefront of emerging trends and technologies in Business Analytics, contributing to the program's academic environment and ongoing excellence.

Table 9: Courses taught by academic staff by credential and specialization
***Please note: The list below includes potential instructors at the development stage who have expressed interest in developing curriculum and teaching the course(s). Final list of determined faculty is still in development.**

Courses	Potential Instructor	Earned credentials and specialization ¹	Professional designation (if applicable)	Academic staff status
MMA 600 Bootcamp	in collaboration with Amii and ASB faculty			
MMA 601, One week course on Business Foundations and	Vern Glaser	PhD, Management and Organization	Associate Professor	Tenure

¹²[Department of Accounting and Business Analytics](#)

Strategic Decision Making				
MMA 602 Data Visualization and Business Communications (Tableau)	Ingolfsson, Armaan	PhD in Operations Research	Professor, Faculty	Tenure
MMA603-Machine learning for business (programming -python)	Borzou Rostami	PhD in Information and technology, supply chain specialization	Assistant Professor, Faculty	Tenure Track
	Ilbin Lee	PhD in Industrial and Operations Engineering	Assistant Professor Faculty	Tenure
	M. Hosein Zare	PhD in Operations Management	Assistant Lecturer	Academic Teaching Staff
	Mohamad Soltani	PhD in Operations Management	Assistant Professor, Faculty	Tenure Track
MMA 604 Database Fundamentals for Business Analysts (SQL)	Yonghua Ji	Phd in Information Systems	Full Professor	Tenure
MMA 605 Statistics Analytics and Causal Inference (R)	Ivor Cribben	PhD in Statistics	Professor, Faculty	Tenure
	Maryam Hasanzadeh Mofrad	PhD Industrial Engineering	Full Time Assistant Lecturer	Academic Teaching Staff

MMA 606-Machine learning for Business II (mainly unstructured data including text analytics, network analytics, and image processing-Python)	Borzou Rostami	PhD in Information and technology, supply chain specialization	Assistant Professor, Faculty	Tenure Track
	Ilbin Lee	PhD in Industrial and Operations Engineering	Assistant Professor Faculty	Tenure
MMA 607- Prescriptive Analytics (Python)	Borzou Rostami	PhD in Information and technology, supply chain specialization	Assistant Professor, Faculty	Tenure Track
	Saied Samiedaluie	PhD in operations management	Associate Professor, Faculty	Tenure
MMA 608-Business Applications of Artificial Intelligence (Please note this course will be taught by a panel of instructors. The mentioned names are of instructors that will be on the panel on as needed basis and is subject to change every year)	Philippe Cote	MSc	Full Executive Professor	Academic Teaching Staff
	Tito Grillo	PhD, Marketing	Assistant Professor	Tenure Track
	Borzou Rostami	PhD in Information and technology, supply chain specialization	Assistant Professor, Faculty	Tenure Track
	Saied Samiedaluie	PhD in operations management	Associate Professor, Faculty	Tenure

	Maryam Hasanzadeh Mofrad	PhD Industrial Engineering	Full Time Assistant Lecturer	Academic Teaching Staff
	Robb Sombach	BA and Diploma in Computer Engineering Technology	Associate Executive Professor	Academic Teaching Staff
	Tim Hannigan	PhD, Management Research	Associate Professor Faculty	Tenure
	Vern Glaser	PhD, Management and Organization	Associate Professor, Faculty	Tenure
MMA 609 Responsible AI & Ethical Issues in Data Analytics (addresses indigenous aspects as well)	In collaboration with Amii instructors	TBD		
MMA 610 Analytics Capstone Project	TBD			
MMA 611 Accounting Analytics	Robb Sombach	BA in Anthropology and Diploma in Computer Engineering Technology	Associate Executive Professor,	Academic Teaching Staff
MMA 612-Financial Analytics	Phillipe Cote	MSc, Finance	Full Executive Professor	Academic Teaching Staff
MMA 613 Operations and supply chain Analytics	Borzou Rostami	PhD in Information and technology, supply chain specialization	Assistant Professor, Faculty	Tenure Track

	M. Hosein Zare	PhD in Operations Management	Assistant Lecturer	Academic Teaching Staff
MMA 614-Healthcare Analytics	Samiedaluie, Saied	PhD in operations management	Associate Professor, Faculty	Tenure
MMA 615-Marketing Analytics	Grillo, Tito	PhD Marketing	Assistant Professor, Faculty	Tenure Track
MMA 616, Intro to Business, /Strategic Decision Making with data analytics	Glaser, Vern	PhD	Assistant Professor, Faculty	Tenure

¹ Include only the highest *earned* credential; if a faculty member is enrolled in a graduate program, indicate in a footnote. For new hires, indicate the desired credential and specialization.

* Currently enrolled in a [Name of Program] at [Institution]. Expected to graduate in [Date].

- b. Explain the workload expectations for teaching, scholarship, and service of all of the academic staff categories involved in teaching this program.

There are 2 key types of faculty involved in this program:

1. **Tenure track/tenured faculty:** Typical workload is 40% research, 40% teaching, and 20% service.

2. **Academic Teaching Staff-:** Typical workload is 80% teaching, and 20% Service.

- c. Clearly indicate how many academic staff will be teaching in the program at launch and at maturity.

Overall, at the program's launch, the instructional team will consist of nine individual instructors, each responsible for one of the core courses. Except for MMA 608, the Business Applications of Artificial Intelligence, will be uniquely taught by a panel of 2-3 instructors. Additionally, six elective courses will be offered, each instructed by a single faculty member. For capstone projects, the staffing requirements may vary, with a need for 1-3 instructors, depending on the specific nature and number of projects. Refer to table 9 for the current team of instructors. Additionally, as the student intake increases, we will be hiring more instructors in the future.

- d. Identify any academic staff who will be teaching in the program who do not meet CAQC's requirements with respect to qualifications of academic staff as noted in s. 4.3.4.3 of the Handbook (normally an acceptable Master's degree or equivalent in the discipline in which the staff member is assigned to teach), and provide the rationale for claiming equivalence.
- Not Applicable
- e. For graduate programs, provide a detailed plan regarding the academic advising, supervision, and monitoring of graduate students, and state the credentials, graduate teaching experience, master's committee work/supervision, and PhD supervision experience of academic staff. For doctoral programs, a summary table such as the following would be helpful.

Refer to Table 10 below.

Table 10: Academic Credentials, Graduate Teaching and Research Supervision of Full Time Faculty

Name	Earned credential ¹	Supervision of undergraduate research projects	Graduate teaching experience	Master's committee work / supervision		PhD supervision
				Project	Thesis	
Ingolfsson, Armann	PhD	√	√	Sup	Ext	Sup/Com / Ext
Ji, Yonghua	PhD	√	√			Com
Glaser, Vern	PhD	√	√			Sup/Com / Ext
Hannigan, Tim	PhD	√	√		Com	Sup/Com/Ext
Samiedaluie, Saied	PhD	√	√		Sup	Sup/Com/Ext
Cribben, Ivor	PhD	√	√	Com/Sup	Com/Sup/Ext	Com/Sup/Ext
Sombach, Rob	BA (25 years industry experience)	√	√	Sup		
Rostami, Borzou	PhD	√	√	Sup	Sup	Sup/Com
Lee, Ilbin	PhD	√	√		Com/Sup	Com/Ext/Sup
Soltani, Mohammad	PhD	√	√			
Mofrad, Maryam	PhD	√	√	Sup		Sup
Grillo, Tito	PhD	√	√		Com	Com
M. Hosein Zare	PhD	√	√	Sup	Sup	
Cote, Phillipe	MSc	√	√	Sup		

¹ Include only highest *earned* credential; if a faculty member is enrolled in a graduate program, indicate in a footnote along with expected completion date.

Legend

PhD = Doctor of Philosophy
DMA = Doctor of Musical Arts
EdD = Doctor of Education

Com = Committee Member
Sup = Supervisor or Co-supervisor
Ext = PhD External Examiner

f. Include CVs of academic staff teaching courses that comprise required or elective courses in the specialization. Be sure their permission has been given.

- See Appendix 10

3. Scholarly and Creative Activity

- a. Describe what constitutes scholarship and/or creative activity for academic staff teaching in this program. Explain the institution's and if relevant, the faculty's, school's, and/or department's formal policies articulating expectations of scholarly performance for instructors in the proposed program, and how evaluations of this performance are taken into account in overall assessments of instructors' performance.
- There are two types of academic staff who will be teaching in the proposed MMA program: full-time tenured or tenure track academics or academic teaching staff.
 - The School of Business has two version of standards:
 - 1) Academic Teaching Staff (ATS) standards.¹³
 - 2) Faculty Evaluation Committee Standards (FEC)¹⁴ 2016 collective agreement (School of Business)¹⁵
- A. Full-time tenured or tenure-track faculty members are subject to the standards laid down in the Faculty Evaluation Committee Standards (FEC) 2016 collective agreement. The expectation is that they will conduct research and publish in the top peer reviewed business journals so that they may satisfy the tenure and promotion criteria of the Alberta School of Business. These academics are also subject to annual review by the Alberta School of Business Faculty Evaluation Committee (FEC) which makes recommendations as to whether an individual is continuing to meet the established scholarly research standards. The responsibilities of an Academic Faculty member shall include Teaching, Research and Service as described below. The proportion of Teaching, Research and Service shall be determined by agreement of the Department Chair and Academic Faculty member for the upcoming academic year, or as set out in the Academic Faculty member's Letter of Appointment. However, as described before, the usual proportion is 40/40/20
- **Teaching:** Participation in teaching programs, including classroom teaching, supervision of undergraduate and/or graduate students and personal interactions with and advising students.
 - **Research:** Participation in research (defined as including the preparation or performance of creative works and reflective inquiry) and the dissemination of the results of research by means appropriate to the discipline.

¹³ [ATS standards latest version- School of Business](#)

¹⁴ Please note the latest version is currently under review for revision by the business council, hence as of now, we are adhering to the 2016 version.

¹⁵ [FEC](#)

- **Service:** Provision of service to the discipline of the Academic Faculty member; participation in the governance of the University, the Faculty and the Department; and dissemination of knowledge to the general public by making available the Academic Faculty member's expertise and knowledge of the discipline, all of which shall be carried out according to the standards of professional conduct expected of an Academic Faculty member
- B. While academic teaching staff (ATS) typically have reduced research requirements, they are still encouraged to engage in scholarly activities. These activities may include: writing articles for professional journals or magazines, attending or presenting at conferences, investigations into new teaching techniques and/or creating original case materials which fairly represent issues in the rapidly changing business environment. It is expected that sessionals who are teaching in this program will have professional designations. Academic teaching staff are evaluated on their teaching, research and professional activities on an annual basis by their department chair and the FEC as per ATS standards.
- b. Describe current and anticipated support for scholarly activities and professional development of academic staff (see CAQC's expectations regarding scholarship, research, and creative activity in s. 3.7.3 of CAQC's Handbook). Highlight some of the existing strengths in scholarship relevant to the program, as well as key challenges.

The Alberta School of Business (School) provides abundant resources to academic faculty to support their scholarly activities and professional development.

- All faculty receive an annual professional expense allowance of \$1400 that can be used for professional development activities including books, journal subscriptions, conferences, equipment, membership dues.
- New faculty are provided with computing equipment to support their scholarly activities and professional development.
- New faculty receive start-up funding (\$20,000 per year for 4 years).
- Internal research funding is available through various Fellowships (1 and 3 year durations, up to \$20,000 per year) and endowed Chairs (5 and 7 year durations, up to \$35,000 per year). These competitive funding opportunities support the growth and development of junior faculty and help senior faculty maintain their research programs, ultimately increasing overall research output and impact.
- In conducting research, faculty partners with external organizations such as the City of Edmonton, Microsoft, AB Innovates, Alberta Gaming Research Institute, Canadian Institutes of Health Research, Department of National Defence, Edmonton Northlands, Canada Foundation For Innovation, Federal Reserve Bank of Philadelphia, MITACS Inc. amongst others.
- The School's PhD program has five specializations (marketing, finance, strategic entrepreneurship and management, accounting, operations), and offers faculty opportunities to train students as well as conduct research. The annual Business Research PhD conference showcases this work.
- Excellent library facilities provide support for scholarly activities and professional development with online access to journals, financial databases, market research, etc.

- A dedicated Research Coordinator provides support and consultation for faculty to help prepare and submit grant applications.
- The School provides and maintains infrastructure (e.g., servers, behavioral lab) that enables faculty to conduct research.
- The School actively encourages academic, student, and Postdoctoral visitors to the university with the goal of fostering and supporting collaboration.
- The School has a support system in place for scholarship that enables academic faculty members to pursue external research funding. Our recent annual grant funding totals were \$5.2 million. (2019-2023)
- The Research Services Office (RSO) maintains a funding database where different types of funding programs and deadlines are listed. The exhaustive list can be found on the School of Business Website¹⁶
- The Office of Research¹⁷ within the College of Social Sciences and Humanities, which includes the business faculty, provides specialized research support to our researchers. This support includes the below but are not limited to::
- [Organizing Workshops](#)
- [Internal Peer Review](#)
- [Funding Opportunity Database](#)
- [Post Funding Guidance and Advice](#)
- The Digital Scholarship Centre (DSC) is an academic hub established to support and enhance scholarly activities, notably in research and teaching. The center specializes in developing expertise in research methodologies and practices that incorporate digital technologies. It offers assistance in learning and utilizing various tools and software for projects, teaching, research, and other applications. Additionally, the DSC provides guidance to researchers and their teams on incorporating digital strategies in their projects from the inception stage. The center also offers consultancy for grant applications, aiding researchers in integrating digital methodologies into their project proposals.¹⁸
- Additionally, the research impact center provides extensive support and guidance to our researchers by offering training and information sessions on a variety of data collection tools and resources.¹⁹
- The Alberta School of Business also organizes department-specific yearly conferences.²⁰ and regular speaker series that held discussions on various research topics.²¹

¹⁶

<https://www.ualberta.ca/research/services/funding-awards/funding-opportunities/index.html?fundingtype=ResearchSupport>

¹⁷ [Office of Research | College of Social Sciences + Humanities](#)

¹⁸ [Digital Scholarship Centre](#)

¹⁹ [Research Impact Services](#)

²⁰ [Conferences | Accounting and Business Analytics](#)

²¹ [CPA Research Speaker Series | Accounting and Business Analytics](#)

- The Faculty of Business, one of the four faculties of the College of Social Sciences and Humanities, is included in the University's Research Support Fund. This fund assists with the indirect costs associated with federally funded research.²²
- ASB also publishes a bi annual newsletter that highlights achievements of our faculty's research and acts as an information source for upcoming deadlines, events and publications.²³
- The research interests of several analytics faculty members are showcased [here](#).

The faculty of the Department of Accounting and Business Analytics is a major asset and strength for our research capabilities.²⁴ Their work is frequently published in leading business journals and has gained recent recognition. In general, the faculty members at the Alberta School of Business have achieved significant success and acclaim in the research field.

4. Physical and Technical Infrastructure

- a. Describe the facilities, laboratory, and computer equipment (as applicable), and any additional infrastructure available to meet the specialized demands of the program, as well as plans to address any deficiencies in what might be required.

It is important for students to have access to state-of-the-art equipment, technology, and facilities to allow them to gain hands-on experience with the tools and technologies that are currently used in industry, which prepares them to be competitive in the job market, advance the innovation ecosystem, and make an impact in the field. The table below lists classrooms and breakout meeting rooms available to facilitate peer learning and collaboration. Meeting rooms are available to students for group work on the 3rd floor and 5th floor, in addition to blended learning classrooms on the 4th floor of the Business Building.

Additionally, the newly opened Carruthers Student Commons on the main floor is a hub designed for collaboration complete with meeting rooms, working spaces, a co-work living lounge, a network lounge, a cafe and more. (See floor plan below)

²² [Research Support Fund](#)

²³ [Research Focus Newsletter](#)

²⁴ [Featured Research | Alberta School of Business](#)

CARRUTHERS STUDENT COMMONS – MAIN FLOOR



● Phone/video conference rooms

- 1-18J
- 1-18O
- 1-18R

● Student Meeting Rooms

- 1-18H Ralph and Gay Young Room
- 1-18I
- 1-18K
- 1-18L
- 1-18M Naqvi-Rota Family Room
- 1-18N
- 1-18P Eileen E. Gilles Room
- 1-18Q

● Student Clubs Space

- 1-18E

Event Spaces Available:

- 1-18B Mackenzie Family Atrium
- 1-18C CPA Community Space
- 1-18F Sinclair Family Boardroom

Table 8: Centrally-scheduled Classroom Facilities (Unless otherwise noted, all classrooms have technology, whiteboards, and furniture.)

Building	Room Number	Seats	Furniture Type	Room Type	Characteristics	Space Managed By
Business	B-05	50	Classroom - Eclectic	Classroom		RO Exams & Timetabling
Business	B-09	50	Classroom - Eclectic	Classroom		RO Exams & Timetabling
Business	1-05	88	Classroom - Eclectic	Classroom	camera	RO Exams & Timetabling
Business	1-06	58	Classroom - Eclectic	Classroom		RO Exams & Timetabling
Business	1-09	88	Classroom - Eclectic	Classroom	camera	RO Exams & Timetabling

Business	1-10	58	Classroom - Eclectic	Classroom		RO Exams & Timetabling
Business	2-05	88	Classroom - Eclectic	Classroom	camera	RO Exams & Timetabling
Business	2-09	88	Classroom - Eclectic	Classroom	camera	RO Exams & Timetabling
Business	3-05	88	Classroom - Eclectic	Classroom	camera	RO Exams & Timetabling
Business	3-07A	6	Small meeting rooms	small meeting room	TV	Library System
Business	3-07B	6	Small meeting rooms	small meeting room	TV	Library System
Business	3-07C	6	Small meeting rooms	small meeting room	TV	Library System
Business	3-06	58	Classroom - Eclectic	Classroom		RO Exams & Timetabling
Business	3-09	20	Study Lab	Lab		RO Exams & Timetabling
Business	3-10	50	Classroom - Eclectic	Classroom		RO Exams & Timetabling
Business	5-13	40	Classroom - moveable furniture	Classroom	camera	MBA Office
Business	5-40A & 5-40B	60	Classroom - moveable furniture	Classroom	projector/s creen	MBA Office
Business	5-24	6	Small meeting room	Small meeting room	none	MBA Office
Business	5-26	6	Small meeting room	Small meeting room	none	MBA Office
Business	5-28	6	Small Meeting room	Small meeting room	none	MBA Office

Table 9:- Computer Labs

Building	Room Number	Seats/Stations	Hours	Room Type	Space Managed By
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Business	B-18		32 24/7	Lab	IST
Business	B-24		43 24/7	Lab	IST
Business	B-28		49 24/7	Lab	IST
Business	Bloomberg Lab B-12		18 Access during assigned class hours only	Lab	Department of Finance
Business	BUS 3-09		20 24/7	Lab	RO Exams & Timetabling

In addition to the mentioned labs, the school will also utilize the trading and analytics lab located on the second floor of the business building, providing an extra facility. And install additional software as necessary for the program. The University of Alberta also has partnership with Amazon Web Services that will be beneficial by gaining access to cloud computing resources to advance machine learning and artificial intelligence initiatives.

