

Monday, February 26, 2024
Council Chamber, 2-100 University Hall
2:00 PM - 4:00 PM

OPENING SESSION

1. Approval of the Agenda 2:00 – 2:05 p.m. Verna Yiu
2. Comments from the Chair (no documents) 2:05 – 2:10 p.m. Verna Yiu
 - ZTC Course Awards
 - Presidential Review Committee Update
 - Budget Update

CONSENT AGENDA 2:10 – 2:15 p.m.

[If a member has a question or feels that an item should be discussed, they should notify the Secretary to GFC, in writing, two business days or more in advance of the meeting so that the relevant expert can be invited to attend.]

3. Approval of the Open Session Minutes of January 29, 2024
4. New Members of GFC
5. Suspension of the Specialisations in Educational Policy Studies and Elementary Education in the Doctor of Education
Motion: To Recommend Board of Governors Approval
6. Deletion of GFC Policy Manual Section 109 - Student Records: Contents, Access, Use, and Protection
7. Deletion of GFC Policy Manual Section 56 - General Appeals Committee (GAC)
Motion: To Approve

ACTION ITEMS 2:15 – 2:30 p.m.

8. Master in Management Analytics Michael Maier
Motion: To Recommend Board of Governors Approval

DISCUSSION ITEMS

9. Question Period 2:30 – 3:00 p.m. Verna Yiu
 - 9.1 - GFC Question and Response on LMS Replacement
10. Annual Enrolment Report 3:00 – 3:20 p.m. Norma Rodenburg
Tracy Raivio

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| 11. | Revised Draft of the Teaching, Learning and Evaluation Policy - Appendix B: Multifaceted Evaluation of Teaching and Learning 3:20 – 3:35 p.m. | Karsten Mündel Deanna Davis |
| 12. | SHAPE Implementation 3:35 – 3:50 p.m. | Verna Yiu |
| 13. | Proposed revisions to GFC Academic Planning Committee Terms of Reference 3:50 – 4:00 p.m. | Ryan Dunch Kate Peters |

INFORMATION REPORTS

[If a member has a question about a report, or feels that a report should be discussed by GFC, they should notify the Secretary to GFC, in writing, two business days or more in advance of the meeting so that the Committee Chair (or relevant expert) can be invited to attend.]

14. Report of the GFC Executive Committee
15. Report of the GFC Academic Planning Committee
16. Report of the GFC Programs Committee
17. GFC Nominations and Elections
- February 2, 2024 GFC Nominating Committee Report to GFC
18. Information Forwarded to GFC Members Between Meetings
- Joint Summit - Materials now available
- Action Required: Presidential Review Process Ballot

CLOSING SESSION

19. Adjournment
- Next Meeting of General Faculties Council: March 18, 2024

INFORMATION REPORTS

20. Information Items:
 - A. General Appeals Committee Annual Report
 - B. U of A Non-Credit Programming Framework and Non-credit Micro-credential Guide
 - C. [GFC Schedule - 2024-2025](#)

Presenter(s):

| | |
|-----------------|---|
| Michael Maier | Associate Dean, MBA Program, Alberta School of Business |
| Norma Rodenburg | Acting Vice-Provost and University Registrar |
| Tracy Raivio | Professor, Faculty of Science |
| Verna Yiu | Provost and Vice-President (Academic) |

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|----------------|---|
| John Lemieux | University Secretary, University of Alberta |
| Ryan Dunch | Professor and Chair |
| Karsten Mündel | Vice Provost (Learning Initiatives) |
| Deanna Davis | Interim Executive Director, CTL |
| Kate Peters | GFC Secretary and Manager, GFC Services |

Documentation was before members unless otherwise noted.

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|-----------------------|--|
| Meeting REGRETS to: | Kate Peters, peters3@ualberta.ca |
| Prepared by: | Kate Peters, peters3@ualberta.ca |
| University Governance | www.governance.ualberta.ca |

General Faculties Council
DRAFT Open Session Minutes

Monday, January 29, 2024
Council Chamber, 2-100 University Hall
2:00 PM - 3:00 PM

OPENING SESSION

The Chair began with a land acknowledgement:

The University of Alberta acknowledges that we are located on Treaty 6 territory, and respects the histories, languages, and cultures of First Nations, Métis, Inuit, and all First Peoples of Canada, whose presence continues to enrich our vibrant community.

1. Approval of the Agenda

Presenter(s): Bill Flanagan, President and Vice-Chancellor, and Chair of GFC

The motion was moved and seconded.

THAT General Faculties Council approve the agenda.

CARRIED

2. Comments from the Chair (no documents)

Presenter(s): Bill Flanagan, President and Vice-Chancellor, and Chair of GFC

Discussion: The Chair made comments regarding:

- The appointment of Simaan Abourizk as Dean of the Faculty of Engineering;
- The appointment of Rickey Yada as dean of the Faculty of Agricultural, Life & Environmental Sciences (ALES) for a five-year term, effective Oct. 1, 2024;
- Recognition of Stan Blade's two-term tenure as Dean of the Faculty of ALES;
- The appointment of Shannon Scott as acting dean of the Faculty of Nursing through to June 30, 2024; and
- The return of Jennifer Tupper to her role as Dean of the Faculty of Education.

The Chair asked T Gilchrist to provide an update on the Enterprise Risk Management policy, recently approved by the Board of Governors as included in the Information reports.

J Lemieux provided an update on the Presidential Review Committee process and informed members that a ballot had been distributed to the GFC electorate made up of the 52 elected and 10 appointed academic staff members.

CONSENT AGENDA

Materials before members are contained in the official meeting file.

The motion to approve the items in the consent agenda was moved and seconded.

3. Approval of the Open Session Minutes of November 20, 2023

THAT General Faculties Council approve the open session minutes of November 20, 2023

CARRIED

4. New Members of GFC

TO APPOINT:

The following elected academic staff representatives to serve on GFC for terms commencing immediately and ending June 30, 2026:

Cameron Carlyle Agricultural, Life and Environmental Sciences

The following ex-officio members to serve on GFC for a term ending on June 30, 2024:

Shannon Scott Nursing

The following ex-officio member to serve on GFC for a term beginning July 1, 2024 and extending for the duration of the appointment:

Simaan AbouRizk Engineering

CARRIED

5. Pro-dean for Graduate Examinations

THAT the General Faculties Council approve the changes to the Graduate Regulations - Conduct of Examinations section of the University Calendar including the Common Examination protocols Pro Dean regulations for examinations, for implementation upon approval, and inclusion in the 2024-2025 University Calendar.

CARRIED

6. Program Revitalization for the Bachelor of Commerce Program, Faculty of Business

THAT the General Faculties Council (GFC), on the recommendation of the GFC Academic Planning Committee, recommend that the Board of Governors approve the proposed suspensions of the following majors in the Bachelor of Commerce Program as set forth in the attachments:

- Decision and Information Systems
- Distribution Management
- East Asian Business Studies
- European Business Studies
- Latin American Business Studies
- Natural Resources, Energy and the Environment
- Retailing and Services

CARRIED

DISCUSSION ITEMS

7. Question Period

7.1 Question and Response on Campus Saint-Jean

7.2 Question and Response on Wellness Supports

7.3 Question and Response on Electricity Demands and Power Usage

Materials before members are contained in the official meeting file.

Presenter(s): Bill Flanagan, President and Vice-Chancellor, and Chair of GFC

Discussion: Members asked questions concerning:

- the recent decisions by the federal government concerning international student visas and the implications for the U of A Foundation Program;
- numbers for international student visas allocated to the Province of Alberta and how they would be managed;
- Plans for implementation of a new Learning Management System including maintenance of the eClass/Moodle content and which decisions could be made by the instructor; and
- if the proposed minimum funding level of \$25,000 for PhD students would be the same for international students who face higher tuition levels.

8. Student Academic Integrity Policy Suite

Presenter(s): Ravina Sanghera, Vice Provost and Dean of Students; Chris Hackett, Discipline Officer, Student Conduct and Accountability;

Discussion: R Sanghera and C Hackett presented on the proposed suite of changes and the consultations to present. They noted in particular the creation of a new position in response to consultation feedback concerning the importance of education and supporting faculties and colleges in the implementation of the policy.

There were no questions.

9. Development of a U of A Foundation Program

Presenter(s): Melissa Padfield, Deputy Provost (Students and Enrolment); Rebecca Nagel, Associate Professor, Faculty of Arts and Academic Director, U of A Foundation Program

Discussion: M Padfield presented the rationale and proposed implementation plan for a U of A Foundation Program, comparing it to the existing Transition Year Program which sees students register in Open Studies. She noted that the University has already made a request for proposals for a third-party recruitment partner and expressed a hope that this model could be expanded to domestic students. R Nagel noted that the program regulations were under consideration by the GFC Programs Committee.

Members discussed:

- the role of the English Language School in the initiative;
- interest by third-party providers and a question of what supports they would be providing;
- the proposed tuition rate to participate in the program;
- how the allocation of federal International student visas would impact implementation;
- how domestic and rural students might access the program;
- whether ministerial approval would be required;
- a concern that instructors would be expected to provide additional supports to Foundation students; and
- how community members may perceive the program when there are qualified domestic students who cannot gain admission to the University.

10. People Strategy (no documents)

Presenter(s): Todd Gilchrist, Vice-President (University Services and Finance)

Discussion: The Chair thanked members for their participation in the Summit on January 26th. T Gilchrist noted the next steps for the People Strategy including the release of the "What we Heard" Document and Town Halls to discuss the feedback. They noted that the Steering Committee would be tasked with drafting the strategy and the hope that this document could be distributed to the community in March.

There were no questions.

11. Equity, Diversity, and Inclusion Action Plan (no documents)

Presenter(s): Carrie Smith, Vice-Provost (Equity, Diversity and Inclusion)

Discussion: C Smith reflected on the importance of the Equity, Diversity and Inclusion (EDI) Strategic Plan published in 2019 and the learnings from the implementation of that framework. She spoke to the aspiration that a new EDI Action Plan could integrate measurable actions. She noted the context of multiple strategic plans within the University, as well as the Scarborough Accord. She signaled the three phases of engagement and the proposed launch of a living implementation and explained the process of engagement and co-creation with the EDI Leads Network. She emphasized the objectives and scope for the planning process and shared the operating principles for the planning process.

She invited questions and feedback from members.

Members discussed:

- consistency across different faculties and programs in how students are supported to ensure better uniformity;
- the need for theory-based solutions and the accompanying issue of funding those initiatives which provide practical solutions for students facing barriers;
- how to support faculty development and education rather than imperatives;
- the work to support researchers to incorporate EDI into their research methodology to ensure increased success in their research; and
- whether the academic schedule could accommodate time for learning and collaboration in a more deliberate way.

INFORMATION REPORTS

12. Report of the GFC Executive Committee

13. Report of the GFC Academic Planning Committee

14. Report of the GFC Programs Committee

15. GFC Nominations and Elections

16. Report of the Board of Governors

17. Information Items:

- A. Annual Report Appeals and Compliance Officer
- B. Annual Report of Student Conduct Responses
- C. Emergency Risk Management Framework and Risk Management Policy
- D. Metrics Associated with Academic Restructuring

18. Information Forwarded to GFC Members Between Meetings

-Save the Date: January 26, 2024 from 12:00 - 5:00 PM

-Board of Governors, General Faculties Council & Senate Summit

CLOSING SESSION

19. Adjournment
- Next Meeting of General Faculties Council: February 26, 2023

ATTENDEES:

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| <p>Bill Flanagan, Chair Kathryn Todd (delegate) Adetola Adesida Minhaal Akbar Hussain Alhussainy Declan Ali Wajid Ali Pedro Almeida Chris Andersen Bishoi Aziz Jill Bagwe Barbara Billingsley Angelina Botros Paige Boyer Jennifer Branch- Mueller Heather Bruce Jessica Butts Scott Jason Carey Cameron Carlyle Susan Chatwood Odile Cisneros Gavin Clark Chetan Dave Chathuranga De Silva Stephanie Dickie Bailey Dickie Bipro Dhar Duncan Elliott Carlos Fernandez- Patron Shawn Flynn Kyle Foster Christian Fotang Zachary Friggstad Megan Garbutt Kenneth Gariepy Julianne Gibbs-Davis Todd Gilchrist Douglas Gingrich Eva Glancy Lise Gotell Michael Griffiths Jodi Harding-Kuriger Brenda Hemmelgarn Carol Hodgson Birkman Jelena Holovati</p> | <p>Tammy Hopper Tracy Howlett Jun Hu Christine Hughes Zak Kaal Matina Kalcounis- Rueppell Rija Kamran Esther Kim Noel Kjemhus Tim Klassen Julia Kloet Valentina Kozlova Vadim Kravchinsky Sandeep Kumar Denise LaFitte Adrian Lam Corrine Langinier Pierre Lemelin Liran Levin Christopher Lupke Ola Mabrouk Elan MacDonald Derek MacKenzie Nikolai Malykhin Andrew McGee Aamir Mohamed Weimin Mou Joanne Olson (delegate) Pauline Paul Nathan Perez Spencer Proctor Kyra Pyke Tracy Raivio Christian Reyns-Chikuma Trish Reay Liam Richardson Aminah Robinson Fayek Norma Rodenburg Dan Romanyk Mikael Schmidtke Andrew Sharman Patricia Sherbaniuk Chris Sprysak Tom Stelfox Gordon Swaters Katherine Tamsett Frederick Tappenden</p> | <p>Nathan Thiessen Jennifer Tupper John Ussher Marvin Washington Robert Wood Tuesday Young</p> <p><u>REGRETS</u> Noor Abdelwahab Simaan AbouRizk Sandeep Agrawal Seun Akinfolarin Layla Alhussainy Saadet Andrews Damon Atwood Gabriel Ayoku Quinn Benders Stanford Blade Josh Boissonnault Marsha Boyd Ahmed Bouferguene Alyssa Burant Marie Carrière Jency Chhaiya Pierre Chue Ryan Dunch Maesha Elm Elahi Richard Field Taylor Good Shubham Goswami Magda Grzeszczuk Michael Hendzel Spencer Hoppe John Hu Hal Kohestani Jeff Johnson Jinfeng Liu Danielle Milln Divya Maisuriya Precious Majekodunmi Shivani Mandal Vikas Mehrotra Olena Mykhailenko Jennifer Passey Sujata Persad</p> | <p>Graham Pearson Elena Posse de Chaves Muneeba QaDir Bassem Raad Stephen Raitz (delegate) Aiman Saif Ravina Sanghera Shannon Scott Allison Sivak John Spence Reagan Tremblay Demetres Tryphonopoulos Aditya Tutika Dilini Vethanayagam Madison Villiger Liam Watt Yifeng Wei Lindsey Westover Shauna Wilton Richard Wozniak Verna Yiu, Vice-Chair Minn-Nyoung Yoon</p> <p><u>GOVERNANCE STAFF</u> John Lemieux, University Secretary Kate Peters, GFC Secretary Faiza Bill Erin Plume Juli Zinken</p> |
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New Members of GFC**MOTION: TO APPOINT:**

The following ex-officio members to serve on GFC for a term beginning July 1, 2024 and ending September 30, 2024:

- Vic Adamowicz Agricultural, Life and Environmental Sciences

The following ex-officio members to serve on GFC for a term beginning October 1, 2024 and extending for the duration of the appointment:

- Rickey Yada Agricultural, Life and Environmental Sciences



Decision **Discussion** **Information**

ITEM OBJECTIVE: To seek approval of the suspension of two specializations under the Doctor of Education (EdD): Educational Policy Studies and Elementary Education.

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|------------------------------|-------------------------------------|
| DATE | February 26, 2024 |
| TO | General Faculties Council |
| RESPONSIBLE PORTFOLIO | Provost & Vice-President (Academic) |

MOTION: That General Faculties Council recommend that the Board of Governors approve the suspension of the Educational Policy Studies specialization and the Elementary Education specialization under the Doctor of Education (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: | | | | | |

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| <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 | |

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| <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

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| <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 |

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| 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

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| 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 | |

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| <p>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 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. | |
| <p>c. Identify financial impacts and plans for reallocation of internal resources,</p> | |

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| <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. | |
| Reviewer's Comment: | |

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| RECOMMENDATION (FOR DEPARTMENT USE) |
| Recommendation(s): |
| Rationale for Recommendation: |
| Reviewer(s): |
| Date Completed: |

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

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| 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

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| <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 |

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| <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> |

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| RECOMMENDATION (FOR DEPARTMENT USE) |
| Recommendation(s): |
| Rationale for Recommendation: |
| Reviewer(s): |
| Date Completed: |

ITEM NO. 6Decision Discussion Information **ITEM OBJECTIVE:** To approve the rescission of GFC Policy Manual Section 109.

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|------------------------------|---------------------------|
| DATE | February 12, 2024 |
| TO | General Faculties Council |
| RESPONSIBLE PORTFOLIO | General Faculties Council |

MOTION: THAT General Faculties Council rescind Section 109 of the GFC Policy Manual.**EXECUTIVE SUMMARY:**

Since 2008, University Governance has been working to complete the rescission of the General Faculties Council Policy Manual (“**GFC Policy Manual**”).

Section 109 of the GFC Policy Manual was drafted to provide regulatory guidance with respect to:

1. the collection of information forming part of a student record;
2. the use and confidentiality of student records (and the information contained therein);
3. the retention of student records; and
4. the security afforded to student records.

Regulatory guidance with respect to the collection, use and disclosure of the personal information of students, the retention practices for such information, and the protection afforded to the same is now subsumed within the [University Regulations](#) published in the [University Calendar](#).

Attachment 1 to this Governance Outline tracks each of the subsections of Section 109 of the GFC Policy Manual and identifies where the substantive content of each such subsection can now be found in the *University Calendar*.

In the interests of clarity, and to resolve any confusion with respect to the current governing institutional regulations relating to student personal information, it is necessary to rescind Section 109 of the GFC Policy Manual.

Supporting Materials:

[Attachment 1 - Two-column GFC Policy Manual Section 109](#)

SCHEDULE A:**Engagement and Routing**



ITEM NO. 6

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 Registrar
- GFC Executive Committee

Those who have been **informed**:

- Office of the Provost and Vice-President (Academic)

Approval Route:

- GFC Executive Committee - February 12, 2024 (for recommendation)
- General Faculties Council - February 26, 2024 (for approval)

Supplementary Notes / Context:

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109. Student Records: Contents, Access, Use, and Protection

Note from the University Secretariat: The Post-Secondary Learning Act gives General Faculties Council (GFC) responsibility, subject to the authority of the Board of Governors, over "academic affairs" (section 26(1)) and "general supervision of student affairs" (section 31). GFC has thus enacted a policy concerning Student Records, as set out below. This policy is compliant with the Province's Freedom of Information and Protection of Privacy Act (FOIPPA).

The complete wording of the section(s) of the Post-Secondary Learning Act, as referred to above, and any other related sections, should be checked in any instance where formal jurisdiction or delegation needs to be determined.

NOTE FROM THE UNIVERSITY SECRETARIAT: GFC Regulations concerning student records are contained in the Calendar with the exception of the following regulations. In accordance with a motion passed by the GFC Executive Committee on November 9, 1992, the academic regulations contained in the Calendar may not be changed without GFC approval.

| GFC Policy Manual | Other University References |
|--|---|
| <p>109.1 Collection of Personal Information</p> <p>Information that forms part of the student record is collected under the authority of the Post-Secondary Learning Act of the Province of Alberta and in accordance with Section 32(c) of the Alberta Freedom of Information and Protection of Privacy Act, (FOIPP Act). It is used to determine eligibility for admission and financial assistance, to advise students about academic programs and to provide university services. (GFC NOV 29 1999)</p> <p>The student record is disclosed to academic and administrative units. Specific information is disclosed to the federal and provincial governments to meet reporting requirements and to the Students' Union/Graduate Students' Association in accordance with FOIPP Information Sharing Agreements. (GFC NOV 29 1999)</p> | <p>Calendar - Collection of Personal Information https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search</p> |

| GFC Policy Manual | Other University References |
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| <p>109.2 Use and Confidentiality of Student Files</p> <p>109.2.10 Objections to Release of Information</p> <p>Students who object to the release of information regarding their records in accordance with the policy stated above should notify the Registrar in writing, giving the specific objection. Appropriate action will be taken by the Registrar who will so advise students. (GFC 28 JUN 1971)</p> | <p>Calendar - Objections to Release Information https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search</p> |
| <p>109.2.11 Statutory Declaration Form</p> <p>A revised statutory declaration form for access to the student information system was considered and approved by the Executive Committee on April 27, 1998. The revised form is reproduced in Appendix 1 of this section. (EXEC 24 AUG 1987)</p> | <p>Not referenced in Calendar.</p> <p>Informed Consent for Disclosure of Personal Information is available through Information and Privacy Office https://www.ualberta.ca/information-and-privacy-office/forms.html</p> |
| <p>109.2.1 Student Access</p> <p>Students' access to their own information is governed by the FOIPP Act. (GFC NOV 29 1999)</p> | <p>Calendar - Access to Student Information https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search</p> |
| <p>109.2.2 Student Records</p> <p>1. Official transcripts are issued by the Office of the Registrar and Student Awards only upon the request of the student. They are issued to the student personally or to</p> | <p>Calendar - Academic History (Transcript) Records #3 https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22transcript%22&returnto=search#student-</p> |

| GFC Policy Manual | Other University References |
|---|--|
| <p>whomever the student designates. An official transcript bears the signature of the Registrar and the official seal of the University. (EXEC 3 NOV 1997)</p> <p>An unofficial transcript or copy of the student's academic record does not bear the Registrar's signature, nor is it printed on security paper. (GFC 29 NOV 1999)</p> <p>2. Unofficial copies of the student's academic record are issued in the form of:</p> <p>a. Statements of results issued to students at the end of the Fall/Winter and Spring/Summer terms. (EXEC 3 NOV 1997) (GFC 29 NOV 1999)</p> <p>b. Unofficial transcripts issued to students with their advance registration materials and at Convocation. ((EXEC 3 NOV 1997)</p> <p>c. Unofficial transcripts issued to Faculties, Departments or advisors as appropriate for consideration for admission, academic standing and promotion and for the academic advisement of students. (EXEC 3 NOV 1997)</p> <p>d. Unofficial copies may be issued at the student's request to other offices or individuals in the University. (EXEC 3 NOV 1997)</p> | <p>records</p> <p>#8 of above website for information on unofficial transcripts</p> <p>Calendar refers students to Bear Tracks for unofficial transcript. No specific wording re “advance registration materials and at Convocation”. Information available on unofficial transcripts will be based on what’s available at</p> |

| GFC Policy Manual | Other University References |
|---|--|
| <p>3. Unofficial copies of the student's academic record may be issued to the following at their request:</p> <p>a. Student Counselling Services when a student has been referred for counselling by an authorized officer of the University; (EXEC 3 NOV 1997)</p> <p>b. Student Awards Office, where an award made through a University scholarship committee is involved, on the understanding that information regarding the student's academic record will not be furnished to the scholarship donor without the student's consent. (EXEC 3 NOV 1997)</p> <p>NOTE FROM THE UNIVERSITY SECRETARIAT:</p> <p>Guidelines on student files and confidentiality are available from the University of Alberta Information and Privacy Office.</p> | <p>the time</p> <p>Calendar does not specifically state students can request unofficial transcripts for Counselling Services.</p> |
| <p>109.2.3 Letters of Reference</p> <p>The contents of letters of reference collected implicitly or explicitly in confidence with the consent of the student, for the purposes of determining admission to a program or the granting of an award, may be revealed to the student in accordance with the Alberta Freedom of Information and</p> | <p>Calendar - Letters of Reference and Assessments of Students</p> <p>1. Letters of Reference</p> <p>https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search</p> |

| GFC Policy Manual | Other University References |
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| <p>Protection of Privacy Act. (GFC 29 NOV 1999)</p> <p>Letters of reference will be used only for the express purpose(s) for which they have been supplied. (GFC 29 NOV 1999)</p> <p>Letters of reference will be retained for at least one year. (GFC 29 NOV 1999)</p> <p>The Provincial Commissioner of Information and Privacy has ordered that, in most cases, letters of reference in support of admission to the University must be released to the applicant.(EXEC 07 MAY 2001)</p> <p>NOTE FROM THE UNIVERSITY SECRETARIAT:</p> <p>Guidelines on student files and confidentiality are available from the University of Alberta Information and Privacy Office.</p> | <p>Information and Privacy Office (IPO) - Access to Letters of Reference https://www.ualberta.ca/information-and-privacy-office/access-to-letters-of-reference.html</p> <p>NOTE: Calendar does not include information on releasing letters according to the Provincial Commissioner of Information and Privacy</p> <p>Access to Letters of Reference on the Information and Privacy Office website outlines Guidelines on Access to Letters of Reference for Admission to a Program of Study</p> |
| <p>109.2.4 General Assessment of a Student's Ability and Character</p> <p>Assessment information contained in a student's record may only be divulged by an administrative officer of the</p> | <p>Calendar - Letters of Reference and Assessments of Students</p> <p>2. Assessments of Students https://calendar.ualberta.ca/content.php?catoid=39&navoi</p> |

| GFC Policy Manual | Other University References |
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| <p>University to third parties (such as institutions, agencies or prospective employers) with the student's consent. (EXEC 3 NOV 1997) (GFC 29 NOV 1999)</p> <p>When asked by such institutions, agencies or prospective employers to express an opinion concerning a student's academic ability, character and personality, a faculty member may do so only with the consent of the student, in which case, a record of the opinion so expressed will be retained for a minimum of one year by the faculty member. (EXEC 3 NOV 1997) (GFC 29 NOV 1999)</p> | <p>d=12216&hl=%22student+record%22&returnto=search</p> |
| <p>109.2.5 Reports from University Health Centre or Student Counselling Services</p> <p>1. Where students have gone on their own initiative as patients to the University Health Centre, or as clients to Student Counselling Services, the contents of the students' files are private, in accordance with professional ethics or codes of behavior and protected by the FOIPP Act. (GFC 29 NOV 1971) (EXEC 3 NOV 1997) (GFC 29 NOV 1999)</p> <p>2. Where a student has been referred by an authorized officer of the University to the University Health Centre or to Student Counselling Services, the consultant's opinion will be reported to the authorized officer if the student</p> | <p>Calendar - Letters of Reference and Assessments of Students</p> <p>3. Reports from University Health Centre and Student Counselling Services</p> <p>https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search</p> |

| GFC Policy Manual | Other University References |
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| <p>gives written permission to do so. Such written permission shall be granted when the student signs a release form, the nature of which will be determined by the Service in question. It is recognized that the nature and content of any report provided by the consultant will be determined by the ethics and codes of behavior of the consultant's profession and will be protected by the FOIPP Act. (GFC 29 NOV 1971) (EXEC 3 NOV 1997) (GFC 29 NOV 1999)</p> <p>3. When a student has authorized a consultant to release a report to an officer of the University under this section the student may have access to the report as guided by the FOIPP Act. (GFC 29 NOV 1971) (EXEC 3 NOV 1997) (GFC 29 NOV 1999)</p> | |
| <p>109.2.6 Records of Disciplinary Action</p> <p>NOTE FROM THE UNIVERSITY SECRETARIAT: Please see Section 30.2.15 of the Code of Student Behavior. (EXEC 12 MAR 2001)</p> | <p>Calendar - Records of Disciplinary Action https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search</p> <p>UAPPOL - Student Conduct Policy</p> <p>NOTE: Calendar refers to "Code of Student Behaviour" and provides link to "University Governance website". Governance website does not have reference/link to student behaviour document</p> |

| GFC Policy Manual | Other University References |
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| <p>109.2.7 Colleges in Alberta</p> <p>The GFC Executive Committee delegated authority to the Registrar to release grade point averages for University of Alberta students who have attended colleges within the Alberta post-secondary system. This delegation is premised on the understanding that the information released to the student's former college would be used for statistical purposes only, in compliance with the Alberta Freedom of Information and Protection of Privacy Act and following the completion of an appropriate Information Sharing Agreement. (EXEC 3 NOV 1997) (GFC 29 NOV 1999)</p> | <p>NOTE: Calendar does not refer to this practice. It is not something that is normally done in the course of an academic cycle. Specific requests for such information would need to go through the Information and Privacy Office. No reference to Information Sharing Agreement in UAPPOL.</p> |
| <p>109.2.8 Public Information Concerning Students</p> <p>The following information is defined as the student's public record: name; faculty of registration; dates of registration or convocation; and degree, diploma or certificate awarded. This information may be issued to third parties (such as other educational institutions, appropriate government agencies, or prospective employers) on a need to know basis. (GFC 29 NOV 1999)</p> | <p>Calendar - Access to Student Information 3. Access by Others https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search</p> |

| GFC Policy Manual | Other University References |
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| <p>109.2.9 Use of Student Records for Research Access to and Use of Student Records and Information for Research by Associations, Organizations and Individuals (including access by other students)</p> <p>The Policy on Student Records: Contents, Access, Use and Protection of the GFC Policy Manual was approved by the Board of Governors on January 26, 2007 for inclusion in the University of Alberta Policies and Procedures On-Line (UAPPOL).</p> <p>Information Access & Protection of Privacy Policy</p> | <p>Calendar - Use of Student Records for Research https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search</p> <p>UAPPOL Parent Policy: Access to Information and Protection of Privacy Policy Procedure (referred to in Calendar): Access to Personal Information for Research/Studies Procedure</p> |
| <p>109.3 Retention of Student Records A. Academic History (Transcript) Records</p> <p>Note: Student academic history records, up to and including Winter Session 1982, will be stored by the Office of the Registrar and Student Awards on microfilm. Later records are maintained on the student information system. (GFC 29 NOV 1999)</p> <p>1. Only the students' official academic history (transcript) will be kept indefinitely. Source information in the student file will be retained for seven years after last registration</p> | <p>Calendar - Academic History (Transcript) Records https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search</p> |

| GFC Policy Manual | Other University References |
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| <p>and then destroyed. (EXEC 3 NOV 1997) (GFC 29 NOV 1999)</p> <p>2. Students are responsible for ensuring the accuracy and completeness of their official record at the end of each period that they attend by verifying their Statement of Results and the copy of their transcript provided during registration and at convocation. Students should be aware that only the official academic history (transcript) is retained permanently and that source information from the student file is destroyed seven years after the last registration. Queries regarding errors or omissions on the official academic history must be made as soon as possible, and will not be considered after the source information has been destroyed. The University Archives will be provided the opportunity to selectively retain a sample of student records files before destruction. (GFC 29 NOV 1999)</p> <p>3. The Office of the Registrar and Student Awards will enclose a copy of the academic history record (unofficial transcript) with the parchment given to each graduating student, along with a letter asking the student to verify the record and report any problems immediately. (EXEC 3 NOV 1997) (GFC 29 NOV 1999)</p> <p>B. Other Student Records</p> | |

| GFC Policy Manual | Other University References |
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| <p>Each Faculty, Department and Unit will develop its own policy for retention and disposal of students' records in its custody or control in accordance with its own operating practice and the provisions of the Management of University Documents manual. These policies must recognize the necessity to maintain personal information regarding students for at least one year from the time it is used in a decision-making process concerning that student. (GFC 29 NOV 1999)</p> | <p>UAPPOL Records Management Policy How to destroy official University records (Records Disposition Guideline) NOTE: neither of these documents speak directly to each faculty, department and unit developing its own policy. That could be due to everyone now falling under the general Records Management Policy.</p> |
| <p>109.4 Security of Student Records The Faculty, Department and Unit must protect students' personal information by making reasonable security arrangements against such risks as unauthorized access, collection, use, disclosure or destruction. (EXEC 13 SEPT 1999) (GFC 29 NOV 1999)</p> | <p>UAPPOL Access to Information and Protection of Privacy Policy Does not specify "student records" directly but does state that the University will "[p]rotect personal information by making reasonable security arrangements against such risks as unauthorized access, use, disclosure or destruction"</p> |

| GFC Policy Manual | Other University References |
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| Appendix 1 - Statutory Declaration and Confidentiality Agreement for Access to Student Information System | IPO Informed Consent for Disclosure of Personal Information This site also provides a link to the Informed Consent for Disclosure of Personal Information Form |

109. Student Records: Contents, Access, Use, and Protection

Note from the University Secretariat: The Post-Secondary Learning Act gives General Faculties Council (GFC) responsibility, subject to the authority of the Board of Governors, over "academic affairs" (section 26(1)) and "general supervision of student affairs" (section 31). GFC has thus enacted a policy concerning Student Records, as set out below. This policy is compliant with the Province's Freedom of Information and Protection of Privacy Act (FOIPP).