Table 10:- Installed Software

Common installed software across all labs
@Risk / Decision Tools
ACL Desktop
ExtendSIM
Forecast X
Hot2XP
MarkStrat Tools
MS Visual Studio Professional
R for Windows
R-Studio
Rational Unified Process
Weka
Win - Adobe Acrobat Reader
Win - Alternatiff
Win - CPC View Lite
Win - Foxit Reader
Win - GhostScript
Win - Google Chrome

Win - Google Earth
Win - GSView
Win - IrfanView
Win - Java
Win - JAWS (SSDS)
Win - Kurzweil 3000 (SSDS)
Win - Lockdown Browser
Win - Microsoft Endpoint Protection (AV)
Win - Microsoft Office 2010
Win - Mozilla Firefox
Win - MS Internet Explorer
Win - OnePrint (OneCard Printing)
Win - OpenAFS
Win - ProQuest for Word
Win - Putty
Win - Read and Write (SSDS)
Win - SCP
Win - SDSS Software
Win - SPSS
Win - VLC Media Player
Win - WinAmp
Win - ZoomText (SSDS)
WinZip

5. Information Services

- a. Provide an inventory and analysis of information resources to support the program (using standard library reference guides), plans to deal with any deficiencies, and a description of student access to other information services.
 - Refer Appendix 9 for Library Impact Statement

SECTION C: CONSULTATION AND ASSESSMENT

1. Program Evaluation

- a. Describe the criteria and methods which will be used to ensure the ongoing quality of the program. Include mechanisms for periodic review using external evaluation. Describe the mechanisms to be used for critically assessing the extent to which the program learning outcomes have been met , and any key performance indicators that the institution wishes to include.

Mechanisms for periodic external evaluation are presently in development pertaining specific to this program. The MMA advisory committee will play a key role in ensuring the quality of the program is of exceptional quality and evolving with changing industry environments.

In addition to the rigorous Quality Assurance Suite of Activities at the University of Alberta, run out of the Office of the Provost and Vice-President (Academic), as an accredited program under *The Association to Advance Collegiate Schools of Business (AACSB)*, the MMA program will undergo a mandatory curriculum review every five years to maintain its certification and standards. Typically, this review process involves appointing an external evaluator from other academic institutions to assess the curriculum and offer feedback.

The Assurance of Learning committee (AOL), which operates under the direct supervision of the Business Faculty Council chaired by the Dean, is tasked with conducting these program evaluations. The MMA program will adhere to these established evaluation and quality assurance protocols that will align with the program's learning objectives.

2. Consultation / Accreditation or Regulatory Approval

- a. If not already included in Part A of the proposal, outline the consultation that has occurred with other institutions, organizations or agencies, including advisory bodies formed by the applicant institution, to assist in program design, implementation, and evaluation. This should include, where appropriate, professional associations, regulatory agencies and/or accrediting bodies, and prospective employers.
 - All consultations listed in Appendix 4 A, B and C
 - Letters of support - See Appendix 12
- b. If the program is subject to accreditation or approval of a regulatory body, provide a description of the review process, requirements of the body, and timing of the review (if in process). If possible, a chart or table may be useful to outline accreditation or regulatory approval requirements.

The Alberta School of Business is accredited by the AACSB. AACSB accreditation is a voluntary, nongovernmental process that includes a rigorous external review of a school's mission, faculty qualifications, curricula, and ability to provide the highest-quality

programs. AACSB's accreditation processes are ISO 9001:2015 certified. The School must show that it meets the accreditation standards set out by AACSB through undergoing a continuous improvement review (CIR) every five years. As part of the CIR the School is required to prepare a detailed report and have a peer review team visit. Our School's last CIR period was 2016/17 - 2020/21, and current period is 2021/22 - 2025/26. The first period that the Masters of Management Analytics program will be a part of the CIR will be 2026/27 - 2030/31. See Appendix 10 for Continuous Improvement Review Timeline.

- c. If not already covered above, indicate how graduates will meet professional or regulatory expectations.

At the program's conclusion, graduates who have fulfilled the necessary credit requirements, successfully completed a mandatory capstone project, and maintained satisfactory academic performance will receive a Master of Management Analytics degree from the Alberta School of Business. It's important to note that this program is not subject to regulatory expectations imposed by any external body.

3. Reports of Independent Academic Experts

- a. CAQC views external peer review as fundamental to ensuring the quality of academic programs. In order to strengthen the proposal, before the proposal is finalized, the institution must solicit comprehensive reviews of the proposal from two or more independent academic experts it selects from outside the institution. Terms of reference must be provided to the reviewers (see Appendix G of the CAQC Handbook for sample terms of reference), as well as up-to-date drafts of Part A and Part B of the proposal, and appendices. Please append the full reports of the independent academic experts, the institution's response to the reports, and CVs from the independent academic experts (see Appendix G of the CAQC Handbook for guidelines on the selection and use of Independent Academic Experts).

Pending

SECTION D: OTHER

1. Adverse Claims or Allegations

- a. Disclose any adverse claims or allegations (and, if possible, identify their provenance) that might affect this application or be of concern to CAQC.
Not Applicable

2. Other Documentation

- a. Provide any other supporting documents such as the Graduate Program Handbook, Faculty Handbook, current calendar, or cyclical review of programs policy that would add support to the applicant's case and would help reviewers (provide website links, if available).

Graduate Program Manual

<https://www.ualberta.ca/graduate-studies/about/graduate-program-manual/index.html>

*Note the Statement of Institutional Integrity
which appears on the separate page below.*

3. Statement of Institutional Integrity

Please sign the Statement of Institutional Integrity below.

A signed Statement of Institutional Integrity must accompany each application (self-study and program proposal), as well as each revised program proposal, to the Campus Alberta Quality Council.

In the institutional integrity section of the Campus Alberta Quality Council's *Academic Freedom and Scholarship Policy*, the following statements are made:

- The institution must present itself accurately and truthfully in all of its written documents. This includes the manner in which it describes its qualities and programs and compares them with other institutions.
- Full compliance with legal matters such as copyright law is expected.

On behalf of the University of Alberta, School of Business, I/we attest that, to the best of my/our knowledge, the information presented in this application is complete and accurate and reflects the highest standards of institutional integrity.

Signed by

President of Institution

(for applications from institutions not authorized to offer a government-approved degree program)

Board Chair of Institution

(for applications from institutions not authorized to offer a government-approved degree program)

OR

Senior Academic Officer

(for subsequent program proposals from institutions authorized to offer at least one government-approved degree program)

Date

Faculty (& Department or Academic Unit):	Faculty of Business, Masters Programs, Department of Accounting and Business Analytics
Contact Person:	Dr. Michael Maier (Associate Dean, Masters Programs and Executive Education), Dr. Borzou Rostami (Academic Director and Assistant Professor- Department of Accounting and Business Analytics)
Level of change: (choose one only)	<input type="checkbox"/> Undergraduate <input checked="" type="checkbox"/> Graduate
Type of change request: (check all that apply)	<input checked="" type="checkbox"/> Program <input type="checkbox"/> Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Despite the increasing awareness of data's crucial role in business success, most firms have not effectively transformed their organizations to harness its full potential. This sobering fact is likely due to the realization that simply having data and computing capacity is not enough to make effective data-driven managerial decisions. There is a critical need for management training programs that align with the technological and social changes surrounding data utilization. Such programs are essential to equip individuals with the skills and knowledge required to make effective, responsible, competitive, and ethical use of data. The program is built on four pillars, each essential for a comprehensive understanding of business analytics. These pillars encompass business analytics fundamentals, providing a solid foundation; business analytics process and management, ensuring effective implementation; analytics applications across various business functional areas, demonstrating versatility; and experiential learning, offering hands-on, real-world experience. Therefore, the courses listed below are in the process of being developed and will be customized for this specific program.

Calendar Copy

URL in current Calendar (or "New page")
New Page

Proposed Copy: New Program

Master of Management Analytics

Master of Management Analytics (MMA) program will focus on training managers to design, lead and execute data driven projects across organizations. The program is meticulously designed around four key pillars, each essential for a comprehensive understanding of business analytics. These pillars encompass business analytics fundamentals, providing a solid foundation; business analytics process and management, ensuring effective implementation; analytics applications across various business functional areas, demonstrating versatility; and experiential learning, offering hands-on, real-world experience.

Program Requirements:

Students are required to complete 39 units in coursework-including a 6- unit capstone project.

Entrance Requirements:

Applicants holding an undergraduate degree in STEM related courses and/or Business Courses.

Course Work: (Courses are currently under development)

Core Requirements:

MMA 600 - Bootcamp coding (Python, R) (No credit)

MMA 601 - One week course on Business Foundations and Strategic Decision Making (3 Credit)

MMA 602 - Data Visualization and Business Communications (Tableau, Power BI)(3 Credit)

MMA 603 - Machine Learning for Business I (Programming: Python)(3 Credit)

MMA 604 - Database Fundamentals for Business Analysts (SQL)(3 Credit)

MMA 605 - Statistics Analytics and Causal Inference (R)(3 Credit)

MMA 606 -Machine Learning for Business II (mainly unstructured data including text analytics, network analytics, and image processing- Python)(3 Credit)

MMA 607 - Prescriptive Analytics (Python)(3 Credit)

MMA 608 - Business Applications of Artificial Intelligence(3 Credit)

MMA 609 - Responsible AI & Ethical Issues in Data Analytics (3 Credit)

MMA 610 - Analytics Capstone Project (6 Credits). Capstone will be offered over two terms (spring and summer along with 2 electives)

2 Electives Selected from:

MMA 611 - Accounting Analytics

MMA 612 - Financial Analytics

MMA 613 - Operations and Supply Chain Analytics

MMA 614 - Marketing Analytics

MMA 615 - Healthcare Analytics

MMA 616 - Strategy Analytics

Ethics Requirement:

The FGPS Academic Integrity and Ethics Training will be fulfilled through registration in [INT D 710: Ethics and Academic Citizenship](#)

Professional Development Requirement:

Students in the MMA program fulfill the FGPS professional development requirement through their program.

Length of Program:

The MMA Program offers two streams for students to choose:
1) One year program without internship; and 2) 16 months program with internship.

Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date.

1. Proposed by Dr. Borzou Rostami (Assistant Professor, Department of Accounting and Business Analytics and MMA Academic Director), and Dr. Michael Maier, Associate Dean, Masters Programs and Executive Education).
2. Reviewed and Approved by Business Council - January 8, 2024

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.

List of Appendices

Appendix 1: [Program Description](#)

Appendix 2A: [Class Size of Comparator Programs in Canada \(Domestic/International\)](#)

Appendix 2B: [Class Profiles Comparator Programs in USA \(Domestic/International\)](#)

Appendix 3: [Business Analysts Jobs- Major Canadian Cities](#)

Appendix 4A: [Industry Consultation Meetings](#)

Appendix 4B : [Alberta School of Business, Internal Consultations](#)

Appendix 4C: [Meeting Summary with Dr. Michael Palvin, Associate Professor and MMA Academic Director, Wilfrid Laurier University](#)

Appendix 5: [Comparative Analysis of Programs in Canada](#)

Appendix 6: [Alberta School of Business Current Student and Alumni Survey comments.](#)

Appendix 7: [Mid-Senior Management-Level Job Titles and Descriptions](#)

Appendix 8: [Proposed Calendar Descriptions with credits/term offered/hours:](#)

Appendix 9: [Library Impact Statement](#)

Appendix 10: [Continuous Improvement Review Timeline](#)

Appendix 11: [Instructor CVs](#)

Appendix 12: [Letters of Support](#)

Appendix 13: [External Reviewers Report](#) (Pending)

APPENDIX 1: PROGRAM DESCRIPTION

i. Background

Technical advances in information technology and engineering, along with social changes in how consumers approach technology – exemplified by the growth in handheld devices, the Internet of Things, social media, and e-commerce – have resulted in enterprises having access to unparalleled volumes of data. This change in data availability has been accompanied by rapid scientific and engineering developments in computer science, statistics, and related disciplines, which have led to the development of methods to manage the scale of data and make efficient and accurate predictions. Engineering solutions to the volume of data, exemplified by cloud computing, allow firms to scale their storage requirements cheaply and easily. These rapid changes provide opportunities and challenges across industries as organizations attempt to adapt and compete in this new environment. Despite the increasing awareness of data's crucial role in business success, most firms have not effectively transformed their organizations to harness its full potential. A recent study¹ highlights that only 23.9% of companies consider themselves data-driven, and only 20.6% assert having successfully developed a data-centric culture within their operations. This sobering fact is likely due to the realization that simply having data and computing capacity is not enough to make effective data-driven managerial decisions. There is a critical need for management training programs that align with the technological and social changes surrounding data utilization. Such programs are essential to equip individuals with the skills and knowledge required to make effective, responsible, competitive, and ethical use of data.

ii. Program Oversight

The Master of Management Analytics program is a 1-year program without internship and 16 months with internship, full-time, course-based master's degree program. The total credits of the entire program is 39 credits. This program is designed for students who have recently graduated with an undergraduate degree in STEM, Business, or other disciplines within the College of Social Sciences and Humanities, including Arts, Education, and Law. The program will be administered and delivered at the Alberta School of Business (ASB). The ASB has demonstrated abilities to deliver excellent management programs, as exemplified by the Bachelor of Commerce and the Master of Business Administration. The School has a long history of research and teaching at the intersection of business and technology and is well-positioned to deliver this program. The program is led by the program's dedicated Academic Director from the ASB and is overseen by an Advisory Committee consisting

¹ [1] [Survey, Data and analysis annual leadership, https://www.newvantage.com/files/ugd/e5361a_247885043758499ba090f7a5f510cf7c.pdf, 2023. pages](https://www.newvantage.com/files/ugd/e5361a_247885043758499ba090f7a5f510cf7c.pdf)

primarily of seasoned industry experts. These individuals play a pivotal role in shaping the program's curriculum, ensuring its alignment with real-world business needs, and maintaining its relevance in the dynamic field of analytics.

ii. Calendar Description:

The Master of Management Analytics (MMA) program will focus on training managers to design, lead and execute data driven projects across organizations. The program is meticulously designed around four key pillars, each essential for a comprehensive understanding of business analytics. These pillars encompass business analytics fundamentals, providing a solid foundation; business analytics process and management, ensuring effective implementation; analytics applications across various business functional areas, demonstrating versatility; and experiential learning, offering hands-on, real-world experience.

The MMA is a 1-year program without internship and 16 months with internship, full-time, course-based master's degree program.

MMA Advisory Committee

Role of Academic Director:

- *Academic Leadership:* The academic director provides academic leadership, ensuring that the program's curriculum adheres to rigorous educational standards, in addition to overseeing faculty engagement, course development, and academic research initiatives.
- *Industry-Academia Synergy:* The academic director acts as a bridge between the academic realm and industry, liaising with the Advisory Board and industry partners to facilitate collaborations, internships, and research projects that enhance students' practical exposure.
- *Continuous Enhancement:* The academic director is committed to the program's continuous improvement, actively seeking feedback from students, faculty, and industry partners to refine the program's quality and relevance.

Role of Advisory Committee Members: (in its initial stage of development)

- *Curriculum Development:* Advisory board members actively participate in the design and evolution of the program's curriculum, providing insights into emerging trends, technologies, and industry-specific needs, helping to shape the courses and content.
- *Industry Insights:* With their wealth of industry experience, advisory board members offer invaluable insights into the practical challenges and opportunities that students are likely to encounter in the analytics field. This ensures that the program remains aligned with current industry demands.
- *Networking and Partnerships:* Advisory Board members often bring extensive industry networks to the table. They are able to facilitate partnerships, internships, and job placement opportunities for students, enhancing their overall learning experience and career prospects.
- *Quality Assurance:* In addition to the rigorous Quality Assurance Suite of Activities at the University of Alberta, run out of the Office of the Provost and Vice-President (Academic), the Advisory Committee members serve as a quality control mechanism, ensuring that the program maintains the highest

standards of excellence, providing feedback on the program's effectiveness and suggest improvements based on industry best practices.

- *Mentorship and Guest Lectures:* Advisory Committee members may engage directly with students through mentorship programs or by delivering guest lectures. This exposure to industry leaders can inspire and motivate students while providing practical insights.

MMA Advisory Committee Participants (Tentative structure)

Academic Program Director- Department of Accounting and Business Analytics, Committee Chair	TBD
Department of Strategy, Entrepreneurship and Management Academic Representative	TBD
Department of Finance Academic Representative	TBD
Department of Marketing, Business Economics and Law Academic Representative	TBD
Vice-Provost and Dean of the Faculty of Graduate and Postdoctoral Studies	TBD
Committee Coordinator	TBD
Industry Representatives (6)	TBD
Student Representatives (2) (analytics background/interest)	TBD

iii. Program Structure

The program will focus on training managers to design, lead and execute data driven projects across industries. The main objective of the MMA program is to equip students with comprehensive knowledge and practical skills to effectively apply state-of-the-art analytics tools. By doing so, students will be able to leverage available resources, gain valuable business insights, and make informed operational and strategic decisions. Throughout the program, students will successfully demonstrate their ability to design and move data analytics projects from conception to application. Students will solve a real-world business problem with their student team and learn from expert faculty from a range of backgrounds about how analytics can improve business performance. A key focus of the program is to enable students to identify and evaluate opportunities and risks associated with data analytics projects. By developing a deep understanding of the potential benefits and challenges, students will be equipped to make informed decisions and contribute to the success of data analytics initiatives.

To achieve these learning objectives, the program emphasizes the project development life cycle. Through engaging case studies, course projects, and a field project, students will have the opportunity to apply their knowledge and skills in practical settings. This hands-on approach will enable them to navigate the various stages of project development, gaining valuable experience and proficiency in executing data analytics projects effectively. By the end of the program, students will have not only acquired theoretical knowledge but also demonstrated their ability to apply it in real-world scenarios. They will possess the necessary skills to design and execute data analytics projects and contribute to improved decision making processes within organizations.

Kicking off in August, the program's first month offers a comprehensive introduction to both coding and business fundamentals. Students will participate in an immersive, 2-week coding bootcamp, carefully designed to equip them with a solid foundation in programming logic and essential concepts. This coding bootcamp serves as a vital launchpad for the entire program, ensuring that all participants are well-prepared for the more advanced segments of the curriculum. By gaining a strong grasp of coding principles, students will have the necessary skills to tackle complex analytical challenges throughout the duration of the program.

Length	August	Fall	Winter	Spring	Summer	Fall
Option 1	Coding Bootcamp and Intro To Business	Pillar 1	Pillar 2	Pillars 3 and 4	Pillars 3 and 4	-
Option 2	Coding Bootcamp and Intro To Business	Pillar 1	Pillar 2	Pillars 3 and 4	Pillars 3 and 4	Internship

Table 1: The MMA offers a 16 month option that includes an internship for students interested in gaining additional professional experience prior to graduation. Choosing the internship option will have no additional credit requirement associated with it.

In addition to the coding bootcamp, the first month includes an in-depth introduction to the core principles of business. This component of the program aims to provide students with a well-rounded understanding of the business landscape, enhancing their ability to analyze data in a broader organizational context.

Following the bootcamp, students will then enter the Fall term, where they will delve into the core curriculum of the MMA program. The MMA is structured around four major pillars, providing comprehensive knowledge and training in various aspects of analytics:

- **Business analytics fundamentals:** This pillar covers the essentials of data interpretation, visualization, and statistical analysis. This pillar also reinforces the coding and data manipulation skills introduced in the bootcamp, enabling students to engage more effectively with analytics tools and models.
- **Business analytics process and management:** This pillar emphasizes the complete lifecycle of analytics projects, from data collection and mindful consideration of ethical issues to data-informed decision making and insight generation. It aims to impart best practices in orchestrating these multifaceted processes efficiently and effectively.
- **Analytics applications across functional areas:** This pillar delves into the multifaceted applications of analytics across various operational domains. It equips students with the ability to apply analytical concepts and tools contextually to solve problems and drive efficiency in diverse business functions such as finance, marketing, operations and supply chain, and human resources. Through this, students gain a comprehensive understanding of how data-driven insights can propel strategic decision making in any functional area of an organization.