The complete wording of the section(s) of the Post-Secondary Learning Act, as referred to above, and any other related sections, should be checked in any instance where formal jurisdiction or delegation needs to be determined.

NOTE FROM THE UNIVERSITY SECRETARIAT: GFC Regulations concerning student records are contained in the Calendar with the exception of the following regulations. In accordance with a motion passed by the GFC Executive Committee on November 9, 1992, the academic regulations contained in the Calendar may not be changed without GFC approval.

109.1 Collection of Personal Information

Information that forms part of the student record is collected under the authority of the Post-Secondary Learning Act of the Province of Alberta and in accordance with Section 32(c) of the Alberta Freedom of Information and Protection of Privacy Act, (FOIPP Act). It is used to determine eligibility for admission and financial assistance, to advise students about academic programs and to provide university services. (GFC NOV 29 1999)

The student record is disclosed to academic and administrative units. Specific information is disclosed to the federal and provincial governments to meet reporting requirements and to the Students' Union/Graduate Students' Association in accordance with FOIPP Information Sharing Agreements. (GFC NOV 29 1999)

Calendar - Collection of Personal Information

<https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search>

109.2 Use and Confidentiality of Student Files

109.2.10 Objections to Release of Information

Calendar - Objections to Release Information

<https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search>

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| <p>Students who object to the release of information regarding their records in accordance with the policy stated above should notify the Registrar in writing, giving the specific objection. Appropriate action will be taken by the Registrar who will so advise students. (GFC 28 JUN 1971)</p> | |
| <p>109.2.11 Statutory Declaration Form A revised statutory declaration form for access to the student information system was considered and approved by the Executive Committee on April 27, 1998. The revised form is reproduced in Appendix 1 of this section. (EXEC 24 AUG 1987)</p> | <p>Not referenced in Calendar. Informed Consent for Disclosure of Personal Information is available through Information and Privacy Office https://www.ualberta.ca/information-and-privacy-office/forms.html</p> |
| <p>109.2.1 Student Access Students' access to their own information is governed by the FOIPP Act. (GFC NOV 29 1999)</p> | <p>Calendar - Access to Student Information https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search</p> |
| <p>109.2.2 Student Records 1. Official transcripts are issued by the Office of the</p> | <p>Calendar - Academic History (Transcript) Records #3 https://calendar.ualberta.ca/content.php?catoid=39&navoid=122</p> |

Registrar and Student Awards only upon the request of the student. They are issued to the student personally or to whomever the student designates. An official transcript bears the signature of the Registrar and the official seal of the University. (EXEC 3 NOV 1997)

An unofficial transcript or copy of the student's academic record does not bear the Registrar's signature, nor is it printed on security paper. (GFC 29 NOV 1999)

2. Unofficial copies of the student's academic record are issued in the form of:

a. Statements of results issued to students at the end of the Fall/Winter and Spring/Summer terms. (EXEC 3 NOV 1997) (GFC 29 NOV 1999)

b. Unofficial transcripts issued to students with their advance registration materials and at Convocation. ((EXEC 3 NOV 1997)

c. Unofficial transcripts issued to Faculties, Departments or advisors as appropriate for consideration for admission, academic standing and promotion and for the academic advisement of students. (EXEC 3 NOV 1997)

[16&hl=%22transcript%22&returnto=search#student-records](#)

#8 of above website for information on unofficial transcripts

Calendar refers students to Bear Tracks for unofficial transcript. No specific wording re "advance registration materials and at Convocation". Information available on unofficial transcripts will be based on what's available at the time

d. Unofficial copies may be issued at the student's request to other offices or individuals in the University. (EXEC 3 NOV 1997)

3. Unofficial copies of the student's academic record may be issued to the following at their request:

a. Student Counselling Services when a student has been referred for counselling by an authorized officer of the University; (EXEC 3 NOV 1997)

b. Student Awards Office, where an award made through a University scholarship committee is involved, on the understanding that information regarding the student's academic record will not be furnished to the scholarship donor without the student's consent. (EXEC 3 NOV 1997)

NOTE FROM THE UNIVERSITY SECRETARIAT:

Guidelines on student files and confidentiality are available from the University of Alberta Information and Privacy Office.

Calendar does not specifically state students can request unofficial transcripts for Counselling Services.

109.2.3 Letters of Reference

The contents of letters of reference collected

Calendar - Letters of Reference and Assessments of Students
1. Letters of Reference

implicitly or explicitly in confidence with the consent of the student, for the purposes of determining admission to a program or the granting of an award, may be revealed to the student in accordance with the Alberta Freedom of Information and Protection of Privacy Act. (GFC 29 NOV 1999)

Letters of reference will be used only for the express purpose(s) for which they have been supplied. (GFC 29 NOV 1999)

Letters of reference will be retained for at least one year. (GFC 29 NOV 1999)

The Provincial Commissioner of Information and Privacy has ordered that, in most cases, letters of reference in support of admission to the University must be released to the applicant. (EXEC 07 MAY 2001)

NOTE FROM THE UNIVERSITY SECRETARIAT:

Guidelines on student files and confidentiality are available from the University of Alberta Information and Privacy Office.

<https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search>

Information and Privacy Office (IPO) - Access to Letters of Reference

<https://www.ualberta.ca/information-and-privacy-office/access-to-letters-of-reference.html>

NOTE: Calendar does not include information on releasing letters according to the Provincial Commissioner of Information and Privacy

Access to Letters of Reference on the Information and Privacy Office website outlines [Guidelines on Access to Letters of Reference for Admission to a Program of Study](#)

109.2.4 General Assessment of a Student's Ability

Calendar - Letters of Reference and Assessments of Students

and Character

Assessment information contained in a student's record may only be divulged by an administrative officer of the University to third parties (such as institutions, agencies or prospective employers) with the student's consent. (EXEC 3 NOV 1997) (GFC 29 NOV 1999)

When asked by such institutions, agencies or prospective employers to express an opinion concerning a student's academic ability, character and personality, a faculty member may do so only with the consent of the student, in which case, a record of the opinion so expressed will be retained for a minimum of one year by the faculty member. (EXEC 3 NOV 1997) (GFC 29 NOV 1999)

2. Assessments of Students

<https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search>

109.2.5 Reports from University Health Centre or Student Counselling Services

1. Where students have gone on their own initiative as patients to the University Health Centre, or as clients to Student Counselling Services, the contents of the students' files are private, in accordance with professional ethics or codes of behavior and protected by the FOIPP Act. (GFC 29 NOV 1971)

Calendar - Letters of Reference and Assessments of Students
3. Reports from University Health Centre and Student Counselling Services

<https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search>

(EXEC 3 NOV 1997) (GFC 29 NOV 1999)

2. Where a student has been referred by an authorized officer of the University to the University Health Centre or to Student Counselling Services, the consultant's opinion will be reported to the authorized officer if the student gives written permission to do so. Such written permission shall be granted when the student signs a release form, the nature of which will be determined by the Service in question. It is recognized that the nature and content of any report provided by the consultant will be determined by the ethics and codes of behavior of the consultant's profession and will be protected by the FOIPP Act. (GFC 29 NOV 1971) (EXEC 3 NOV 1997) (GFC 29 NOV 1999)

3. When a student has authorized a consultant to release a report to an officer of the University under this section the student may have access to the report as guided by the FOIPP Act. (GFC 29 NOV 1971) (EXEC 3 NOV 1997) (GFC 29 NOV 1999)

109.2.6 Records of Disciplinary Action

NOTE FROM THE UNIVERSITY SECRETARIAT:
Please see Section 30.2.15 of the Code of Student

Calendar - Records of Disciplinary Action

<https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search>

| | |
|---|---|
| <p>Behavior. (EXEC 12 MAR 2001)</p> | <p>UAPPOL - Student Conduct Policy</p> <p>NOTE: Calendar refers to “Code of Student Behaviour” and provides link to “University Governance website”. Governance website does not have reference/link to student behaviour document</p> |
| <p>109.2.7 Colleges in Alberta</p> <p>The GFC Executive Committee delegated authority to the Registrar to release grade point averages for University of Alberta students who have attended colleges within the Alberta post-secondary system. This delegation is premised on the understanding that the information released to the student's former college would be used for statistical purposes only, in compliance with the Alberta Freedom of Information and Protection of Privacy Act and following the completion of an appropriate Information Sharing Agreement. (EXEC 3 NOV 1997) (GFC 29 NOV 1999)</p> | <p>NOTE: Calendar does not refer to this practice. It is not something that is normally done in the course of an academic cycle. Specific requests for such information would need to go through the Information and Privacy Office. No reference to Information Sharing Agreement in UAPPOL.</p> |
| <p>109.2.8 Public Information Concerning Students</p> <p>The following information is defined as the student's public record: name; faculty of registration; dates of registration or convocation; and degree, diploma or certificate awarded. This information may be issued to third parties (such as</p> | <p>Calendar - Access to Student Information 3. Access by Others https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search</p> |

| | |
|---|---|
| <p>other educational institutions, appropriate government agencies, or prospective employers) on a need to know basis. (GFC 29 NOV 1999)</p> | |
| <p>109.2.9 Use of Student Records for Research Access to and Use of Student Records and Information for Research by Associations, Organizations and Individuals (including access by other students)</p> <p>The Policy on Student Records: Contents, Access, Use and Protection of the GFC Policy Manual was approved by the Board of Governors on January 26, 2007 for inclusion in the University of Alberta Policies and Procedures On-Line (UAPPOL).</p> <p>Information Access & Protection of Privacy Policy</p> | <p>Calendar - Use of Student Records for Research https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search</p> <p>UAPPOL Parent Policy: Access to Information and Protection of Privacy Policy Procedure (referred to in Calendar): Access to Personal Information for Research/Studies Procedure</p> |
| <p>109.3 Retention of Student Records A. Academic History (Transcript) Records</p> <p>Note: Student academic history records, up to and including Winter Session 1982, will be stored by the Office of the Registrar and Student Awards on</p> | <p>Calendar - Academic History (Transcript) Records https://calendar.ualberta.ca/content.php?catoid=39&navoid=12216&hl=%22student+record%22&returnto=search</p> |

microfilm. Later records are maintained on the student information system. (GFC 29 NOV 1999)

1. Only the students' official academic history (transcript) will be kept indefinitely. Source information in the student file will be retained for seven years after last registration and then destroyed. (EXEC 3 NOV 1997) (GFC 29 NOV 1999)

2. Students are responsible for ensuring the accuracy and completeness of their official record at the end of each period that they attend by verifying their Statement of Results and the copy of their transcript provided during registration and at convocation. Students should be aware that only the official academic history (transcript) is retained permanently and that source information from the student file is destroyed seven years after the last registration. Queries regarding errors or omissions on the official academic history must be made as soon as possible, and will not be considered after the source information has been destroyed. The University Archives will be provided the opportunity to selectively retain a sample of student records files before destruction. (GFC 29 NOV 1999)

3. The Office of the Registrar and Student Awards will enclose a copy of the academic history record

(unofficial transcript) with the parchment given to each graduating student, along with a letter asking the student to verify the record and report any problems immediately. (EXEC 3 NOV 1997) (GFC 29 NOV 1999)

B. Other Student Records

Each Faculty, Department and Unit will develop its own policy for retention and disposal of students' records in its custody or control in accordance with its own operating practice and the provisions of the Management of University Documents manual. These policies must recognize the necessity to maintain personal information regarding students for at least one year from the time it is used in a decision-making process concerning that student. (GFC 29 NOV 1999)

UAPPOL

[Records Management Policy](#)

[How to destroy official University records \(Records Disposition Guideline\)](#)

NOTE: neither of these documents speak directly to each faculty, department and unit developing its own policy. That could be due to everyone now falling under the general Records Management Policy.

109.4 Security of Student Records

The Faculty, Department and Unit must protect students' personal information by making reasonable security arrangements against such risks as unauthorized access, collection, use, disclosure or destruction. (EXEC 13 SEPT 1999)

UAPPOL

[Access to Information and Protection of Privacy Policy](#)

Does not specify "student records" directly but does state that the University will "[p]rotect **personal information** by making reasonable security arrangements against such risks as unauthorized access, use, disclosure or destruction"

(GFC 29 NOV 1999)

[Appendix 1 - Statutory Declaration and Confidentiality Agreement for Access to Student Information System](#)

IPO

[Informed Consent for Disclosure of Personal Information](#)

This site also provides a link to the Informed Consent for Disclosure of Personal Information Form



ITEM NO. 7

Decision **Discussion** **Information**

ITEM OBJECTIVE: To approve the rescission of GFC Policy Manual Section 56.

| | |
|------------------------------|---------------------------|
| DATE | February 26, 2024 |
| TO | General Faculties Council |
| RESPONSIBLE PORTFOLIO | General Faculties Council |

MOTION: THAT General Faculties Council rescind Section 56 of the GFC Policy Manual.

EXECUTIVE SUMMARY:

Since 2008, University Governance has been working to complete a project to rescind the General Faculties Council Policy Manual (“GFC Policy Manual”). Section 56 of the GFC Policy Manual requires annual reporting of the work of the General Appeals Committee (“GAC”) to GFC, including a statistical summary of cases and their disposition. Rescinding Section 56 will have no impact on GFC Executive Committee (“EXEC”)’s 1977 decision that the General Appeals Committee be requested to report annually to GFC on

- (a) on the number of cases handled and their outcome, taking care to protect the confidentiality of appellants, and
- (b) upon any recommendations for modifications of the procedures followed by the General Appeals Committee which committee members might deem appropriate after their experience. [GFC 28/FEB/77 at p. 62]

Notwithstanding the information set out in GFC Policy Manual Section 56, this decision holds true until rescinded. The [GFC Policy Manual](#) Section 56 and its associated subsections 56.1 and 56.2 are not required to enforce annual reporting to EXEC as set out in the 1977 decision.

BACKGROUND

The General Appeals Committee was established through and by way of the Academic Staff Agreement that came into effect on July 1, 1976. The formation of the General Appeals Committee effected the dissolution of the Appeals Committee on Salaries and Promotions [EXEC 24/JAN/77].

At its meeting on January 24, 1977, EXEC approved a motion to recommend to GFC that the General Appeals Committee not be considered a Standing Committee of GFC, but a "creature of the Academic Staff Agreement". This was largely because, as observed by the committee, "[t]he Act requires that G.F.C. approve procedures for appointment, promotion and dismissal. The General Appeals Committee is concerned with the implementation of these procedures in specific cases as they relate to appointments and promotions." [EXEC 24/JAN/77 at p. 29] Specifically, the GFC EXEC committee characterized the General Appeals Committee as "...a contractual committee forming part of the contract between staff member[s] and the Board."



ITEM NO. 7

EXEC further recommended that the General Appeals Committee be requested to report annually to GFC (a) on the number of cases handled and their outcome, taking care to protect the confidentiality of appellants, and (b) upon any recommendations for modifications of the procedures followed by the General Appeals Committee which committee members might deem appropriate after their experience. [GFC 28/FEB/77 at p. 62]

GFC voted in favour of the General Appeals Committee ceasing to be considered a standing committee of GFC, but that it be asked to submit an annual report to GFC. [GFC 28/FEB/77 at p. 62]. The resolution of GFC from February 28, 1977 regarding the General Appeals Committee submitting an annual report is now codified in Section 56 of the GFC Policy Manual.

The deletion of Section 56 of the GFC Policy Manual does not ultimately impact the need for the General Appeals Committee to deliver an annual report. That requirement still exists by virtue of the GFC resolution on February 28, 1977. Section 56 of the GFC Policy Manual provides the "original authority" requiring the annual report be provided. That comes from the resolution itself and could only be changed by a resolution of GFC.

SCHEDULE A:

Engagement and Routing

Those who are actively participating:

- University Governance
- GFC Executive Committee

Those who have been consulted:

- University Office of the General Counsel
- Faculty Relations

Those who have been informed:

- Office of the Provost and Vice-President (Academic)

Approval Route:

- GFC Executive Committee - February 12, 2024 (for recommendation)
- General Faculties Council - February 26, 2024 (for final approval)

Supplementary Notes / Context:

The GFC Executive Committee has received annual reports from the General Appeals Committee since 1977.

Decision Discussion Information
ITEM OBJECTIVE: To approve the creation of a new Master of Management Analytics Program

| | |
|------------------------------|---------------------------------------|
| DATE | February 26, 2024 |
| TO | General Faculties Council |
| RESPONSIBLE PORTFOLIO | Provost and Vice-President (Academic) |

MOTION:

THAT the 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.

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



ITEM NO. 7

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

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

| |
|---|
| <p>1. Program Description (Answer the following questions)</p> |
| <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

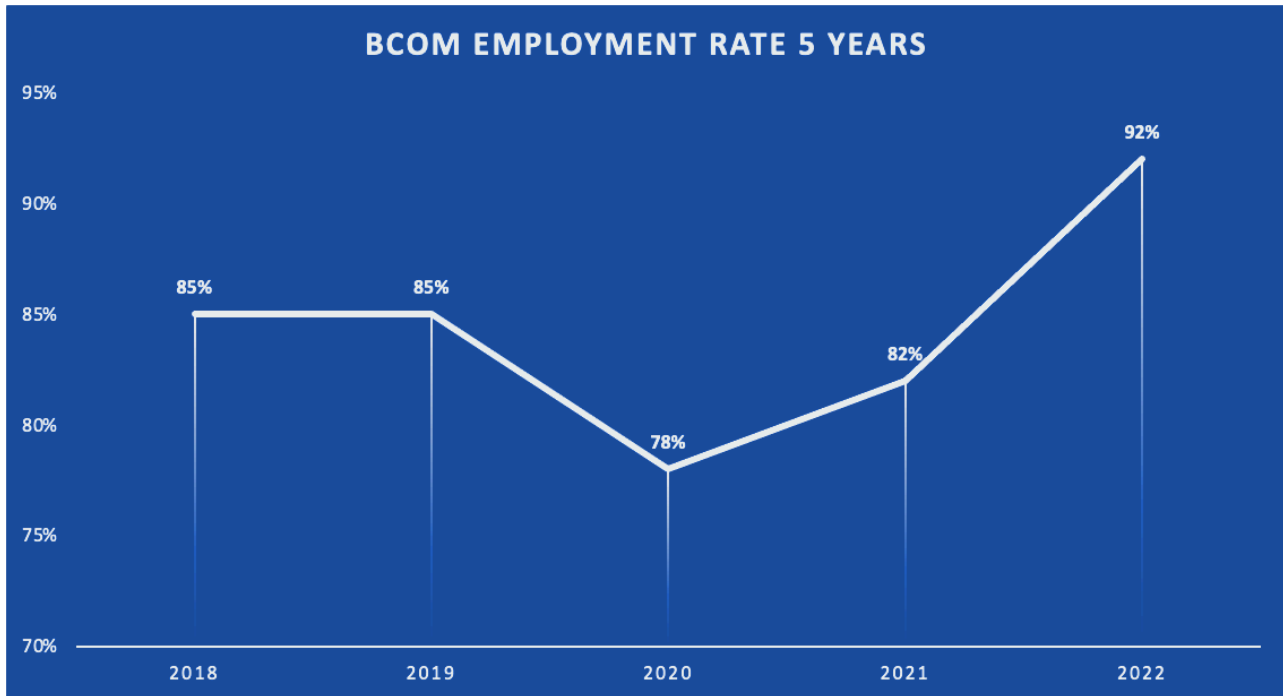
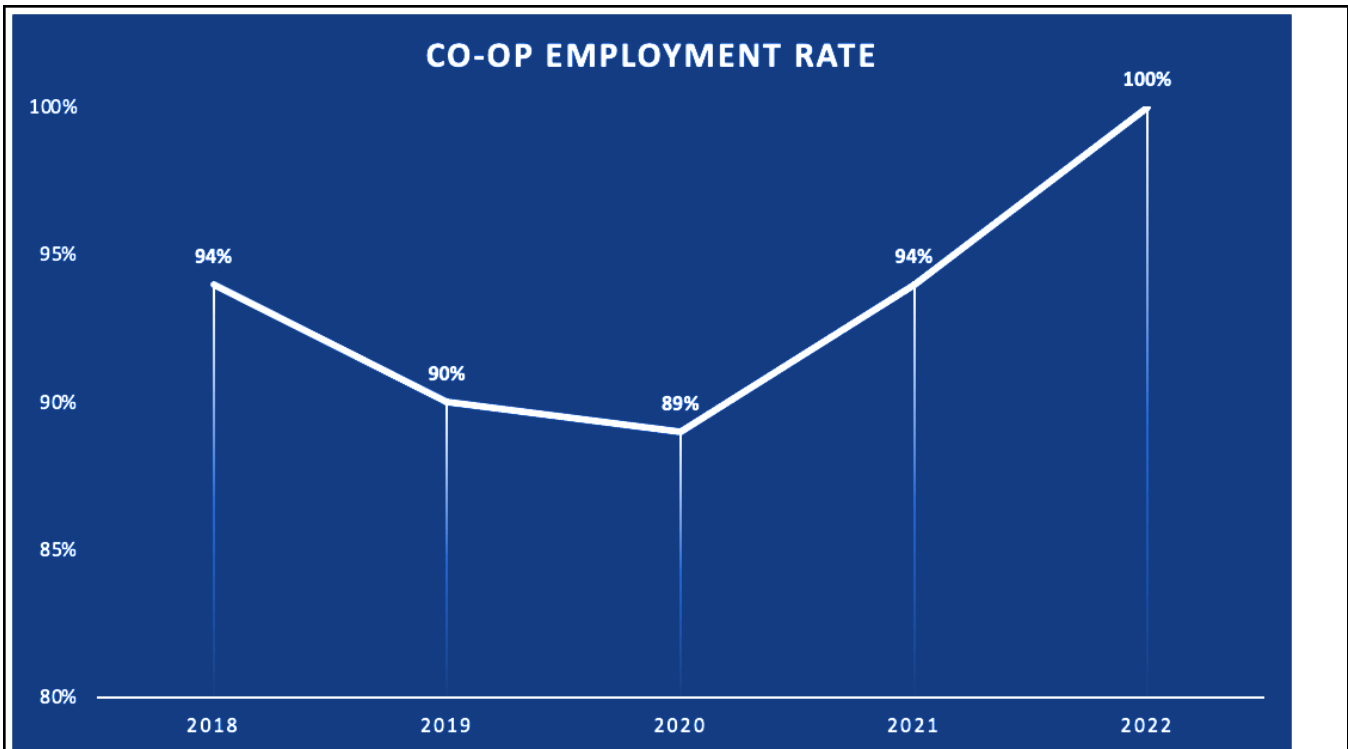


Fig 2: Co-op employment rate 2018-2022

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:

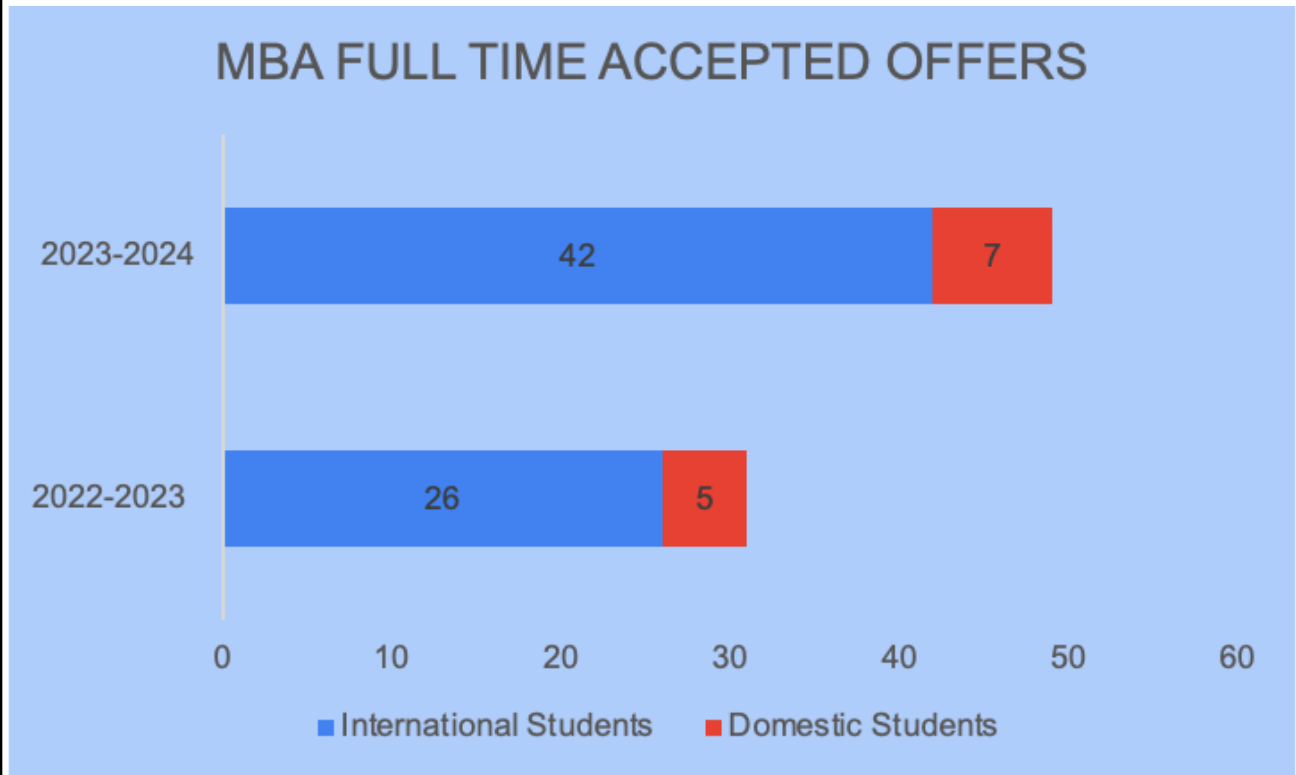
*Note that the numbers of continuing students are zero as this is a one-year program, therefore, each academic year starts with a new cohort. This ensures a consistent and comprehensive learning journey for all students in a given year.

*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.

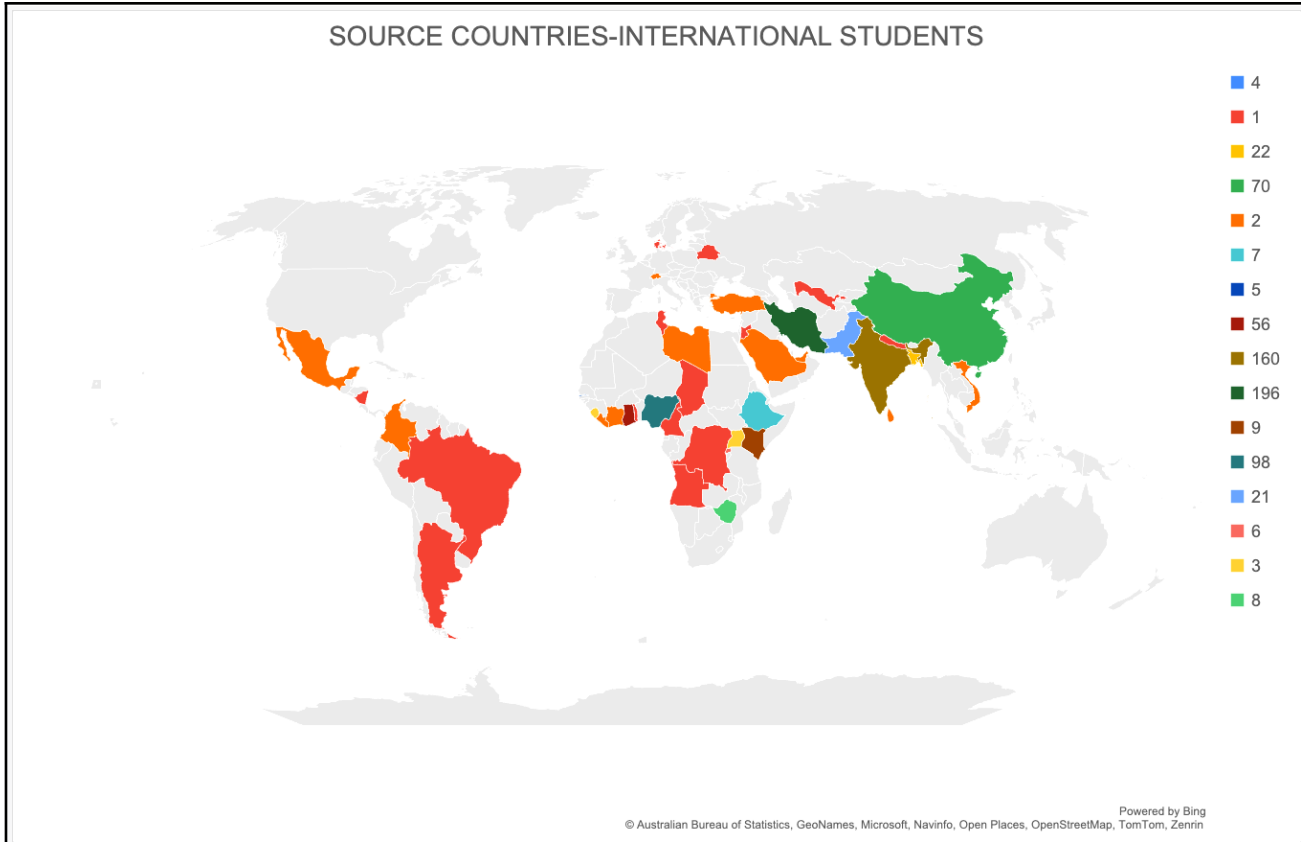
- a. Indicate the percentage of international students in the enrolment projections and provide a rationale regarding how the percentage was established.
- The University of Alberta School of Business has consistently tries to pursue a 50:50 ratio of domestic to international students in our MBA program, 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 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

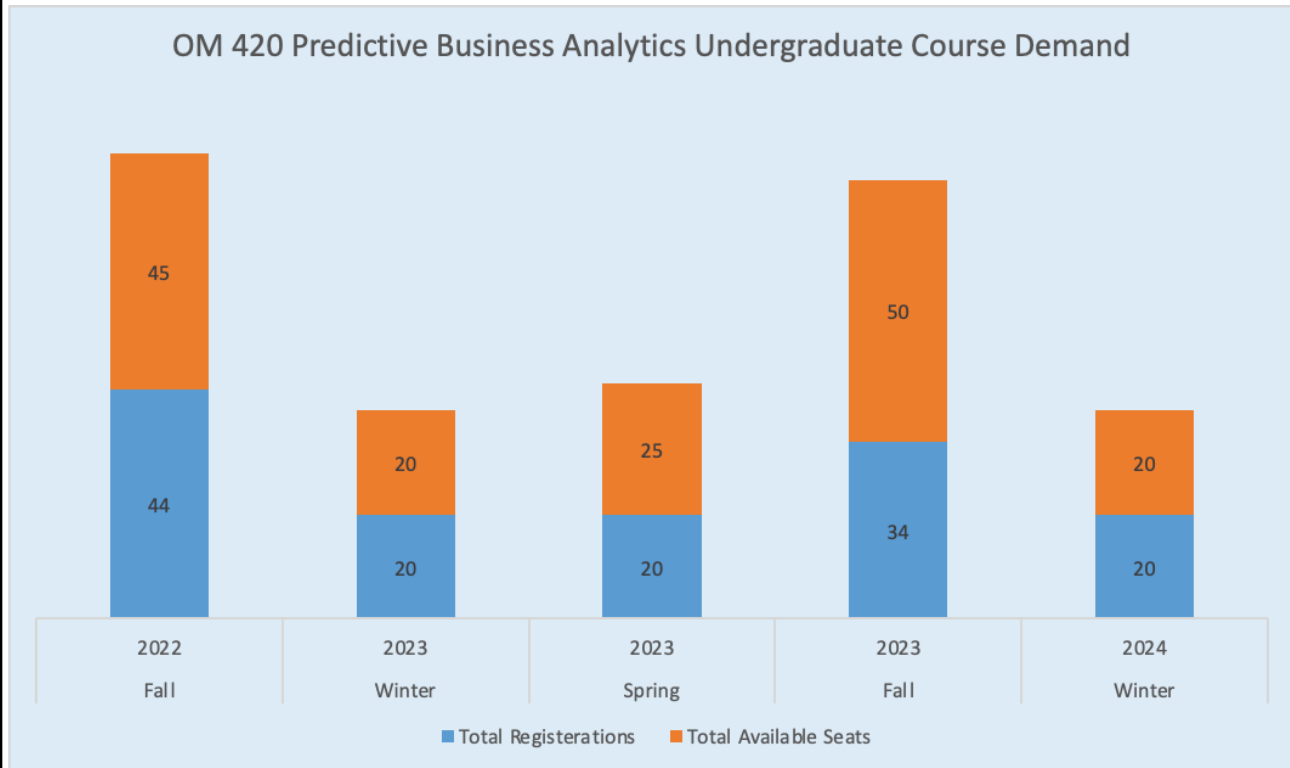
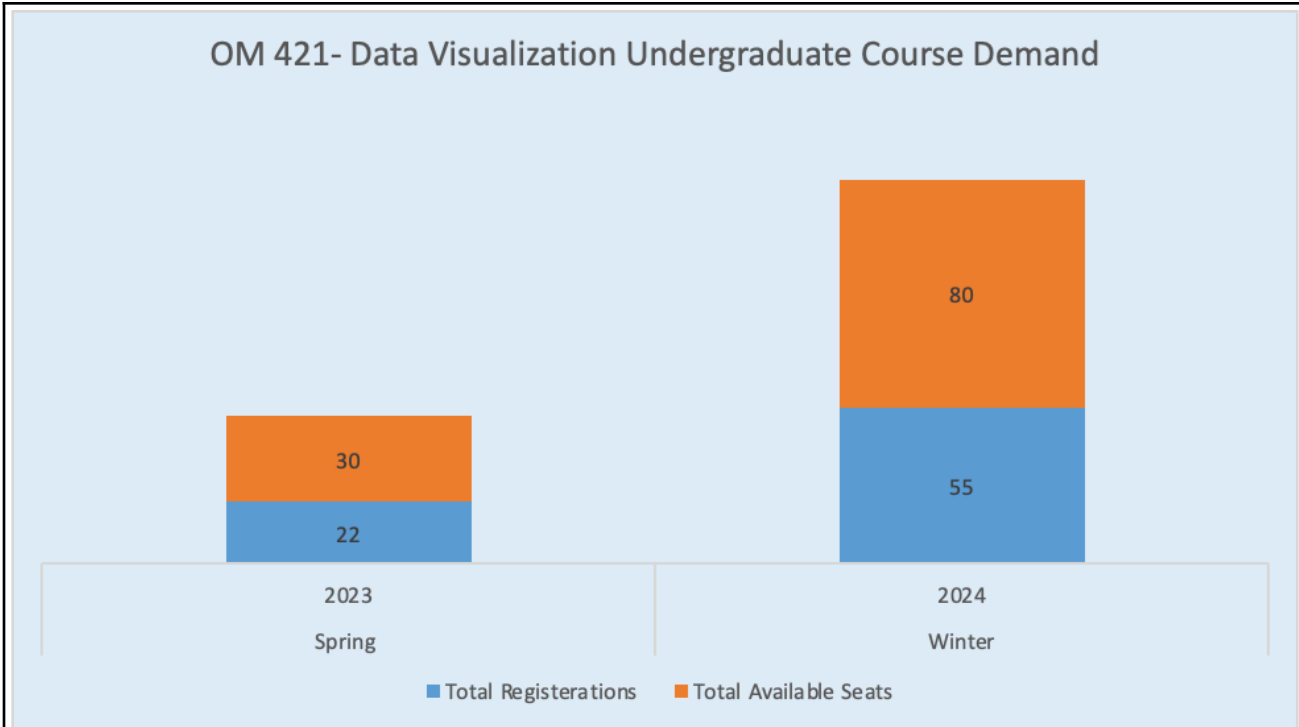


Fig 4: OM 421 Data Visualization Undergraduate Course Demand



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.

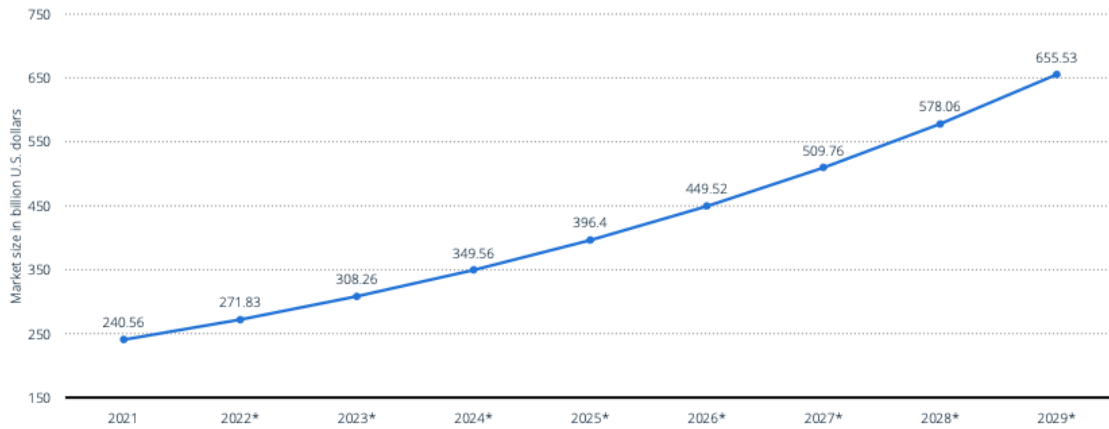
Reviewer's Comment:

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](#)

statista

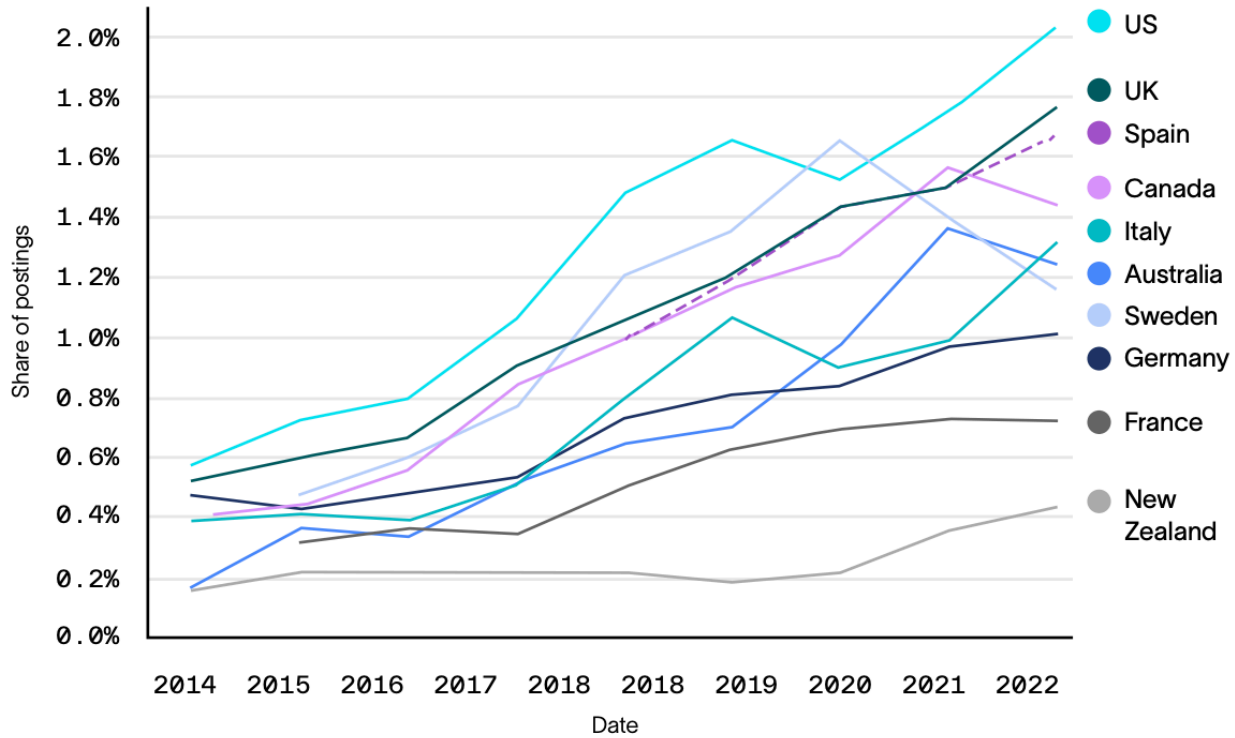
- Data visualization has seen a rise in popularity across various professions, gaining significance even in roles unrelated to conventional data-focused careers. Examples include actuary, compensation and benefits manager, talent acquisition manager, tax specialist.¹⁹
- The realm of AI is generating 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](#)

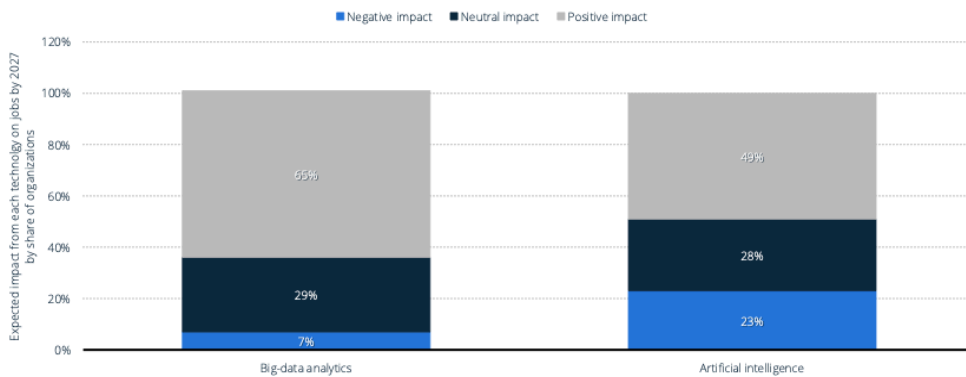
AI share of total postings



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:

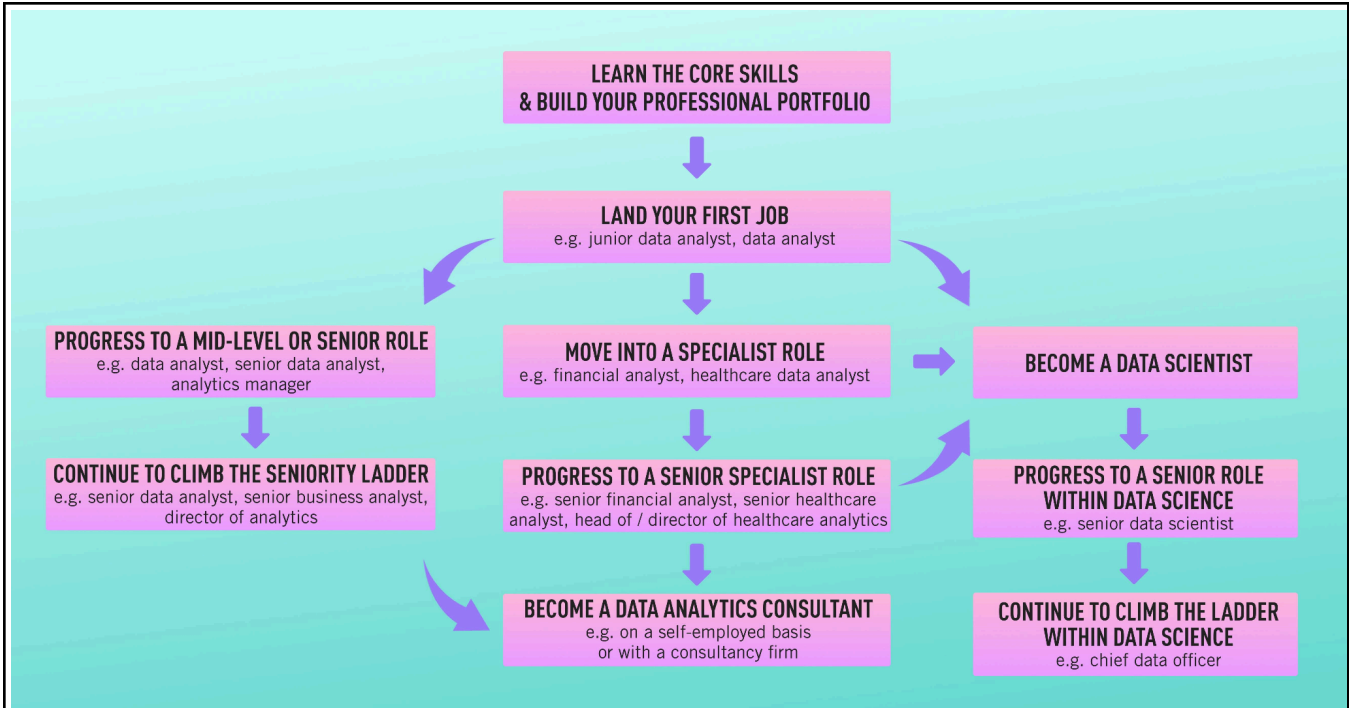
SECTION D: GRADUATE OUTCOMES AND PATHWAYS

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 (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) | |

- 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. |

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| | | <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 Analytics Teams Ethical Leadership and Leading Change Data Analytics in Accounting, Independent Studies in Analytics 1, Independent | 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 . | <p>n</p> <p>Modeling II: Queueing and Discrete Event Simulation, Analytics Leadership, and Analytics Internship .</p> | <p>conomics 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>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</p> | | |
| 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 |

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|--|-----------------------------------|--|------------------------------|-------------------------|
| 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 |
|----------|-------------|----------------|-------|-----------|------------------|
|----------|-------------|----------------|-------|-----------|------------------|

| | | | | | | |
|----------|----------------------|--|----|---|-----|---------------------------|
| 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 | Bloomerg 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

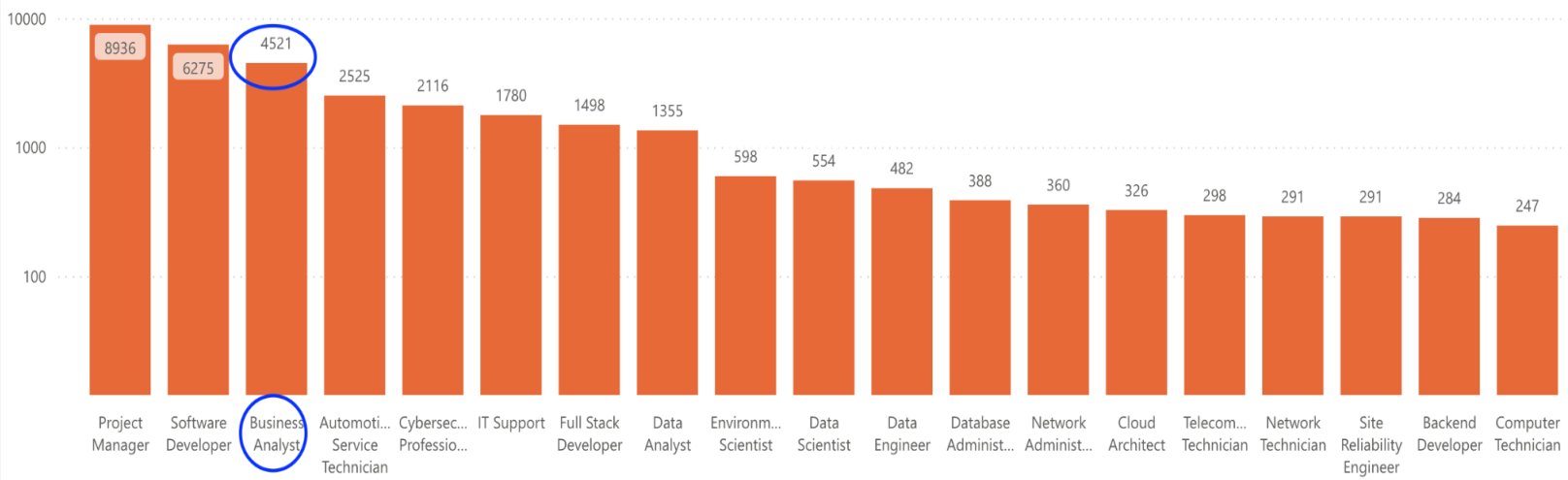
(A) Edmonton

[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



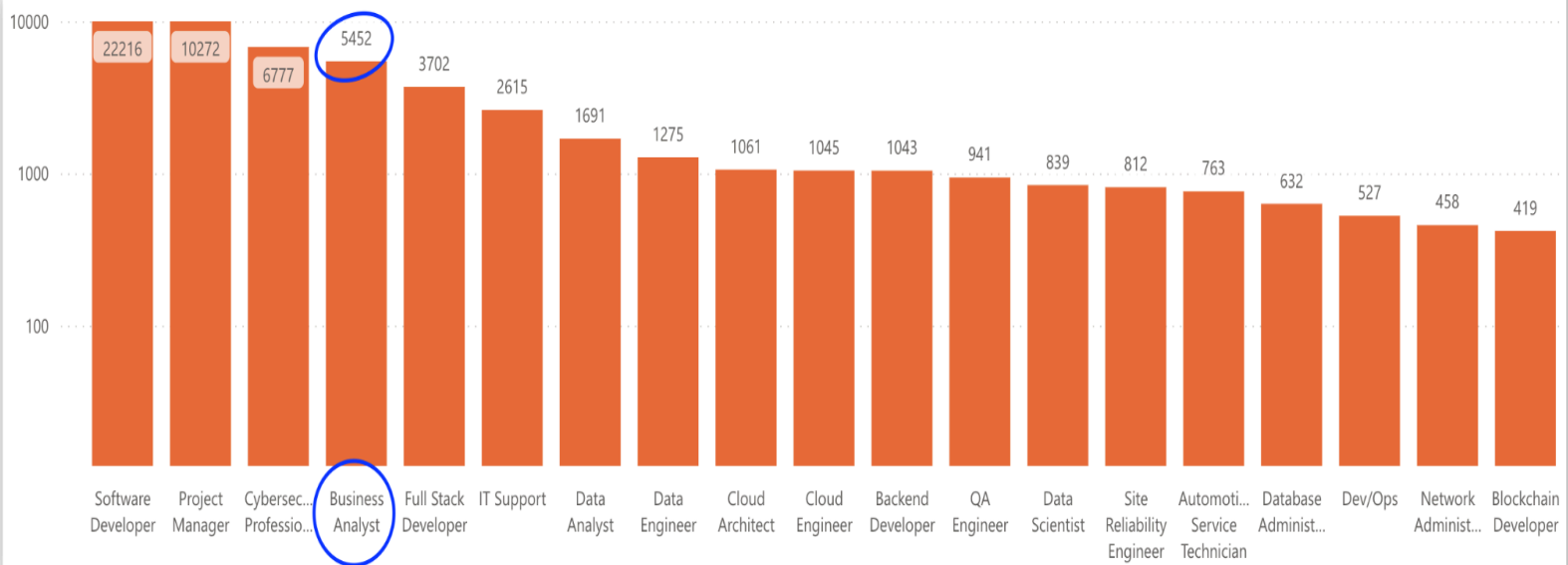
(B) Ottawa

[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



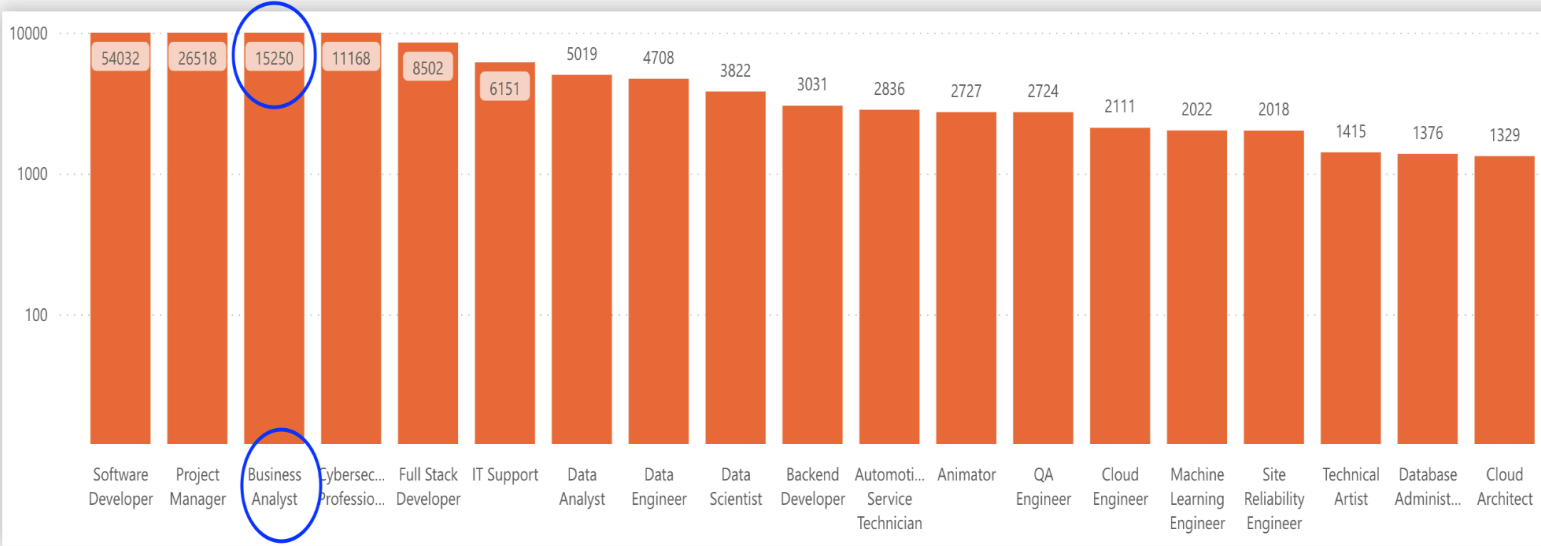
(C) Vancouver

[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



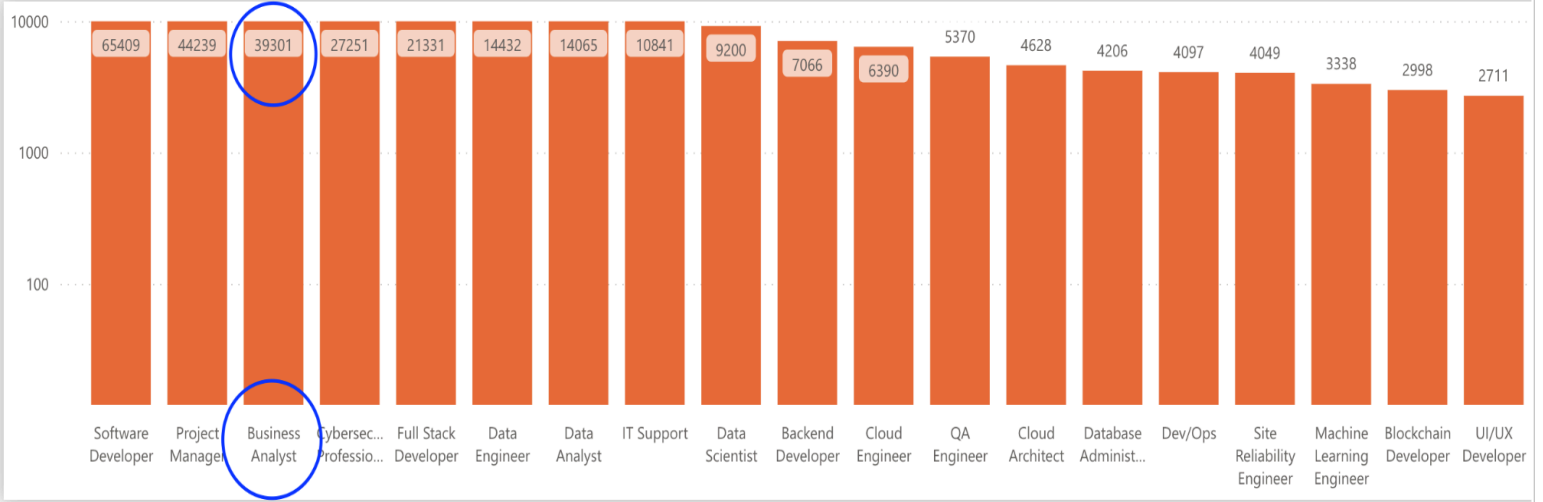
(D) Toronto

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



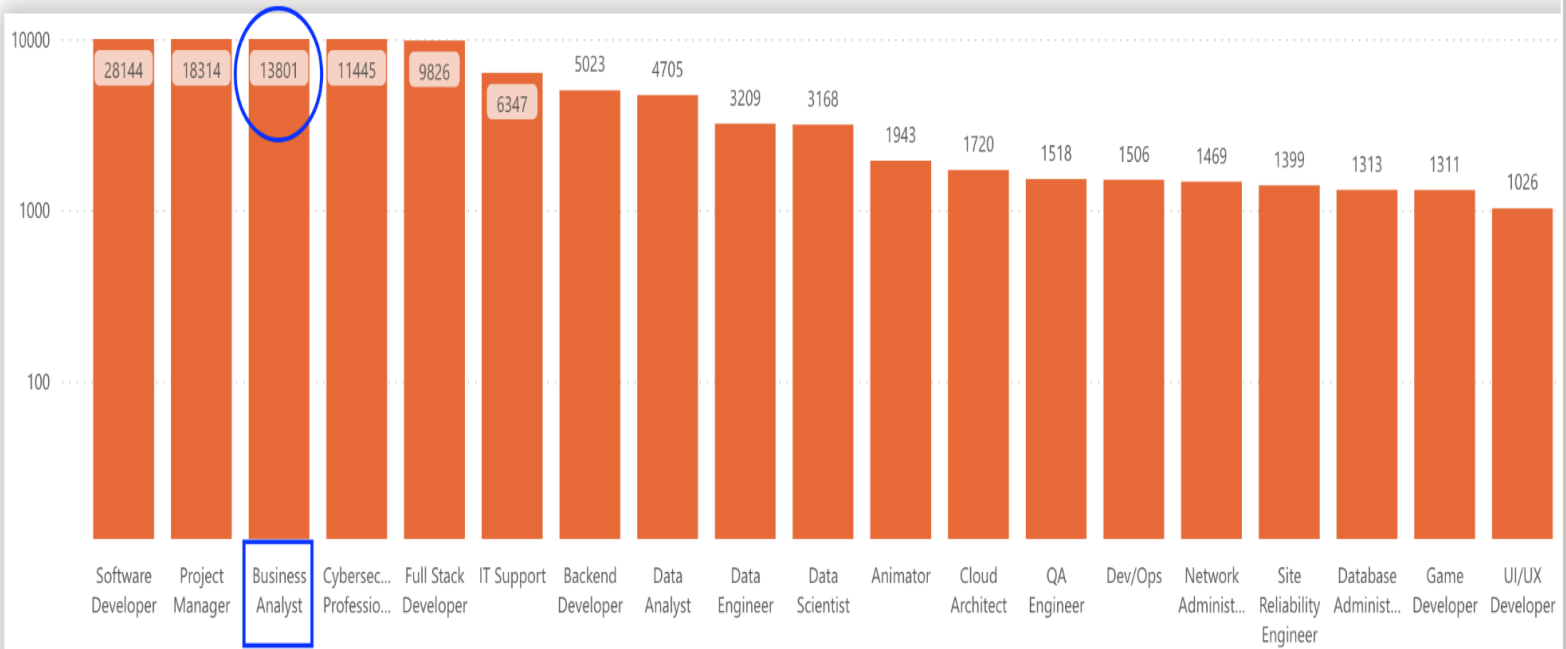
(E) Montreal

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



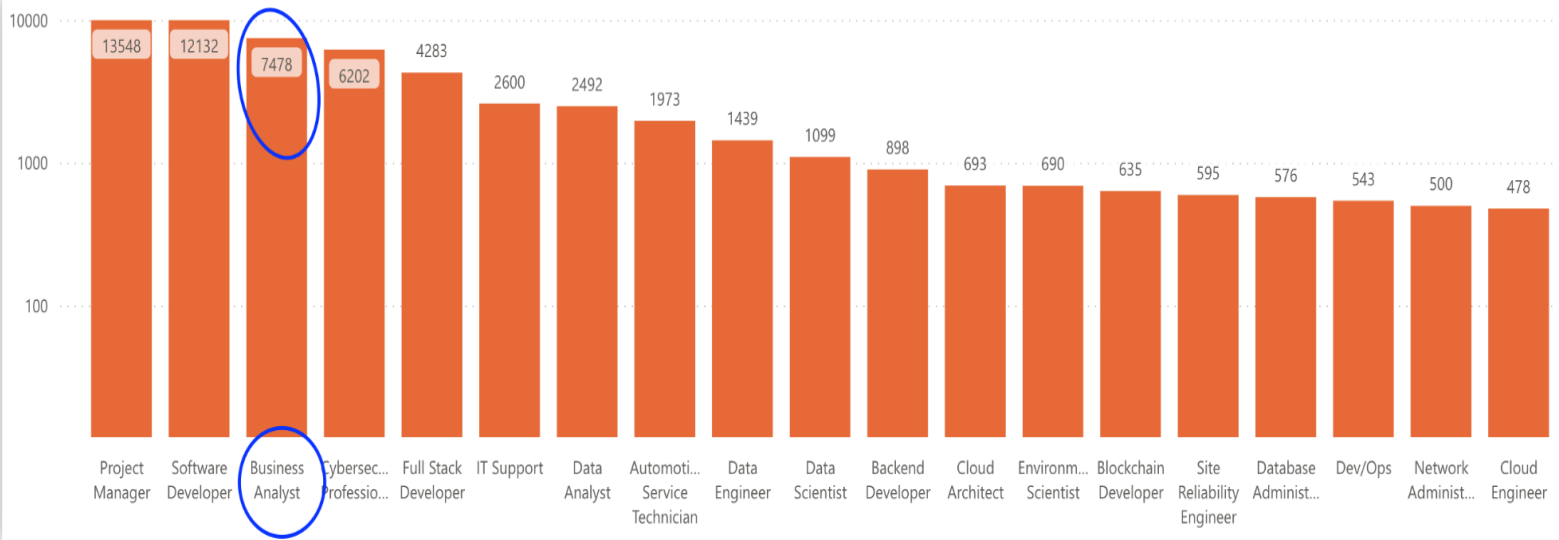
(F)Calgary

Employment Data By Location-Calgary

Choose a city

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|---------------|-------------|------------|----------|---------------|-----------|------------|-----------------|------------|-------------|
| 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 |

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| 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> |

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| | | | 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. |

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| | 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> |

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| 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> |

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| | | | 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. |

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| | 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 |

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| | | | 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

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| 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. |

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| | <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) 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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| 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 including text analytics, network analytics, and image processing-Python), Business Applications of Artificial Intelligence (Python) | 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, | 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, | 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 | 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 | 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 | 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>, 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.