- **Experiential Learning:** This pillar is specifically crafted to immerse students in real-world experiences within one of Canada's vibrant tech and digital economies. The cornerstone of this hands-on approach is a comprehensive capstone management analytics project, which spans both the spring and summer semesters for all students. This intensive project serves as the central experiential component, providing an invaluable opportunity for practical application of theoretical concepts in real-world contexts. Additionally, students in the 16-month program enjoy the unique benefit of a three-month internship, further enhancing their experiential learning journey. This structure not only deepens their understanding but also facilitates valuable networking and interaction with seasoned professionals from top analytics organizations, contributing to a holistic and enriching learning experience.

While students will be exposed to each pillar during all program terms, the emphasis will change in the subsequent terms. In the Fall term, students take business analytics fundamentals courses: Machine Learning for Business I (structured data); Database fundamentals for Business Analysts; Data Visualization and Business Communications; and Statistics Analytics and Causal Inference. Courses in the Winter term emphasize analytics process and management: Machine Learning for Business II (unstructured data), Business Applications of Artificial Intelligence, Prescriptive Analytics, and Responsible AI & Ethical Issues in Data Analytics. In the Spring and Summer terms, students take functional area elective courses: Accounting Analytics, Operations and Supply Chain Analytics, Financial Analytics, Marketing Analytics, and Healthcare Analytics. An experiential education field project performed in groups of 3-4 will be completed over the Spring and Summer semesters.

Required courses:

MMA 600 - Bootcamp coding (Python, R) (No credit)
MMA 601 - One week course on Business Foundations and Strategic Decision Making
MMA 602 - Data Visualization and Business Communications (Tableau, Power BI)
MMA 603 - Machine Learning for Business I (Python)
MMA 604 - Database Fundamentals for Business Analysts (SQL)
MMA 605 - Statistics Analytics and Causal Inference (R)
MMA 606 -Machine Learning for Business II (Python)
MMA 607 - Prescriptive Analytics (Python)
MMA 608 - Business Applications of Artificial Intelligence
MMA 609 - Responsible AI & Ethical Issues in Data Analytics
MMA 610 - Analytics Capstone Project

Elective courses:

MMA 611 - Accounting Analytics
MMA 612 - Financial Analytics
MMA 613 - Operations and Supply Chain Analytics
MMA 614 - Marketing Analytics
MMA 615 - Healthcare Analytics
MMA 616 - Strategy Analytics

The program follows a 1-year course-based master's structure, offering coursework in each term. The courses are strategically arranged to complement and build upon one another, facilitating the achievement of the program's objectives. This structured approach ensures that students have well-defined progression requirements to meet and aligns with the expectations associated with earning a degree.

Table 2: GRADUATE PROGRAM STRUCTURE - One year

Starting Mid-August (Orientation)	Fall Term	Winter Term	Spring Term (select 1 elective course)	Summer Term (select 1 elective course)
MMA 600	MMA 602	MMA 606	MMA 610	MMA 610
MMA 601	MMA 603	MMA 607	MMA 611 (elective)	MMA 611 (elective)
	MMA 604	MMA 608	MMA 612 (elective)	MMA 612 (elective)
	MMA 605	MMA 609	MMA 613 (elective)	MMA 613 (elective)
			MMA 614 (elective)	MMA 614 (elective)
			MMA 615 (elective)	MMA 615 (elective)
			MMA 616 (elective)	MMA 616 (elective)

Table 3: GRADUATE PROGRAM STRUCTURE - 16 Months

August	Fall Term	Winter Term	Spring Term (select 1 elective course)	Summer Term (select 1 elective course)	Fall - Year 2
MMA 600	MMA 602	MMA 606	MMA 610	MMA 610	Internship
MMA 601	MMA 603	MMA 607	MMA 611 (elective)	MMA 611 (elective)	
	MMA 604	MMA 608	MMA 612 (elective)	MMA 612 (elective)	
	MMA 605	MMA 609	MMA 613 (elective)	MMA 613 (elective)	
			MMA 614 (elective)	MMA 614 (elective)	
			MMA 615 (elective)	MMA 615 (elective)	
			MMA 616 (elective)	MMA 616 (elective)	

iv. Course Descriptions

MMA 600 - Introductory Boot Camp (0 credits):

Students will participate in an immersive, 2-week coding bootcamp, designed to equip them with a solid foundation in programming logic and essential concepts. This course will also include introduction to business foundations.

MMA 601 - Business Foundations and Strategic Decision Making (3 credits):

This course is divided into two distinct yet interconnected parts, each spanning 18 hours, to equip you with knowledge and skills required in today's dynamic business landscape.

In the first part, we establish a robust foundation in business fundamentals and hone the critical skill of case analysis. This journey begins with an immersive Module 1, where we lay the groundwork for effective case analysis and foster a collaborative cohort environment. Students' interactions with peers during this phase will enhance their networking skills and provide valuable insights. As we delve deeper, Module 2 unfolds, offering a deep dive into qualitative disciplines, particularly focusing on business strategy. You'll explore key concepts such as SWOT analysis, Porter's five forces, and market analysis, equipping you with tools to navigate complex business challenges. Transitioning seamlessly, Module 3 introduces you to quantitative insights, a vital component of business acumen. Here, we delve into financial statements, unravel profit/loss dynamics, and delve into the intricacies of the time value of money. These quantitative skills are invaluable in real-world business scenarios. Finally, in Module 4, we bring everything together, emphasizing the integration and practical application of business concepts. You'll synthesize the knowledge gained throughout the course, applying it to real-world scenarios, and honing your ability to make data-informed decisions. This holistic approach ensures that you not only grasp business fundamentals but also learn how to apply them effectively, setting you on a path to excel as a future business leader.

The second part of the course delves deep into the dynamic world of data-driven strategy, examining how leaders can harness the power of data analytics to inform and enhance strategic decision-making within organizations. Students will cultivate invaluable skills in utilizing data to frame decisions effectively. They'll learn to ask critical questions about data, scrutinize the methods employed for data collection and organization, and harness data to drive improved organizational outcomes. Structured around two parallel modules—an immersive decision-making module and a comprehensive data analysis module—students will engage in interactive lectures, analyze real-world case studies, and tackle hands-on projects. Through these activities, students will master the art of utilizing data to formulate impactful strategies, facilitate organizational change, and create substantial value.

MMA 602 - Machine Learning For Business I (3 credits)

Machine learning is an application of artificial intelligence (AI) that provides systems the ability to automatically learn and improve from experience without being explicitly programmed. The objective of Machine Learning for Business is to apply machine learning tools to turn raw data into actionable information to guide business decisions. This course requires a keen understanding of both technical methods for dealing with data and business objectives. The plan is to survey different machine learning techniques (e.g., supervised and unsupervised learning) and their applications in real business. The student will learn tools used by analytics professionals and apply these tools to business datasets from

a range of functional areas. While the student will come away with technical skills, the key objective of this course is to understand how machine learning techniques methods can lead to better solutions to unstructured business problems. With this in mind, all methods will be discussed and implemented to case and project that incorporate data from real business problems faced by managers today. This course will build upon basic concepts from Statistics, Probability, Regression, Optimization, Forecasting, and introduce new methods from machine learning and data science.

MMA 603 - Data Visualization and Business Communications (3 credits)

In the era of data-driven decision making, the ability to present complex data and analytics in a visual and interpretable manner is vital. This course provides students with the skills necessary to transform raw data into insightful visualizations and effectively communicate data-driven findings in a business setting. The course begins with an overview of the importance of effective data visualization and its role in decision-making processes. It introduces the principles of good visual design and data storytelling, along with exploring a variety of visualization techniques and tools. Students will learn to create and interpret different types of visualizations such as charts, graphs, and interactive dashboards using data visualization tools such as Tableau and Excel. The course emphasizes not just the creation of visually appealing representations but also the importance of choosing the right visualizations that accurately represent the underlying data and answer business questions. The second part of the course focuses on business communication skills. It emphasizes the importance of translating complex analytical results into clear, concise, and actionable business insights. Students will learn to communicate their findings effectively to both technical and non-technical audiences through written reports, presentations, and data storytelling. The course also includes a series of assignments and projects that require students to apply what they have learned in real-world scenarios. These provide opportunities for students to practice creating visualizations, interpreting results, and presenting insights. By the end of this course, students will not only be proficient in using data visualization tools but also in delivering compelling business presentations that effectively communicate the insights derived from their analyses.

MMA 604 - Database Fundamentals for Business Analytics (3 credits)

This course provides students with an understanding of the critical role of databases in business analytics, focusing on the principles of database systems, design, implementation, and utilization in a business context. At the beginning of the course, students are introduced to fundamental concepts of data and information management. Topics include data models, database design, normalization, transaction management, and data integrity. We explore various types of databases such as relational, NoSQL, and distributed databases and understand their usage in different scenarios. The course then delves into the practical skills of working with Structured Query Language (SQL) for data extraction, transformation, and loading processes. Students learn to write SQL queries to manipulate and retrieve data from databases effectively. Students are then introduced to data warehousing concepts and architecture, including the differences between operational databases and data warehouses, data marts, and the role of Extract, Transform, Load (ETL) processes. Towards the end of the course, the focus shifts to big data and advanced database technologies, such as Hadoop and other NoSQL database systems, which are being widely used to handle unstructured data and real-time analytics. By the end of this course, students will be capable of designing a database from scratch, proficient in using SQL for data manipulation and analysis, and have a firm understanding of how databases are utilized in the business world for decision-making and analytics.

MMA 605 - Statistics Analytics and Causal Inference (3 credits)

This course provides students with a robust foundation in statistical principles and techniques, alongside essential skills in descriptive analytics and causal inference. It serves as a solid foundation for individuals interested in data analysis, decision-making, and extracting meaningful insight from numerical data. Throughout this course, students will develop strong analytical skills and gain hands-on experience with statistical software. They will learn how to apply these tools to real-world scenarios, establishing a solid foundation in statistical analysis and data-driven decision-making, essential for modern business environments.

Students will master descriptive analytics by acquiring the ability to summarize, visualize, and interpret data effectively using a range of techniques, from summary statistics to advanced data visualizations. They will build a solid understanding of core statistical concepts, including probability, distributions, and hypothesis testing, paving the way for more advanced analytics. They will explore time series data analysis, discovering how to uncover trends, patterns, and predict future data points. They will dive into the realm of multivariate analysis, examining relationships between variables, reducing dimensionality, and employing regression techniques for predictive modeling.

Additionally, they will master the art of experimental design, delve into ANOVA for comparing means, and explore advanced factorial experiments. They will study A/B testing methodologies for refining business strategies and making data-driven decisions. Lastly, within the realm of causal inference, they can delve into understanding the fundamental principles of causality and the complexities involved in inferring causation from observational data. Additionally, they can explore various methodologies that are essential for establishing causal relationships, including Propensity Score Matching, Instrumental Variables, and Difference In-Differences (DiD).

MMA 606 - Machine Learning for Business II (3 credits)

This advanced course builds upon the foundational knowledge students acquired in “Machine Learning for Business I”, diving deeper into the specialized applications of machine learning techniques to unstructured data. By exploring areas such as text analytics, network analytics, recommender systems, and deep learning applications, students will gain a robust understanding of how to handle and analyze unstructured data such as text and images, which constitute a significant proportion of the data businesses encounter. The first part of the course is dedicated to text and network analytics, giving students practical experience with tools and techniques for processing and analyzing textual data and networks. Students will learn to apply machine learning algorithms to these forms of data, unlocking valuable insights that can guide strategic business decisions. Additionally, the course delves into the area of recommender systems, exploring how businesses can use these systems to personalize customer experiences and drive engagement. Students will have the opportunity to work with real-world datasets and build their own recommender systems. In the later stages of the course, students are introduced to deep learning applications for unstructured data, specifically focusing on natural language and image processing. Here, students will learn how these advanced techniques can be used for tasks such as automated customer service, sentiment analysis, and image recognition. Moreover, the course provides an introduction to reinforcement learning, a subfield of machine learning that allows machines and software agents to automatically determine the ideal behavior within a specific context. Through case studies and practical examples, students will learn about applications of reinforcement learning to business operations, such as pricing and revenue management. By the end of the course, students will be equipped with the skills to apply sophisticated machine learning techniques to a variety of business data and derive actionable insights from complex, unstructured data sets. This course will empower students to leverage advanced machine learning techniques to drive business outcomes and shape strategic decisions.

MMA 607 - Prescriptive Analytics (3 credits)

Business analytics has three main components of descriptive, predictive, and prescriptive. While the first two answer questions on what has happened in the past and what might happen in the future, prescriptive analytics goes beyond explanations and predictions to recommend the best course of action to meet organizational goals. It involves the use of technology to help businesses make better decisions through the analysis of raw data. Prescriptive analytics specifically factors information about possible situations or scenarios, available resources, past performance, and current performance and suggests a course of action or strategy. This course is designed to provide a foundation of prescriptive analytics based on mathematical modeling and optimization for managerial decision-making. Topics covered in the course include decision analysis; simulation modeling; constraint programming and constraint-based optimization; network optimization and graph algorithms; optimization under uncertainty; application of prescriptive analytics techniques in various industries (e.g., supply chain, healthcare, finance); integration of predictive and prescriptive analytics; and practical implementation of prescriptive analytics techniques to solve real-world problems. By the end of the course, students will have a solid understanding of prescriptive analytics techniques and their practical applications. They will be able to formulate decision problems, apply optimization and simulation methods, and provide actionable recommendations to improve decision-making processes in various domains. Additionally, students will develop critical thinking skills and ethical awareness related to the use of prescriptive analytics in business contexts.

MMA 608 - Business Applications of Artificial Intelligence (3 credits)

This comprehensive course, co-taught by a panel of expert instructors, aims to provide students with an in-depth understanding of how artificial intelligence (AI) technologies are applied in real-world business settings. It introduces students to a range of AI applications across different industries and functional areas, highlighting the transformative potential of AI in driving innovation, improving operational efficiency, and creating competitive advantages. One key component of the course is an exploration of AI applications in areas such as finance, marketing, and supply chain management. Students will engage with real-life cases that illustrate how organizations have successfully leveraged AI to solve complex business problems, generate actionable insights, and make data-driven decisions. These topics will include AI-powered predictive analytics, natural language processing for customer service, robotic process automation for operations, machine learning for customer segmentation, and AI-driven decision-making systems, among others. A significant part of the course involves readings from both scientific and esteemed business literature, such as the Harvard Business Review and MIT Sloan Management Review. These readings will give students an insight into the most recent advancements in AI technologies, their business applications, and the current dialogue surrounding them in the industry. In the final segment of the course, students will work in groups to author a whitepaper exploring an application of an emerging AI technology to a business problem. Students will evaluate whether to adopt the technology from the perspective of the firm. This hands-on project will not only give students an opportunity to apply their theoretical knowledge to a practical problem, but will also equip them with the skills needed to communicate their findings and recommendations to a professional audience. Importantly, this course provides a solid foundation for further exploration in the field of AI and paves the way for the choice of elective courses that students will undertake during the spring and summer semesters. By the end of the course, students will be prepared to assess the potential of AI applications in different business contexts and contribute meaningfully to AI implementation efforts across a variety of business domains.

MMA 609 - Responsible AI & Ethical Issues in Data Analytics (3 credits)

In this course, students will explore the ethical and legal dimensions of artificial intelligence (AI) and data analytics, two rapidly advancing fields that are raising new ethical and regulatory questions. Topics covered will include data privacy, algorithmic fairness, interpretability, and accountability. Students will learn how to responsibly and ethically use AI and data analytics tools. They will examine issues such as biased algorithms and data, invasion of privacy, decision-making transparency, and the consequences of deploying AI systems without adequate safeguards. The course also delves into the concept of “Responsible AI”, teaching students how to design, build, and use AI systems in a way that respects human rights and shared ethical values. Additionally, the course will cover ethical considerations in data collection, storage, and analysis. With a mix of theoretical discussion, case study analysis, and practical exercises, students will gain an understanding of how to apply ethical principles in real-world data analytics projects. They will also learn to anticipate and mitigate potential ethical problems that can arise in their future work.

To address the considerations of “indigenous” in the context of responsible AI and analytics, the course will incorporate relevant topics and discussions that emphasize cultural sensitivity and respect for indigenous communities. Students will explore the following areas:

- *Indigenous Data Sovereignty*: Understanding the principles of data ownership, control, and governance within indigenous communities, and the significance of respecting indigenous data sovereignty in AI and data analytics projects.
- *Ethical Data Collection from Indigenous Communities*: Examining the unique ethical challenges related to gathering data from indigenous populations, including informed consent, protection of cultural knowledge, and avoiding potential harm or exploitation.
- *Algorithmic Bias and Indigenous Communities*: Analyzing how bias in AI algorithms can disproportionately impact indigenous communities, and strategies to identify and address such biases to ensure fairness and equity.
- *Indigenous Knowledge Systems and Interpretability*: Recognizing the importance of interpreting AI outcomes in a way that aligns with indigenous knowledge systems and worldviews, fostering cultural relevance and understanding.
- *Responsible AI in Indigenous Contexts*: Exploring case studies and examples of AI and data analytics projects that have successfully incorporated responsible practices while working with or for indigenous communities.
- *Cultural Sensitivity and Collaboration*: Emphasizing the significance of respectful and collaborative partnerships with indigenous stakeholders when designing and implementing AI solutions that may affect their communities.

Through these additional topics, the course aims to equip students with the knowledge and understanding of how to engage with indigenous people responsibly in AI and data analytics, ensuring that their future work respects human rights, shared ethical values, and cultural diversity. The course will encourage students to critically assess the impact of AI technologies on indigenous populations and devise ethical solutions that promote inclusivity, fairness, and positive outcomes for all stakeholders involved.

MMA 610 - Analytics Capstone Project (6 credits)

This course is the MMA program's pinnacle, spanning two semesters, providing students with a comprehensive, real-world analytics experience.

During the Spring semester, students will lay the groundwork for their capstone project. This phase focuses on formulating and proposing a business analytics strategy to address unstructured business challenges. Students will work closely with faculty advisors and industry experts to define their project's scope, objectives, and methodologies. Students must understand the intricate managerial issues within their chosen organization and prepare a well-structured proposal for their analytics project. This phase equips students with the strategic thinking and planning skills necessary for impactful analytics solutions.

In the Summer, the course focuses on the practical implementation and delivery of a business analytics project. Students actively gather the requisite data, craft the framework for their analytical solutions, design the step-by-step implementation process, and proficiently present their findings. This hands-on phase allows students to translate their proposals into actionable insights. Throughout the journey, students work closely with experienced faculty advisors, industry experts, and peers, ensuring that their projects align with the highest standards of academic rigor and industry best practices.

The "Analytics Capstone Project" culminates in a profound showcase of students' analytical prowess and their ability to navigate complex business landscapes with data-driven decision making. By successfully completing this capstone, students emerge as accomplished analytics professionals, well-prepared to make meaningful contributions to various industries and organizations.