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| <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> |

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| <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 |
|------------------------------------|---|---|---------------|---|

| | | | | |
|--|--|---|---------------|---|
| | 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> | | | |
| MMA 615 - Healthcare Analytics | <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 |
| MMA 616 - Strategy Analytics | <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. | | | |
|--|-----------------------|--|--|--|

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.

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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 |
|-----------------------------|-------------------------------|
|-----------------------------|-------------------------------|

| | |
|--|--|
| <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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| | |
|---|---|
| | <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 <i>Accounting Program Questionnaire</i> | <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 <i>Accounting Program Questionnaire</i> | <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 <i>Accounting Program Questionnaire</i> | <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 <i>Accounting Program Questionnaire</i> | <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 <i>Accounting Program Questionnaire</i> |
| | | <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

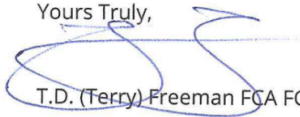
I am very pleased that the U of A School of Business is pursuing a Masters in Management Analytics Program.

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)

Item No. 9

Question from GFC Elected Academic Staff Member Duncan Elliott on LMS Replacement:

Colleagues and I have concerns that in the Learning Management System (LMS) replacement process, there have been announcements, but there has been no apparent wide consultation on the need for a new LMS vs. retaining the existing eClass/Moodle implementation. The announced 1-year phase-in with a single start date per faculty sounds extremely tight, which will result in the introduction of a large amount of work for instructors, and could be potentially harmful for teaching at UofA and the experience of UofA students. I hope that eClass can receive at least basic support for long enough to allow an orderly and less painful transition. In the absence of an orderly transition, our students will suffer. If the new LMS is an improvement for all, then instructors will voluntarily convert their courses without the threat of eClass being removed.

1. Thank you for providing announcements of the impending roll-out to (apparently) all academic staff and an opportunity to provide feedback on D2L vs. Canvas. How many faculty members were consulted on whether there is a need to replace eClass? How many agreed? Will the Provost's Office seek this feedback on replacing eClass from all academic staff?
2. In the past, rapid adoption of new software has led to campus-wide failures, including the inability of UofA to produce admissions offers, resulting in a significant loss of income, for which a previous Provost was obliged to apologize to GFC. What assurances do we have that there will not be problems with the LMS roll out given the current implementation timelines?
3. If the new LMS does not perform as expected, will students receive a tuition refund?
4. Does the Provost's Office maintain that pedagogical decisions in course design, grading, and content delivery fall to the course instructor? Is the choice of LMS one such pedagogical decision?
5. What will the new LMS cost UofA? What guarantee does UofA have that the LMS provider won't increase the price after our course materials have been redone in the new LMS, at the end of the next contract period? Does UofA have any way to access competitive LMS pricing other than to redo all course materials in yet another LMS, or are we simply granting the LMS provider a monopoly?
6. What were the annual costs of each of cloud computing, and staffing to run eClass in the last 3 years?
7. UofA is suffering from the cutbacks. Can you estimate the annual savings by not entering into an agreement to obtain a new LMS?
8. It may well be less expensive to keep eClass functioning, even if the new LMS is purchased. Both eClass and a commercial LMS will cost UofA usage fees for cloud computing. Can UofA administration say with certainty that the usage cost of eClass

would be more than the commercial LMS? Is it possible that keeping eClass (with or without a new LMS) could potentially save LMS costs for UofA?

9. If the LMS is not purchased, would the savings be sufficient to fund Google Drive storage at present levels?
10. I note that any conversion of UofA Health Safety + Environment (HSE) safety training materials from Moodle to the new LMS would be centrally funded, but the per-course labour in converting credit courses would fall on instructors to do in their "free time" – taking time away from writing research grants and improving course content. Does HSE have a deadline to convert to the new LMS and what is that? What is the budget for the HSE conversion? If this is different to the Sept 2024 and Sept 2025 deadlines for faculty members, what is the HSE deadline?
11. I appreciate that training will be provided to instructors for converting to the new LMS. Will UofA hire additional staff or pay instructors overtime for the conversion of each course to the new LMS? Has the total cost in terms of instructor time for course conversion been estimated and what is that?
12. Has a replacement for STACK questions been found for a transition to the new LMS?
13. Does your office guarantee a one-for-one compatibility with all of eClass's capabilities?
14. Would courses that will have a content overhaul in the foreseeable future need to be overhauled as soon as summer 2024 to change LMS and be overhauled again for the content change?
15. Is the uptake of the new LMS being used in the evaluation process in the success of the new LMS adoption?
16. Can the Provost's office commit to providing basic support for eClass to all instructors for their courses through May 2029 and their choice to use it?

Response from Vice-Provost (Learning Initiatives) Karsten Mündel and Associate Vice-President (Online and Continuing Education) Jessica Butts Scott

Thank you for the opportunity to respond to questions about the U of A's transition to a vendor-supported Learning Management System (LMS).

Upgrading our LMS aligns with the clear expectations and aspirations that informed the creation of our bold strategic plan, SHAPE, which was developed through extensive engagement with our community to:

- Leverage the rapid technological progress affecting teaching, learning and research
- Expand our enrolment to meet the needs of a growing province
- Become more innovative, more focused and more responsive to the communities we serve; and

- Move forward as one university, with a genuine commitment to equity, diversity and inclusion

A modern vendor-supported LMS will support the mobilization of the co-created Student Experience Action Plan (SEAP) themes which emerged through contributions and counsel from over 8,500 students including:

- Enabling Academic Agency and Flexibility
- Fostering a Student-Centred Learning Environment
- Prioritizing Student Success; and
- Building Relationships, Connection, and Belonging

The decision to move to a new LMS is an operational decision, and it was multi-pronged. The U of A's reliance on our LMS has grown substantially post-Covid which requires a stable and scalable LMS. The U of A had not reviewed its LMS in fourteen years, and during this time, rapid improvements to vendor-supported LMS systems have increased substantially. Through an environmental scan of other post-secondary institutions of similar scale and complexity to the U of A, we are the last English-speaking U15 to upgrade our LMS to a vendor-supported model. The decision was also based on feedback from students and instructor requests for reliable, modern, and scalable tools to enhance the digital teaching and learning experience.

The selection of a new LMS followed the U of A's procurement process which complies with Canadian procurement regulations. As such, some of the detailed questions being asked are unanswerable. The response has been structured to follow the key themes raised in the questions.

Financial and Resource Implications

There have been many questions about the costs associated with this move to a new LMS. It is important to restate that financial considerations were not a key driver in this decision. The key drivers were concerns about the ongoing sustainability of a U of A-supported LMS and the desire to enhance the digital learning environment for students and instructors. Being responsible stewards of public resources is also an ongoing consideration in U of A decision-making in the procurement and any subsequent renewals. Conversations with references at other institutions give us an indication of what we might expect with regard to their relationships with vendors.

Because we are shifting from a U of A-supported LMS to a vendor-supported one, it is difficult to accurately quantify the differences in costs. The approximate cloud infrastructure budget for eClass has been \$400,000. The total cost of eClass also includes U of A staffing costs which are not being reduced as part of this project. A vendor-supported LMS does not charge for cloud infrastructure in the same way making a comparison challenging. The two finalists in the

procurement process both demonstrated functionality that is not currently available in eClass; a vendor-supported LMS is a different product than eClass (Moodle) again making comparisons challenging.

Implementation and Transition Support

As we move closer to the implementation and transition phases of this project, we will be able to communicate in greater detail about the different phases and how instructors will be supported throughout. Instructors will continue to receive the same support as the current LMS with the same teams. The partnership with the new LMS provider will allow us to augment our current support model with asynchronous training portals, membership to their community of practice, off-hours 24/7 in multiple languages, and course migration tools. One of the user experience advantages of a new LMS is that they are much more intuitive to use. The vendor will also be able to provide support for instructors and students learning how to maximize the new learning management system. There will also be learning opportunities supported by U of A staff for instructors wanting help in using the new LMS to enhance student learning.

Instructors will be able to work with the project team to identify what courses they would like to move to the new LMS. Some instructors may choose to build their courses in the new LMS leveraging the new tools and approaches while others may wish to start from their previous course. Both of these options will be available; details about the timing and support for the different approaches to onboarding to the new LMS will be available on the project website. Instructors will be able to access their previous material following the existing archive policy of the current year plus 4 previous years.

Another key aspect of the implementation phase is working with instructors with specific use cases for the LMS. One such example, noted in the questions, is STACK. Work is underway to engage with instructors using specialized tools and integrations. Instructor's expertise is crucial to the success of implementing the rich diversity of teaching tools in use across our programs. We are excited to be working with Chris Frej, Vincent Bouchard, Roger Moore and Kirk Kaminsky, Jeremy Sit, Benjamin Nakashima Paniagua, Benjamin Cheung, Jason Olfert and Lobo Cruz to provide their expertise. Ongoing feedback will be sought to improve the instructor and student experience of the LMS.

Pedagogical Considerations

The LMS initiative makes no changes to the pedagogical decisions and autonomy of instructors. Relevant collective agreements and university regulations govern the pedagogical decisions that correspond to instructors and the institution.

Consultation and Decision-Making

The success of this initiative requires ongoing consultation with instructors and students throughout the process of procurement and implementation. Key to this has been the establishment of the LMS of the Future Advisor Committee, which meets monthly and includes representation from every Faculty through decanal appointment.

LMS of the Future Advisor Committee Members

Ali Shiri - Vice Dean (Faculty of Graduate and Postdoctoral Studies)
Angela Bayduza - Associate Dean (Faculty of Kinesiology, Sport, and Recreation)
Anita Parker - Lead Educational Developer (Centre for Teaching and Learning)
Anne McIntosh - Associate Dean, Teaching (Augustana Campus)
Avery Letendre - Indigenous Continuing Education & Online Project Manager (Faculty of Native Studies)
Chris Brunelle - Executive Director, Enrolment Systems & Service Innovation, RO Enrolment Systems and Service Innovation
Colleen Starchuk - Learning Consultant/Co-Director, Tech in Education (Faculty of Education)
Deanna Singhal - Associate Dean, Teaching and Learning (Faculty of Science)
Erik Berglund - E-Learning Professional Development Specialist (Faculty of Nursing)
Erin Wright - Associate Lecturer (School of Public Health)
Heather Braid - Manager, Teaching and Learning (Alberta School of Business)
Hollis Lai - Associate Professor (Faculty of Medicine and Dentistry)
Iain Muir - Associate Teaching Professor (Faculty of Rehabilitation Medicine)
Jeff Rawlings - Director, Digital Learning Environment (Information Services & Technology)
Ken Cor - Clinical Professor (Faculty of Pharmacy & Pharmaceutical Sciences)
Kim Frail - Head, Teaching and Learning (Library and Museums)
Kristin Mulligan - Director, Online Learning (Online Learning & Continuing Education)
Lise Niyuhire - Senior Officer, Innovation & Technology (Campus Saint-Jean)
Pedro Almeida - Vice-President Academic (University of Alberta Students' Union)
Rebecca Nagel - Associate Dean, Undergraduate (Faculty of Arts)
Rija Kamran - Vice-President Academic (Graduate Students' Union)
Stanislav Karapetrovic - Professor (Faculty of Engineering)
Vincent Bouchard - Professor (Faculty of Science)

There have also been opportunities for feedback from instructors through a variety of engagement sessions for university-wide, Faculty and Departmental audiences including vendor demos open to students, instructors and staff. The feedback from these engagements continues to be important in the procurement and implementation of the U of A's new LMS. These engagements have included

GENERAL FACULTIES COUNCIL
For the Meeting of February 26, 2024

Item No. 8

| | |
|---|--------------|
| CLE - Committee on the Learning Environment | Sep 27, 2023 |
| GFC Executive | Oct 2, 2023 |
| Science Chairs meeting. | Oct 3, 2023 |
| Deans' Council | Oct 4, 2023 |
| GFC | Oct 16, 2023 |
| Chairs' Council | Oct 17, 2023 |
| Program Support Team PST (Undergraduate and Non-Credit) | Oct 26, 2023 |
| Town Hall | Oct 31, 2023 |
| Alberta School of Business | Nov 3, 2023 |
| Faculty of Science | Nov 7, 2023 |
| GFC | Nov 20, 2023 |
| Engineering Town Hall | Nov 28, 2023 |
| CLE - Committee on the Learning Environment | Nov 29, 2023 |
| AASUA | Dec 5, 2023 |
| Demo Sessions | Dec 7, 2023 |
| AASUA | Jan 11, 2024 |
| GFC | Jan 29, 2024 |

Emails and website

| | |
|-----------------------------|-----------------|
| Webpage Launch | Sep 20, 2023 |
| Working at the U Newsletter | Oct 17, 2023 |
| Website Post | Oct 19, 2023 |
| Employee Digest | Oct 20, 2023 |
| College Newsletters | Oct 18-31, 2023 |
| UAlberta Events | Oct 19, 2023 |

GENERAL FACULTIES COUNCIL
For the Meeting of February 26, 2024

Item No. 8

| | |
|-------------------------------------|--------------|
| Email to all Moodle users | Oct 27, 2023 |
| Email to LMS mailing list | Oct 27, 2023 |
| College Associate Deans (Education) | Oct 27, 2023 |
| Employee Digest | Oct 27, 2023 |
| Email to all Moodle users | Nov 27, 2023 |
| Email to instructors | Nov 28, 2023 |
| Email to Libraries | Nov 28, 2023 |



ITEM NO. 10

Decision **Discussion** **Information**

ITEM OBJECTIVE: To discuss the Annual Report on Enrolment, which shows key undergraduate and graduate enrolment statistics for the 2023-24 academic year.

| | |
|------------------------------|---------------------------------------|
| DATE | February 26, 2024 |
| TO | General Faculties Council |
| RESPONSIBLE PORTFOLIO | Provost and Vice-President (Academic) |

EXECUTIVE SUMMARY:

Background

This package provides high-level data on total institutional enrolment for undergraduate and graduate students for the 2023-24 year. This report provides high-level data on total enrolment, while detailed breakdowns of the numbers and trend analyses are housed within separate graduate and undergraduate appendices. Accompanying the report and appendices is the 2023/24 Annual Enrolment Report Overview, which outlines key facts and figures from this year's report.

The report looks at three specific areas:

1. Student intake: applications, admissions, and registrations, including selectivity and yield rates
2. Basic demographic data about the student body and key populations within it; and,
3. Student retention and completion

For the first time since its initiation in 2013, this year's report was produced by both the Office of the Registrar (RO) and the Faculty of Graduate & Postdoctoral Studies (GPS), formerly known as the Faculty of Graduate Studies and Research (FGSR) to provide an integrated view of enrolment at the University of Alberta. This integrated enrolment report equips the university community with information to support decisions on institutional enrolment growth ensuring access to higher education for Albertans as the province grows, deliberately expand Indigenous enrolment proportions, and to continue to welcome and engage international students.

Risk Discussion / Mitigation of the Risk

Annual reporting on Enrolment provides the community with an update on data and trends. If the University does not manage its enrolment strategically, we will risk our reputation as a Top 5 institution in Canada.



Supporting Materials:

- Annual Report on Enrolment, 2023-24 – Overview
- Annual Report on Enrolment, 2023-24

***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:

- Norma Rodenburg, Acting Vice Provost and University Registrar
- Tracy Raivio, Vice Provost and Dean, GPS
- Ali Shiri, Vice-Dean, GPS
- Bobbi Schiestel, Faculty General Manager, GPS
- Andrea Riewe, Executive Coordinator - GPS
- Jane Lee, Acting Associate Registrar
- Qichun Chen, Assistant Registrar – Enrolment, Research, Analytics, and Insights
- Shuoyi Xie, Research & Enrolment Analyst
- Wendi Shen, Research & Enrolment Analyst
- Lisa Wu, Research & Enrolment Analyst
- Ashley Bilodeau, Communications Associate - VER
- Chantal Delfs, Communications Partner – VER
- Sabrina Tharani, Communications Associate, VER

Those who have been consulted:

- Melissa Padfield, Deputy Provost, Students and Enrolment

Those who have been informed:

- Office of the President – Bill Flanagan, Jeannie Smith
- Office of the Provost – Verna Yiu, Kathryn Todd, Kathleen Brough, , Edith Finczak, Vivien Chu
- Vice-Provost Research, Aminah Robinson Fayek
- VER - Alexis Ksiazkiewicz, Jaylene Ulmer, Elan MacDonald
- Performance, Analytics, and Institutional Research – Deborah Williams
- University of Alberta International – Cen Huang, Doug Weir



ITEM NO. 9

- Student's Union Executive – Christian Fotang
- Graduate Student's Association – Bishoi Aziz

Approval Route:

PEC-O: Jan 25, 2024

COSA: Jan 25, 2024

APC: Jan 31, 2024

GEFAC: Feb 1, 2024

Statutory Deans Council: Feb 7, 2024

GFC Exec: Feb 12, 2024

Provost Council: Feb 12, 2024

GPS Council: Feb 21, 2024

ACEM: Feb 23, 2024

GFC: Feb 26, 2024

BLRSEC: Mar 8, 2024

Supplementary Notes / Context:



UNIVERSITY
OF ALBERTA

Annual Report

Undergraduate and Graduate Enrolment Report 2023/24

Strategic management of enrolment is vital to supporting the University of Alberta in its objective to achieve “growth among domestic and international learners, enabling more skilled young people to stay in Alberta and contribute to building the province.”

Date:

JANUARY 2024

The University of Alberta respectfully acknowledges that we are situated on Treaty 6 territory, traditional lands of First Nations and Métis people.



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MESSAGE FROM THE VICE-PROVOST AND UNIVERSITY REGISTRAR AND VICE-PROVOST AND DEAN, FACULTY OF GRADUATE & POSTDOCTORAL STUDIES

The Undergraduate and Graduate Enrolment Report 2023/24 reflects the results of effective collaboration on enrolment management across our campuses. For the first time since its initiation in 2013, this year's report was produced by both the Office of the Registrar (RO) and the Faculty of Graduate & Postdoctoral Studies (GPS), formerly known as the Faculty of Graduate Studies and Research (FGSR). This report provides high-level data on total enrolment, while detailed breakdowns of the numbers and trend analyses are housed within separate graduate and undergraduate appendices. Accompanying the report and appendices is the *2023/24 Annual Enrolment Report Overview*, which outlines key facts and figures from this year's report.

Enrolment growth is a key component of the University of Alberta's vision for the next decade and enables us to serve learners from across Alberta and beyond.¹ In 2023/24, the University of Alberta reached a new record for total enrolment with 44,738 students enrolled. Recognizing the projected demographic growth in Alberta, we will grow to over 50,000 students by 2026 and over 60,000 by 2033 – increasing our enrolment by over 35 per cent in the next seven years.

This report outlines some key highlights from the 2023/24 enrolment cycle, including:

- **Results from Targeted Enrolment Expansion (TEE)² funding:** the new intake of students in TEE-funded programs positively impacted domestic enrolment. Of the 36,447 domestic students enrolled (a year-over-year increase of 2.4% or 851), 670 new undergraduate and 8 new graduate students enrolled in TEE-funded programs.
- **Improved access for Indigenous students:** the 2023/24 cycle resulted in a new record high for overall Indigenous enrolment, with 1,962 self-identifying students, an increase of 5.4% (or 100) from the previous year. Institutional initiatives like the Turtle Spirit Pathway Award for First Nations, Métis and Inuit Students, support for part-time Indigenous graduate students and a U of A SAGE-POD (Supporting Aboriginal Graduate Enhancement), as well as strategic and thoughtful recruitment and admission strategies, reaffirm the U of A's ongoing commitment to increasing access to higher education for Indigenous students.
- **Global challenges:** geopolitical and economic instability, study permit processing delays, evolving demand and a competitive student recruitment market impacted undergraduate and graduate enrolment differently. There was a decrease of 1.5% to overall international undergraduate enrolment and while graduate international applications and admissions increased, study permit/visa processing delays resulted in a significant number of deferrals.
- **Evolving graduate programming:** an increasing demand for course-based master's degrees and graduate certificates and stable enrolment in research-focused thesis-based degrees will drive the development of strategy and support for graduate student success in these programs.

Student financial need is increasing and financial resiliency is also changing for students due to the lasting impacts of COVID-19 and the rising cost of living. The university maintains a strong and evolving commitment to the financial support of our undergraduate and graduate students. In 2022/23, \$81.99M in financial support was administered to undergraduate and graduate students. \$46.9M in funding was administered to undergraduate students, a 15.5 per cent increase year-over-year in total funding. \$35.1M in funding was administered to graduate students.³

Looking ahead, we recognize that a thoughtful, multi-pronged approach to strategic enrolment management at the institutional level is critical to achieving the U of A's long-term goals. This includes continued engagement with colleges, faculties and units in enrolment and recruitment planning conversations through the Office of the Registrar, Enrolment Management Service Partners and the Faculty of Graduate & Postdoctoral Studies. Structures such as the Advisory Committee for Enrolment Management (ACEM), Deans' Council and the Integrated Enrolment Planning Group ensure our enrolment management approaches are inclusive and address various unique needs across campus.

1 [Shape: The University Strategic Plan 2023-2033](#)

2 Targeted Enrolment Expansion was a program that allowed Alberta post-secondary institutions to apply to grow specific programs related to high-demand fields identified by the Government of Alberta.

3 [2022-23 Annual Report on Student Financial Support Report](#)

Enhanced accessibility and student success is a significant part of our enrolment growth planning. For future recruitment cycles, the university continues to support recruiting high-calibre students in Alberta and beyond while remaining accessible and competitive in the overall post-secondary landscape. Various new and ongoing initiatives across the university are in place to support this, including the following:

- **Indigenous Free Application Days, Transition Year Program and progressive admissions practices:** initiated to improve access and support for undergraduate Indigenous applicants.
- **Increased focus on transfer students:** formal agreements with other Alberta post-secondary institutions, creation of recruitment positions focusing on transfer student recruitment and a centralized Transfer Admissions process will enhance our existing strategies and capacity increase, manage and process transfer applications.
- **Exploration credits:** provide eligible undergraduate students with opportunities to explore interdisciplinarity outside of their main programs of study without the risk of compromising their GPA.
- **Multi-modal graduate certificates:** pathways into graduate school through certificates that ladder into course-based master's programs.
- **Interdisciplinary graduate programming:** cohesive, coordinated development of an institutional approach and strategy through the Integrated Enrolment Growth Planning steering committee.
- **Strategies to increase international enrolment:** development and implementation of market-specific tactics is ongoing, in order to thoughtfully grow and diversify our international student population.
- **Guaranteed minimum funding for doctoral students:** pursue guaranteed minimum funding to ease inflationary pressures for graduate students and keep our programs competitive in an arena where other institutions are already committing to this.
- **Improving course-based pathways and thesis-based supports:** targeted strategies to grow each graduate credential category, including pathways between certificates and master's and improving thesis-based student supports and funding.

With continuous support from and collaboration with colleges, faculties and units across campus, we will continue to build an exceptional and diverse class of students and provide transformational and purpose-driven educational experiences.



Norma Rodenburg
Acting Vice-Provost and University Registrar



Dr. Tracy Raivio
Vice-Provost and Dean,
Faculty of Graduate & Postdoctoral Studies

EXECUTIVE SUMMARY

The 2023/24 Annual Report on Enrolment provides an overview of key institutional enrolment statistics, including undergraduate and graduate levels for the academic year (September 1, 2023 – August 31, 2024).

This report includes total enrolment, expressed in headcount and enrolment in Full Load Equivalents (FLEs), as defined by Alberta post-secondary institutions. In addition to tracking enrolment, this report looks at three specific areas:

- student intake: applications, admissions and registrations, including selectivity and yield rates
- basic demographic data about the student body and key populations within it
- student retention and completion

This is the first integrated report on enrolment issued by the Office of the Registrar (RO) and the Faculty of Graduate & Postdoctoral Studies (GPS) with application, admission and enrolment statistics collected as of December 1, 2023, which is the date used for all government reporting. Where possible, this report also includes multi-year trend data, with data sources noted.

More data and trends regarding undergraduate and graduate enrolment can be found in the respective appendices.

TOTAL ENROLMENT

| | Undergraduate | Graduate | Total |
|---------------|---------------|--------------|---------------|
| Domestic | 31,622 | 4,825 | 36,447 |
| | 87.0% | 57.6% | 81.5% |
| International | 4,741 | 3,550 | 8,291 |
| | 13.0% | 42.4% | 18.5% |
| Total | 36,363 | 8,375 | 44,738 |
| | 100% | 100% | 100% |

| | Undergraduate | Graduate | Total |
|-----------|---------------|--------------|---------------|
| Full-time | 33,802 | 6,872 | 40,674 |
| | 93.0% | 82.1% | 90.9% |
| Part-time | 2,561 | 1,503 | 4,064 |
| | 7.0% | 18.0% | 9.1% |
| Total | 36,363 | 8,375 | 44,738 |
| | 100% | 100% | 100% |

In 2023/24, the University of Alberta reached a new record for total enrolment with 44,738 students enrolled, representing a year-over-year increase of 1.6% (or 686). Domestic enrolment was 36,447, a year-over-year increase of 2.4% (or 851). Part of this growth can be attributed to 670 undergraduate students and 8 graduate new intake students enrolled in Targeted Enrolment Expansion (TEE) funded programs. International enrolment had a slight year-over-year decrease of 1.5% (or 127). 90.9% of the total enrolment are full-time students, representing a year-over-year increase of 2.0% (or 810). The remaining 9.1% are part-time students, representing a year-over-year decrease of 3.0% (or 124). This decrease may be partially attributed to ongoing geopolitical and global economic challenges.

APPLICANTS

| | Undergraduate | | Graduate | |
|------------------|---------------|-----------------------|-----------|-----------------------|
| | Headcount | Rate | Headcount | Rate |
| Total applicants | 40,532 | N/A | 13,862 | N/A |
| Admitted | 27,770 | Admission rate: 68.5% | 3,438 | Admission rate: 24.8% |
| Registered | 14,439 | Yield rate: 52.0% | 2,084 | Yield rate: 60.6% |

This cycle saw 40,532 undergraduate applicants, a decrease of 2.7% (or 1,133). There was a total decrease of 0.8% (or 238) in domestic applicants and a decrease of 7.9% (or 895) in international applicants. Through a strategic approach to the admissions cycle, the admission rate increased by 1.1 percentage points compared to last year, resulting in a 0.2 percentage point increase in yield.

This cycle witnessed a robust surge in graduate applicants, a substantial increase of 19.6% (or 2,270). A heightened demand from international applicants predominantly drove this growth, demonstrating a noteworthy rise of 27.3% (or 2,338). Although the admissions rate decreased slightly by 1.2 percentage points compared to the last cycle, this was still an increase of 14.7% (or 420) of total offers made due to the larger applicant pool.

INTERNATIONAL CITIZENSHIP

| | Undergraduate | | | Graduate | | | Total | | |
|---|---|-------|---------|--|-------|-------|---|-------|------|
| | China | India | Nigeria | China | Iran | India | China | India | Iran |
| Top citizenship countries of international students | 35.2% | 22.7% | 6.3% | 29.8% | 15.8% | 13.2% | 32.9% | 18.6% | 7.2% |
| Number of countries of citizenship among international students | 108 | | | 109 | | | 131 | | |
| Countries that each have 100 or more students in the population | China, India, Nigeria, Bangladesh, Vietnam and Korea. | | | China, Iran, India, Bangladesh, Nigeria and the United States. | | | China, India, Iran, Nigeria, Bangladesh, Pakistan, Vietnam, the United States, Korea and Ukraine. | | |

The number of countries of citizenship among registered international students was 131. China, India and Iran are among the top citizenship countries, making up 58.7% of the international student population at the institutional level. China remains the top citizenship country for international students, making up 32.9% of the international student population at the institutional level.

ORIGIN OF STUDENTS POPULATION

| Location (based on permanent home address) | Undergraduate | | Graduate | | Total | |
|--|---------------|---------------|--------------|---------------|---------------|---------------|
| | Headcount | % | Headcount | % | Headcount | % |
| Edmonton & area | 17,702 | 48.7% | 2,833 | 33.8% | 20,535 | 45.9% |
| Rest of Alberta | 9,822 | 27.0% | 1,102 | 13.2% | 10,924 | 24.4% |
| Canada (excluding Alberta) | 3,546 | 9.8% | 1,196 | 14.3% | 4,742 | 10.6% |
| Outside of Canada* | 5,293 | 14.6% | 3,244 | 38.7% | 8,537 | 19.1% |
| Total | 36,363 | 100.0% | 8,375 | 100.0% | 44,738 | 100.0% |

The university remains committed to preserving access for Alberta students. At the institutional level:

- Almost half of the students (45.9%) originated from Edmonton & area;
- 70.3% of students came from within Alberta;
- 80.9% of the students originated from within Canada; and
- the remaining 19.1% came from outside Canada.

**Students who originate outside Canada are not always considered international, as they may be Canadian citizens or permanent residents and vice versa.*

INDIGENOUS ENROLMENT

| | Undergraduate | | Graduate | | Total | |
|--------------------------------------|---------------|-------|-----------|-------|-----------|------|
| | Headcount | % | Headcount | % | Headcount | % |
| Total Indigenous enrolment | 1,681 | 4.6%* | 281 | 3.4%* | 1,962 | 4.4% |
| New Indigenous applicants | 1,072 | 3.3% | 130 | 0.9% | 1,202 | 2.6% |
| New Indigenous applicants admitted | 740 | 3.4% | 84 | 2.4% | 824 | 3.3% |
| New Indigenous applicants registered | 451 | 5.0% | 73 | 3.5% | 524 | 4.7% |

The 2023/24 cycle resulted in a new record high for Indigenous enrolment at the institutional level, with 1,962 self-identifying students, representing an increase of 5.4% (or 100). Indigenous enrolment now comprises 4.4% of the overall population.