List of electives:

MMA 611 - Accounting Analytics

This course equips students with the multifaceted skills required to excel in the modern accounting profession. This course offers a unique blend of advanced data analytics techniques and cutting-edge technology insights, making it an indispensable component of the Master of Management Analytics program. The course is divided into two interconnected parts, each designed to provide students with a distinct yet harmonious skill set: Data Analytics and Technology Integration in Accounting. This first part is dedicated to hands-on learning, where students will harness data analytics tools, including OLS, logistic and probit regressions, simulations, and optimization analysis, to tackle a wide spectrum of accounting dilemmas. These challenges span all of accounting's functional areas, encompassing financial and managerial accounting, auditing, and taxation.

Students will confront complex problems and become proficient in using data to detect earnings management, assess financial performance, estimate cost functions, perform budgeting simulations, optimize production, and uncover crucial insights by identifying patterns, outliers, and anomalies. This knowledge equips students to make informed decisions in areas such as audit risk assessment, audit procedures, and strategic tax planning and compliance. As the accounting profession evolves in response to technological advances, the second part ensures students are at the forefront of this transformation. This segment focuses on the strategic alignment of technology with organizational goals, emphasizing technology-driven projects that drive business innovation. Students will gain valuable insights into integrating business analytics through comprehensive business analysis. Topics include data, information, and knowledge management, exposure to data modeling and relational database technologies, the significance of data quality, formal and ad-hoc reporting, and the art of data

visualization. The course culminates with exploring information security, privacy considerations, and the ethical implications of emerging technologies, such as automation, artificial intelligence, and the social web, on individuals, communities, and organizations.

MMA 612 - Financial Analytics

This course will equip you to translate core Financial skills with data science into the world of decision-making in Enterprise. The course is divided in four sections:

- Core Financial skills for modeling real life projects. This includes interest rate discounting for project valuation, modeling uncertainty, and co-movement of uncertainty risk factors.
- Real Optionality under uncertainty. This part of the course aims to answer how management decisions and sources of uncertainty change the valuation framework. The course will then dig deep into NPV@Risk.
- Decision Quality: The objective of this part is to investigate the following questions:
 - What is DQ?
 - How is it relevant to business decision-making?
 - What are biases and how do we define risk in Enterprise? It's not necessarily our standard Finance definition of it!
 - How do we implement it?
- Interactive DS apps. This part will be devoted to Implementing a DQ process that necessitates interactivity. Students will learn how to deploy the above as an interactive app on the modeling to engage senior management.

This course will use exclusively R programming.

MMA 613 - Operations and Supply Chain Analytics

This course equips students with the essential skills to conquer complex challenges at the core of modern business logistics. By harnessing cutting-edge analytics techniques, including regression, optimization, and simulation, students become adept at modeling and dissecting intricate problems in inventory management, site selection, revenue optimization, and transportation logistics. In particular, they delve into inventory management, discovering the delicate balance between supply and demand while minimizing costs through data driven precision. Students will utilize real-world data to pinpoint optimal facility locations, ensuring efficient operations and market responsiveness. They learn revenue maximization, leveraging data analytics to craft effective pricing strategies and yield management. Finally, they master the optimization of routes, the minimization of delivery times, and the streamlining of logistics operations, all guided by the illuminating power of data.

With access to extensive, real-world supply chain datasets, students gain invaluable hands-on experience, transforming data into actionable insights. In a world where supply chain resilience is paramount, this course empowers you to be at the forefront of innovation and efficiency.

MMA 614 - Marketing Analytics

A key role of marketing is to understand consumers and the market landscape to generate actionable insights. This course will give students important tools for this task. Students will learn how to design an analytical plan to address important marketing problems, from collecting data to communicating the findings. This includes understanding the variables that need to be measured and how to measure

them, knowing when to apply one analytical method or another depending on the data and the marketing problem at hand, interpreting the output of several data analysis techniques, and telling the story of the findings. With this background, students can begin working towards a marketing analytics position in a company, marketing research firm, consulting firm, or in the public sector. The beginning of the course will employ lectures and readings. However, the course will quickly shift to a more hands-on approach, when students will design projects and analyze data in class. Upon successful completion of this course, students are expected to demonstrate an understanding of and the capacity to apply their knowledge in the following areas: marketing research plan; experimental design (e.g., A/B testing); data collection; analytical method selection; different applications of regression analysis in marketing; analytical methods for segmentation and targeting; general use of machine learning in marketing; results interpretation; and results communication (story telling).

MMA 615 - Healthcare Analytics

In a data-driven era where innovation, efficiency, and improved patient outcomes hinge on analytics, this course serves as your gateway to the healthcare domain. Students in this course learn to dive deep into the strategic insights that unveil how data analytics is reshaping healthcare strategy, influencing decision-making, and elevating the quality of patient care. They develop hands-on proficiency in extracting and handling healthcare data from diverse sources, including electronic health records, wearable devices, and medical imaging, while mastering essential data preprocessing techniques. Immerse themselves in advanced analytics tailored for healthcare applications, exploring predictive modeling, machine learning, and statistical approaches used for patient outcome prediction and medical diagnostics enhancement. They discover how analytics optimizes healthcare operations, from streamlining patient flows and resource allocation to fine-tuning inventory management and healthcare capacity planning. Navigating the intricate ethical landscape of healthcare analytics, students gain a comprehensive understanding of the legal and ethical considerations tied to sensitive patient data, ensuring steadfast compliance with healthcare regulations. Cultivating the art of data-driven decision-making in healthcare, students empower themselves to make impactful contributions in data-rich healthcare environments where every decision holds significance. Applying their newly acquired knowledge and skills to real-world healthcare scenarios through practical case studies, hands-on projects, and insights from guest lectures by esteemed industry experts. By fostering interdisciplinary expertise and collaborating seamlessly with peers from diverse backgrounds, students embrace a holistic approach to solving intricate healthcare challenges.

MMA 616 - Strategy Analytics

Designed to empower future data-driven managers, this course equips students with the knowledge and skills needed to navigate the complex terrain where data science and business analytics converge. It offers a unique vantage point for students, offering a bird's-eye view of how various data science and business analytics functions can seamlessly harmonize to craft a powerful and effective strategy. Simultaneously, it exposes the potential pitfalls, illustrating the consequences of poorly integrated elements that can lead to misguided and ineffective strategies.

Throughout the course, students will delve into essential components, from understanding the significance of strategic vision and data-driven decision frameworks to exploring the pivotal role of competitive intelligence and risk assessment in shaping strategy. We explore the world of performance metrics, uncovering how data-driven key performance indicators drive continuous improvement and guide strategic choices. Real-world case studies of organizations successfully leveraging data and analytics in their strategic decision-making provide tangible insights and best practices, grounding theory in practical application. Additionally, we examine the ethical considerations inherent in

data-driven strategy, emphasizing responsible data use, transparency, and data privacy—a critical aspect for modern analytics professionals.

By the end of this course, students will not only possess a profound understanding of the symbiotic relationship between data science and business analytics but also the ability to formulate data-driven strategies that seamlessly align with organizational objectives.

V. General learning outcomes

The Alberta School of Business has general learning outcomes for the undergraduate and master's-level programs. These learning outcomes are adapted for each specific program. There are five learning outcomes as described below. The learning outcomes will be evaluated primarily by the capstone course.

- **Enhanced Critical Thinking:** Students will cultivate the capacity to examine, integrate, and effectively communicate intricate data, enabling them to formulate well-reasoned conclusions and make informed decisions.
- **Improved Communication Proficiency:** Students will refine their communication skills, both in delivering articulate oral presentations and producing well-structured written documents.
- **Elevated Ethical Sensitivity:** Students will foster a heightened sense of ethical awareness and develop strategies to identify and address ethical dilemmas effectively.
- **Effective Team Collaboration:** Students will grasp the principles of teamwork and collaborative methodologies, enabling them to successfully execute group assignments. Moreover, they will acquire the skills and tools necessary to assume roles as effective leaders or team members.

VI. Program Learning Outcomes

The Master of Management Analytics program is designed to equip students with a comprehensive skill set and deep understanding of the field. Our program learning outcomes are as follows:

PLO 1: Data Analytics Proficiency:

Graduates will possess a strong foundation in data analytics concepts, methodologies, and techniques, enabling them to effectively collect, analyze, and interpret data to drive informed decision-making across various business domains.

PLO 2: Business Integration:

Students will learn how data analytics can be seamlessly integrated into different functional business areas, enhancing their ability to apply analytics solutions to real-world problems in areas such as finance, marketing, operations, and more.

PLO:3 Research and Quantitative Skills:

Graduates will be adept at conducting rigorous quantitative research, allowing them to explore complex business challenges, frame relevant questions, and leverage data-driven insights to optimize processes and strategies.

PLO 4: Project Management and Execution:

The program will empower students with the skills to identify, manage, and successfully execute business analytics projects. Graduates will be proficient project managers, capable of overseeing end-to-end project lifecycles.

PLO 5: Effective Communication:

Recognizing the vital role of communication and collaboration in analytics projects, students will develop strong communication skills. They will be able to convey data-driven insights visually, in writing, and through verbal presentations, ensuring effective knowledge sharing within organizations.

PLO 6: Ethical and Lifelong Learning:

Graduates will demonstrate ethical awareness by identifying potential risks and limitations in analytics projects, promoting responsible data usage. They will also recognize the dynamic nature of the field, emphasizing the importance of continuous learning and staying updated with evolving analytics trends

These program learning outcomes underscore our commitment to fostering well-rounded analytics professionals who possess not only technical prowess but also the ability to translate data insights into strategic advantages for businesses while upholding ethical standards and adaptability in an ever-evolving landscape.

Course Based or Thesis Based

The MMA is a course-based program and will include a required capstone project and an optional internship.

VII. Program Location

- All program courses are designed to be delivered in a traditional, on-campus format, allowing students to actively participate in class discussions and lectures. This approach is crucial to the program's unique structure, which necessitates the utilization of the Business Technology Lab and Analytics/Trading Lab located on the second floor of the business building. Additionally, the AI Center for Decision Analytics², is instrumental for activities such as the 15-day boot camp and various machine learning courses.
- The program exclusively offers a full-time study option, creating an intensive year of academic engagement. It commences in mid-August with a 15-day boot camp that smoothly transitions into the Fall and Winter semesters. During these terms, students attend in-person classes covering both core and elective courses. The program concludes with a 2-term capstone project spanning the Spring and Summer terms.
- The proposed program will normally be delivered within the Business Building on the University of Alberta campus.

² [AI CENTRE FOR DECISION ANALYTICS](#)

Appendix 2A: Class Size of Comparator Programs in Canada (Domestic/International)

Institution (Canada)	Domestic %	International %	Class Size
Schulich School of Business, York University	45%	55% ³	61 (Class of 2022)
Sauder School of Business, University of British Columbia	10%	90%	65 (Class of 2022)
Desautels School of Management, McGill University	29%	71%	84 (Class of 2023-2024)
Rotman School of Management- University of Toronto	34%	66%	Not Specified
Ivey Business School, University of Western Ontario	47%	53%	69 (Class of 2023-2024)
Smith School of Business, Queen's University	% Not Specified List of Countries	% Not Specified List of Countries	190 (across all learning formats- full time/part time/blended class of 2024)

Appendix 2B: Class Profiles Comparator Programs in USA (Domestic/International)

³ Brochure mentions the figures for two programs: [Schulich Brochure](#)

Institution (USA)	Domestic %	International %	Class Size
Sloan School of Management, Massachusetts Institute of Technology	36%	74%	78
McCombs school of business, The University of Texas at Austin	42%	58%	99 (Class of 2022)
Anderson School of Management, UCLA	47%	53%	67
Ross School of Business, University of Michigan	32%	68%	50

*Sources: Respective institutions class profile/prospectus available online.

Appendix 3: Business Analysts Jobs- Major Canadian Cities

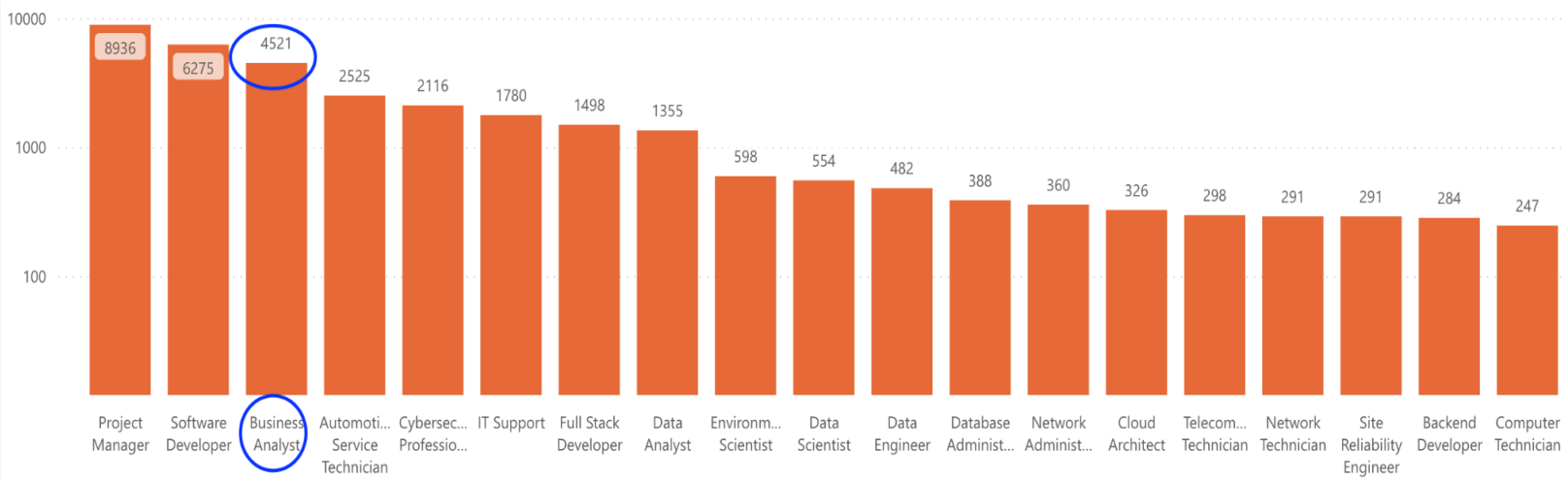
(A) Edmonton

[Employment Data by Location](#)

Choose a city

Calgary	Fredericton	Iqaluit	London	Ottawa	Regina	Sherbrooke	Vancouver	Waterloo	Yellowknife
Charlottetown	Halifax	Kelowna	Moncton	Prince George	Sarnia	St. John's	Victoria	Whitehorse	
Edmonton	Hamilton	Lethbridge	Montreal	Red Deer	Saskatoon	Toronto	Ville de Québec	Winnipeg	

Top 20 Jobs in the selected city



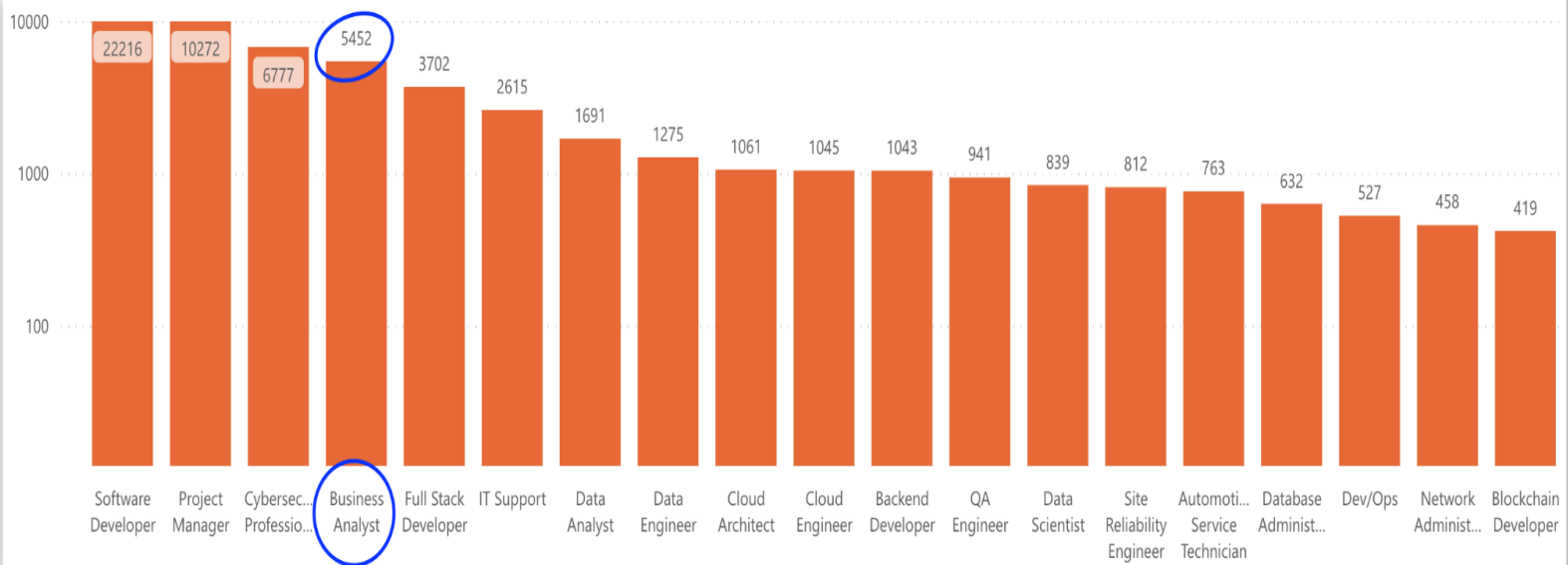
(B) Ottawa

[Employment Data By Location](#)

Choose a city

Calgary	Fredericton	Iqaluit	London	Ottawa	Regina	Sherbrooke	Vancouver	Waterloo	Yellowknife
Charlottetown	Halifax	Kelowna	Moncton	Prince George	Sarnia	St. John's	Victoria	Whitehorse	
Edmonton	Hamilton	Lethbridge	Montreal	Red Deer	Saskatoon	Toronto	Ville de Québec	Winnipeg	