**Within undergraduate enrolment, Indigenous enrolment accounts for 4.6% of total enrolment, but 5.3% of domestic enrolment. Within graduate enrolment, Indigenous enrolment accounts for 3.4% of total enrolment but 5.8% of domestic enrolment.*

GENDER

| | Undergraduate | | Graduate | | Total | |
|--------------|---------------|---------------|--------------|---------------|---------------|---------------|
| | Headcount | % | Headcount | % | Headcount | % |
| Female | 19,473 | 53.6% | 4,677 | 55.8% | 24,150 | 54.0% |
| Male | 16,641 | 45.8% | 3,658 | 43.7% | 20,299 | 45.4% |
| Other | 249 | 0.7% | 40 | 0.5% | 289 | 0.6% |
| Total | 36,363 | 100.0% | 8,375 | 100.0% | 44,738 | 100.0% |

At the institutional level, the increase in student enrolment is reflected across three gender categories. 24,150 students enrolled as “female,” an increase of 1.5% (or 364 students) and 20,299 students enrolled as “male,” an increase of 1.2% (or 234 students). 289 students self-declared their gender identity in an alternative category, a 43.8% increase (or 88 students) compared to the previous cycle.

YEAR 1 TO YEAR 2 RETENTION RATES

| | Year 1 to Year 2 Retention Rate | |
|------------------------|---------------------------------|--------------|
| | Undergraduate | Graduate |
| Domestic students | 89.6% | 84.1% |
| International students | 86.8% | 89.9% |
| Indigenous students | 85.9% | 83.0% |
| Total | 89.2% | 86.6% |

The overall year one to year two retention rate for all undergraduate students reached 89.2%, which is 1.9 percentage points over the previous year. This year-over-year increase was driven by both the domestic and indigenous students category, as the year one retention rate for international students decreased.

- Domestic: increase of 2.3 percentage points
- International: decrease of 0.4 percentage points
- Indigenous: increase of 5.4 percentage points

More detailed information can be found in the undergraduate appendix.

Overall year one to year two retention rates continue to be strong for graduate students. However, due to the different types of programs, rates by credential type provide a more accurate picture of graduate student retention. A detailed breakdown of retention rate by credential can be found in the graduate appendix.

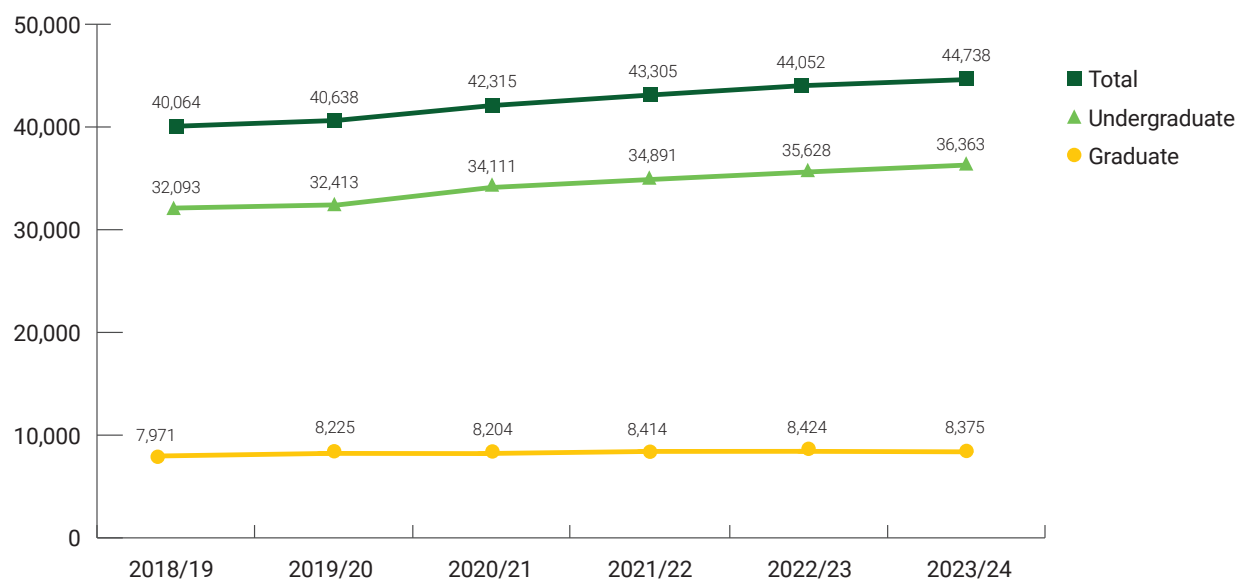
ENROLMENT HEADCOUNT

Total enrolment reached a new record high of 44,738, with a year-over-year increase of 1.6% (or 686), lower than the year-over-year increase of 1.7% (or 737) seen in the 2022/23 cycle.

Undergraduate enrolment has continued to increase steadily. The 2023/24 cycle saw an increase of 2.1% year-over-year, with undergraduate enrolment reaching a new record high of 36,363. Undergraduate enrolment accounted for 81.5% of the university's total enrolment.

There was a slight decline in graduate enrolment in 2023/24, dropping to 8,375 from 8,424 in 2022/23, and a year-over-year enrolment decrease of 0.6% (or 49). Graduate enrolment accounted for 18.5% of total enrolment. For the 2023/24 year, it's important to distinguish that the total grad population represents four distinct credentials: PhD (34.1%, 2,857); master's thesis-based (25.5%, 2,137); master's course-based (36.9%, 3,091); and certificate students (2.6%, 221). Demand for all credentials remains high, with continued opportunities for growth in course-based master's and certificates.

FIGURE 1: ENROLMENT HEADCOUNT (2018 TO 2023)



Source: Office of the Registrar, December 1 REGSTATS Archive
Faculty of Graduate & Postdoctoral Studies, December 1 Archive

Notes:

1. The 2023/24 undergraduate enrolment headcount includes 1,002 Postgraduate Medical and Dental Education students, and excludes the cohorts of Student Services Provision.
2. The 2023/24 graduate enrolment headcount includes students who are currently on a Regular Leave of Absence. These students, while continuing in their programs, and while their time on leave counts towards their time-in-program, do not have a full or part-time status in Acorn. However, they are still considered students within GPS. Throughout this enrolment report, the total number of graduate students includes all graduate students, including those on all types of leaves, as they are still in program.

The University of Alberta's commitment to providing diverse experiences has allowed me to learn about different cultures, connect with amazing people, and push my personal and academic growth to the next level.

Max, Pharmacology | Philippines

FULL-TIME AND PART-TIME HEADCOUNT

Students at the university are categorized as either full-time or part-time, depending on the number of credits taken in a single term. Full-time status is granted for the term when a student is enrolled in at least nine credits; otherwise, the student is considered part-time.

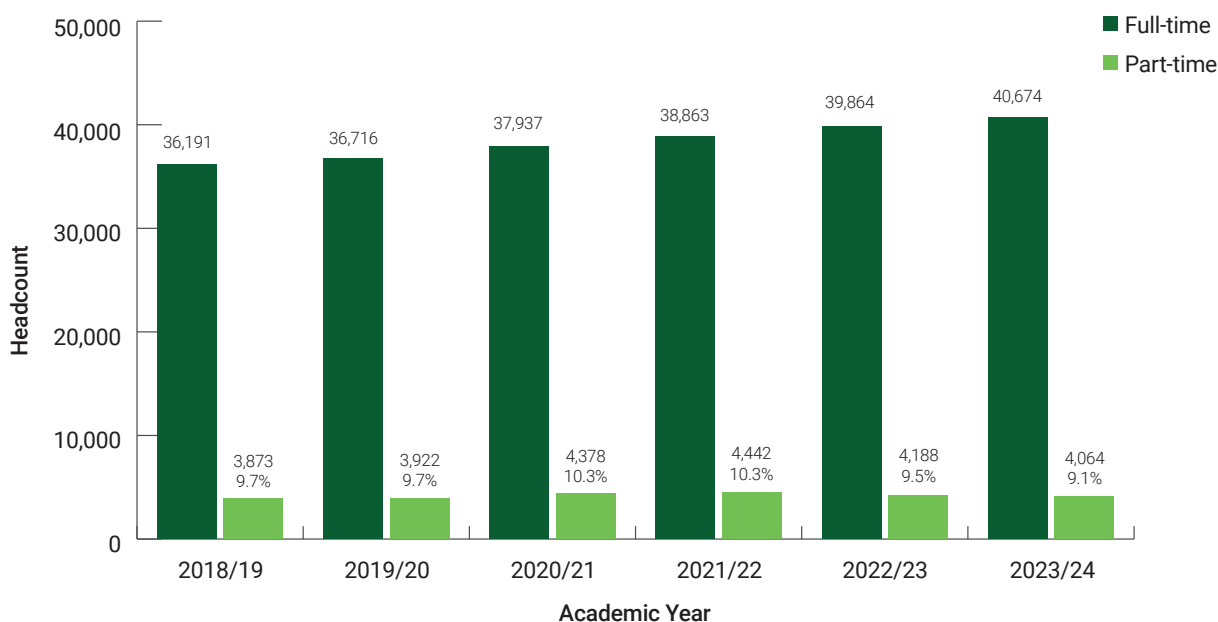
At 40,674 students, full-time student enrolment has:

- increased by 2.0% (or 810) year-over-year
- increased gradually since 2018/19, reaching a new record high in 2023/24

At 4,064 students, part-time student enrolment:

- dropped by 3.0% (or 124) year-over-year
- accounts for 9.1% of total enrolment, which is below the preceding five-year average of 9.9%, and the previous year's 9.5%

FIGURE 2: INSTITUTIONAL FULL-TIME AND PART-TIME HEADCOUNT (2018 TO 2023)



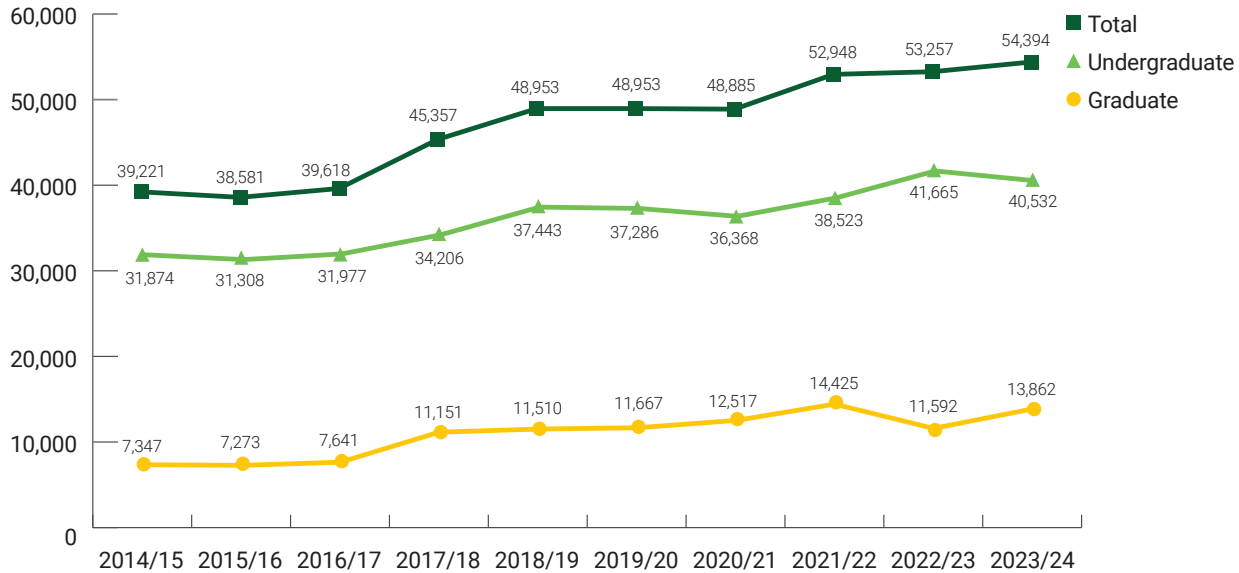
Source: Office of the Registrar, December 1 REGSTATS Archive
Faculty of Graduate & Postdoctoral Studies, December 1 Archive

APPLICANT NUMBERS

TOTAL APPLICANT NUMBERS

Total applicant numbers reached a record high in the 2023/24 cycle. Specific undergraduate and graduate data is available below and in the respective appendices.

FIGURE 3: TEN-YEAR TOTAL APPLICANT CURVE (2014 TO 2023)



Undergraduate Source: Performance Analytics and Institutional Research (PAIR), Applicant and Enrolment Management Report, Enrolment Management Table
Notes:

1. Data is based on December 1 archived data for each specified year.
2. The applicant number shown for 2015/16 differs by 31 from what was reported in the 2015 annual report, as the current data no longer includes students in the Career Preparation Program of Campus Saint-Jean. As of 2015/2016, Career Preparation Program data was separated from undergraduate data.
3. Data includes new-to-university applicants and continuing students applying for a program change.

Graduate Source: Faculty of Graduate & Postdoctoral Studies Internal Script with data extracted from Peoplesoft Campus Solutions, December 1, 2023.

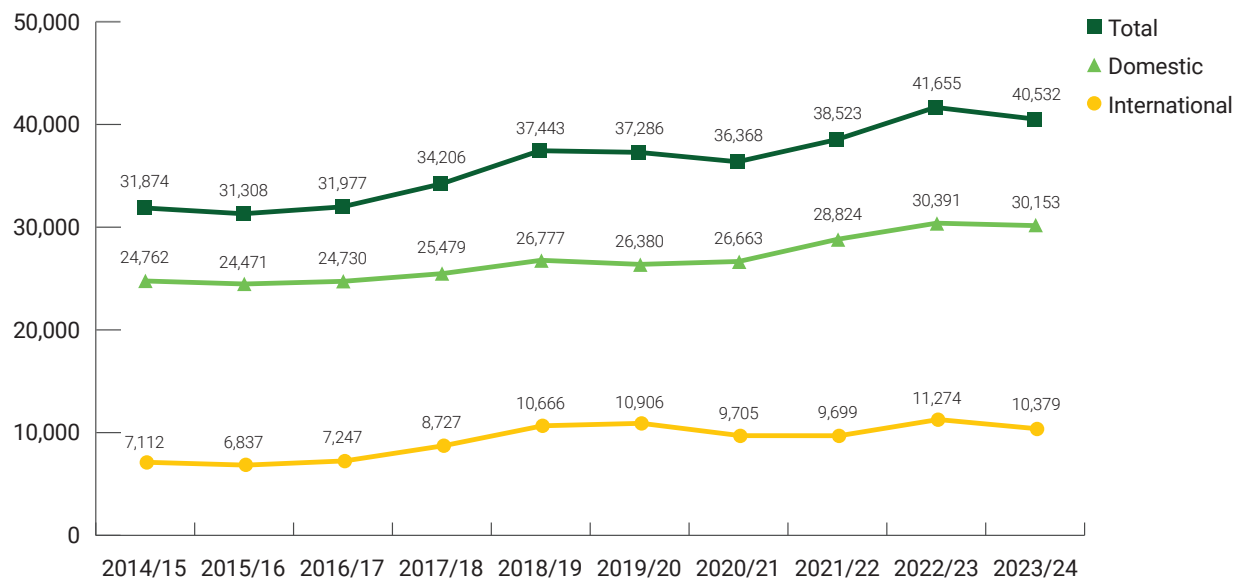
Note: All numbers above reflect the number of Fall Term applications, and use the number of individual applicants (not applications since some individuals apply to multiple programs).

UNDERGRADUATE APPLICANT NUMBERS

At 40,532, the undergraduate applicant numbers (unique headcount) were slightly lower than the previous year's historical high, with a year-over-year decrease of 2.7% (or 1,133). This was driven by the decrease in domestic applicants of 0.8% (or 238) and international applicants of 7.9% (or 895).

The decline in domestic undergraduate applicants can be attributed to a 6.5% (or 515) decrease in post-secondary transfer applicants, whereas there were increases in high school and internal transfer applicants of 1.8% (or 274) and 0.2% (or 11), respectively. The overall reduction in international applicants was driven by a decrease of 8.7% (or 730) in high school applicants and 9.5% (or 167) post-secondary transfer applicants. There was a slight increase of 0.4% (or 5) in international internal transfer applicants.

FIGURE 4: TEN-YEAR UNDERGRADUATE APPLICANT CURVE (2014 TO 2023)



Source: Performance Analytics and Institutional Research (PAIR), Applicant and Enrolment Management Report, Enrolment Management Table

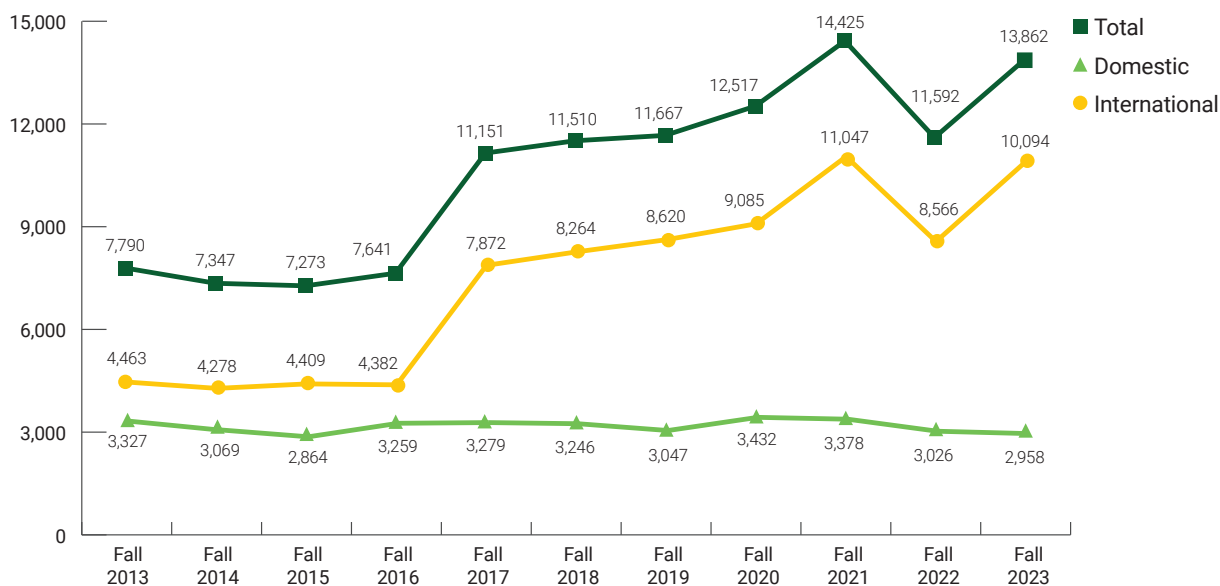
Notes:

1. Data is based on December 1 archived data for each specified year.
2. The applicant number shown for 2015/16 differs by 31 from what was reported in the 2015 annual report, as the current data no longer includes students in the Career Preparation Program of Campus Saint-Jean. As of 2015/2016, Career Preparation Program data was separated from undergraduate data.
3. Data includes new-to-university applicants and continuing students applying for a program change.

GRADUATE APPLICANT NUMBERS

The graduate applicants (unique headcount) had an increase of 19.6% year-over-year, returning to a level similar to the highest point in the past ten years, the 2021/22 cycle, with a decrease of 2.2% (or 68) in domestic applicants and an increase of 27.1% (or 2,338) of international applicants. The large increase in international applications this year was partially due to the application fee waiver granted to Iranian applicants in response to banking issues in that region.

FIGURE 5: TEN-YEAR GRADUATE APPLICANT CURVE (2014 TO 2023)



Source: Faculty of Graduate & Postdoctoral Studies Internal Script with data extracted from Peoplesoft Campus Solutions, December 1, 2023.

Note: All numbers above reflect the number of Fall Term applications, and use the number of individual applicants (not applications since some individuals apply to multiple programs).

Ever since I was young I had a passion for science, so I recognize how lucky I am to be thousands of miles from home conducting lab research with experts in the field. My time at the U of A has allowed me to cross paths with some wonderful people who have made Edmonton my home away from home. To any international students considering moving to pursue school, I say “do it.” I know it’s scary, but it is the first, most crucial step you can take so that your future self can look back and thank you. I believe my 17-year-old self would be proud to see how far we’ve come.

Reem, Molecular Biology and Genetics | Lebanon

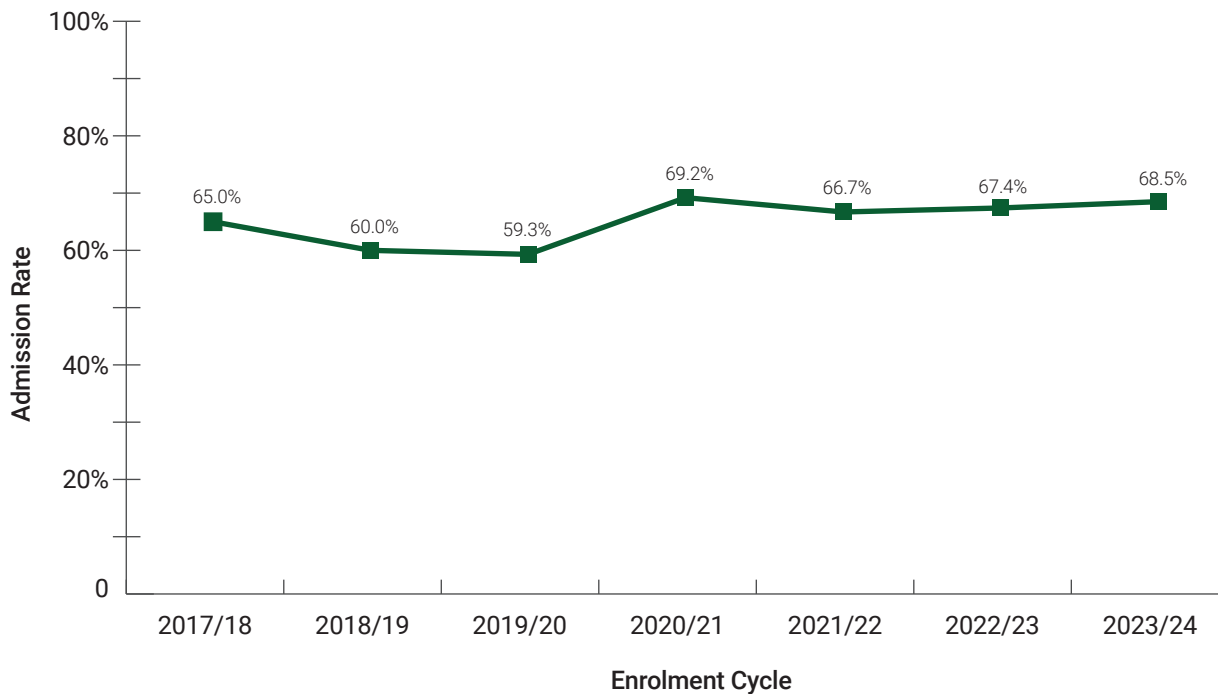
ADMISSION RATE

The admission rate to undergraduate and graduate programs displays distinct characteristics, warranting individualized discussions.

UNDERGRADUATE ADMISSION RATE

The 2023/24 admission cycle saw an undergraduate admission rate of 68.5%, a year-over-year increase of 1.1 percentage points. The 2022/23 admission rate of 68.5% is the third-highest, falling just below the historical high of 70.0% in 2013/14 and the second-highest of 69.2% in 2020/21.

FIGURE 6: SEVEN-YEAR UNDERGRADUATE ADMISSION RATE CURVE (2017 TO 2023)



Source: Strategic Analysis and Data Warehousing, Applicant and Enrolment Management Report, Enrolment Management Table

Notes:

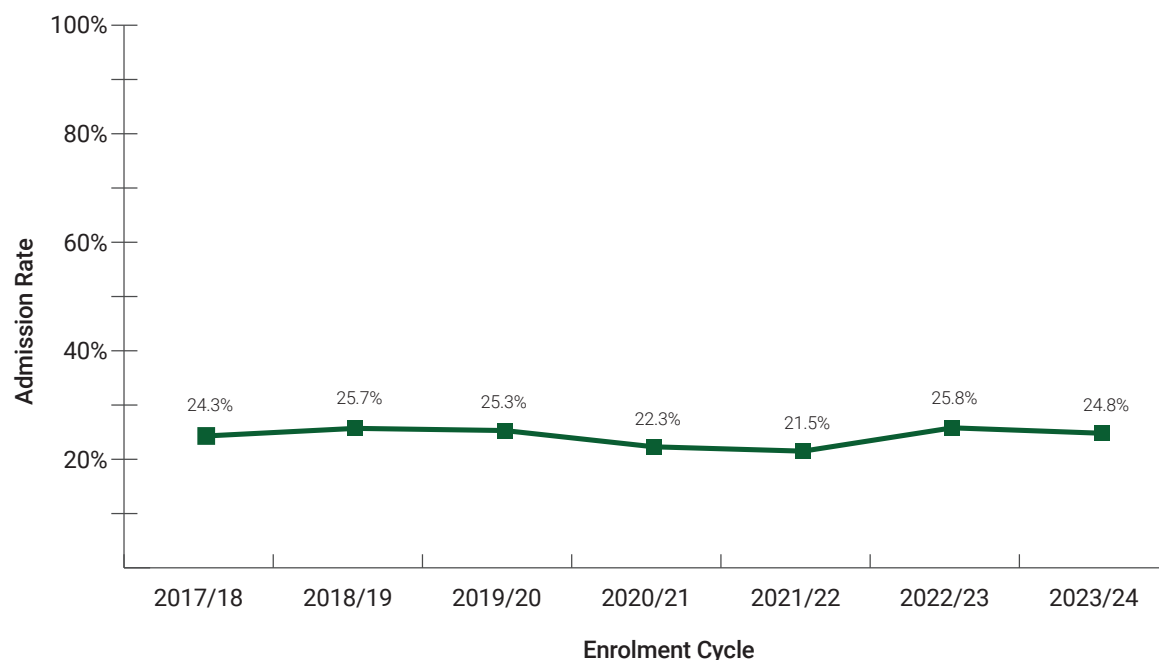
1. Data is based on December 1 archived data for each specified year.
2. Data includes new-to-university applicants and continuing students applying for a program change.

GRADUATE ADMISSION RATE

Admission to University of Alberta graduate programs remains competitive. With a good number of graduate students to begin in terms other than Fall, the graduate data is not yet complete. So far the 2023/24 admission cycle saw a graduate admission rate of 24.8%, slightly lower than the 2022/23 cycle, with a decrease of 1.0 percentage points; however, due to a larger application pool, the actual admitted number of students has increased by 14.9% (447 admitted applicants).

As the university seeks to grow enrolment on the undergraduate side, additional graduate students will be needed to assist with teaching duties.

FIGURE 7: SEVEN-YEAR GRADUATE ADMISSION RATE CURVE (2017 TO 2023)



Source: Faculty of Graduate & Postdoctoral Studies Internal Script with data extracted from Peoplesoft Campus Solutions, December 1, 2023.

Note: The 2023/24 number of graduate applications may still be adjusted as grad students may still be admitted to the Winter, Spring/Summer 2024 terms.

YIELD RATE

The enrolment yield rates for undergraduate and graduate programs demonstrate distinctive characteristics, prompting the need for separate analyses.

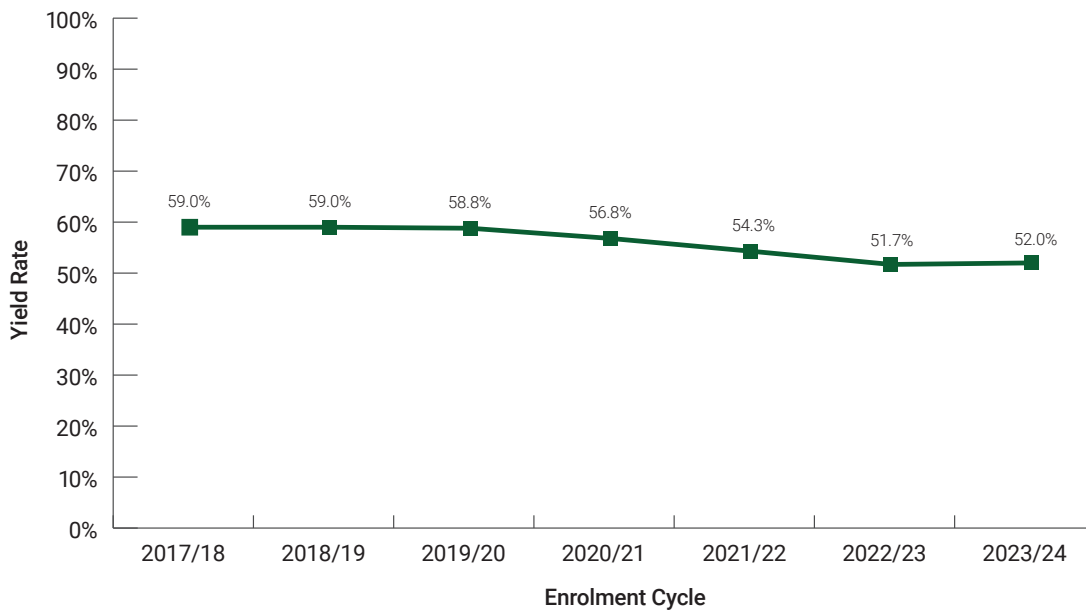
UNDERGRADUATE YIELD RATE

The proportion of undergraduate applicants who registered, also known as the yield rate, has increased slightly in 2023/24 after a downward trend from 2016/17 to 2022/23.

- Applicants admitted: 27,770 (decrease of 1.2% or 324)
- Applicants registered: 14,439 (decrease of 0.7% or 99)
- Yield Rate: 52.0% (increase of 0.2 percentage points)

The decrease in undergraduate applicants registered, which is slightly smaller than the decrease in applicants admitted, led to a slightly higher yield rate of 52.0% in 2023/24.

FIGURE 8: SEVEN-YEAR UNDERGRADUATE YIELD RATE CURVE (2017 TO 2023)



Source: Strategic Analysis and Data Warehousing, Applicant and Enrolment Management Report, Enrolment Management Table

Notes:

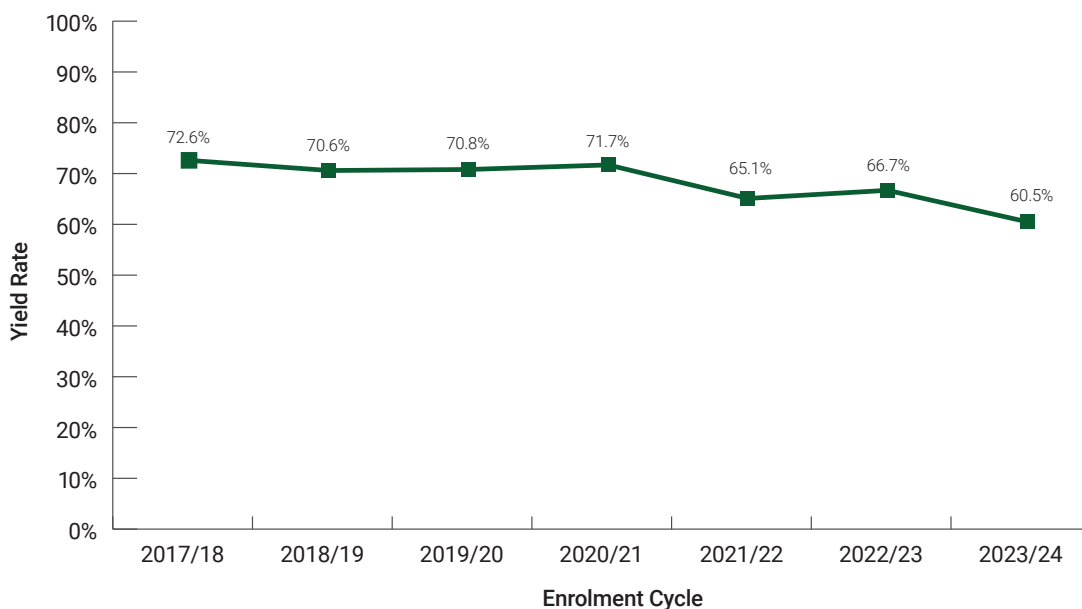
1. Data is based on December 1 archived data for each specified year.
2. Data includes new-to-university applicants and continuing students applying for a program change.

GRADUATE YIELD RATE

The yield rate for graduate students is 60.5%, a decrease of 6.2 percentage points from 2022/23. This decrease may be attributed to the approach taken in this inaugural enrolment report, which uses official enrolment data pulled on December 1, 2023. As many graduate students begin their programs in the winter term, these numbers will be reflected in next year's annual enrolment report. The lower yield rate may also reflect the significant number of deferrals due to delays in acquiring student visas, which prevented students from starting their programs in the fall term.

However, the yield rate continues to trend downwards by about 12.1 percentage points from 2017/18 to 2023/24. This trend requires further investigation, especially in light of the increase in applicants. One area of further investigation is whether the lack of institutional minimum guaranteed funding is a consideration for students who have received multiple offers. GPS is currently preparing to transition to a new graduate admissions system; we look forward to the new system, which will allow for greater efficiencies in the admissions process as well as improved data and tracking.

FIGURE 9: SEVEN-YEAR GRADUATE YIELD RATE CURVE (2017 TO 2023)



Source: Faculty of Graduate & Postdoctoral Studies Internal Script with data extracted from Peoplesoft Campus Solutions, December 1, 2023.

Note: The 2023/24 number of graduate applications may still be adjusted as grad students are admitted to the Winter, Spring/Summer 2024 terms.

While working at an optical shop, I witnessed firsthand the joy on people's faces as they put on their corrective glasses for the first time. This further motivated me to pursue a career in visual science. During my time at the University of Alberta I have been able to pursue innovative research projects, such as generating eye cells from skin cells! One of the best experiences was joining my supervisor during a visit with the patient who inspired my research and sharing my progress with them. I plan to use my education to improve patient outcomes by investigating novel mechanisms of vision loss and testing potential treatments.

Constantin, Ophthalmology and Visual Sciences | Aleppo, Syria

INTERNATIONAL ENROLMENT HEADCOUNT

Overall, international enrolment decreased slightly in 2023/24. A total of 8,291 international students were enrolled, representing a decrease of 1.5% (or 127).

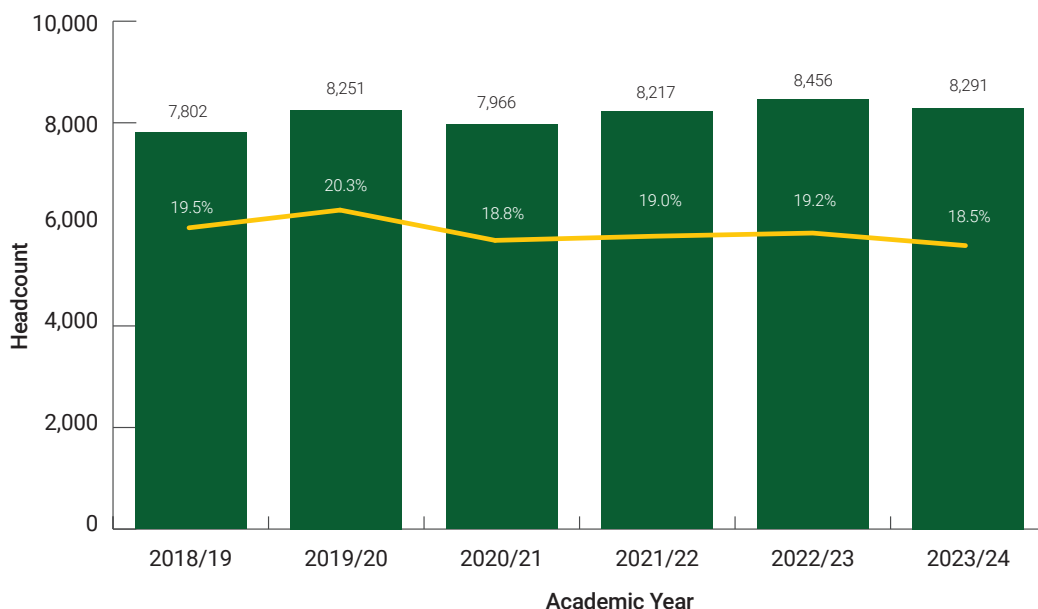
International students currently account for 18.5% of the university's total enrolment, a decrease of 0.7 percentage points from 2022/23. The smaller international ratio is due to a larger increase in domestic enrolment.

Both undergraduate and graduate enrolment were impacted by geopolitical and economic challenges around the world, including significant delays in visa processing and an increasingly competitive global student recruitment market. However, the shift in international enrolment impacted the undergraduate and graduate groups differently.

Of the total enrolment, undergraduate enrolment saw a decrease of 0.9 percentage points (or 165) in the proportion of international enrolment from 2022/23. Graduate enrolment saw an increase in the proportion of international enrolment of 0.7 percentage points (or 38) from 2022/23 and continues to trend upward, including a 5.4 percentage point increase (or 603) since 2018/19.

For further details, please refer to the respective appendices.

FIGURE 10: INTERNATIONAL ENROLMENT HEADCOUNTS AND PROPORTIONS IN TOTAL ENROLMENT (2018 TO 2023)



Source: Office of the Registrar, December 1 REGSTATS Archive
Faculty of Graduate & Postdoctoral Studies, December 1 Archive

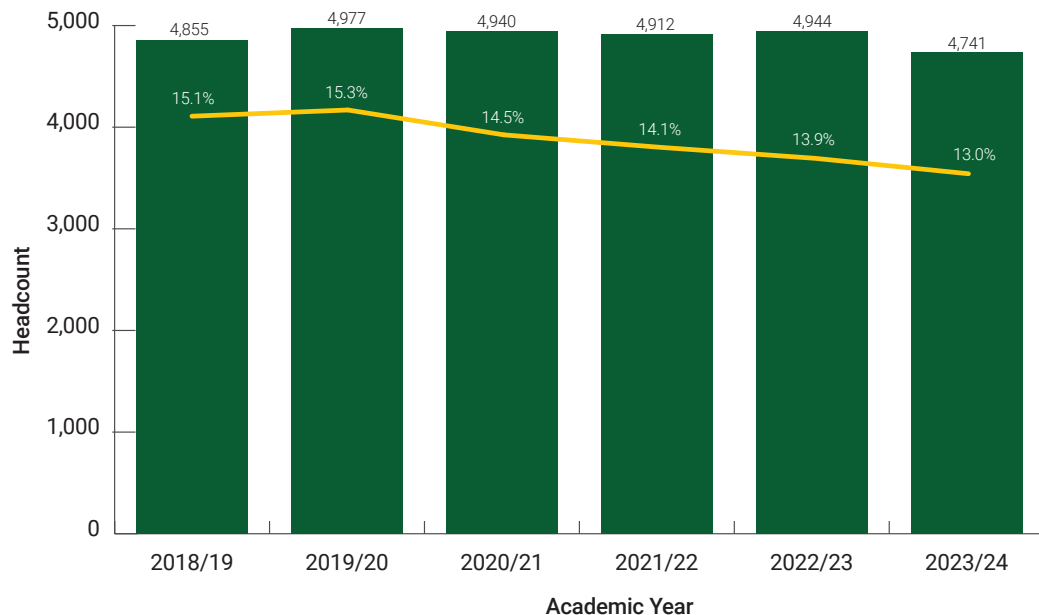
Notes:

1. An international student is an individual who is not a Canadian citizen nor a permanent resident. Some students who are refugees or protected persons obtain permanent resident status. Undergraduate refugee students are classified as international within institutional data and are included in international headcounts. Graduate refugee students are included in domestic headcounts.
2. Data shown includes Postgraduate Medical and Dental Education.
3. The bar chart indicates the total international headcount.
4. The yellow line indicates the proportion of total enrolment contributed by international headcount.

As an international student who dealt with the disorienting experience of navigating a new environment, Augustana's size, location and student diversity helped me feel settled. Best of all, living and working in residence has allowed me to build a home away from home and to make so many new friends.

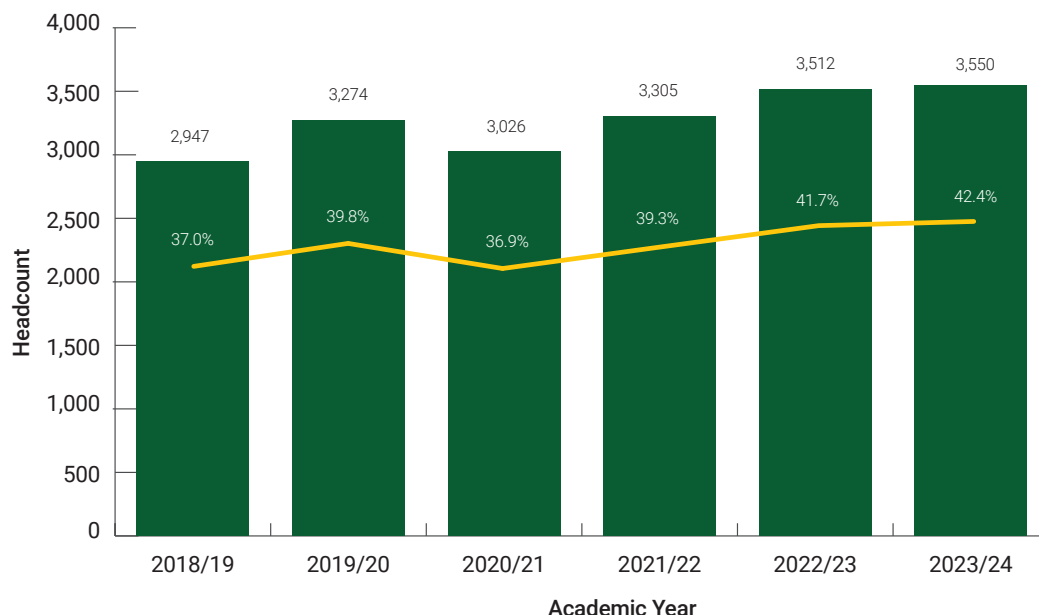
AJ, Business Economics (Augustana) | Lagos, Nigeria

FIGURE 11: UNDERGRADUATE INTERNATIONAL ENROLMENT HEADCOUNTS AND PROPORTIONS IN TOTAL ENROLMENT (2018 TO 2023)



Source: Office of the Registrar, December 1 REGSTATS Archive

FIGURE 12: GRADUATE INTERNATIONAL ENROLMENT HEADCOUNTS AND PROPORTIONS IN TOTAL ENROLMENT (2018 TO 2023)

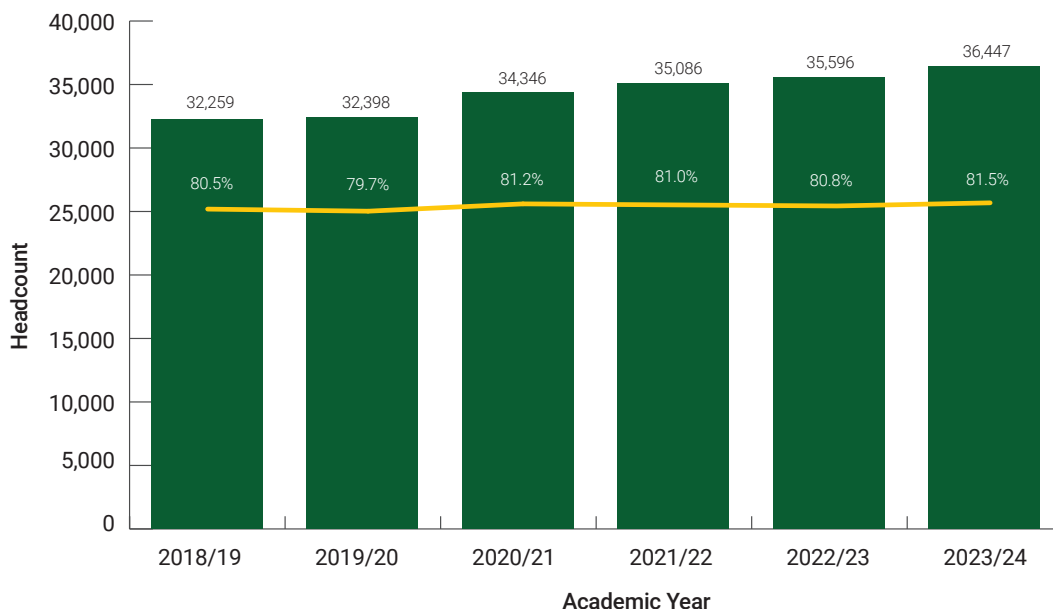


Source: Faculty of Graduate & Postdoctoral Studies Internal Script with data extracted from Peoplesoft Campus Solutions, December 1, 2023.

DOMESTIC ENROLMENT HEADCOUNT

In 2023/24, domestic enrolment reached a new record high of 36,447, a year-over-year increase of 2.4% (or 851). Part of this growth was attributed to 670 new undergraduate students and 8 new graduate students enrolled in Targeted Enrolment Expansion (TEE)-funded programs. The proportion of domestic students has remained relatively stable. For 2023/24, the ratio of domestic students is 81.5%, a year-over-year increase of 0.7 percentage points.

FIGURE 13: DOMESTIC ENROLMENT HEADCOUNTS AND PROPORTIONS IN TOTAL ENROLMENT (2018 TO 2023)



Source: Office of the Registrar, December 1 REGSTATS Archive
Faculty of Graduate & Postdoctoral Studies, December 1 Archive
Notes:

1. Students with Canadian citizenship or permanent resident status are considered domestic students.
2. Some students who are refugees or protected persons obtain permanent resident status. Undergraduate refugee students are classified as international within institutional data and are included in international headcounts. Graduate refugee students are included in domestic headcounts.
3. Includes Postgraduate Medical and Dental Education.
4. The bar chart indicates the total domestic headcount.

Since beginning university, I joined leadership and extracurricular opportunities that helped me find joy outside of my studies, round out my identity, and build my self-esteem. I feel so grateful to be part of a campus community that has helped me find my purpose in and out of class.

Adria, Science | Lacombe, AB

INDIGENOUS ENROLMENT HEADCOUNT

The steady growth of Indigenous enrolment continues to be an institutional strategic priority. Indigenous enrolment and the proportion of Indigenous enrolment reached a record new high in 2023/24. A total of 1,962 students who self-identified as Indigenous enrolled, a year-over-year increase of 5.4% (or 100). The proportion of total Indigenous enrolment reached a record high of 4.4%, a year-over-year increase of 0.2 percentage points.

As a proportion of domestic enrolment, Indigenous student enrolment was at 5.4%, an increase of 0.2 percentage points from the previous cycle. According to the 2021 Census of Canada, 6.8% of the Alberta population identifies as Indigenous.⁴

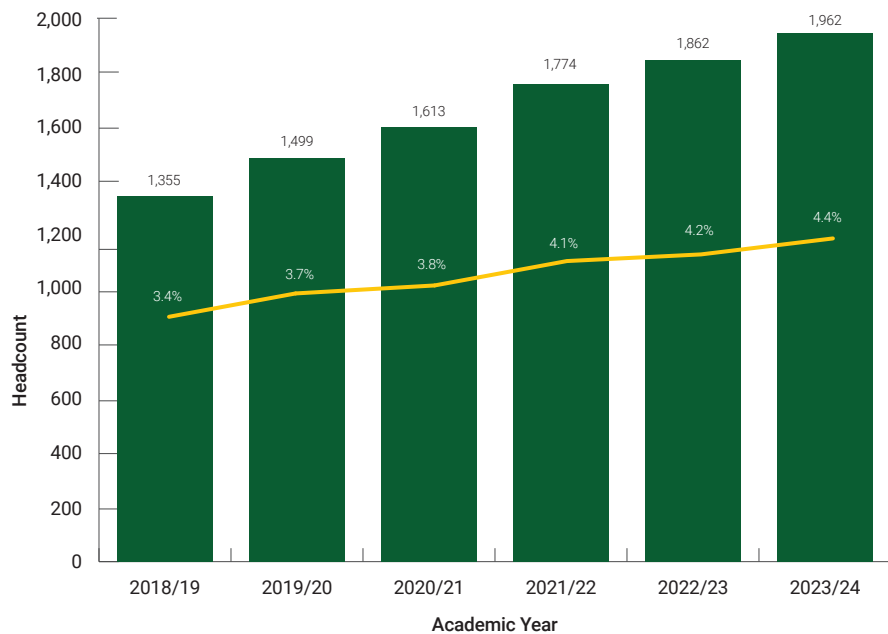
The implementation of various recruitment tactics, including an ambitious school visit schedule, improved Indigenous inclusion in premiere marketing tools and execution of a full slate of on-campus and community-based events has seen Indigenous prospective learner direct contacts soar.

Simultaneously, advocacy at the undergraduate enrolment management level has delivered more strategic and thoughtful Indigenous equity average limits and progressive admissions practices that make the University of Alberta more accessible to Indigenous learners. The backbone of increasing Indigenous enrolment is built on accessibility initiatives like Free Application Days and robust recruitment of an increasingly eligible Indigenous applicant pool across western Canada and the North.

On the graduate level, Indigenous enrolment is uneven across programs and departments. We are seeking to better understand barriers for recruitment, create pathways to increase involvement for Indigenous applicants and provide strong funding for Indigenous students. GPS is engaging with the Assistant Dean, Indigenous Student Services, First Peoples' House and engagement with the Indigenous Graduate Students' Association will inform strategies to better attract and support applicants and provide pathways for undergrad students to transition to graduate studies.

⁴ Statistics Canada release, The Daily 2022-09-21.

FIGURE 14: INDIGENOUS ENROLMENT HEADCOUNTS AND PROPORTION IN TOTAL ENROLMENT (2018 TO 2023)



Source: Office of the Registrar, December 1 REGSTATS Archive
 Faculty of Graduate & Postdoctoral Studies, December 1 Archive
 Note: Includes Postgraduate Medical and Dental Education.
 Note: The University's data on Indigenous enrolment is based on self-identification.

Being part of the Indigenous community at the U of A has been the most rewarding part of my time on campus. I graduated high school feeling isolated and lonely. But I quickly found a sense of belonging at the U of A in the Indigenous Students' Union.

Malijah, Native Studies & Education | Swan River First Nation/Kinuso Alberta Treaty 8

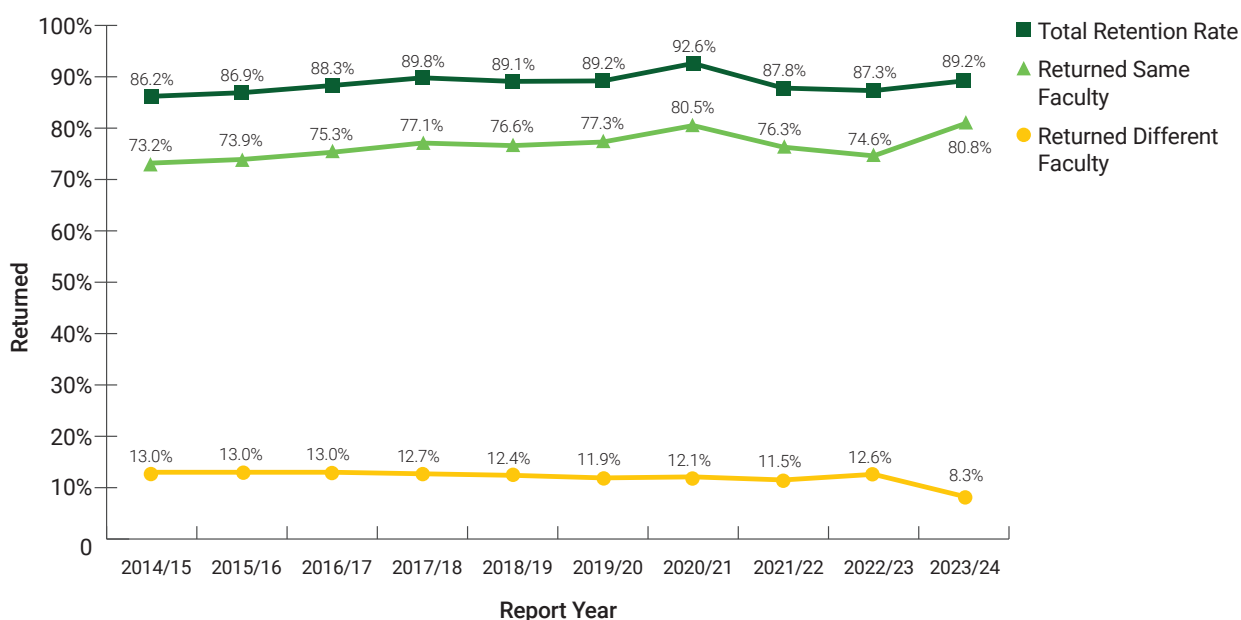
RETENTION AND COMPLETION RATES

STUDENT RETENTION, YEAR 1 TO YEAR 2, UNDERGRADUATE

The retention rate of first-year undergraduate students has predominantly exhibited an upward trajectory over the past decade. Nevertheless, a notable deviation occurred in the reporting years 2021/22 and 2022/23, where it declined to 87.8% and 87.3%, respectively. Encouragingly, in 2023/24, the subsequent academic year, the retention rate rebounded to 89.2%, signifying a noteworthy 1.9 percentage point increase from the preceding year and marking the first positive shift after two consecutive years of decline.

The proportion of students who returned to the same faculty rose in 2023/24 to 80.8%, a year-over-year increase of 6.2 percentage points. The proportion of students who returned to a different faculty saw a year-over-year decrease of 4.3 percentage points, falling from 12.6% in the previous year. This decrease may be a result of the opening of first-year direct entry programs to the Alberta School of Business in 2022/23. This reduced the numbers of Arts and Augustana students transferring to Business.

FIGURE 15: PROPORTION OF FIRST-YEAR UNDERGRADUATES WHO RETURNED FOR THEIR SECOND YEAR OF STUDY (2014 TO 2023)



Source: Performance Analytics and Institutional Research (PAIR), Acorn Institutional Data Warehouse, Retention Rates Table

GRADUATE STUDENT RETENTION

The retention rate for graduate students continues to be strong. However, because the length of the different types of graduate credentials vary quite drastically, this affects the retention rate over time.

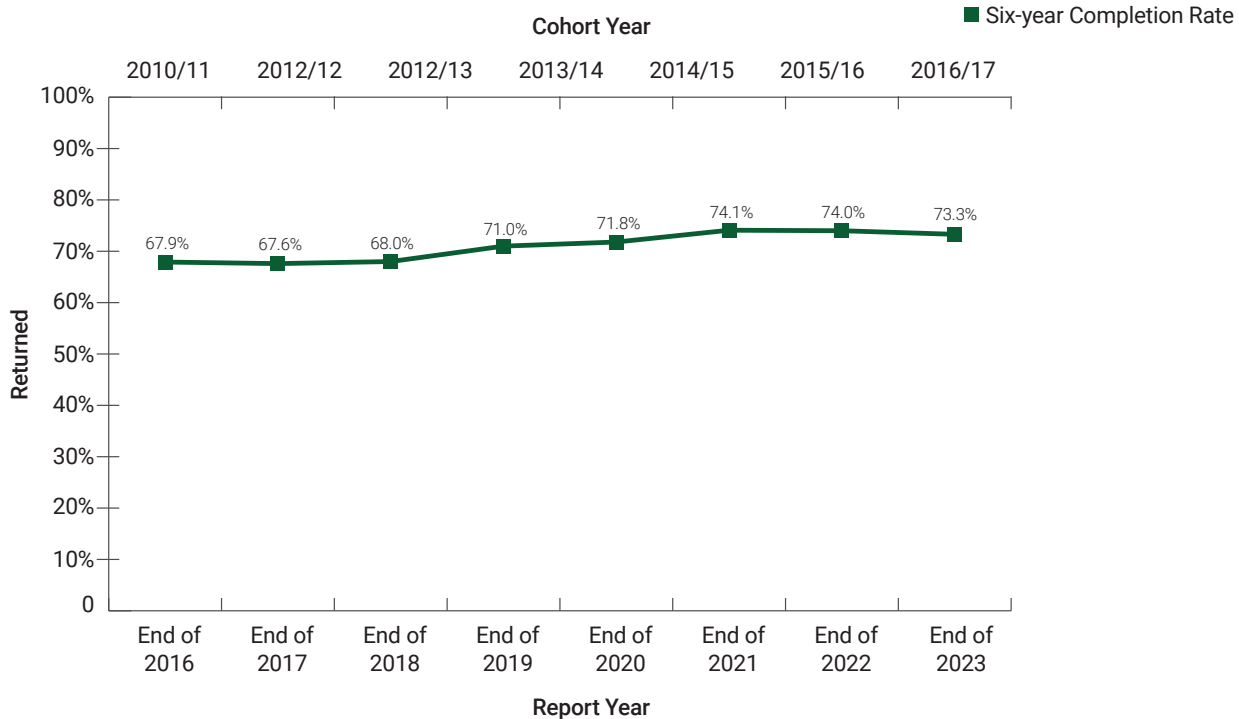
In 2022/23, the retention rate was 97.0% (students who have completed or are continuing in their program), but with many doctoral students taking up to six years to finish, while master's students typically finish in just over two years, an average may be more helpful. The average retention rate from 2013 to 2022 (10 years) is 92.4%.

For graduate students, completion and attrition rates may provide more insights than a year over year retention rate comparison. More details can be found in the graduate appendix.

SIX-YEAR PROGRAM COMPLETION RATES, UNDERGRADUATE, DIRECT ENTRY

The proportion of direct-entry undergraduate students who completed their program within six years has maintained at 73.3%, decreasing by only 0.6 percentage points from the previous year.

FIGURE 16: PROPORTION OF YEARLY COHORTS WHO GRADUATE WITHIN SIX YEARS OF FIRST ADMISSION TO A DIRECT-ENTRY UNDERGRADUATE PROGRAM



Source: Performance Analytics and Institutional Research (PAIR), Acorn Institutional Data Warehouse, Student Completion Dashboard

Notes:

1. The cohort for each year comprises students with first admission to a direct-entry undergraduate program. This excludes transfer students.
2. The students in each cohort who graduated from the university in any undergraduate program, within six years, are defined as completers.
3. Bridging program students are included in the calculation of the completion rates.

GRADUATE PROGRAM COMPLETION RATES

The completion rate for graduate students continues to increase, with 97% of students completing their program in 2022/23, an increase of 7.3 percentage points since 2013. The length in program for a graduate student differs significantly depending on the credential (i.e. a two-year master's program versus a six-year PhD program).

Completion lengths for specific credentials as of 2022/23, on average, are as follows:

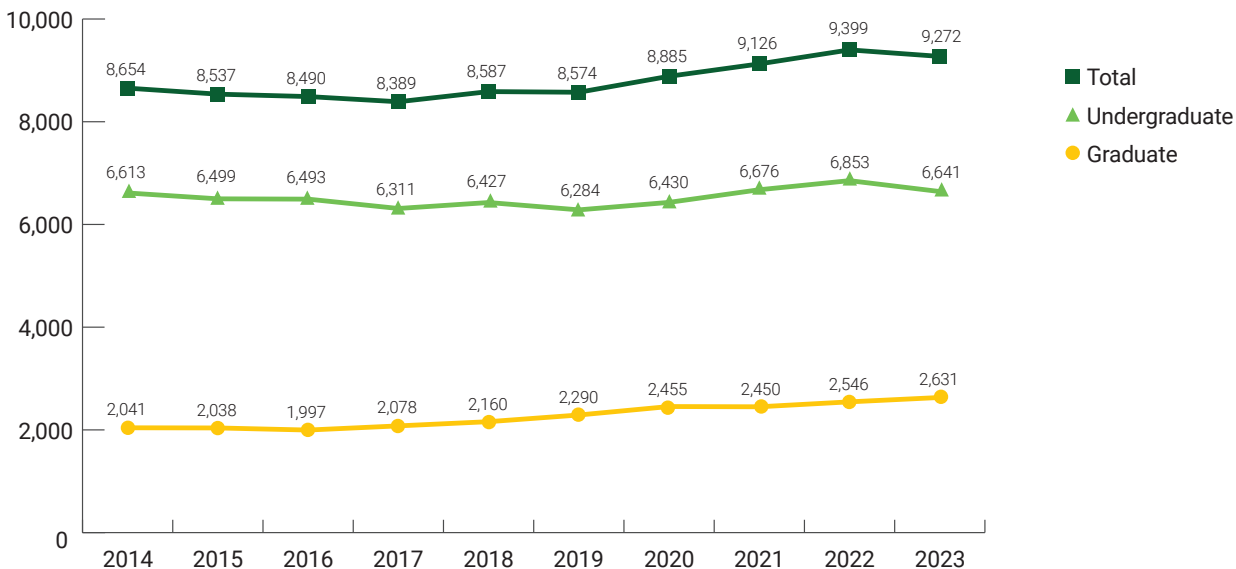
- Certificate: 1.6 years (static from 2022)
- Course-based master's: 2.11 years (slightly shorter than 2.13 in 2022)
- Thesis-based master's: 2.75 years (shorter than 2.83 in 2022)
- PhD: 5.58 years (shorter than 5.64 last year, but relatively in line with averages over the past several years)

GRADUATION HEADCOUNT

GRADUATION HEADCOUNT, TOTAL

Over the past decade, the graduation headcount has experienced a downward trend in the first four-year period and a rebound in the most recent six years, with minor fluctuations. In 2023/24, the total students graduating from the university decreased by 1.4% from the previous year's record high. This decrease was mainly driven by the undergraduate cohort (a decrease of 212, or 3.1%) as the university had a slightly smaller New-to-U intake in Fall 2019. Of those who graduated, 6,641 were undergraduate students, making up 71.6% of the graduating headcount. 2,631 were graduate students, accounting for 28.4% of the total graduating headcount.