Top 20 Jobs in the selected city



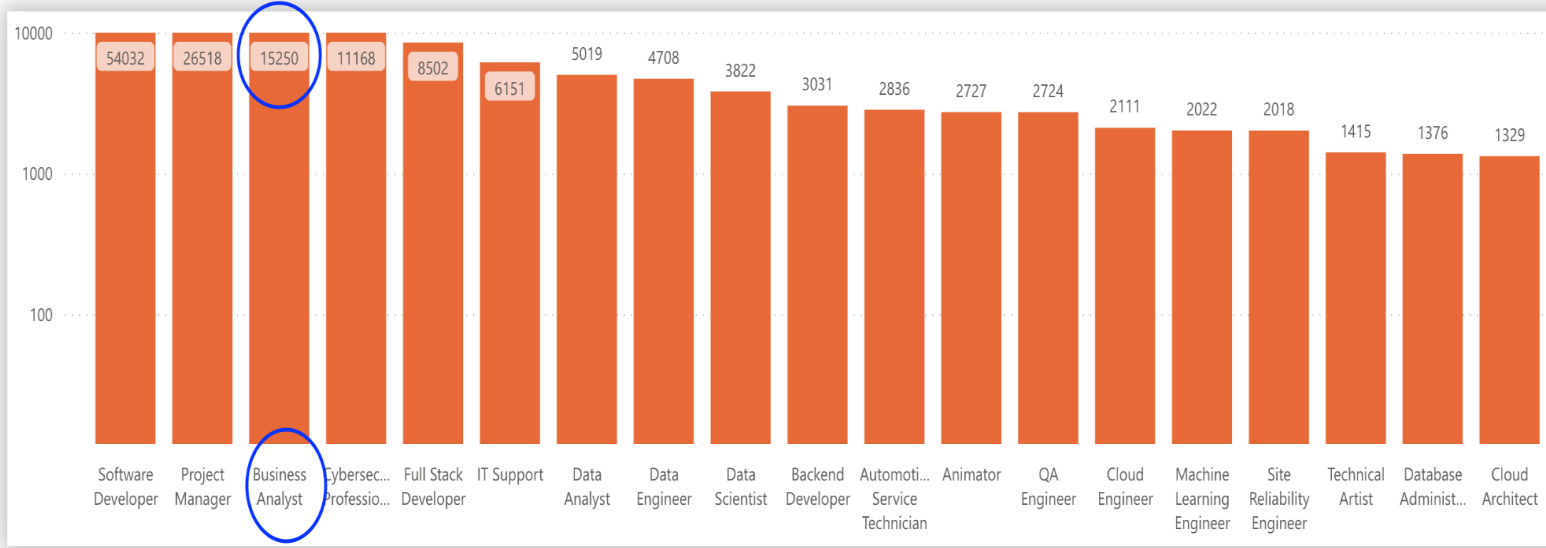
(C) Vancouver

[Employment Data by Location](#)

Choose a city

Calgary	Fredericton	Iqaluit	London	Ottawa	Regina	Sherbrooke	Vancouver	Waterloo	Yellowknife
Charlottetown	Halifax	Kelowna	Moncton	Prince George	Sarnia	St. John's	Victoria	Whitehorse	
Edmonton	Hamilton	Lethbridge	Montreal	Red Deer	Saskatoon	Toronto	Ville de Québec	Winnipeg	

Top 20 Jobs in the selected city



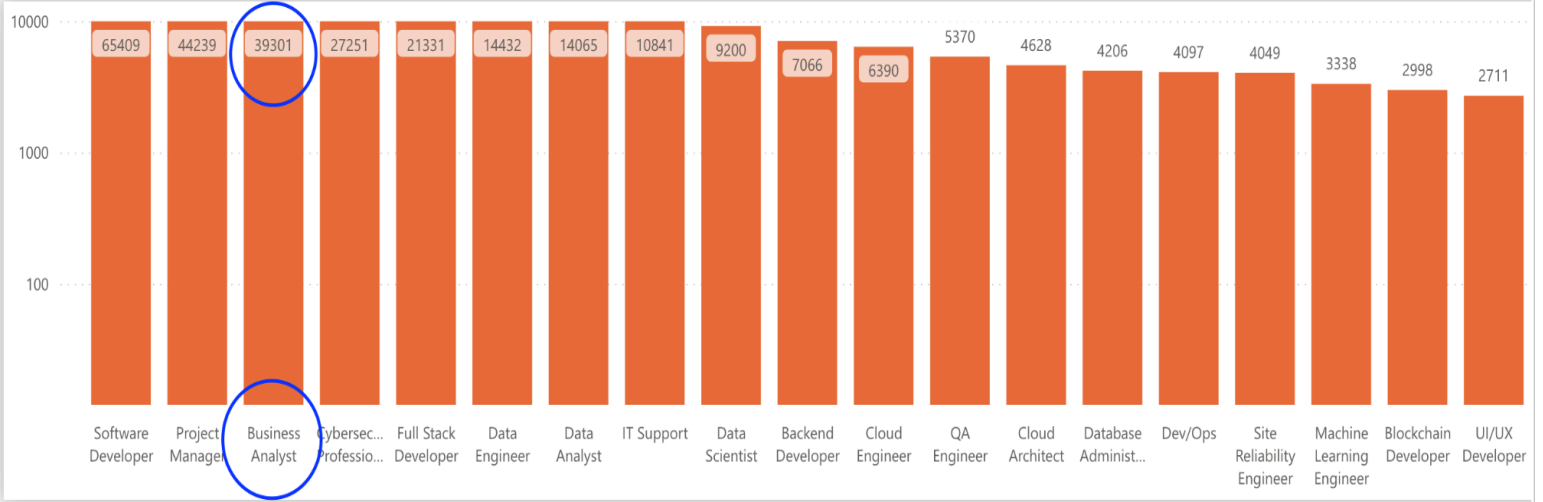
(D) Toronto

Employment Data By Location

Choose a city

Calgary	Fredericton	Iqaluit	London	Ottawa	Regina	Sherbrooke	Vancouver	Waterloo	Yellowknife
Charlottetown	Halifax	Kelowna	Moncton	Prince George	Sarnia	St. John's	Victoria	Whitehorse	
Edmonton	Hamilton	Lethbridge	Montreal	Red Deer	Saskatoon	Toronto	Ville de Québec	Winnipeg	

Top 20 Jobs in the selected city



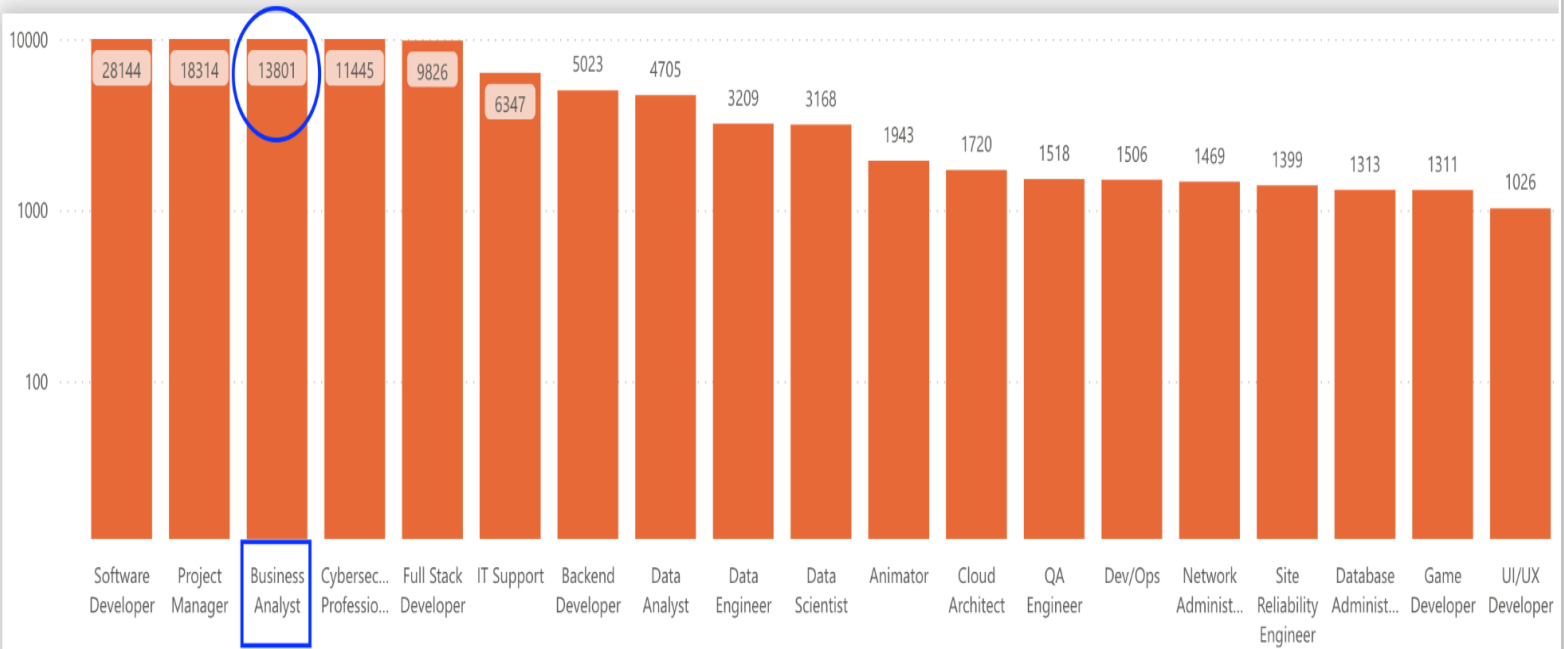
(E) Montreal

Employment Data by Location- Montreal

Choose a city

Calgary	Fredericton	Iqaluit	London	Ottawa	Regina	Sherbrooke	Vancouver	Waterloo	Yellowknife
Charlottetown	Halifax	Kelowna	Moncton	Prince George	Sarnia	St. John's	Victoria	Whitehorse	
Edmonton	Hamilton	Lethbridge	Montreal	Red Deer	Saskatoon	Toronto	Ville de Québec	Winnipeg	

Top 20 Jobs in the selected city



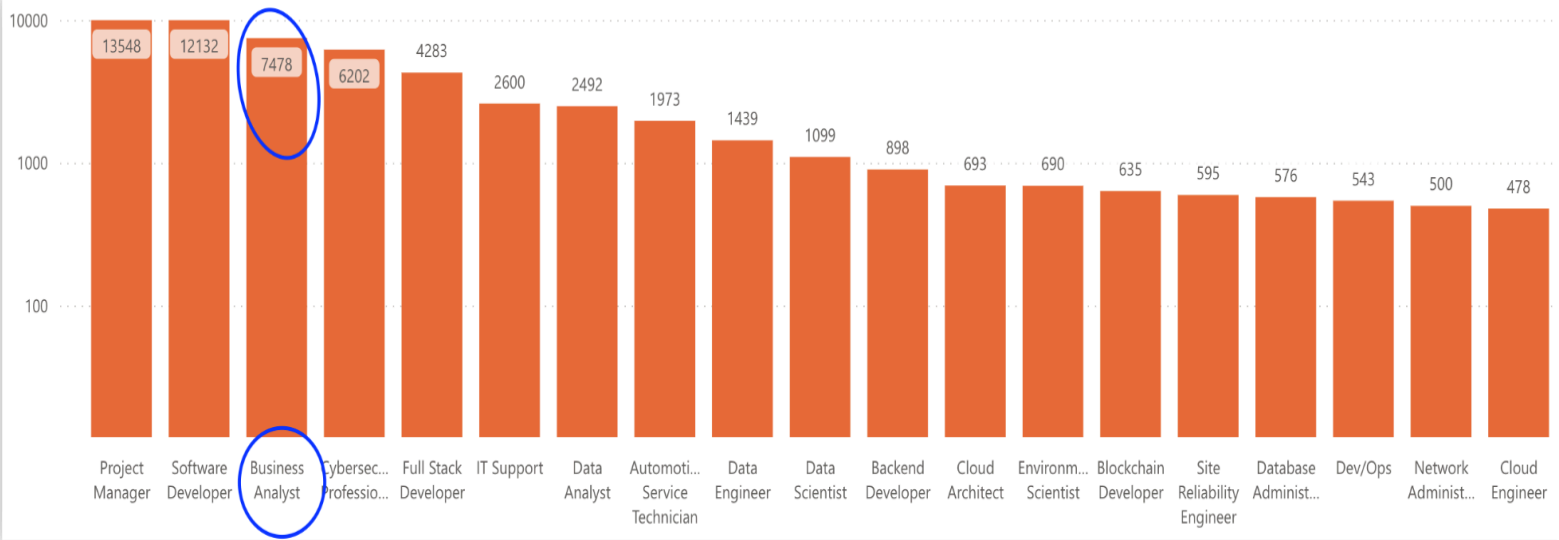
(F)Calgary

Employment Data By Location-Calgary

Choose a city

Calgary	Fredericton	Iqaluit	London	Ottawa	Regina	Sherbrooke	Vancouver	Waterloo	Yellowknife
Charlottetown	Halifax	Kelowna	Moncton	Prince George	Sarnia	St. John's	Victoria	Whitehorse	
Edmonton	Hamilton	Lethbridge	Montreal	Red Deer	Saskatoon	Toronto	Ville de Québec	Winnipeg	

Top 20 Jobs in the selected city



Source: [Employment Data by Location](#)

Appendix 4A: Industry Consultation Meetings held with Dr. Vikas Mehrotra, Dean, Alberta School of Business

Date	Name and Title	Organization	Outcome/In support
April 28, 2023	Bjorn Morisbak Executive Vice President Corporate Development	Stantec	Yes
May 2 and August 30, 2023	Robert Borrelli Office Managing Partner	KPMG LLP Canada	Yes
May 17, 2023	Evan Siddall Chief Executive Officer	Alberta Investment Management Corporation (AIMCo)	Yes
May 23 and September 11, 2023	Jan Kestle President	Environics Analytics Group Ltd. (Toronto)	Yes-Agreed to be on the MMA advisory board
May 23 and September 11, 2023	Derek Neldner CEO and Group Head	RBC Capital Markets (Toronto)	Yes
May 25, 2023	Amit Prakash Chief Fiduciary Officer	Alberta Investment Management Corporation (AIMCo)	Yes
June 30, 2023	Laura Kilcrease CEO	Alberta Innovates	Yes
July 4 and September 14, 2023	Cam Linke Chief executive officer	Alberta Machine Intelligence Institute (Amii)	Yes-Ongoing collaboration on program development
August 2, 2023	Ibrahim Gedeon Chief Technology Officer	TELUS	Yes- agreed to be on the MMA advisory board
September 1, 2023	Kirsten Stead Managing Partner	DCVC Bio.	Yes
July 24, 2023	Colin Tran Vice President Corporate Affairs	Trust Science	Yes
September 13, 2023	David Crane, Director, Product Development. (Meeting held with Dr. Michael Maier, Associate Dean, Masters Programs	AltaML	Yes- talk about potential internship and work opportunities

November 16, 2023	Anil Arora	Chief Statistician, Statistics Canada	In support of the program. Will review in depth details of the program.
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Appendix 4B : Alberta School of Business, Internal Consultations (Conducted by the program development team members either individually and/or collectively)

Date	Name and Title	Department	Outcome/Comments
July 12, 2023	Paul Messinger, Chair	Department of Marketing, Business Economics and Law (MBEL)	<p>Paul Messinger is a strong advocate for the introduction of our program at the Alberta School of Business. He firmly believes that such a program would be a valuable asset not only for the school but also for the broader academic community.</p> <p>Paul has been actively engaged in this domain, offering substantial insights based on his extensive experience, including prior involvement in the "Service Science Section" at INFORMS. He has also proposed an exciting idea to explore the possibility of offering analytics certification exams for our MMA program graduates, similar to the Certified Analytics Professional (CAP) certification.</p> <p>In his capacity as the current Chair of the Department of MBEL, Paul has shared his perspective on the program's significance and its potential impact on the academic landscape. Furthermore, he has generously identified colleagues within the Department who can contribute to the development of an elective course on "Marketing Analytics."</p>
Jul 13, 2023	Dr. Vern Glaser, Associate Professor	Department of Strategy, Entrepreneurship and Management	<p>A course in Decision Making in Organizations (with algorithms) would be critical to have early on in the master's degree. Such a course could help to contextualize the offerings so that students can approach them from the perspective of building value for organizations (and building valuable insights). Amongst the topics that could be taught,</p> <ul style="list-style-type: none"> -understanding the differences and complementarities between data engineering, data science, and ai; how complementary assets (and engaging properly with digitalization) can unlock the value of AI -what does it mean to do data science (getting a champion, building insights that connect with existing KPIs, but also exploring possibilities of new metrics that matter) -case studies of digitalization journeys of organizations -what a data science stack looks like in practice
July 13 and Aug 14, 2023	Dr. Armann Ingolfsson, Professor	Department of Accounting and Business Analytics	<p>Professor Armann Ingolfsson played a pivotal role in the initial discussions surrounding the development of our new program. Leveraging his expertise in the domain and his extensive knowledge of the faculty at the Alberta School of Business. Professor Ingolfsson introduced a list of faculty members at the Alberta School of Business who have a track</p>

			record of teaching and conducting research related to data analytics. Beyond our consulting sessions at various junctures, we also met on August 14th to explore the intricacies of the core course titled "Data Visualization and Business Communications." In a remarkable display of generosity, he readily agreed to assist us in both developing and instructing this course.
Jul 20, 2023	Philippe Cote, Full Executive Professor	Department of Finance	Philippe is very keen on teaching the finance elective course. Has provided a proposed course description. This course will equip students to translate core Financial skills with data science into the world of decision-making in Enterprise
July 21, 2023	Dr. Yonghua Ji, Professor	Department of Accounting and Business Analytics	Strongly believes in the urgency of launching this program, given the remarkable demand it addresses within the industry today. Furthermore, recognizing the critical role of database fundamentals and software such as SQL within the program's curriculum, as well as the high demand for these skills in the job market, Yonghua Ji has graciously agreed to take the lead in developing and teaching a course titled "Database Fundamentals for Business Analytics" as part of our MMA program.
July 26, 2023	Dr. Tito Grillo, Assistant Professor	Department of Marketing, Business Economics and Law	Tito has shared the course outline of his current "Marketing Analytics" course as he is keen on teaching the course and mentioned that he has attached the syllabus from his Winter undergraduate course. He mentioned that the course primarily emphasizes the application of statistical methods and algorithms for marketing research and marketing processes.
August 14, 2023	Dr. Tim Hannigan, Professor	Department of Strategy, Entrepreneurship and Management	"In particular, I think the strategy of analytics course can provide a birds-eye view for managers of how various data science/business analytics functions can coherently form a good strategy (and the counter, of how poorly mixed elements can form bad strategy)." Provided valuable suggestions to consider potentially using Microsoft Visual Studio Code as your IDE up front in your boot camp, Students can use both Python and R, including Jupyter Notebooks, and R Markdown
August 17, 2023	Amber Nicholson-Manager, CWIL Paul Taylor-MBA career coaching and education lead Melanie Tymofichuk- Work	Careers and Work integrated learning	Supportive of the program, provided valuable insights with regards to MoU's, work integrated learning. The team also asked for assistance from professors/advisory committee to build industry partnerships.

	integrated learning, Programs Lead		
August 27-29, 2023	Leadership retreat- Participants included department/unit heads	All Units heads, Alberta School of Business	Discussion with regards to the future strategy of the school, the MMA program being top-most priority.
August 30, 2023	Dr. Ivor Cribben, Professor	Department of Accounting and Business Analytics	<p>We've been engaged in a dialogue about the significance of statistical learning within the MMA program. Ivor has graciously offered his assistance in crafting the course titled "Statistics Analytics and Causal Inference." In addition to his expertise, he recommended involving Maryam Hasanzadeh, a faculty member in Accounting and Business Analytics, owing to her valuable insights in this domain. Both Ivor and Maryam share the belief that such a course constitutes a vital component of any analytics program.</p> <p>Recognizing that students arrive with diverse backgrounds, Ivor suggested allocating the initial three weeks of the course to provide a comprehensive introduction to statistics. This foundation will ensure that all students are well-equipped to excel in the subsequent content.</p>
September 1, 2023	Dr. Tracy Raivio	Associate Dean Education College of Natural and Applied Sciences and Incoming GPS Dean	Dr. Raivio is supportive of the MMA program, primarily because it is being designed with a business-oriented focus rather than a strong emphasis on coding skills. Dr. Raivio has also expressed a keen interest in participating in the MMA Advisory Committee, which is currently in the process of being established.
September 7,2023	Celine Gareau Brennan, Business Librarian	Alberta School of Business	Library Impact Statement received.
September 13, 2023	Maryam Hasanzadeh Mofrad, Assistant Lecturer	Department of Accounting and Business Analytics	<p>Maryam Hasanzadeh Mofrad stands out as a pivotal advocate for our program, demonstrating a keen awareness of its timely relevance and its capacity to meet substantial demand within the academic realm. Leveraging her substantial expertise in statistical learning, Maryam brings a treasure trove of knowledge and hands-on experience to our program.</p> <p>Her enthusiasm extends to her commitment to develop and teach the core course titled "Statistics Analytics and Causal Inference".</p>

September 13, 2023	M. Hosein Zare, Assistant Lecturer	Department of Accounting and Business Analytics	<p>M. Hosein Zare has shown tremendous enthusiasm and support for our program. He shares the sentiment that the program is both timely and holds substantial potential for high demand, given his extensive experience in teaching numerous analytics-based courses at the Alberta School of Business.</p> <p>M. Hosein Zare has graciously offered his expertise and dedication by expressing a willingness to teach pivotal courses within the program. Specifically, he has shown interest in instructing "Prescriptive Analytics," "Machine Learning 1," and the elective course "Operations and Supply Chain Analytics."</p>
September 18, 2023	Dr. Tracy Raivio	Associate Dean Education College of Natural and Applied Sciences and Incoming GPS Dean	We discussed the program in general, the structure and the courses we intend to have in our program. The University is looking into development of graduate programming in the area of data science and applied AI. We discussed the markets/approaches for the program areas and concluded there is not significant overlap. The proposed MMA program is focused on business/decision making; whereas data science and applied AI is technology focused. In summary, there may be opportunity for collaboration in terms of elective courses.
September 19, 2023	Dr. Saied Samiedaluie, Associate Professor	Department of Accounting and Business Analytics	<p>We have discussed the possibility of developing a course on "Healthcare Analytics". Given his expertise and the nature of our program, we both agree that such a course must provide an in-depth exploration of the application of analytics in the healthcare industry including strategic insights, data proficiency, advanced analytics (e.g., predictive modeling, ML, and statistical approaches to predict patient outcomes and enhance medical diagnostics) and operational excellence (e.g., how analytics optimizes healthcare operations, from streamlining patient flows and resource allocation to inventory management and healthcare capacity planning).</p> <p>He is keen to develop and teach such an elective course in the program.</p>
September 19, 2023	Dr. Ilbin Lee, Assistant Professor	Department of Accounting and Business Analytics	<p>Following a thorough discussion of the proposed MMA specifics with Ilbin, he expressed his enthusiasm, stating, "It is truly fantastic that this initiative is taking shape. Our School and University stand to benefit significantly from a program like this, given our immense potential to drive its success."</p> <p>Furthermore, Ilbin conveyed his keen interest in actively</p>

			contributing to the program by developing and instructing several core courses. Specifically, he is eager to take on the responsibility for courses such as "Machine Learning for Business 1," "Machine Learning for Business 2," and "Prescriptive Analytics."
September 25, 2023	Dr. Sarah Moore, Associate Dean, Research and Phd programs	PhD Programs Office	Dr. Moore has expressed her support for the program and has offered valuable recommendations. One of her suggestions is to explore the inclusion of Ph.D. students in specific course enrollments, especially within the bootcamp. Furthermore, Dr. Moore has proposed an alternative approach for research-related capstone projects. Her idea involves professors presenting their analytics research projects as potential options for students to choose as their capstone projects. Regarding the generation of potential capstone projects, she has identified several avenues. These include eHub, the Centre for Cities and Communities, with a specific emphasis on projects related to retail and agricultural research.
September 27, 2023	Dr. Felipe Aguerrevere, Department Chair and Associate Professor	Department of Finance	Dr. Aguerrevere has suggested potential faculty members who could serve as valuable resources for teaching the financial analytics elective. Notable faculty names put forth for consideration include Philippe Cote, Evstathios Avdis, and Keith Godfrey. Furthermore, there is a recommendation to potentially include the current Fintech (FIN 686) course as an elective, with the condition that it would be available in specific terms only. Dr. Aguerrevere also supports the idea of introducing various elective topics on an annual basis. In summary, Dr. Aguerrevere is enthusiastic about the program and has given consent for Philippe Cote to serve as the primary instructor for now after reworking his availability, as Philippe has expressed a personal interest in teaching the finance elective.
Ongoing	Dr. Leo Wong, Associate Dean, Education	Office of Education, Alberta School of Business	Ongoing consultation and insights with regards to curriculum development. Overall in support of the program.
September 28, 2023	Dr. Michael Lounsbury, Professor and A.F. (Chip) Collins Chair; Academic Director of eHUB Entrepreneurship Centre; Chair, Department of Strategy, Entrepreneurship	SEM	Dr. Lounsbury is happy with our progress on the proposal development and suggested that SEM offers a course in this program. Dr. Rostami would ensure to use the great expertise of some faculty in SEM (e.g., Vern Glaser and Tim Hannigan) in developing some core/elective courses.

	and Management (SEM)		
September 28, 2023	Gil Anderson, Indigenous Programs Coordinator	Office of Education, Alberta School of Business	Gave brief ideas about knowledge sharing and ethics with regards to Indigenous teaching and learning. Connected us with the Centre for Teaching and Learning for expert advice.
October 23, 2023	Carley Roth- Portfolio Initiatives Manager Dr. Janice Causgrove Dunn- Vice-Provost (Programs) Suzanne French- Portfolio Initiatives Coordinator	Office of the Provost and Vice-President (Academic)	Provided initial feedback and suggested updating certain sections of the proposal. Will review the document for further comments. Shared governance pathway and ways forward.
October 25, 2023	Andrea Menard- Lead Educational Developer, Lori Ireland- Educational Developer	Centre for Teaching and Learning, Office of the Vice Provost (Indigenous Programming and Research)	Offered significant insights on the importance of having instructors proficient in Indigenous culture and business methods. Additionally, highlighted the potential for promoting Truth and Reconciliation by ensuring the enrollment of 2-3 Indigenous students in each cohort. During admissions, there could be tailored considerations regarding GPA requirements. Part of the course content might focus on equipping students with the skills to effectively interact with Indigenous communities.
November 6, 2023	Dr. Florence Glanfield, Vice-Provost (Indigenous Programming and Research)	Office of the Vice-Provost (Indigenous Programming and Research)	In support of the program, echoed support on the Centre for Teaching and Learning's suggestion to at least 2-3 have Indigenous students representation in the program as well as Indigenous guest instructors for the responsible AI and introduction to business course.
November 21, 2023	Heather Braid, Manager, Teaching and Learning Sara Rashidian, Curriculum Coordinator	Office of Education, Alberta School of Business	The initial meeting revolved around discussing and aiding in the formulation of program competency objectives and the establishment of measurement criteria. This will be an ongoing endeavor aimed at creating a program assessment and evaluation framework for reporting to AACSB every five years.
November 23, 2023	Dr. Carrie Smith	Vice Provost (Equity, Diversity and Inclusion)	Dr. Smith is in support of the program. Suggested potential women instructors/post doctoral fellows from other faculties who are adept in analytics/ML/AI domain teaching and

			research.
November 27, 2023	Dr. Ali Shiri	Vice-Dean, GPS	Provided suggestions to include via email
December 12, 2023	Yuliia Malanych	Business-Finance Partner	Support and consultation for preparing program budget
December 19-22, 2023	Edith Finczak	Director, Academic Budget and Planning, Office of the Provost and VP Academic	Consultation with regards to program budget over emails.

Appendix 4C:

Meeting Summary with Dr. Michael Palvin, Associate Professor and MMA Academic Director, Wilfrid Laurier University and Dr. Borzou Rostami, Assistant Professor, Academic Director for MMA, Department of Accounting and Business Analytics, University of Alberta.

Meeting: July 13, 2023

“During my meeting with Mike Pavlin, the Director of the Master in Management Analytics program at Wilfrid Laurier University, we discussed various aspects of our respective programs comprehensively. My primary objective was to gather insights and feedback from their program, which has been running successfully for 3 years. Mike shared several valuable suggestions that could significantly enhance our program.

One of the key recommendations pertains to the program's duration. Mike suggested transitioning to a 16-month format, which allows international students to benefit from a 3-year post-graduate work permit issued by the Immigration, Refugees, and Citizenship Canada (IRCC).

Furthermore, Mike's insights on course offerings were enlightening. He highlighted the importance of addressing the evolving job market and student feedback. Given that a considerable portion of the student cohort might come from STEM backgrounds, Mike recommended the inclusion of an introductory course on business fundamentals. This course would provide students with a foundational understanding of business concepts, equipping them for success in analytics roles within corporate environments.

Another course suggestion Mike brought forward was centered on causal analysis. In many business contexts, it's crucial not only to predict outcomes but also to understand the underlying causes of events. A dedicated course in causal analysis would empower our students to uncover these critical insights, aligning our program with industry demands.

Lastly, our discussion delved into software proficiency, informed by feedback received from recent graduates over the past three years. Mike emphasized the significance of Python and SQL in the job market, as these skills consistently surfaced as prerequisites in interviews with various companies. Integrating comprehensive training in these tools would ensure our graduates are well-prepared for the demands of the contemporary job market.”

Appendix 5: Comparative Analysis of Programs

Institution	University of Alberta School of Business (Applicant Institution)	York University-Schulich School of Business	University of British Columbia-Sauder school of business	University of Western Ontario-Ivey Business School	McGill University-Desautels School of Business	University of Toronto-Rotman school of management	Smith School of Business-Queen's University
Name of Credential	Masters in Management Analytics (Proposed)	Master in Business Analytics	Masters in Business Analytics	Msc in Management-Business Analytics	Master of Management in Analytics	Master of Management in Analytics	Master of Management in Analytics
Enrollment	Full-time	Full-time	Full-time	Full-Time	Full-time	Full time	Full time
Delivery Format	On campus	On-campus	On-campus	On campus	On Campus	On Campus	On-campus/blended
Time to complete	One year without internship; 16 months with internship	12 months	12 months	16 months	1 year Also offers 1.5 year option that includes internship	11 months	12 months
Entrance Requirements	Undergraduate degree GMAT/GRE not required A minimum of 3.0 GPA English proficiency:	4 year undergraduate degree. Must be 2 years full time study with an accredited institution where English is	Three or four-year Bachelor's degree with a B+ average, or recognized equivalent from an accredited institution,	An undergraduate degree completed within the past four years . TOEFL (minimum	GMAT or GRE required, but not required for students graduating from U.S or Canadian universities Undergraduate degree	Appropriate four-year undergraduate degree or equivalent Relevant program such as (but not limited to) Computer Science,	Undergraduate degree from an accredited university in mathematics, business, computer science, economics, engineering or science.

	<p>TOEFL minimum score 100 (minimum 23 in each dimension); or IELTS score of 7.5; minimum 6.5 in each dimension.</p>	<p>the official language of instruction,</p> <p>Does not require GMAT or GRE</p> <p>A minimum 3.0 GPA and above/B+ grade</p> <p>English proficiency: TOEFL minimum score 100 (minimum 23 in each dimension); or IELTS score of 7.5; minimum 6.5 in each dimension.</p> <p>Work experience recommended, but not required</p>	<p>Due to the rigorous nature of the program, it is strongly recommended that applicants have some exposure to university-level courses in topics like statistics, calculus, and linear algebra (or other courses in mathematics and statistics). Experience in computer programming, data analytics or mathematical modeling is also an asset.</p> <p>550 GMAT with at least a 50th percentile in the quantitative and verbal sections of the test.</p> <p>155 GRE score on both the verbal and quantitative sections.</p>	<p>internet-based score of 100)</p> <p>IELTS General OR Academic (minimum total score of 7).</p> <p>Strong course work in: Calculus, Linear Algebra, Statistics and Computer Science (with programming focus).</p> <p>GMAT/GRE optional</p>	<p>IELTS Test score of 6.5 (or greater) if English is not your first language OR TOEFL (IBT); 86 overall, no less than 20 in each of the four components.</p>	<p>Statistics, Mathematics, Engineering, Physical Science, Economics or Commerce. Minimum B average across courses in the final year.</p> <p>Evidence of proficiency in linear algebra, probability, statistics and calculus. Proficiency can be demonstrated through university level courses completed, with a minimum B grade in courses that cover the relevant topics.</p> <p>Evidence of proficiency in computer programming. Proficiency can be demonstrated through academic history, projects, work experience or</p>	<p>Including at least one mathematics or statistics course that covers hypothesis testing, linear regression, and their applications.</p> <p>GMAT not required but recommended. English language proficiency tests.</p>
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			<p>Test of English as a Foreign language (TOEFL): 100, IELTS Indicator: 7.0 overall band, There is no minimum work experience requirement for entry into the UBC MBAN.</p> <p>Candidates with a lower academic average may be accepted if they have significant professional experience and/or a high GMAT/GRE score.</p>			<p>extra-curricular activities.</p> <p>GMAT or GRE encouraged.</p> <p>English language proficiency, Minimum TOEFL score of 100 is required, with a minimum of 22 in both writing and speaking, or a minimum IELTS Academic Test with a score of 7.0 with at least 6.5 across all bands.</p>	
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<p>Areas of Study / curriculum</p>	<p>Introductory boot camp, Machine Learning for Business I (Programming: R), Data Visualization and Business Communications (Tableau), Database Fundamentals for Business Analysts (SQL), Probabilistic Models and Descriptive Analytics, Responsible AI & Ethical Issues in Data Analytics, Machine Learning for Business II (mainly unstructured data including text analytics, network analytics, and image processing-Python), Business Applications of Artificial Intelligence (Python)</p>	<p>Artificial Intelligence Fundamentals, Database Fundamentals, Data Science I, Project Management, Case Analysis and Presentation Skills, Predictive Modelling, Data Science II, Analytics Consulting Project, Models & Applications in Operational Research, Visual Analytics and Modelling Management Accounting, Economic Forecasting and Analysis, Managerial Finance, Applications of Data Science in Finance, Management of Risk in Financial Institutions, Enterprise Risk Management & Strategy,</p>	<p>Career Development, Analyzing and Modeling Uncertainty, Business Analytics Programming, Optimal Decision Making I, Descriptive and Predictive Business Analytics, Data Management for Business Analytics, Data Driven Marketing, Optimal Decision Making II, Decision Analysis Under Uncertainty, Business Immersion, Advanced Predictive Business Analytics, Database Applications in Business Systems, Business Applications of Machine Learning,</p>	<p>Art of Modelling; Business Statistics; Business Essentials; Accounting; Business Communications; Finance; Leadership / Organizational Behavior; Marketing; Operations; Strategy; Big Data Analytics; Simulation and Risk Analysis; Prescriptive Analytics and Optimization; Accounting; Governance & Risk; Causal Inference; Competing in and with China; Data Driven Management; Data Management; Entrepreneurship & Growth; Frontier</p>	<p>Coding Foundations for Analytics, Database and Distributed Systems for Analytics, Data Mining and Visualization, Mathematical and Statistical Foundations for Analytics, Multivariate Statistical Analysis, Decision Analytics, Managing Data Analytics Teams Ethical Leadership and Leading Change Data Analytics in Accounting,, Independent Studies in Analytics 1, Independent Studies in Analytics 2, Financial Valuation Analytics for Startups, Advanced Topics in Finance Analytics 1, Text Analytics, Social</p>	<p>Analytics in Management, Data-Based Management Decisions, Analytics Colloquia, Management Analytics Practicum, Structuring and Visualizing Data for Analytics, Modeling Tools for Predictive Analytics, Machine Learning Analytics, Tools for Probabilistic Models and Prescriptive Analytics, Improving Customer Value with Analytics to Leveraging AI and Deep Learning Tools in Marketing, Analytics for Marketing Strategy, Analytic Insights using Accounting and Financial Data, Optimizing Supply Chain Management and Logistics, Service</p>	<p>Acquisition and management of data, AI Ethic and Policy, Analytics for Financial Market, Big Data Analytics, Intro to Management, Intro to Analytical Modeling, ML and AI, Operations & Supply Chain Analytics, Predictive Modeling, Pricing Analytics, Entrepreneurship & Innovation, Creating High-performance Teams, marketing Analytics, Leading Change</p>
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	<p>, Prescriptive Analytics (Python) , Capstone project</p>	<p>Artificial Intelligence in Business I, Artificial Intelligence in Business II, Marketing Management Research , Consumer Behaviour , Business Marketing , Service Marketing , Marketing Metrics , Advanced Spreadsheet Modelling & Programming for Business , Supply Chain Management , Digital Transformation in Services , Service Operations Management , Managing Change , Negotiations.</p>	<p>Process Fundamentals, Forecasting and Time Series Prediction, Customer Analytics, Simulation Modeling I: Data Processing and Monte Carlo Simulation, Supply Chain Management, Data Driven Investment s, Pricing Analytics, Simulation Modeling II: Queueing and Discrete Event Simulation, Analytics Leadership, and Analytics Internship.</p>	<p>Markets; Global Corporate Finance; Global Financial Markets; Global Supply Chain Management; Inequality and Business; Leading Responsibility; Macroeconomics for Managers; Managing Risk in Organizations; Predictive Analytics; Pricing & Revenue Analytics; Social Media Analytics and Digital Marketing; Sustainability; Systems Thinking; Technology and Humanity.</p>	<p>Media Analytics , Analytics and Open Innovation , Healthcare Analytics , Security Analytics , Advanced Topics in Information Systems,, Advanced Topics in Strategy Analytics , Revenue Management , Operations and Supply Chain Analytics , Introduction to Artificial Intelligence and Deep Learning , Advanced Marketing Analytics , Internet Marketing Analytics,, Pricing Analytics , Retail Analytics , Advanced Topics in Marketing Analytics , Talent Analytics , Organizational Network Analysis , Advanced</p>	<p>Analytics for Management Analysis.</p>	
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					Topics in Organization al Behaviour , Analytics and Solution Consulting Practicum , Analytics Internship,, Community Analytics Project		
Graduation Requirements	Students must complete a capstone project and a total of 39 credits.	Students must complete a total of 45 credits	Successful Completion of all courses. 39 credits 8-16 week internship	Completion of 36 credits	Completion of 45 credits	Completion of 36 credits	Completion of 39 credits
Total Tuition	Proposed Domestic Tuition- \$40,000 and International Tuition \$60,000	\$54,000 for domestic students \$84,100 for international students.	\$42,795 for domestic students \$63, 261 for international students	\$38,250 for Domestic students \$73,800 for international students.	\$49,256 for domestic students, \$61.168 for international students	\$41,400 for Domestic students \$72,630 for international students.	\$43,840 for domestic students \$79,900 for international students

Appendix 6- Alberta School of Business Current Student and Alumni Survey comments. We distributed our survey via the school of business newsletters to Bachelor of Commerce (BCom) and Master of Business Administration (MBA) students. During the period from September to November, we gathered 64 responses. Furthermore, through a survey disseminated through the alumni newsletter, we collected comments from 14 alumni. Prior consent was obtained before quoting any responses. Respondents who requested anonymity in the survey were not named.