FIGURE 17: TOTAL GRADUATION HEADCOUNT (2014 TO 2023)



Undergraduate Source: Performance Analytics and Institutional Research (PAIR), Acorn Institutional Data Warehouse, Convocation Table

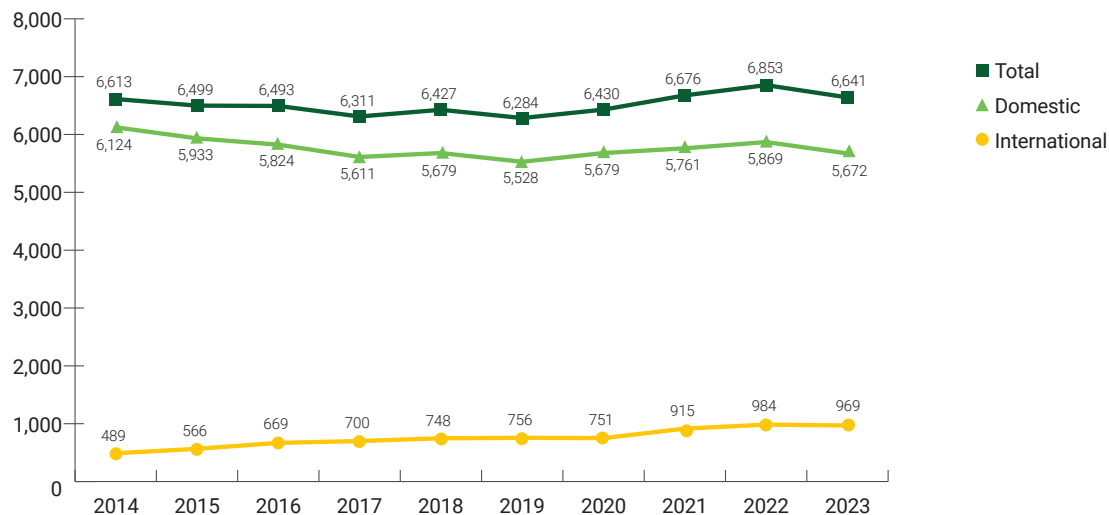
Note: Numbers shown are as of December 1 of the specified year. The final records of the year will be updated on the ACORN-Convocation Table on December 31, 2023.

Graduate Source: Faculty of Graduate & Postdoctoral Studies Internal Script with data extracted from Peoplesoft Campus Solutions, December 1, 2023.

GRADUATION HEADCOUNT, UNDERGRADUATE

Over the past decade, the undergraduate graduation headcount has experienced a downward trend in the first six-year period and a rebound in the most recent four years, with minor fluctuations. In 2023/24, the total number of undergraduate students graduating from the university decreased by 3.1% from the previous year's record high. Of those who graduated, 5,672 were domestic students, making up 85.4% of the graduating headcount. The rest of 969 were international students, accounting for 14.6% of the total undergraduate graduating headcount.

FIGURE 18: UNDERGRADUATE GRADUATION HEADCOUNT (2014 TO 2023)



Source: Performance Analytics and Institutional Research (PAIR), Acorn Institutional Data Warehouse, Convocation Table

Note: Numbers shown are as of December 1 of the specified year. The final records of the year will be updated on the ACORN-Convocation Table on December 31, 2023.

GRADUATION HEADCOUNT, GRADUATE

Over the past ten years, the graduate graduation headcount has increased by 26.1%, or 552 students. Convocant numbers continue to rise in total with an increase in all degree types this year, with the exception of certificate students.

TABLE 8: GRADUATE GRADUATION HEADCOUNT (2014 TO 2023)

| Year | PhD | Thesis-based Master's | Course-based Master's | Certificate |
|------|-----|-----------------------|-----------------------|-------------|
| 2014 | 469 | 653 | 896 | 23 |
| 2015 | 474 | 559 | 988 | 17 |
| 2016 | 477 | 589 | 896 | 35 |
| 2017 | 439 | 618 | 984 | 37 |
| 2018 | 451 | 603 | 1,050 | 56 |
| 2019 | 503 | 664 | 1,074 | 49 |
| 2020 | 423 | 659 | 1,315 | 58 |
| 2021 | 415 | 619 | 1,322 | 94 |
| 2022 | 412 | 587 | 1,391 | 156 |
| 2023 | 432 | 661 | 1,397 | 141 |

Source: Faculty of Graduate & Postdoctoral Studies Internal Script with data extracted from Peoplesoft Campus Solutions, December 1, 2023.

CLOSING REMARKS

The University of Alberta is one of Canada's top universities and we continue to see this reflected in the calibre and diversity of our students. Implementing thoughtful and deliberate strategies enables us to better serve students across rural and urban Alberta and the world. Key areas of focus for the future include:

- **Leveraging capacity and expertise:** continuing cross-institutional collaboration through Enrolment Management Service Partners and the Student Recruitment Centre of Expertise.
- **Responding to ongoing geopolitical and economic obstacles:** supporting international applicants through new strategic, market-specific strategies and dedicated recruitment support.
- **Provincial funding and advocacy:** capitalizing on momentum due to Targeted Enrolment Expansion (TEE) funding and continuing government advocacy.
- **Programming and initiatives for equity-denied groups:** creating and highlighting supports like the Access Awards, the Turtle Spirit Pathway Award for First Nations, Métis and Inuit Students and the U of A Supporting Aboriginal Graduate Enhancement (SAGE) program.
- **Strategies to support diverse learners:** directing attention to diverse learners of all backgrounds through transfer student recruitment and graduate certificate pathways.
- **Building a thriving graduate education ecosystem:** developing programming, strategies and supports to meet demand for certificate and course-based master's degrees while maintaining and growing our research based thesis programs by providing guaranteed financial supports for doctoral students.

Through ongoing collaboration across our campuses, the University of Alberta remains well-positioned to enhance and evolve our enrolment management strategies in response to student needs, priorities and challenges within an ever-changing post-secondary landscape. The Office of the Registrar and the Faculty of Graduate & Postdoctoral Studies look forward to continuing to support the university's institutional priorities and goals.

Overview

Undergraduate and Graduate Enrolment Report 2023/24

Strategic management of enrolment is vital to supporting the University of Alberta in its objective to achieve “growth among domestic and international learners, enabling more skilled young people to stay in Alberta and contribute to building the province.”

Date:

JANUARY 2024

The University of Alberta respectfully acknowledges that we are situated on Treaty 6 territory, traditional lands of First Nations and Métis people.



As of December 1, 2023, the university's total enrolment has reached a record high at 44,738 (8,375 graduate students and 36,363 undergraduate students), a year-over-year increase of 1.6%.



APPLICANTS

The number of undergraduate applicants was slightly lower than the previous year, with a decrease of 2.7% (or 1,133 fewer applicants). Graduate applicants had an increase of 19.6% (or 2,270 more applicants).

UNDERGRADUATE

| | | |
|------------------|---------------|---------------|
| 40,532 | 27,770 | 14,439 |
| TOTAL APPLICANTS | ADMITTED | REGISTERED |

GRADUATE

| | | |
|------------------|--------------|--------------|
| 13,862 | 3,438 | 2,084 |
| TOTAL APPLICANTS | ADMITTED | REGISTERED |

ENROLMENT

UNDERGRADUATE

68.5%
ADMISSION RATE
 PROPORTION OF APPLICANTS WHO ARE ADMITTED

52.0%
YIELD RATE
 PROPORTION OF ADMITTED APPLICANTS WHO REGISTER

73.3%
SIX-YEAR COMPLETION RATE
 DIRECT-ENTRY PROGRAM COMPLETED IN 6 YEARS

GRADUATE

24.8%
ADMISSION RATE
 PROPORTION OF APPLICANTS WHO ARE ADMITTED

8,375 graduate students work in 367 research areas with 208 official specializations. There have been steady increases in the number of course-based masters students, certificate students and thesis-based masters students.

2,857 PHD STUDENTS (34.1%)

3,091 COURSE-BASED MASTER'S (36.9%)

2,137 THESIS-BASED MASTER'S (25.5%)

221 CERTIFICATE STUDENTS (2.6%)

69 OTHER (VISITING, WESTERN DEANS, ETC)



The University of Alberta continues to be a magnet for ambitious students who embody our mission to lead with purpose: “educating, researching and engaging in deliberate, purposeful ways – in order to make a lasting, positive difference.”*

Receiving the Schulich Leader Scholarship is an honour and will allow me to pursue and pioneer engineering and entrepreneurial projects with no restraints. I will be able to wholeheartedly chase my dream of becoming a leader in mechanical engineering and opening my own engineering startup in the future.

*Peter, 2023 Schulich Scholarship Recipient
Faculty of Engineering*

I am proud to be the 2023 Pierre Elliott Trudeau Foundation Doctoral Scholarship recipient. I started my doctoral studies at the University of Alberta in 2021 and am focusing my research on understanding the unique challenges experienced by family caregivers of people who use drugs in rural Canada. The support of the Pierre Elliott Trudeau Foundation has helped me grow as an engaged leader, researcher and global citizen to ultimately advance knowledge and foster positive change.

*Holly, 2023 Pierre Elliott Trudeau Foundation Doctoral Scholarship Recipient
School of Public Health*

DIVERSITY OF STUDENTS

Diversity in enrolment is a priority to ensure a rich learning and experiential environment. We continue to nurture an increasingly diverse community while ensuring access for Albertans. Indigenous enrolment has reached a new historical high.



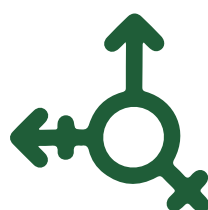
+5.4%
INDIGENOUS STUDENTS

+2.2%
OUT-OF-PROVINCE WITHIN CANADA STUDENTS

-1.5%
INTERNATIONAL STUDENTS



STUDENTS BY GENDER



54.0%
FEMALE

45.4%
MALE

0.6%
OTHER

* "Shape: The University Strategic Plan 2023-2033"

For more information, contact:

Office of the Registrar
ualberta.ca/registrar

Faculty of Graduate & Postdoctoral Studies
grad.mail@ualberta.ca
ualberta.ca/graduate-studies



Decision Discussion Information **ITEM OBJECTIVE**

To further the discussion on the development of Appendix B: Multifaceted Evaluation of Teaching and Learning of the Teaching, Learning and Evaluation Policy.

| | |
|------------------------------|---------------------------------------|
| DATE | February 26, 2024 |
| TO | General Faculties Council |
| RESPONSIBLE PORTFOLIO | Provost and Vice-President (Academic) |

EXECUTIVE SUMMARY: Throughout the development of the [Teaching, Learning and Evaluation Policy](#), consultations and conversations with the University of Alberta communities expressed a commitment to developing a more systematic approach to the multi-faceted evaluation of teaching. This commitment can be found in both the principles and purpose for the evaluation of teaching in the Teaching, Learning and Evaluation Policy and the Collective Agreement of the Association of Academic Staff of the University of Alberta (AASUA).

On February 27, 2023, General Faculties Council approved revisions to [Appendix A](#) of the Policy which came into effect July 1, 2023. Appendix A contains the questions that comprise the Student Perspectives of Teaching (SPOT) Survey. Gathering students' feedback on their experience of courses is an important aspect evaluating teaching which speaks to the Course Design and Instructional Practices aspects of the Framework for Effective Teaching. There are three other aspects—Expertise, Content and Outcomes; Learning Environment; Reflection, Growth and Leadership—that are best substantiated through other methods.

The University of Alberta has long required a multifaceted approach to the evaluation of teaching, and this is a requirement under the Collective Agreement. With the adoption of the new Policy, there is a further opportunity to foster robust use of multifaceted evaluation and provide more concrete suggestions for the different facets of evaluating teaching that complement the SPOT Survey.

Background

The Teaching, Learning, and Evaluation (TLE) Policy suite was approved March 25, 2022, by the Board of Governors, alongside the rescission of GFC Policy Manual section 111. The Policy suite's Appendix A is the new home for questions to be used for capturing the input of student perspectives on teaching. The Policy suite was developed in consultation with many stakeholders and experts within the University of Alberta prior to its adoption.

Analysis / Discussion

Following earlier conversations with the GFC Committee on the Learning Environment and consultations with relevant parties, the next draft of Appendix B of the Policy has been prepared.



ITEM NO. 10

This draft was developed using the *Multifaceted Teaching Evaluations in the Faculty of Arts Indicators of Teaching Excellence and Effectiveness* (Attachment #2) as a starting point, and further mapped to our Framework for Effective Teaching. Appendix B will provide guidance on multifaceted approaches to teaching evaluation.

Where applicable, list the legislation that is being relied upon

- Post-Secondary Learning Act
- GFC CLE Terms of Reference
- UAPPOL Teaching, Learning and Evaluation Policy
- UAPPOL Student Input to the Evaluation of Teaching and Learning Procedure
- UAPPOL Appendix A: Student Perspectives of Teaching (SPOT) Survey

Next Steps

Consultations with relevant parties and groups will continue and the work will continue to advance in close consultation and collaboration with the Centre for Teaching and Learning. The Appendix is now brought for consideration and discussion at today’s meeting of the General Faculties Council, with hopes of a return to GFC CLE on March 27, 2024, for approval. Feedback can be shared at tleinput@ualberta.ca.

Supporting Materials:

1. [TLE Policy - Appendix B: Multifaceted Evaluation of Teaching and Learning \(DRAFT February 2024\)](#)

Background information/relevant reference documents

1. [UAPPOL Teaching, Learning and Evaluation Policy](#)
2. [Multifaceted Teaching Evaluations in the Faculty of Arts Indicators of Teaching Excellence and Effectiveness](#)
3. [CTL Website: Multifaceted Evaluation of Teaching](#)
4. [University of Alberta’s Multifaceted Summative Evaluation of Teaching Symposium \(2015\)](#)
5. [Evaluation of Teaching at the University of Alberta: Report of the Sub-Committee of the Committee on the Learning Environment \(CLE\) \(2008\)](#)

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](#)>

| |
|--|
| <p><i>Those who are actively participating and who have been consulted:</i></p> <ul style="list-style-type: none"> ● Centre for Teaching and Learning - <i>ongoing</i> ● Faculty Relations - <i>ongoing</i> ● CLE (February 8, 2023) ● CLE (March 29, 2023) ● Workshop with CLE members (October 25, 2023) ● AASUA (November 2023) |
|--|



- CLE (November 29, 2023)
- AASUA (January 9, 2023)
- CLE (January 24, 2024)
- GFC (February 26, 2024)
- CLE (March 27, 2024)

Those who have been informed:

- GSA (January 13, 2023)
- Chairs' Council (January 17, 2023)
- COSA (January 26, 2023)
- General Faculties Council (January 30, 2023)
- Deputy Provosts Meeting (February 6, 2023)
- CNAS Education Undergraduate Leadership Meeting (August 30, 2023)
- Faculty Leadership Team Meetings:
 - Rehabilitation Medicine (September 11, 2023)
 - Library (September 12, 2023)
 - Native Studies (September 14, 2023)
 - KSR (September 15, 2023)
 - FOMD (September 26, 2023)
 - Alberta School of Business (September 27, 2023)
 - School of Public Health (October 2, 2023)
 - Education (October 3, 2023)
 - ALES (October 12, 2023)
 - Pharmacy & Pharmaceutical Sciences (October 16, 2023)
 - Engineering (October 17, 2023)
 - Augustana (October 11, 2023)
 - Law (October 25, 2023)
 - Science (October 26, 2023)
 - Campus Saint-Jean (October 30, 2023)
 - Nursing (October 31, 2023)
 - Arts (November 2, 2023)
- Vice-Provost, EDI (November 6, 2023)
- Vice-President Facilities & Operations (October 23, 2023)
- Vice-President, Shared Services & Finance (October 18, 2023)
- Vice-President, Research and Innovation (October 20, 2023)
- Vice-President, External Relations (November 2, 2023)
- General Council & University Secretary (October 17, 2023)

Approval Route:



ITEM NO. 10

Supplementary Notes / Context:

Original Approval Date:

Most Recent Approval:

DRAFT February 2024

Teaching, Learning and Evaluation Policy

Appendix B: Multifaceted Evaluation of Teaching and Learning

| | |
|---|---|
| Office of Accountability: | Provost and Vice-President (Academic) |
| Office of Administrative Responsibility: | Provost and Vice-President (Academic) |
| Approver: | GFC Committee on the Learning Environment |

Overview

As outlined in the Teaching Learning and Evaluation Policy, the evaluation of teaching and learning at the University of Alberta will be multifaceted, diverse, and evidence-based. To represent a holistic understanding of teaching practices, this approach integrates multiple dimensions (the voices of students, peers, and instructors) across various modalities (evidence or artifacts of teaching).

Appendix B presents the five domains of the *Framework for Effective Teaching (FET)*, each accompanied by its specific indicators of quality teaching and an aligned range of example evidence sources. The following reference table (*Multifaceted Evaluation of Teaching and Learning Reference Table: Framework for Effective Teaching Indicators and Example Evidence*) is informative and guiding, rather than prescriptive or exhaustive; therefore, not all indicators and evidence types are universally applicable across different teaching and learning contexts at the University of Alberta. Instructors and evaluators should select the most relevant domain(s), indicator(s), and evidence example(s) that reflect their unique teaching context and disciplinary needs.

As noted in the Policy, one of the principles and purposes of the evaluation of teaching is to “allow for both summative and formative feedback on teaching.” Appendix B supports reflective, iterative teaching and learning evaluation practices that minimize bias and improve equitable experiences through a thorough and fair evaluation of teaching across all voices. This Appendix provides an overview of the different voices involved, the evidence collected, and how this evidence relates to the Framework. It emphasizes that attributing outcomes to a single source is misleading; success typically involves a collaborative effort among all voices and the institution as a whole. There are other resources available on the Centre for Teaching and Learning Website to assist instructors (and others) in working with the different forms of evidence in both formative and summative reflections on their teaching.

Multifaceted Evaluation of Teaching and Learning Reference Table: Framework for Effective Teaching Indicators and Example Evidence

| Expertise, Content, and Outcomes (ECO): <i>What students are expected to learn as well as the expertise that instructors require to facilitate this learning.</i> | |
|---|--|
| ECO Subdomains and Indicators <i>(The effective teacher: ...)</i> | Evidence Examples (by Voice) |
| <p>Rigor and relevance of learning outcomes</p> <ul style="list-style-type: none"> ● Provides detailed, clear, and well-articulated course learning objectives and outcomes; ● Aligns outcomes, course content, and assessments with course description, curriculum, and/or institutional expectations; ● Provides up-to-date course content to include the most current trends, findings, and research in the field; ● Makes an effort to develop student awareness of the research culture and skills of the discipline. | <p>Students:</p> <ul style="list-style-type: none"> - <i>TSQS Formative/Midterm Feedback:</i> Student feedback on course content and learning outcomes. - <i>Informal Student Feedback:</i> Selected feedback highlighting course content impact and outcome effectiveness. - <i>SPOT Data (Comments):</i> Relevant qualitative data from SPOT addressing ECO’s indicators. - <i>Student Achievement Data:</i> Analysis of student performance related to learning outcomes. - <i>Student Research Involvement:</i> Examples of student research projects or activities stemming from course content. <p>Peers:</p> <ul style="list-style-type: none"> - <i>Peer Review of Course Design/Materials:</i> Formative and/or summative evaluations (preferably multiple times) on course content and rigor. - <i>Discussions with Colleagues:</i> Documentation of formal/informal discussions relevant to ECO domain indicators. |
| <p>Relevance of instructor expertise</p> <ul style="list-style-type: none"> ● Possesses knowledge of units of instruction, course, and discipline or subject area on a deep level, including current research and interaction with other relevant topics; ● Identifies and resolves common student challenges encountered when learning course-specific content; ● Models professionalism through sharing knowledge, examples, personal anecdotes, etc.; ● Demonstrates enthusiasm, passion, and confidence for teaching. | <p>Instructors:</p> <ul style="list-style-type: none"> - <i>Teaching Philosophy Statement:</i> Outlines teaching beliefs and approaches and highlights growth and learning. - <i>Selected Course Materials:</i> Excerpts from syllabi demonstrating value placed on quality subject matter. - <i>Disciplinary/Subject-area Resources:</i> Assignments and materials showcasing current trends and research relevance. - <i>Teaching Reflections:</i> Journal, notes, or artifacts that integrate student and peer feedback in ongoing reflective praxis. - <i>Teaching Goals Explanation:</i> Alignment with course learning outcomes. - <i>Course Improvement Plans:</i> Documented plans for course content and outcome improvements based on student learning and peer/student feedback. - <i>Professional Development Records:</i> Evidence of ongoing learning in the discipline or teaching methods. |

Course Design (CD): Constructive organization of course objectives, resources, assignments, and assessments.

| CD Subdomains and Indicators <i>(The effective teacher: ...)</i> | Evidence Examples (by Voice) |
|---|--|
| <p>Coherent Design of Instruction</p> <ul style="list-style-type: none"> • Shares detailed, clear, and well-articulated learning objectives, outcomes, teaching and learning activities; • Plans and organizes activities which develop students' learning; • Selects course activities which promote student achievement of course outcomes; • Ensures quality by regularly evaluating and updating learning outcomes and aligned activities and materials. | <p>Students:</p> <ul style="list-style-type: none"> - <i>SPOT Data (Questions 1-9):</i> Qualitative and quantitative data that apply to subdomains and indicators of the CD domain. - <i>TSQS Formative/Midterm Feedback:</i> Student feedback on the coherence and effectiveness of course design. - <i>Informal Student Feedback:</i> Selected feedback highlights relevance of selected course materials and activities, pacing, and assessment tasks. - <i>Student Achievement Data:</i> Demonstrate student performance in relation to applicable aspects of course design, learning outcomes, and assessments. - <i>Student Work Examples:</i> Samples of student work demonstrating achievement of learning outcomes (include assessment descriptions, rubrics, and feedback methods). |
| <p>Constructive Assignments and Assessment Strategies</p> <ul style="list-style-type: none"> • Implements various forms of assessment, using a multi-faceted approach to best evaluate students; • Describes, analyzes, and evaluates the quality of student learning using clear standards; • Integrates formative and summative assessments throughout the course; • Provides specific, measurable, achievable, relevant, and timely feedback. | <p>Peers:</p> <ul style="list-style-type: none"> - <i>Peer Review of Course Design/Materials:</i> Formative and/or summative evaluations (preferably multiple times) and related documentation, focusing on course organization, pacing, and alignment with outcomes. - <i>Discussions with Colleagues:</i> Documentation of formal/informal collegial dialogues and activities (participation in Teaching Squares, Mentor-Mentee relationships, etc.) related to specific indicators in CD domain. - <i>Colleague Feedback on Assignments:</i> Insights gained from peers on the constructiveness and diversity of course learning activities and assessment tasks. <p>Instructors:</p> <ul style="list-style-type: none"> - <i>Teaching Reflections:</i> Journal, notes, or artifacts that integrate student and peer feedback in ongoing reflective praxis related to course design. |
| <p>Useful Learning Resources and Materials</p> <ul style="list-style-type: none"> • Creates and curates high-quality and intellectually sound content and instructional materials; • Integrates guests or media into the learning setting in ways that deepen students' learning; • Provides course materials using a variety of means of representation (e.g. audio, video, text, etc.). | <ul style="list-style-type: none"> - <i>Selected Course/Learning Materials:</i> Demonstrating approach to design and teaching, such as the following: excerpts from syllabi, assignment descriptions and examples, grading rubrics and explanations, multimodal learning resources, and/or select materials. - <i>Select Assessment Tasks:</i> Demonstrate a variety of assessment types and appropriate levels of student achievement. - <i>Feedback Strategies:</i> Examples of specific, measurable, and timely feedback. - <i>Course Design and/or Redevelopment Documentation:</i> Records of new course development as well as regular updates/revisions to existing course contents and assessment strategies. - <i>Reflective Summary:</i> Describe the peer review experience, identify any new learnings and specific changes, and discuss strengths and areas for improvement. - <i>Learning Materials Portfolio:</i> Sample collection of varied, cost-effective resources aligned with course goals. - <i>Teaching and Learning Activities:</i> Documented professional development related to course design and pedagogy. |

Instructional Practices (IP): Teaching preparation, methods, and approaches to facilitate learning. In other words, how instructors interact with their students and the quality of their instruction.

| IP Subdomains and Indicators <i>(The effective teacher: ...)</i> | Evidence Examples (by Voice) |
|--|--|
| <p>Effective Facilitation of Course Delivery</p> <ul style="list-style-type: none"> Models and conveys the knowledge, skills and attitudes which students are expected to obtain; Manages the unexpected effectively while teaching (e.g. technology contingencies, student preparedness); Sets and maintains classroom structures and organization (expectations, goals, rules, processes, and feedback). | <p>Students:</p> <ul style="list-style-type: none"> - <i>SPOT Data (Questions 10-18)</i>: Qualitative and quantitative data that apply to the subdomains and indicators of the IP domain. - <i>TSQS Mid-Course Surveys</i>: Student feedback on instructional practices. - <i>Informal Student Feedback</i>: Selected feedback on engagement and student interaction. - <i>Student Work Samples</i>: Exemplars/excerpts of student learning. - <i>Student Achievements</i>: Achievements related to teaching/learning practices (i.e. career placement, grad school admission, publications, presentations). - <i>Student Self-Assessment Documentation</i>: Highlight student reflections on learning. - <i>Letters of Support</i>: Endorsement of instructor impact (post-teaching/supervisory relationship). - <i>Supervisee/Mentee Feedback</i>: Insights on student learning. - <i>Teaching Awards/Nominations</i>: Student recognition of teaching. - <i>Student Research Collaborations</i>: Document student-instructor research/community learning projects. |
| <p>Student-centered Instruction and Learning Activities</p> <ul style="list-style-type: none"> Utilizes a broad range of instructional strategies and quality teaching practices; Provides explanations which are appropriate for the level of the course or students' understanding; Engages students and encourages perseverance despite challenges related to the course material; Respects and values student contributions to learning; Incorporates Indigenous pedagogical approaches, ways of knowing, and student-centered processes into the course. | <p>Peers:</p> <ul style="list-style-type: none"> - <i>Peer Review (Teaching Observation)</i>: Formative and/or Summative observations of teaching (ideally conducted multiple times). - <i>Discussions with Colleagues</i>: Documentation of formal/informal collegial activities (participation in Teaching Squares, Mentor-Mentee relationships, etc.). - <i>Teaching Invitations</i>: Peer recognition of teaching abilities. - <i>Teaching Awards/Nominations</i>: Peer recognition of teaching. <p>Instructors:</p> <ul style="list-style-type: none"> - <i>Teaching Reflections</i>: Journal, notes, or artifact that integrate student and peer feedback in ongoing reflective praxis related to instructional practices. - <i>Sample Course Materials</i>: Engaging lesson plans, innovative activities, and assessments. - <i>eClass/Online Resources</i>: Showcase relevant resources/activities and explain impacts on learning. - <i>Assessment Descriptions</i>: Explain evidence-based approaches, practices, and task types with examples. - <i>Reflective Summary</i>: Peer teaching observation experiences, strengths, and improvements. - <i>Inclusive Community-Building Evidence</i>: Documentation of skills and experiences in fostering inclusivity. - <i>Indigenous Pedagogical Integration</i>: Evidence of holistic, learner-focused practices. - <i>Teaching Roles and Responsibilities</i>: Comprehensive list of teaching engagements. - <i>Graduate Student Learning Contributions</i>: Documented impact on learning and scholarship. - <i>Mentorship and Supervision Goals</i>: Outline current and future objectives. - <i>Mentorship and Supervision Reflections</i>: Insights gained from students' and colleagues' experiences. - <i>Teaching and Learning Activities</i>: Documented professional development related to IP domain. - <i>Accessibility Strategies</i>: Evidence of adapting teaching methods to diverse learning needs. |
| <p>Approaches to facilitating a productive and supportive climate for learning</p> <ul style="list-style-type: none"> Builds and sustains proactive and effective collaborative relationships with, and between, students; Encourages and creates opportunities for students to take responsibility for an inclusive environment; Treats students with respect and requires students to demonstrate respect for others; Demonstrates equitable and inclusive teaching practices, while fostering the students' sense of belonging in ways that shape all aspects of course, including its outcomes, content, activities, and assessments. | <p>Peers:</p> <ul style="list-style-type: none"> - <i>Peer Review (Teaching Observation)</i>: Formative and/or Summative observations of teaching (ideally conducted multiple times). - <i>Discussions with Colleagues</i>: Documentation of formal/informal collegial activities (participation in Teaching Squares, Mentor-Mentee relationships, etc.). - <i>Teaching Invitations</i>: Peer recognition of teaching abilities. - <i>Teaching Awards/Nominations</i>: Peer recognition of teaching. <p>Instructors:</p> <ul style="list-style-type: none"> - <i>Teaching Reflections</i>: Journal, notes, or artifact that integrate student and peer feedback in ongoing reflective praxis related to instructional practices. - <i>Sample Course Materials</i>: Engaging lesson plans, innovative activities, and assessments. - <i>eClass/Online Resources</i>: Showcase relevant resources/activities and explain impacts on learning. - <i>Assessment Descriptions</i>: Explain evidence-based approaches, practices, and task types with examples. - <i>Reflective Summary</i>: Peer teaching observation experiences, strengths, and improvements. - <i>Inclusive Community-Building Evidence</i>: Documentation of skills and experiences in fostering inclusivity. - <i>Indigenous Pedagogical Integration</i>: Evidence of holistic, learner-focused practices. - <i>Teaching Roles and Responsibilities</i>: Comprehensive list of teaching engagements. - <i>Graduate Student Learning Contributions</i>: Documented impact on learning and scholarship. - <i>Mentorship and Supervision Goals</i>: Outline current and future objectives. - <i>Mentorship and Supervision Reflections</i>: Insights gained from students' and colleagues' experiences. - <i>Teaching and Learning Activities</i>: Documented professional development related to IP domain. - <i>Accessibility Strategies</i>: Evidence of adapting teaching methods to diverse learning needs. |
| <p>Mentoring and supervision</p> <ul style="list-style-type: none"> Demonstrates care and practices that promote students' academic productivity and intellectual growth; Sets and sustains clear behavioural expectations to promote optimal teaching and learning; Offers students quality advising and mentoring that promotes their growth. | <p>Peers:</p> <ul style="list-style-type: none"> - <i>Peer Review (Teaching Observation)</i>: Formative and/or Summative observations of teaching (ideally conducted multiple times). - <i>Discussions with Colleagues</i>: Documentation of formal/informal collegial activities (participation in Teaching Squares, Mentor-Mentee relationships, etc.). - <i>Teaching Invitations</i>: Peer recognition of teaching abilities. - <i>Teaching Awards/Nominations</i>: Peer recognition of teaching. <p>Instructors:</p> <ul style="list-style-type: none"> - <i>Teaching Reflections</i>: Journal, notes, or artifact that integrate student and peer feedback in ongoing reflective praxis related to instructional practices. - <i>Sample Course Materials</i>: Engaging lesson plans, innovative activities, and assessments. - <i>eClass/Online Resources</i>: Showcase relevant resources/activities and explain impacts on learning. - <i>Assessment Descriptions</i>: Explain evidence-based approaches, practices, and task types with examples. - <i>Reflective Summary</i>: Peer teaching observation experiences, strengths, and improvements. - <i>Inclusive Community-Building Evidence</i>: Documentation of skills and experiences in fostering inclusivity. - <i>Indigenous Pedagogical Integration</i>: Evidence of holistic, learner-focused practices. - <i>Teaching Roles and Responsibilities</i>: Comprehensive list of teaching engagements. - <i>Graduate Student Learning Contributions</i>: Documented impact on learning and scholarship. - <i>Mentorship and Supervision Goals</i>: Outline current and future objectives. - <i>Mentorship and Supervision Reflections</i>: Insights gained from students' and colleagues' experiences. - <i>Teaching and Learning Activities</i>: Documented professional development related to IP domain. - <i>Accessibility Strategies</i>: Evidence of adapting teaching methods to diverse learning needs. |

Learning Environments (LE): Physical and virtual support systems where the classroom is viewed as a complex, dynamic, physical and digital system of opportunities for sustained teaching and learning interactions and relationships.