<p>"I do believe it would be valuable as it offers another important and key stream of Business to focus on. The analytics of business are extremely important and a good opportunity if you want to advance in business analytics at any firms.", MBA Candidate, Education Professional</p>
<p>"Analytics is a vital skill nowadays for every role. Every professional needs to understand data to make important decisions.", Bhavneet Kaur, MBA Candidate, Finance Professional</p>
<p>"Learning how to analyze large datasets is a crucial skill in 2023."-MBA Candidate, Healthcare Professional</p>
<p>"AI and Machine learning are being used as analytics tools in other industries. It stands to reason that AI and Machine Learning will inform current and future managers about strategies related to AI."- MBA Candidate, Media Professional</p>
<p>"This degree is important for the U of A to stay competitive with other larger universities."MBA Candidate, Real Estate Professional</p>
<p>"A Master's in Business/Management Analytics program at the University of Alberta School of Business can meet the demands of the modern job market, enhance career opportunities for students, foster interdisciplinary collaboration, and contribute to the school's competitiveness and reputation. It aligns with the evolving needs of the business world and can be a valuable addition to the school's existing portfolio of master's programs."- Nathan Armani, MBA Candidate, Healthcare Professional</p>
<p>"The industry is in high demand, and it will be beneficial to study data analytics more to become competitive and keep up with the job demands." Stephanie Winata, MBA Candidate, Finance Professional</p>
<p>"This is an up and coming area of focus that would entice many prospective students to the UofA."- MBA Candidate</p>
<p>"This is an up and coming area of focus that would entice many prospective students to the UofA."MBA Candidate</p>
<p>"I think with the sheer volume of data present in the world today [and no signs of slowing down], appropriately training analysts will be needed to make sense of the noise."-Nicole Vestby, MBA Candidate, Education Professional</p>
<p>"In today's data-driven world, there is a significant and increasing demand for professionals with expertise in analytics. Businesses across various industries are relying on data analytics to make informed decisions, and there is a shortage of skilled professionals to meet this demand. I expect to learn data analytics skills through a program to fill the skills gap in labor market."- Weqin Fang, MBA Candidate, Business Analytics Professional</p>
<p>"This is a skill that is becoming more in demand."-BCom Student, Business Technology Major</p>
<p>"Specialized MBA will open more doors for graduates of ABS. MMA programs heavily into quants will lead to high paying careers." MBA Graduate 2023</p>

<p>“The university of alberta has great resources to ensure this is a success”-BCom Student, Business Technology Major</p>
<p>“With the increase in technology and data around the world, a Masters in Management Analytics is crucial to ensure that the Alberta School of Business can compete and provide a high quality and relevant education.” - Manu Malotra, BCom Student, Business Technology Major</p>
<p>“It will allow people like me to change fields if necessary”-BCom Student, Operations Management Major</p>
<p>“I think with the partnerships the university has in the AI space this type of masters synergizes well.”MBA Candidate</p>
<p>“It has a lot of importance in a world that relies heavily on data. Data fluent managers are critical to every business. This program can attract a lot of students to the faculty based on its potential.” Tushar Police, BCom Student, Business Technology Major</p>
<p>“Introducing a Master of Management Analytics (MMA) program at the University of Alberta would greatly benefit students from China and other international regions. Such a program, with its emphasis on advanced analytics and strategic management, is key for those seeking success in today's data-driven global business environment. It offers a unique opportunity for students to gain insights into Western business practices and analytical strategies, an invaluable asset for those aspiring to global careers. Additionally, the program would enrich the university's academic diversity, attracting a wider array of international students and fostering deeper cross-cultural connections, thus reinforcing educational and cultural ties between Canada and nations worldwide.” Lingyi Hao, MBA Candidate</p>
<p>“Harnessing the power of the data we're now able to collect is critical to strong decision making”-Kris Clemens, MBA Candidate</p>
<p>“Analytics and Data are so important in today's world, so I'd love to differentiate myself with a master's program like this.”BCom Student, Marketing Major</p>
<p>“The U of A Master's programs promotes and facilitates networking opportunities with industry professionals. Supporting such initiatives shows a commitment to building connections between academia and industry, enhancing collaboration and knowledge exchange. I also desire to further my career in the province of Alberta.”Bolakunmi Banjo, MBA Candidate</p>
<p>“I think it'll be important to have some sort of internship for experience to allow graduating students to be effective right away. Although this will have to be weighed carefully since it might be tough to get working professionals to take time off for this. In this space, it's tough to replace real world experience with class type work.” MBA Candidate</p>
<p>“This program will enhance individuals ability to acquire understanding of complex managerial problems, while using data sources and analytical data sets to effectively communicate results needed in an ever-evolving business climate” -BCom Graduate, 2023</p>
<p>“Data is key for decision making. To understand how to create, govern, manage, integrate, leverage data is a huge competitive advantage for anyone's career.”Susan Urra, MBA Graduate 2002</p>
<p>“The skill and ability to analyze / interpret the various amounts of data / opinions / sources is critical to making informed decisions.”BCom Graduate, 1975</p>
<p>“The Master's in Business/Management Analytics program will provide students the opportunity to deepen their knowledge of analytics or diversify their understanding of analytics from a world class institution,</p>

which in turn will further the industry as a whole.”-Mackenzie Dulc, BCom Graduate, 2023

“Successful application of analytics requires the marriage of business domain knowledge with math and computing skills. We need to grow a cohort of business leaders capable of navigating both sides of this ledger.”- James Freeman, MBA Graduate, 1995

“Analytics is foundational for all companies as data is key in decision making.”MBA Graduate, 1998

“Teaching relevant skills that are highly applicable in any industry and valued by many employers”- Rahul Bhatnagar, BCom Graduate, 2023

Appendix 7
Mid-Senior Management-Level Job Titles and Descriptions
Source:Indeed

Job Title	Description
Risk Analyst	Assess and manage various types of risks within an organization using data analysis.
Supply Chain Analyst	Optimize supply chain processes for efficiency and cost-effectiveness.
Financial Analyst	Analyze financial data to inform investment, planning, and risk management decisions
Marketing Analyst	Analyze marketing data to optimize campaigns, customer segmentation, and ROI.
Healthcare Data Analyst	Work in the healthcare industry to analyze patient data, outcomes, and healthcare processes.
Fraud Analyst	Detect and prevent fraudulent activities through data analysis and pattern recognition.
Pricing Analyst	Determine pricing strategies by analyzing market data, competition, and consumer behavior.
HR Analyst	Use data to inform human resources decisions, including talent acquisition, retention, and performance analysis.
Customer Insights Analyst	Analyze customer data to identify trends, preferences, and opportunities for improved customer experiences.
Environmental Analyst	Use data to assess environmental impact, sustainability, and compliance in various industries.
E-commerce Analyst	Analyze online shopping data to improve user experiences, sales, and conversion rates.
Cybersecurity Analyst	Focus on analyzing and mitigating cybersecurity threats and vulnerabilities using data analysis.
Chief Data Officer (CDO)	Oversee an organization's data strategy, governance, and analytics initiatives at the executive level.
Director of Analytics	Lead the analytics department, setting strategy,

	managing teams, and ensuring data-driven decision-making.
Head of Data Science	Lead data science teams, set research agendas, and guide advanced analytics projects to support the business.
Chief Analytics Officer (CAO)	Establish and lead analytics functions within organizations, aligning analytics with business goals and vision.
Senior Data Strategist	Develop and implement data strategies to drive business growth, ensuring data aligns with organizational goals.
Chief Strategy Officer (CSO)	Set strategic direction for the organization, using data and analytics to inform long-term business strategies.
Senior Manager of Analytics	Manage analytics teams, projects, and initiatives, providing leadership and strategic guidance.
Executive Director of Business Intelligence	Lead high-level business intelligence efforts, aligning data insights with corporate strategy.
Data Governance Manager	Focuses on data governance and data quality initiatives, ensuring compliance with data standards and regulations.
Machine Learning Developer	The ML Developer designs and leads multiple analytic projects, applying analytics and statistical methods/techniques to data sets. Provide expertise and leadership in the design and completion of analytics projects.
Assistant Registrar, Enrolment Research, Analytics and Insights	<p>The Assistant Registrar, Enrolment Research, Analytics and Insights (Assistant Registrar) is responsible for assessing the enrolment management needs of faculties and the University, and designing processes to actively monitor, manage, and report on enrolment.</p> <p>The Assistant Registrar provides leadership in developing enrolment management strategies, with a focus on undergraduate enrolment.</p>

Appendix 8: Draft Calendar Descriptions with credits/term offered/hours:

***All courses listed in the table are new and are currently under development. The Calendar Description below is the draft version.**

Core Courses	Calendar Description	Credits	Term Offered	Hours
MMA 600 Boot Camp	Two-Week Kick Start Bootcamp: Embark on a seamless learning journey as students engage in a well-rounded experience to master two essential programming languages—Python and R.	0	August	18 hours over two weeks
MMA 601 Business Foundations and Strategic Decision Making	Students are introduced to business fundamentals in the first session followed by second session that delves deep into the dynamic world of data-driven strategy, cultivating invaluable skills in utilizing data to frame decisions effectively	3	August	3
MMA 602 - Machine Learning For Business I	The goal of the Machine Learning for Business course is to utilize machine learning techniques to transform raw data into valuable insights that can inform business strategies. This course demands a solid grasp of technical data handling methods as well as business goals. It involves an overview of various machine learning approaches, such as supervised and unsupervised learning, and their practical uses in business scenarios.	3	Fall Term	3
MMA 603 - Data Visualization and Business Communications	This course equips students with the ability to turn raw data into meaningful visualizations and communicate these insights in a business context. It covers the essentials of effective data visualization, visual design principles, and storytelling with data. Through hands-on practice with tools like Tableau and Excel, students will learn to create and interpret various visualizations, focusing on selecting the most appropriate visual forms to accurately reflect data and address business queries.	3	Fall Term	3
MMA 604 - Database Fundamentals for Business Analytics	Provides students with an understanding of the critical role of databases in business analytics, focusing on the principles of database systems, design, implementation, and utilization in a business context. students are introduced	3	Fall Term	3

	to fundamental concepts of data and information management.			
MMA 605 - Statistics Analytics and Causal Inference	This course provides students with a robust foundation in statistical principles and techniques, alongside essential skills in descriptive analytics and causal inference. Students will develop strong analytical skills and gain hands-on experience with statistical software. Further delving into time series analysis, multivariate analysis and enhanced predictive modeling. Students will also gain proficiency in experimental design including ANOVA and A/B testing.	3	Fall Term	3
MMA 606 - Machine Learning for Business II	Builds upon the foundational knowledge students acquired in “Machine Learning for Business I”, diving deeper into the specialized applications of machine learning techniques to unstructured data. By exploring areas such as text analytics, network analytics, recommender systems, and deep learning applications, students will gain a robust understanding of how to handle and analyze unstructured data such as text and images, which constitute a significant proportion of the data businesses encounter	3	Winter Term	3
MMA 607 - Prescriptive Analytics	This course is designed to provide a foundation of prescriptive analytics based on mathematical modeling and optimization for managerial decision-making. Topics covered in the course include decision analysis; simulation modeling; constraint programming and constraint-based optimization; network optimization and graph algorithms; optimization under uncertainty; application of prescriptive analytics techniques in various industries; integration of predictive and prescriptive analytics; and practical implementation of prescriptive analytics techniques to solve real-world problems. By the end of the course, students will have a solid	3	Winter Term	3

	understanding of prescriptive analytics techniques and their practical applications			
MMA 608 - Business Applications of Artificial Intelligence	This comprehensive course, co-taught by a panel of expert instructors, aims to provide students with an in-depth understanding of how artificial intelligence (AI) technologies are applied in real-world business settings. It introduces students to a range of AI applications across different industries and functional areas, highlighting the transformative potential of AI in driving innovation, improving operational efficiency, and creating competitive advantages	3	Winter Term	3
MMA 609 - Responsible AI & Ethical Issues in Data Analytics	This course focuses on the ethical and legal considerations in artificial intelligence (AI) and data analytics, fields that are evolving rapidly and prompting novel ethical and regulatory concerns. It will cover subjects such as data privacy, fairness in algorithms, interpretability, and accountability. Participants will be educated on the responsible and ethical application of AI and data analytics technologies.	3	Winter Term	3
MMA 610 - Analytics Capstone Project	This course represents the apex of the MMA program, extending over two semesters, and offers students an immersive, real-world experience in analytics. The "Analytics Capstone Project" serves as a significant demonstration of the students' analytical skills and their capacity to make data-informed decisions in intricate business environments.	6	Spring/Summer	3

List of Electives:

MMA 611 Accounting Analytics	This course combines advanced data analytics and technology, essential for modern accounting, as part of the Master of Management Analytics program. It is structured into two main parts: Data Analytics and Technology Integration in Accounting,	3	Spring/Summer	3
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	with a strong emphasis on practical learning. Students will use data analytics tools like OLS, logistic and probit regressions, and optimization analysis to address various accounting challenges. The curriculum covers financial and managerial accounting, auditing, and taxation, focusing on problem-solving and decision-making. This prepares students for roles in audit risk assessment, audit procedures, and strategic tax planning and compliance.			
MMA 612 Financial Analytics	This course integrates financial skills with data science for enterprise decision-making, structured into four key sections. It covers core financial modeling skills, including interest rate discounting and uncertainty modeling, and explores Real Optionality to understand how management decisions and uncertainties affect valuation, focusing on NPV@Risk. The section on Decision Quality (DQ) delves into its relevance in business, biases, risk definition differences in finance and enterprise, and practical implementation strategies. Lastly, the course emphasizes creating interactive Data Science applications, teaching students to develop apps for engaging senior management, with all content exclusively using R programming.	3	Spring/Summer	3
MMA 613 - Operations and Supply Chain Analytics	This course prepares students to tackle complex business logistics challenges using advanced analytics techniques such as regression, optimization, and simulation. It focuses on key areas like inventory management, site selection, revenue optimization, and transportation logistics, emphasizing data-driven approaches for cost minimization, operational efficiency, and market responsiveness. Students will apply real-world data to enhance supply chain operations, including developing effective pricing strategies and optimizing delivery routes. The course offers hands-on experience with extensive supply chain datasets, equipping students with the skills to turn data into actionable insights for innovative and efficient supply chain management.	3	Spring/Summer	3
MMA 614 - Marketing Analytics	This marketing course equips students with tools to generate actionable insights by understanding consumers and market trends. It focuses on designing analytical plans to tackle marketing problems, covering aspects	3	Spring/Summer	3

	<p>from data collection to communicating findings. Key skills include measuring variables, choosing appropriate analytical methods, interpreting data analysis techniques, and effective storytelling. The course prepares students for roles in marketing analytics across various sectors and emphasizes a hands-on approach, with project design and data analysis in class. Upon completion, students will be proficient in areas like marketing research, experimental design (e.g., A/B testing), data collection, regression analysis, segmentation, machine learning applications in marketing, and results communication.</p>			
<p>MMA 615 - Healthcare Analytics</p>	<p>This course is a gateway to healthcare analytics, teaching students how data reshapes healthcare strategy and improves patient care quality. It covers extracting and processing data from various sources like electronic health records and wearable devices, and advanced analytics techniques such as predictive modeling and machine learning for patient outcomes and diagnostics. Students will understand the ethical and legal aspects of handling sensitive patient data and learn to optimize healthcare operations like patient flow and resource allocation. The course emphasizes data-driven decision-making, with practical applications through case studies, projects, and guest lectures from industry experts, fostering interdisciplinary expertise to tackle healthcare challenges.</p>	3	Spring/Summer	3
<p>MMA 616 - Strategy Analytics</p>	<p>This course is designed to prepare future managers to effectively integrate data science and business analytics into strategic decision-making. It provides an overview of how these functions can harmonize to create effective strategies while highlighting the pitfalls of poor integration. Students will learn about strategic vision, data-driven decision frameworks, competitive intelligence, risk assessment, and the use of performance metrics for continuous improvement. The course includes real-world case studies to apply theory to practice and emphasizes ethical considerations in data strategy, focusing on responsible data use, transparency, and privacy. By the end, students will understand the interplay between data science and business analytics and be able to develop strategies aligned with</p>	3	Spring/Summer	3

	organizational goals.			
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Appendix 9: Library Impact Statement

Library Impact Statement

Faculties seeking changes to existing programs must consider and seek the agreement to any impact of the proposed program changes on the library system and on course enrolments in other academic units. In addition, any new program proposal going forward for approval will require a service impact statement. Where the affected Faculties and/or Library are in agreement this statement will note that fact and details of the arrangement.

Please contact your [subject librarian](#) to solicit feedback on your program proposal and request a Library Impact Statement.

Library Contact:

Name: Céline Gareau-Brennan	Date: September 19th 2023
Library Unit: Faculty Engagement (Social Sciences + Humanities)	Email: celine.gareau-brennan@ualberta.ca

Program Proposal Contact:

Name: Dr. Borzou Rostami	Dept./School: Department of Accounting and Business Analytics
Faculty: Alberta School of Business	E-mail: borzou@ualberta.ca

Proposed Program Changes:

The Master of Management Analytics (MMA) is a proposed program that will be offered by the Alberta School of Business. The MMA program is a 1 year, full-time course-based masters degree program targeted to students who have recently completed a STEM or Business undergraduate degree. The program will focus on training managers to design, lead and execute data driven projects across industries. The main objective of the MMA program is to equip students with comprehensive knowledge and practical skills to effectively apply state-of-the-art analytics tools. Throughout the program, students will demonstrate their ability to design and move data analytics projects from conception to application successfully.

Kicking off on August 15th, the program features an immersive three-week coding bootcamp uniquely designed to equip students with a solid foundation in programming logic and key concepts. Following the bootcamp, students will then enter the Fall term, where they'll delve into the core curriculum of the MMA program, structured around the following four major pillars:

- 1. Business analytics fundamentals*
- 2. Business analytics process and management*
- 3. Analytics applications across functional areas*
- 4. Experiential learning*

In the fall term, students take business analytics fundamentals courses: Machine learning for business I; Data management of business analytics; and Descriptive analytics and data visualization. Courses in the winter term emphasize analytics process and management: Machine Learning for business II, Business Applications of artificial intelligence, Prescriptive Analytics, and Responsible AI and ethical issues in data analytics. In the spring and summer terms, students take functional area elective courses: Accounting analytics, Operations and supply chain analytics, Financial Analytics, Human resources analytics, Marketing, and Healthcare analytics. An experiential education field project performed in groups of 3-4 will be completed over the spring and summer semesters.

University of Alberta Library Impact Statement November 2022

The plan is to enroll 25 new students in each of the first two years, then in the 3rd year enroll 35 students, and then 50 students in the 4th year and beyond.

All courses involved in the certificate are new courses, however most of these would make use of resources that the library already has access to. That being said, it is possible that the vendor agreement for our databases need to be re-examined, in the case of students desiring access to analyze and manipulate big sets of data.

Library Service or Resource	Description of Library Impact
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<p>Instruction (e.g., classes with a librarian, tours, online resource guides, online tutorials, etc.)</p>	<p>Instruction sessions related to Business, Computer Engineering, Computer Science, GIS and Research Data, as well as Media and Technology Studies may be useful for students in the MMA program.</p> <p>Instruction for digital projects, such as those from the Digital Scholarship Centre, may be useful for students in the program.</p> <p>The Library offers a range of workshops throughout the academic year to assist students with their research needs. In addition, online instructional guides and tutorials are accessible via the Library’s web site to support the research process.</p> <p>Course/assignment specific instruction is also available via Faculty Engagement Librarians for business, computer engineering, and computer science.</p> <p>It would also be beneficial to include Digital Scholarship Centre staff in any discussion of instruction such as the Head, Digital Scholarship Services, Digital Scholarship Technologies Librarian, in addition to this unit’s Digital Scholarship Specialists.</p> <p>Depending on the specific request, it would be useful to have the support from the Library staff from the Digital Repository & Data Services such as Digital Content Specialists and the GIS Librarian. Depending on how the data is used it may also be necessary to have instruction by the Director, Research Data Management and Academic Director, University of Alberta Research Data Centre.</p> <p>Given all this Library Staff and the Library has the capacity to support instruction in this Program/Certificate, though it may take some effort from the Business Librarians to coordinate instruction.</p>
<p>Reference assistance (e.g., ongoing one-on-one help)</p>	<p>The Faculty Engagement Librarians and staff associated with Business, Computer engineering, Computer science, the Digital Scholarship Centre, the Digital Repository & Data Service Unit, and the Research Data Management Unit will be able to accommodate requests for assistance via email, phone, or online.</p> <p>General reference assistance is available at all University of Alberta Library service desks and online via Ask us services.</p>
<p>Collections – course materials, print, electronic [note any</p>	<p>The Library’s current holdings and subscriptions to print and electronic resources successfully support research, instruction, and study in many of the</p>

impacts on simultaneous users, licensing considerations etc.]

subject areas that will be the focus of this program. That being said, many licensed resources do not permit systematic downloading or large-scale analysis of the data contained in their databases.

In the case of students seeking the ability to perform large-scale analysis or manipulation of datasets produced from library resources, additional resources or license permissions may need to be acquired. The Library's Collections Strategies Unit is responsible for acquisitions of library materials, and will be ready to respond to the needs of researchers, instructors, and students from this program. Requests would be prioritized, and the Library can never purchase everything that is requested, but we'd do our best to support the program adequately.

Certain items that are not available and/or accessible through the Library could potentially be requested through [Interlibrary Loan](#) or it may be useful to look at Open Data Sets as substitutes.

Resources with particular relevance to this program include:

- [ACM Digital Library](#)
- [Business Source Complete](#)
- [Canadian Business & Current Affairs Database \(CBCA\)](#)
- Various datasets accessible via [CHASS](#)
- [Compendex](#)
- [DLI \(Data Liberation Initiative\)](#)
- [ICPSR](#)
- [IEEE Xplore](#)
- [<odesi>](#)
- [ProQuest One Business](#)
- Various datasets accessible via [WRDS](#)

Other subject specific [databases](#) and resources may be required.

The Library also supports [course reading list and reserve requests](#) online using the [Talis platform](#).

The Library is a partner in the [Data Liberation Initiative \(DLI\)](#) also a site of a [Statistics Canada Research Data Centres \(RDCs\)](#). For more information about these students can contact data@ualberta.ca

The Library's [Data](#), [Free Online Resources \(data page\)](#), [Computing Science](#), [Electrical & Computer Engineering](#) and various [Business Subject Guides](#) will be relevant to students taking specific courses in the MMA.


Collaboration with other UAL library units, if interdisciplinary program (consult with the other UAL units affected and include their comments with yours)	<p>Given the interdisciplinary nature of this program, the following library units have been consulted in the preparation of this impact statement:</p> <ul style="list-style-type: none"> • Collections Strategies Unit • Digital Repository & Data Services • Digital Scholarship Centre • Faculty Engagement (Natural + Applied Sciences) Unit • Research Data Management Unit
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University of Alberta Library Impact Statement November, 2022

	<ul style="list-style-type: none"> • Faculty Engagement (Social Sciences + Humanities) Unit <p>The Digital Scholarship Centre (DSC) is another library facility that may be of use to those completing this certificate/program given their innovative resources, including access to the DSC Makerspace. Any student can gain access to these resources, including high performance computers, in this facility provided the use is tied to a curriculum based project.</p>
Physical facilities (e.g., sufficient room for group work; in-library work, etc.)	<p>Physical facilities are in place to support student research needs. There are bookable group study spaces, as well as collaborative and individual study spaces in all library locations.</p> <p>This is also a program in which the Digital Scholarship Centre's spaces may be of use such as the Visualization Lab and the Multipurpose</p>
Other (specify)	

Proposal has an impact on the Library and can be supported.

Proposal can be supported with additional resources; see attached details.

Unit Head Name	Unit Head Signature	Date
Dr. Christine Brown		September 21, 2023

Associate University Librarian Name	Associate University Librarian Signature	Date
Sharon Murphy		September 21, 2023

Proposal has no impact on the Library. University of Alberta Library Impact Statement November, 2022

Appendix 10: Continuous Improvement Review Timeline



CONTINUOUS IMPROVEMENT REVIEW TIMELINE

2025-2026 VISIT YEAR

The Continuous Improvement Review Process is displayed below as a timeline. This five-year review cycle remains constant throughout the cycle of consecutive review for a school, irrespective of whether a continuous improvement review 2 is required. Therefore, Year 1 represents the academic year immediately following an on-site review, regardless of whether or not an accreditation decision has been made. The next visit will occur in Year 5. The Continuous Improvement Review Committee is responsible for oversight of the Continuous Improvement Review process for review.

Year 1 (July 1, 2021 – June 30, 2022)	Year 2 (July 1, 2022 – June 30, 2023)	Year 3 (July 1, 2023 – June 30, 2024)	Year 4 (July 1, 2024 – June 30, 2025)	Year 5 (July 1, 2025 – June 30, 2026)
<ul style="list-style-type: none"> Review and Refine Strategic Management Plan 	<ul style="list-style-type: none"> Review and Refine Strategic Management Plan 	<ul style="list-style-type: none"> Review and Refine Strategic Management Plan 	<ul style="list-style-type: none"> Review and Refine Strategic Management Plan 	<ul style="list-style-type: none"> Review and Refine Strategic Management Plan
<ul style="list-style-type: none"> Complete the Required Business School Questionnaire (BSQ) Modules for the prior academic year Schools with Supplemental Accounting Accreditation should also complete the Accounting Program Questionnaire 	<ul style="list-style-type: none"> Complete the Required Business School Questionnaire (BSQ) Modules for the prior academic year Schools with Supplemental Accounting Accreditation should also complete the Accounting Program Questionnaire 	<ul style="list-style-type: none"> Complete the Required Business School Questionnaire (BSQ) Modules for the prior academic year Schools with Supplemental Accounting Accreditation should also complete the Accounting Program Questionnaire 	<ul style="list-style-type: none"> Complete the Required Business School Questionnaire (BSQ) Modules for the prior academic year Schools with Supplemental Accounting Accreditation should also complete the Accounting Program Questionnaire 	<ul style="list-style-type: none"> Complete the Required Business School Questionnaire (BSQ) Modules for the prior academic year Schools with Supplemental Accounting Accreditation should also complete the Accounting Program Questionnaire
		<ul style="list-style-type: none"> July 1, 2023 two years prior to visit year - Submit Continuous Improvement Review Application(s) 	<ul style="list-style-type: none"> Peer Review Team and visit date confirmed. 	<ul style="list-style-type: none"> Distribute Completed Continuous Improvement Review Report(s) 60 Days Prior to Visit
		<ul style="list-style-type: none"> CIRC or AAC rules on exclusions and the scope of the accreditation visit 	<ul style="list-style-type: none"> Begin communications with Peer Review Team 	<ul style="list-style-type: none"> Work with Peer Review Team Chair to finalize the Visit Schedule
		<ul style="list-style-type: none"> Date and Peer Review Team Nomination Request sent to school (February) See Accreditation Policies & Procedures for Volunteer Deployment and Selection 		<ul style="list-style-type: none"> Peer Review Team Visit
		<ul style="list-style-type: none"> Return Date and Peer Review Team Nominations form to AACSB (March 2024) 		

CIRreviewTimeline_v20220202

Appendix 11: Potential Instructors' CVs
[Instructor CVs](#)

Appendix 12: Letters of Support (In Progress)

1. AltaML
2. ATB Financial



10130 103 Street #2200
Edmonton, AB
T5J 3N9



December 19, 2023

To whom it may concern,

I'm writing to you today in support of the Masters in Management Analytics (MMA) program at the University of Alberta.

The introduction of the MMA program, tailored for students who have successfully completed STEM or Business undergraduate degrees, presents a significant opportunity to enhance our region's reputation as a premier technology hub. The University of Alberta's distinguished standing in artificial intelligence (AI) and machine learning (ML) research, ranked fifth globally, further reinforces the potential for this program to contribute to our position as a leading centre for tech talent in Western Canada.

The escalating demand for individuals well-versed in real-world applications of analytics, AI, and ML underscores the necessity for advanced training options. Given the rapid growth of the industry, it is imperative to address this demand now rather than later, particularly at the master's level. The MMA program will help fill this gap, equipping future professionals in the space with essential skills and competencies necessary to succeed.

What will set the MMA program apart is its approach to bridging technical expertise with business applications. This interdisciplinary focus not only aligns with industry needs but also positions Alberta's educational landscape as more informed and data-driven. By imparting knowledge that enables effective, responsible, competitive, and ethical use of data, the program ensures graduates are well-prepared to contribute meaningfully to the evolving field.

The MMA program aims to apply state-of-the-art analytics tools to address real-world business challenges—an objective that resonates strongly with me. I believe that offering such an initiative at the University of Alberta will not only elevate the calibre of education in our

province but also empower individuals to make a lasting impact, and encourage them to stay and work in our communities.

Regards,

A handwritten signature in blue ink, appearing to read "Nicole J.", is displayed on a light gray rectangular background.

Nicole Janssen
Co-Founder and Co-CEO, AltaML

January 2, 2024

Dr. Mike Maier
Associate Dean, Masters Program
University of Alberta
College of Social Sciences and Humanities
Alberta School of Business
1211 Saskatchewan Drive
Edmonton, Alberta, Canada
T6G 2R6

Support for Masters in Management Analytics Program

Dear Dr. Maier

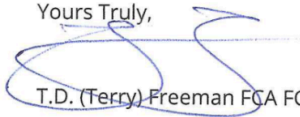
I am very pleased that the U of A School of Business is pursuing a Masters in Management Analytics Program.

Through my exposure at ATB, as an investor in many businesses through ATB Private Equity, LP and personally, and as a Board member at an artificial intelligence and machine learning business the requirement for the knowledge and skills developed through such a program are evident and accelerating.

The ability to translate sound business principles in analytics use cases is essential to the successful implementation of AI and ML concepts. I am very pleased that this program will be housed in the Alberta School of Business.

The U of A has a world leading reputation in this field, and the Masters in Management Analytics Program will aid the institution in keeping and building on that reputation, and I wholeheartedly support moving forward with it, as a U of A alum, and employer of the graduates from the program.

Yours Truly,



T.D. (Terry) Freeman FCA FCPA ICD.D, Head of Investments, ATB Private Equity

(Optional) Department name | Date

Appendix 12: External Reviewers Report (In Progress)



FINAL ITEM NO.

Decision X Discussion Information

ITEM OBJECTIVE: This item is presented to for approval to the Open Studies Regulation to provide for admission of students to a Foundation Program.

DATE	February 8, 2024
TO	GFC Programs Committee
RESPONSIBLE PORTFOLIO	Provost & Vice-President (Academic)

MOTION:

THAT the GFC Programs Committee, with delegated authority from General Faculties Council, approve the changes to the Open Studies section of the *University Calendar* to take effect for the 2024-2025 academic year.

EXECUTIVE SUMMARY:

Background

SHAPE: A Strategic Plan of Impact sets out a goal for the University of Alberta to grow to 60,000 students within the next decade. Of the 16,000 new annual enrolments needed to achieve this, the university expects approximately 6,000 to be international students, in order to ensure that we are providing a diverse global environment for all students commensurate with our peers. In November, Academic Planning Committee discussed the university’s overall approach to enrolment growth, including the establishment of a U of A Foundation Program, one of the multi-pronged strategies for increasing international student recruitment.

Administration is developing an implementation roadmap for the Foundation Program with an anticipated launch in 2024.

What is a Foundation Program?

A Foundation Program is a transition year for students who do not yet meet the competitive entry criteria for direct admission to their desired program because of a specific deficiency (most commonly, missing a course not available in their home country). After completing a transition year in the program, students who meet competitive admission criteria may gain entry to a university degree program in their second year. At the University of Alberta, the Foundation Program will initially be offered to international students, with a program for domestic students, with particular focus on rural and Indigenous students, planned for a later date. The U of A Foundation Program will be a University of Alberta initiative offered by University of Alberta instructors.

A Foundation Program provides students with the courses and services they need in order to meet our existing admission standards. A Foundation Program offered to international students has no negative impact on access for domestic students. Additional students admitted through

GOVERNANCE OUTLINE

ITEM NO.

the program represent net growth for the university and do not reduce spaces available for domestic students.

Required regulation change

Similar to our existing Transition Year Program (TYP) for Indigenous students, students in the Foundation would be registered in Open Studies, under a specific Calendar designation which enables them to take up to five courses per semester and up to 30 units total. This requires a minor regulatory change to Open Studies. A corresponding regulation change is proposed under General Undergraduate Admission Requirements to specify admission criteria for the Foundation year.

Academic governance and oversight

For the U of A Foundation Program, Dr. Rebecca Nagel (Associate Professor, Faculty of Arts) has been appointed as the academic lead for the implementation phase – she will lead the establishment of academic governance and oversight, oversee the establishment of curriculum, and lead engagement with our academic community and associations.

The academic oversight model for the Foundation Program will include academic representation from participating programs and faculties and will provide oversight to the Foundation Program curriculum (for example, determining which U of A courses are offered), monitor student progression and academic outcomes, and ensure coordination with participating programs and faculties.

Consultation and engagement

The Foundation Program has been subject to extensive consultation, including with: APC, Programs Committee, Council on Student Affairs, Board committees and the Board of Governors (fall 2023-Jan 2024); the Association of Academic Staff of the University of Alberta; Deans' Council and Councils of Deans within each College; and relevant service units.



SCHEDULE A:

Engagement and Routing

Consultation and Stakeholder Participation / Approval Route (parties who have seen the proposal and in what capacity) <[Governance Resources Section Student Participation Protocol](#)>

Those who are actively participating:

- Office of the Provost & Vice-President (Academic)
- Office of the Registrar
- University of Alberta International

Those who have been consulted:

- Deans' Council and college Councils of Deans
- Board Learning, Research and Student Experience Committee
- Board Finance and Property Committee
- Board of Governors
- Upcoming: town hall sessions and consultation with affected Faculty Councils (Jan./Feb. 2024)

Those who have been informed:

- Association of Academic Staff of the University of Alberta
- Non-Academic Staff Association

Approval Route:

- Board Finance and Property Committee (consultation) – Nov. 2023
- Board Learning, Research and Student Experience Committee (consultation) – Nov. 24, 2023
- Board of Governors – Dec. 8, 2023
- Academic Planning Committee (consultation) – Jan. 10, 2024
- Programs Committee (consultation) – Jan. 11, 2024
- General Faculties Council (consultation) – Jan. 29, 2023
- Programs Committee (approval of program regulations) – Feb. 8, 2024

Supplementary Notes / Context:

Faculty (& Department or Academic Unit):	Provost & Vice-President (Academic)
Contact Person:	Melissa Padfield, Deputy Provost (Students and Enrolment)
Level of change: (choose one only)	<input checked="" type="checkbox"/> Undergraduate
	<input type="checkbox"/> Graduate
Type of change request: (check all that apply)	<input type="checkbox"/> Program
	<input checked="" type="checkbox"/> Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	No

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

[See Governance Outline](#)

Calendar Copy

URL in current Calendar (or "New page") https://calendar.ualberta.ca/preview_entity.php?catoid=39&ent_oid=5010&hl=%22transition+year+program%22&return_to=search#Transition_Year_Program	
Current Copy: Removed language	Proposed Copy: New language
Open Studies Registration 1. Course Load: Maximum registration is normally 6 units per term. Exceptions to this are for the following University of Alberta initiatives: <ol style="list-style-type: none"> a. Fresh Start Program b. Transition Year Program c. Visiting Student Certificate Program d. Exceptional Student Athlete Applicants Students registered in these initiatives may be registered in more than 6 units for the period in which they are enrolled.	Open Studies Registration 1. Course Load: Maximum registration is normally 6 units per term. Exceptions to this are for the following University of Alberta initiatives: <ol style="list-style-type: none"> a. Fresh Start Program b. Transition Year Program c. Foundation Program d. Visiting Student Certificate Program e. Exceptional Student Athlete Applicants Students registered in these initiatives may be registered in more than 6 units for the period in which they are enrolled. NEW subsection:

Foundation Program

The University of Alberta encourages international students to apply for entrance to its degree programs through the normal admission categories as detailed on the Admission Requirements by Faculty pages. Prospective students who do not fully meet these requirements may be eligible for participation in the Foundation Program.

The Foundation Program gives students an opportunity to complete up to 30 units of course weight through Open Studies, in addition to tutorial, support classes and other supports. The Foundation Program is normally completed within one full year (Fall/Winter/Spring/Summer terms).

Requirements for the Foundation Program

1. Students admitted into the Foundation Program may register for courses up to a maximum of 15 units per term. Students will normally complete 30 units over the Fall/Winter/Spring/Summer terms. Registrations must be approved by the Foundation Program Academic Advisor.
2. Students in the Foundation Program must complete tutorial, support class and access other identified supports at the direction of the Foundation Program Academic Advisor.
3. Students entering the Foundation Program identify a program to which they intend to apply for admission after completing the Foundation Program, and are assessed tuition and fees on the basis of their target destination program.
4. Based on the student's desired future program of study, courses the student should take while enrolled in the Foundation Program will be identified to the student.
5. Students may not take more than 30 units in the Foundation Program.
6. Upon completion of the Foundation Program, consideration for admission to any Faculty requires at minimum Satisfactory Academic Standing (see Academic Standing), as well as successful completion of course and other requirements of the Foundation Program and completion of all admission requirements for the student's desired program.

URL in current Calendar (or "New page")

https://calendar.ualberta.ca/content.php?catoid=39&navoid=12223#transition_year_program_for_indigenous_applicants

Current Copy: ~~Removed language~~

Proposed Copy: New language

<p>General Undergraduate Admission Requirements</p>	<p>General Undergraduate Admission Requirements</p> <p>Foundation Program</p> <p>The University of Alberta encourages international students to apply for entrance to its degree programs through the normal admission categories as detailed on the Admission Requirements by Faculty pages. Prospective international students who do not fully meet these requirements may be eligible for participation in the Foundation Program under Open Studies.</p> <p>In order to be admitted into a degree program via the Foundation Program, students must first be admitted into the Foundation Program and complete all Foundation Program requirements satisfactorily. Students who meet the relevant admission requirements based on the Admission Requirements by Faculty, and whose performance in courses and other requirements taken through the Foundation Program meets identified standards, may be admitted to the degree program. All admission requirements and performance standards will normally be identified to the student upon commencing the Foundation Program.</p> <p>Students entering the Foundation Program identify a program to which they intend to apply for admission after completing the Foundation Program, and are assessed tuition and fees on the basis of their target destination program.</p> <p>Admission to the Foundation Program</p> <p>a. General Requirements</p> <ol style="list-style-type: none"> i. International status ii. Students must meet the admission requirements for their target destination program, subject to addressing specific identified deficiencies related to required courses, English language proficiency, and/or admission average, where identified deficiencies can reasonably be addressed within the Foundation Program.
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Reviewed/Approved by:

REQUIRED: Deputy Provost (Students and Enrolment) - delegated from Provost & Vice-President (Academic) - January 10, 2024

OPTIONAL: Dr. Rebecca Nagel, Academic Director, Foundation Program - January 10, 2024; Office of the Registrar - January 12, 2024