[This domain is largely the operational responsibility of the University and NOT individual instructors; the learning environment fostered by an instructor in their course is captured in Instructional Practices and particularly the sub-domain on class climate.]

| LE Subdomains and Indicators (The effective teacher: ...) | Evidence Examples (by Voice) |
|--|--|
| <p>Infrastructure</p> <ul style="list-style-type: none"> Ensures course communication and technology tools are used to increase student engagement and facilitate learning; Maintains a learning environment (physical, virtual, or hybrid) and associated learning activities to support active student learning; Assesses support of diverse learning styles in physical, digital, and hybrid environments. | <p>Students:</p> <ul style="list-style-type: none"> - <i>TSQS Mid-course Surveys</i>: Document and share (when appropriate) relevant student feedback. - <i>SPOT Data (Comments)</i>: Document and share (when appropriate) relevant qualitative data from student feedback addressing this domain's indicators. - Surveys of UofA students (UofA and third party; aggregated results only) <ul style="list-style-type: none"> - <i>Student Experience Action Plan (SEAP) survey</i>. - <i>National Survey on Student Engagement (NSSE)</i>. - <i>Quality Assurance Reviews</i>. - <i>Accreditation-related Surveys</i>. - <i>Student Services Awareness Survey</i>. - <i>Campus Security Perception Survey</i>. - <i>Canadian Undergraduate Student Consortium Survey (CUSC)</i>. |
| <p>Support</p> <ul style="list-style-type: none"> Provides resources and accommodations that mitigate or, ideally, eliminate barriers to student learning; Demonstrates sensitivity to student wellness / well-being / mental health through sharing information about relevant campus resources & referral services; Provides trained Teaching Assistants to support student learning; Provides co-curricular programming to support diverse learning needs of all students. | <p>Peers:</p> <ul style="list-style-type: none"> - <i>Peer Review (Teaching Observations)</i>: Formative and/or Summative observations of teaching (ideally conducted multiple times), including evaluation items specifically related to LE domain indicators. - <i>Peer Review of Course Design/Materials</i>: Formative and/or summative evaluations (preferably multiple times), including evaluation items specifically related to LE domain indicators such as the learning environment, accessibility, and student supports. - Other institutional reports and documents <ul style="list-style-type: none"> - <i>Quality Assurance Reviews</i>. - <i>Accreditation Studies/Reports</i>. - <i>Departmental (or Faculty) Council agendas/minutes</i>. <p>Instructor:</p> <ul style="list-style-type: none"> - <i>Teaching Reflections</i>: Journal, notes, or artifacts that integrate student and peer feedback in ongoing reflective praxis related to the learning environment. - <i>Technology and Teaching Integration Documentation</i>: Record of technology use to enhance student engagement and learning. - <i>Accessibility/Accommodations</i>: Evidence of course design and delivery measures taken to accommodate diverse learning needs and address barriers. - <i>Student Accessibility and Awareness of Supports</i>: Examples describing awareness of student support services and how instructional strategies can adapt to individual learning needs. - <i>Course Scheduling Documentation</i>: Evidence of course scheduling considerations to facilitate academic progression. - <i>Reflective Summary</i>: Analysis of peer review experiences related to the learning environment, new learnings, specific changes, strengths, and areas for improvement. |
| <p>Scheduling</p> <ul style="list-style-type: none"> Ensures courses are scheduled to facilitate academic career progression; Provides clarity about the teaching modality(-ies) of required courses in programs. | <p>Students:</p> <ul style="list-style-type: none"> - <i>TSQS Mid-course Surveys</i>: Document and share (when appropriate) relevant student feedback. - <i>SPOT Data (Comments)</i>: Document and share (when appropriate) relevant qualitative data from student feedback addressing this domain's indicators. - Surveys of UofA students (UofA and third party; aggregated results only) <ul style="list-style-type: none"> - <i>Student Experience Action Plan (SEAP) survey</i>. - <i>National Survey on Student Engagement (NSSE)</i>. - <i>Quality Assurance Reviews</i>. - <i>Accreditation-related Surveys</i>. - <i>Student Services Awareness Survey</i>. - <i>Campus Security Perception Survey</i>. - <i>Canadian Undergraduate Student Consortium Survey (CUSC)</i>. <p>Peers:</p> <ul style="list-style-type: none"> - <i>Peer Review (Teaching Observations)</i>: Formative and/or Summative observations of teaching (ideally conducted multiple times), including evaluation items specifically related to LE domain indicators. - <i>Peer Review of Course Design/Materials</i>: Formative and/or summative evaluations (preferably multiple times), including evaluation items specifically related to LE domain indicators such as the learning environment, accessibility, and student supports. - Other institutional reports and documents <ul style="list-style-type: none"> - <i>Quality Assurance Reviews</i>. - <i>Accreditation Studies/Reports</i>. - <i>Departmental (or Faculty) Council agendas/minutes</i>. <p>Instructor:</p> <ul style="list-style-type: none"> - <i>Teaching Reflections</i>: Journal, notes, or artifacts that integrate student and peer feedback in ongoing reflective praxis related to the learning environment. - <i>Technology and Teaching Integration Documentation</i>: Record of technology use to enhance student engagement and learning. - <i>Accessibility/Accommodations</i>: Evidence of course design and delivery measures taken to accommodate diverse learning needs and address barriers. - <i>Student Accessibility and Awareness of Supports</i>: Examples describing awareness of student support services and how instructional strategies can adapt to individual learning needs. - <i>Course Scheduling Documentation</i>: Evidence of course scheduling considerations to facilitate academic progression. - <i>Reflective Summary</i>: Analysis of peer review experiences related to the learning environment, new learnings, specific changes, strengths, and areas for improvement. |

Reflection, Growth, and Leadership (RGL): Efforts to contribute to growth in self and others' teaching practices. In other words, personal and collaborative efforts instructors engage in to contribute to growth in self or others to improve the learning environment.

| RGL Subdomains and Indicators <i>(The effective teacher: ...)</i> | Evidence Examples (by Voice) |
|---|---|
| <p>Engagement in Self-Reflection and continuous improvement</p> <ul style="list-style-type: none"> • Informs self-reflection on teaching by multiple sources and types of feedback (e.g. students, peers, external experts, benchmark) including student perceptions, learning interactions, or performance measures; • Adjusts the teaching as informed by lessons learned from prior teaching experience and feedback; • Expresses one's own perspective, values, and beliefs about teaching and learning through a teaching (philosophy statement); • Demonstrates comprehension of a variety of learning theories and effective teaching and learning support methods. | <p>Students:</p> <ul style="list-style-type: none"> - <i>Reflective Praxis Summary</i>: Quantitative and qualitative student evidence evaluating teaching effectiveness. - <i>Thematic Analysis of Student Feedback</i>: Key themes in student feedback and data. - <i>Systematic Analysis of Student Learning</i>: Longitudinal study of student learning and experiences. - <i>Course Improvement Feedback</i>: Characterize student input on changes made to courses over time. - <i>Letters of Support</i>: Endorsement(s) of instructor impact (post-teaching/supervisory relationship). <p>Peers:</p> <ul style="list-style-type: none"> - <i>Committee Membership</i>: Involvement in Teaching/Learning Committees. - <i>Interdisciplinary Teaching Feedback</i>: Reviews from faculty in different disciplines on teaching, learning, and courses. - <i>SoTL Presentations and Publications</i>: Peer-reviewed work related to teaching/learning. - <i>Invitations to Speak</i>: Requests to present on teaching/learning topics. - <i>Impact on Peer Scholarship</i>: Citations and applications of one's SoTL by another. - <i>Colleague Letters</i>: Testimonials about contributions to teaching/learning research and scholarship. - <i>Peer Feedback on Leadership</i>: Feedback highlighting leadership and mentorship in teaching and learning. |
| <p>Pursuit of Teaching and Learning Professional Development</p> <ul style="list-style-type: none"> • Investigates a variety of current research and methods in teaching and learning; • Shows evidence of keeping up with reports or literature on effective teaching practices; • Works with university educational experts to develop teaching skills, knowledge, and practices. | <p>Instructors:</p> <ul style="list-style-type: none"> - <i>Teaching Dossier/Portfolio</i>: Documentation of a self-reflective process, teaching practice, and professional development. - <i>Teaching Reflections</i>: Analysis of teaching strategies and materials in relation to teaching philosophy. - <i>Self-Reflective Praxis Records</i>: Journals, notes, and artifacts detailing teaching-related decision-making and outcomes of teaching interventions and improvements. - <i>Teaching Philosophy Statement</i>: Outlines teaching beliefs and approaches and highlights growth and learning. - <i>EDI Statement</i>: Included in the syllabus or Teaching Dossier. - <i>Future Teaching Goals Statement</i>: Plans for skill development and contributions to teaching scholarship. - <i>Professional Development Documentation</i>: Explain participation in workshops, courses, mentorship, and communities of practice. - <i>Research-Informed Practices and Course Materials</i>: Documentation of teaching practices and materials reflecting teaching/learning research. - <i>Teaching-Related Presentations/Publications</i>: Documentation of contributions to teaching discourse and inquiry (SoTL). - <i>Mentorship and Supervisor Leadership Contributions</i>: Documentation of leadership roles related to teaching and learning. |
| <p>Educational leadership</p> <ul style="list-style-type: none"> • Participates in departmental or institutional teaching-related committees and curricular decisions through a recognizable leadership role that improves teaching on campus (e.g. with respect to curricular planning, assessment); • Creates opportunities for self and peers to help others improve teaching such as through peer mentoring, consultations, and formative or summative reviews in service of a positive institutional and/or departmental teaching culture; • Creates opportunities for self and peers to secure resources (e.g. grant funding) for a positive teaching culture. | <p>Contributions to Scholarship of Teaching and Learning</p> <ul style="list-style-type: none"> • Applies for teaching and learning awards, grants or competitive funding with clear theoretical and scholarly basis; • Applies, engages in, and disseminates research and scholarship related to one's teaching and learning; • Engages in systematic inquiry and investigating and disseminating their teaching and learning practices; • Makes teaching and course design decisions based on teaching and learning scholarship. |
| <p>Contributions to Scholarship of Teaching and Learning</p> <ul style="list-style-type: none"> • Applies for teaching and learning awards, grants or competitive funding with clear theoretical and scholarly basis; • Applies, engages in, and disseminates research and scholarship related to one's teaching and learning; • Engages in systematic inquiry and investigating and disseminating their teaching and learning practices; • Makes teaching and course design decisions based on teaching and learning scholarship. | |

Resources used to compile list:

Australian University Teaching & Criteria & Standards Framework.

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Fields, J., Kenny, N.A., Mueller, R.A. (2019). Conceptualizing educational leadership in an academic development program. *International Journal for Academic Development*, 24, 3, 218 – 231. <https://doi.org/10.1080/1360144X.2019.1570211>

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<https://cloudfront.ualberta.ca/-/media/universitygovernance/documents/member-zone/gfc/agenda-and-docs/2017-09-25-gfc-agenda-and-documents.pdf>

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<https://taylorinstitute.ucalgary.ca/sites/default/files/Content/Resources/Teaching-Dossiers/Guide-for-Providing-Evidence-of-Teaching.pdf>

University of Alberta, Teaching, Learning, and Evaluation Policy (UAPPOL)

<https://policiesonline.ualberta.ca/PoliciesProcedures/Policies/Teaching-Learning-and-Evaluation-Policy.pdf>

University of Alberta, Centre for Teaching and Learning. Framework for Effective Teaching Web resources and Supporting documentation, including:

- The Documenting Teaching Activities document (from John Nychka and Janice MillerYoung, April 2020)
- Developing Indicators of Effective Teaching and Learning: An Innovative Framework for Multifaceted Assessment in Higher Education Contexts (CTL Report, 2020)

University of Alberta, Faculty of Arts, Teaching Evaluation Criteria 2019 ATSEC Evaluation Meeting

Weimer, M. (2013) *Learner-centred Teaching: Five Key Changes to Practice*, Second Edition. Jossey-Bass.

Definitions

| | |
|---|--|
| Any definitions listed in the following table apply to this document only with no implied or intended institution-wide use. | |
| Students | All learners including undergraduate and graduate students in full-time and part-time degree programs; students in open studies, fresh start program, transition year; international visiting and exchange and study abroad students; postgraduate medical/dental education students; and PDF trainees. |
| Instructors | Includes Academic Faculty, Faculty Service Officers, Librarians, Academic Teaching Staff and Excluded Academic Administrators. When their responsibilities include teaching, also includes Academic Colleagues, Postdoctoral Fellows and Graduate Students. |
| Peers | Other instructors. Depending on context, peers may have a similar position and/or disciplinary background. In other contexts, the backgrounds may be diverse. Normally peers are from within the University of Alberta but may, in some instances, also be from another institution, industry or clinical setting. |

Decision **Discussion** **Information**

ITEM OBJECTIVE: TO discuss:

- (a) proposed revisions to the GFC Academic Planning Committee (the “**APC**”) Terms of Reference (the “**Revised ToR**”) stemming from the work of the GFC Executive Governance and Procedural Oversight Committee (the “**GPO**”); and
- (b) the dissolution of the GFC Faculties Development Committee (the “**FDC**”) as a result of the Revised ToR and further to a tabled motion proposing such an action.

| | |
|------------------------------|---------------------------------|
| DATE | February 26, 2024 |
| TO | General Faculties Council |
| RESPONSIBLE PORTFOLIO | General Faculties Council (GFC) |

EXECUTIVE SUMMARY:

GFC has committed to reviewing each of its standing committee’s Terms of Reference on a three year cycle. The Revised ToR has been drafted using a new template that articulates decision-making authority in relation to the powers, functions, and duties as set out in the *Post-secondary Learning Act* (Alberta) (the “**PSLA**”).

The Revised ToR has focussed on:

1. aligning the committee’s delegated authority with power, duties and functions held by the GFC and set out in the PSLA (primarily Sections 19 and 26),
2. removing words, terms and provisions from APC’s current terms of reference that are unnecessary for the committee or outside of the GFC’s scope of authority, and
3. updates and additions to the definitions for the terms of reference (as necessary or appropriate).

The objective is to enhance decision making by making explicit the authority delegated to the committee by GFC and through precise definitions of terms.

The Revised ToR include changes to the committee composition, removal of responsibilities that are outside APC’s scope of authority, and addition of new authority in alignment with the committee’s mandate.

Changes to Composition

The Revised ToR see the committee composition growing from 18 voting members to 24. Three additional *ex officio* members are proposed to align with the committee’s delegated authority with

ITEM NO. 12

proportionate additional academic staff and students. The proposed additional *ex officio* members are:

1. the Vice-Provost (Indigenous Programs and Research);
2. the Vice-Provost (Equity, Diversity, and Inclusion); and
3. the Vice-President (Facilities and Operations).

Other changes include clarification that membership includes a faculty dean.

Changes to delegated authority

The current terms of reference give APC the authority to approve name changes to departments and divisions, to recommend to GFC on name changes of faculties, and to receive for information name changes to units on campus. These three responsibilities have been removed because the PSLA does not confer upon GFC the power to approve name changes to Departments and Divisions, or faculty names, and because GFC cannot compel administration to report them. It is therefore not a power GFC can delegate to APC and has been omitted from the Revised ToR.

The Revised ToR clarify the delegated authority to APC over budget matters as the PSLA expressly provides that GFC has the authority to make recommendations to the Board of Governors (the “**Board**”) with respect to, among other things, the budget. However, the authority to make recommendations on fees to be levied upon a “substantial group of students” has been removed as this power is within the Board’s authority.

The Revised ToR clarifies authority over facilities and contemplates new authority to have APC review and approve proposed General Space Programs for academic units. Currently, this power is within FDC’s scope of authority. In addition to the foregoing, the Revised ToR contemplates that APC will consider:

1. the Long Range Development Plan (with regards to subsections 19(b) and (c) of the PSLA);
2. the planning and use of physical facilities, and
3. the use of land owned by or leased to the University.

Currently, FDC is responsible for making recommendations to APC concerning policy matters with respect to the foregoing.

Dissolution of FDC

On May 2, 2022, a motion to disband the FDC was brought before GFC (the “**2022 Motion**”). The motion included proposed changes to the APC Terms of Reference and the Terms of Reference for the GFC Committee on the Learning Environment. This motion was tabled in its entirety.

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If the Revised ToR is approved it would leave FDC with the limited scope of responsibility to make recommendations to the APC concerning policy matters with respect to the matters set out in [sections 5.1, 5.2 and 5.3 in its Terms of Reference](#).

It is proposed that FDC does not need to serve this role and the committee can be dissolved as contemplated in the 2022 Motion.

3. Next Steps

Proposed next steps are as follows:

- February 26, 2024 - Consultation with GFC
- March, 2024 - Consultation with APC by email
- April 8, 2024 - Recommendation by GFC Executive Committee
- April 29, 2024 - Approval of Revised ToR and 2022 Motion by GFC.

Supporting Materials:

- [Exec GPO Workplan and Notes](#)
- [Approved APC Terms of Reference](#)

Attachments

1. [GFC APC ToR-Tracked Changes document](#)



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:

GPO - Apr 4, 2022, Jan 23, 2023, October 23, 2023, November 27, 2023, January 22, 2024

Those who have been consulted:

Academic Planning Committee - September 14, 2022

Those who have been informed:

The Office of the Provost and Vice-President (Academic)
The Office of the Vice-President (Research and Innovation)
The Office of the Vice-President (Facilities and Operations)

Approval Route:

GFC Executive Committee (for recommendation)
GFC (for approval)

Supplementary Notes / Context:



1. Purpose of the Committee

The purpose of the General Faculties Council (“**GFC**”) Academic Planning Committee (the “**Committee**”) is to consider certain academic planning matters for the University, make certain decisions related to the academic affairs of the University and make recommendations to GFC with respect to academic planning.

2. Delegated Authority from GFC

In furtherance of the purpose of the Committee, and as permitted by the PSLA, GFC has delegated to the Committee the following powers, duties and functions:

2.1. Academic Planning - PSLA s. 26(1)

GFC is responsible for the academic affairs of the University and, pursuant to subsection 26(1)(o) of the PSLA, can make recommendations to the board of governors of the University (the “**Board**”) with respect to academic planning. GFC has delegated to the Committee the authority to:

- (a) consider and, if deemed appropriate, advise GFC as to recommendations to be made by GFC to the Board concerning academic planning, including:
 - (i) specific goals and priorities for:
 - 1. internationalisation;
 - 2. Indigenous initiatives;
 - 3. information technology;
 - 4. equity, diversity and inclusion;
 - (ii) trends revealed or disclosed in quality assurance reports of Academic programs and/or Academic Units;
- (b) receive and discuss reviews of Academic Units and Academic Service Units; and
- (c) and receive, discuss, and provide feedback on processes for quality assurance of Academic Units and Academic Service Units.

2.2. Academic Awards - PSLA s. 26(1)(m)

Pursuant to subsection 26(1)(m) of the PSLA, GFC has the authority to make rules and regulations respecting academic awards. GFC has delegated to the Committee the authority to:

- (a) consider and advise GFC as to recommendations to be made by GFC to the Board on policies concerning awards, subject to paragraph 4.2, below;



- (b) regularly review policies on awards and bursaries and to make recommendations to GFC as to changes to the same where required; and
- (c) regularly consider reports on student financial supports for the purpose of identifying trends and gaps in the financial supports available to students of the University.

2.3. Academic Centres and Institutes - PSLA s. 26(1)(o)

Pursuant to subsection 26(1)(o) of the PSLA, GFC can make recommendations to the Board with respect to academic planning and affiliations with other institutions. GFC has delegated to the Committee the authority to:

- (a) consider and advise GFC as to recommendations to be made by GFC to the Board on new policy and procedures concerning Academic Centres or Institutes;
- (b) approve the establishment of Academic Centres or Institutes;
- (c) receive notifications of the suspension or termination of Academic Centres or Institutes from the Vice-President (Research and Innovation) and to report these suspensions and/or terminations to GFC; and
- (d) receive, discuss and provide feedback on the Academic Centres or Institutes Annual Report.

2.4. Enrolment Management - PSLA s. 26(1)(o)

Pursuant to subsection 60(1)(d)(i) of the PSLA, the Board has the authority to make and publish rules respecting the enrolment of students to take courses, programs of study or training provided by the Board. GFC has, pursuant to subsection 26(1)(o) of the PSLA, the authority to make recommendations to the Board with respect to matters considered by GFC to be of interest to the University. GFC has delegated to the Committee the authority to:

- (a) consider and advise GFC as to:
 - (i) recommendations to be made by GFC to the Board on the Enrolment Management Policy;
 - (ii) the approval of procedures concerning enrolment management;
- (b) receive, discuss, and provide feedback on enrolment reports; and
- (c) consider and, if deemed appropriate, make recommendations to GFC on enrolment management processes, subject to paragraph 4.4, below.

2.5. Research - PSLA s. 26(1)(o)



Pursuant to subsection 26(1) of the PSLA, GFC can make recommendations to the Board with respect to any matters considered by GFC to be of interest to the University. GFC has delegated to the Committee the function of:

- (a) considering and advising GFC as to recommendations, if any, to be made by GFC to the Board on:
 - (i) new research policies and revisions to existing research policies;
 - (ii) research initiatives; and
- (b) receiving, discussing, and providing feedback on research performance summaries.

2.6. Budget - PSLA s. 26(1)(o)

Pursuant to subsection 26(1)(o) of the PSLA, GFC has the authority to make recommendations to the Board with respect to, among other things, the University's annual budget. GFC has delegated to the Committee:

- (a) the power to make recommendations to the Board with respect to:
 - (i) the academic and research implications of the University's annual budget, excluding budgets for Ancillary Units;
 - (ii) University budget principles;
 - (iii) new resources required in proposals for the establishment of Academic Units, Faculties, Schools, Departments, Academic Programs and Chairs; and
- (b) the function of receiving and discussing matters regarding tuition and fees for consideration or advice, subject to paragraph 4.5, below.

2.7. Facilities - PSLA s. 19

Pursuant to section 19 of the PSLA, the Board is obligated to consider the recommendations of GFC, if any, on matters of academic import prior to the Board providing for, among other things:

- (a) the support and maintenance of the University;
- (b) the betterment of existing buildings;
- (c) the construction of any new buildings the Board considers necessary for the purposes of the University; and/or
- (d) the furnishing and equipping of the existing and newly erected buildings.



GFC has delegated to the Committee the power to consider and, if deemed appropriate, prepare recommendations to the Board on matters of academic import prior to the Board providing for anything set out in subparagraphs 2.7(a) through (d) above.

In considering and preparing recommendations to the Board as contemplated above, it is expected that the Committee will consider, among other things:

- (e) the Long Range Development Plan (with regards to subsections 19(b) and (c) of the PSLA);
- (f) planning and use of Academic Physical Facilities; and
- (g) the use of land owned by or leased to the University as contemplated in subsection 121(2) of the PSLA, which includes, but is not limited to, considerations with respect to any land proposed to be transferred to the University of Alberta Properties Trust.

2.8. Faculties, Schools, Departments and Chairs - PSLA ss. 26(1)(l) and 19(e)

Pursuant to subsection 26(1)(l) of the PSLA, GFC may recommend to the Board the establishment of Faculties, Schools, Departments and Chairs. Pursuant to subsection 19(e) of the PSLA, the Board must consider the recommendations of GFC, if any, on matters of academic import prior to providing for, among other things, the establishment of Faculties, Schools, Departments and Chairs. GFC has delegated to the Committee:

- (a) the function of considering and advising GFC as to recommendations to be made by GFC to the Board on matters of academic import relating to the establishment of Faculties, Schools, Departments and/or Chairs; and
- (b) the authority to establish or terminate endowed and/or funded Chairs,

subject always to paragraph 4.1, below.

3. Sub-delegated Authority from GFC

In furtherance of the purpose of the Committee, GFC has sub-delegated to the Committee the following powers, duties and functions delegated to GFC by the Board:

3.1 General Space Programs

The power and duty to review and approve proposed General Space Programs for Academic Units.

(collectively, the powers, duties and functions set out in paragraphs 2.1 through and including 3.1 is the “**Delegated Authority**”)



4. Limitations on Delegated Authority

- 4.1. Recommendations made pursuant to paragraph 2.8 are subject to the Collective Agreement, and, specifically, Article A10 (Academic Reorganization), of the Collective Agreement. In the event there is a conflict or inconsistency between one or more recommendations made pursuant to paragraph 2.8 and the Collective Agreement, the terms of the Collective Agreement will prevail.
- 4.2. Recommendations made pursuant to subparagraph 2.2(a) are limited to policies on awards. The creation of new student financial supports and revisions to existing awards, has been delegated to the Office of the Registrar for new undergraduate student financial supports and to the Faculty of Graduate and Postdoctoral Studies for new graduate student financial supports.
- 4.3. Approvals made pursuant to subparagraph 2.3(d) are limited to Academic Centres or Institutes. Any affiliation agreements required for the creation of Academic Centres or Institutes will be entered into in the name of “The Governors of the University of Alberta” and will be executed in accordance with the Contract Review and Signing Authority Policy.
- 4.4. Recommendations pursuant to subparagraph 2.4(c) are limited to policy with respect to enrollment management. The Provost and Vice-President (Academic), as chief academic officer of the University, oversees all academic matters of a significant nature which have an impact on the University as a whole, and as such, is accountable for ensuring appropriate enrolment at the University.
- 4.5. The Committee may, if asked, receive and discuss tuition and fees as set out under subparagraph 2.6(b). The Tuition Regulation gives the Board full authority to approve tuition and fees at the University. GFC may make recommendations on any matter it considers to be of interest to the University, including tuition and fees, but these recommendations are distinct from recommendations on tuition proposals.

5. Reporting Obligation(s)

A written report will be put before GFC by the Committee at each regularly scheduled meeting of GFC, which shall summarise the activities and decisions of the Committee since the last meeting of GFC.

6. Composition of the Committee

Voting Members (24)

Ex-officio (9)

- Provost and Vice-President (Academic), Chair
- Vice-President (Research)
- Vice-President (University Services and Finance)
- Vice-President (Facilities and Operations)
- Vice-Provost and University Registrar
- Vice-Provost (Indigenous Programs and Research)



- Vice-Provost (Equity Diversity and Inclusion)
- President, Students' Union
- President, Graduate Students' Association

Elected by GFC (15)

- 10 Academic Staff from Category A elected by GFC, at least six of which are Elected Academic Staff members of GFC. One member, ideally a member of GFC, will be elected by the committee to serve as Vice-Chair
- 1 Faculty Dean
- 1 Department Chair-at-large
- 1 Non-Academic staff member from at-large (S1.0, S2.0)
- 1 undergraduate student from GFC
- 1 graduate student from GFC

Non-Voting Members

- University Secretary
- GFC Secretary

7. Definitions and Interpretation

7.1 In these Terms of Reference, and in addition to terms otherwise defined in these Terms of Reference, the following terms have the following meanings:

- (a) **"Academic Centre or Institute"** means an academic centre or institute that exists at the University and is controlled by the University, and, for greater certainty:
 - (i) an academic centre or institute may exist solely within the University or may be created by one or more partnerships between the University and one or more entity or entities; and
 - (ii) such other entity or entities may include other universities, governments, public authorities (such as health authorities), and/or non-profit organizations;
- (b) **"Academic Physical Facilities"** means facilities that primarily support the University's teaching, learning, and research activities;
- (c) **"Academic program"** means a group of credit or non-credit courses that, on completion, leads to the granting of a degree, diploma or certificate with their associated courses and course designators. Academic programs may be Ministry approved credentials;
- (d) **"Academic Staff"** has the meaning set out in the [Recruitment Policy \(Appendix A\) Definition and Categories of Academic Staff, Administrators and Colleagues](#) as filed and located in UAPPOL;
- (e) **"Academic Units"** include Faculties, Departments, and Schools;



- (f) **“Academic Service Units”** means administrative units of the University that have an academic impact on the University, exclusive of Ancillary Units (including Colleges);
- (g) **“Ancillary Units”** means self-funded business units of the University that must generate sufficient revenue to (i) cover all of their respective operational costs and fund deferred maintenance; (ii) minimize future maintenance costs, and (iii) cover long-term capital investments;
- (h) **“Awards and Bursaries”** has the meaning set out in the [Student Financial Support Policy](#), as filed and located in UAPPOL;
- (i) **“Academic Centres and Institutes Annual Report”** means the Centres and Institutes Annual Report as drafted by the Centres and Institutes Committee;
- (j) **“Chairs”** refers to academic entities that may include professorships, lectureships and fellowships, established for the purpose of teaching and research;
- (k) **“Collective Agreement”** means the then-current collective agreement between the University and the Association of the Academic Staff of the University of Alberta;
- (l) **“Department”** means an academic department established within a Faculty and which is empowered to determine such policy as may come within its purview by delegation of a Faculty Council subject to the policies and regulations of the University;
- (m) **“Enrolment Management Policy”** means that certain policy suite filed and located in UAPPOL, as may be amended from time to time, that articulates the University’s approach to managing institutional enrolment, including enrolment targets, in alignment with short and long-term objectives;
- (n) **“Faculty”** means a division of the University concerning itself with one subject area or a group of related subject areas, and includes any division of the University designated by the Board as a “faculty”;
- (o) **“Long Range Development Plan”** means the then-current long-range land use and development plan relating to land owned by or leased to the University, as required to be prepared by the Board pursuant to the PSLA;
- (p) **“Ministry”** means the Government of Alberta’s Ministry of Advanced Education, which is responsible for the adult learning system in the Province of Alberta;
- (q) **“PSLA”** means the *Post-secondary Learning Act* S.A. 2003, c. P-19.5, as may be amended from time to time;

- (r) **“Quality Assurance of Academic Units and Programs”** refers to the reviews administered in accordance with the guidelines set by the Campus Alberta Quality Council and by the Office of the Provost and Vice-President (Academic);
- (s) **“Research Policies”** includes the Animal Ethics Policy, the Human Research Ethics Policy, the Patent Policy, the Research and Scholarship Integrity Policy, and the Research Policy as the same are filed and located in UAPPOL;
- (t) **“School”** means: (i) a Faculty which, as a matter of common parlance at the University, is called a “school”; (ii) a Department that performs or is designed to perform the functions of a “school”; or (iii) an Academic Centre or Institute which holds the title of “school”;
- (u) **“Support Non-Academic staff”** are as defined in the [Recruitment Policy \(Appendix B\) Definition and Categories of Support Staff](#) as filed and located in UAPPOL;
- (v) **“Tuition Regulation”** means the *Tuition and Fees Regulation* Alta. Reg. 228/2018 promulgated under the PSLA and as may be amended from time to time; and
- (w) **“University”** means the University of Alberta, a comprehensive academic and research university continued under the PSLA and legally referred to as “The Governors of the University of Alberta”.

7.2 For the better understanding and interpretation of these Terms of Reference:

- (a) Article A10 of the Collective Agreement states: *“Academic planning, including but not limited to academic planning in accordance with the normal authority and procedures of GFC, may result in revisions to programs or restructuring of Departments or Faculties. For Academic planning which may result in the lay off of Academic Faculty members, the procedures of this Article A10 shall apply.”*
- (b) The Board has the authority to make regulations respecting the enrolment of students and considers recommendations from GFC in doing so. The Board has delegated to GFC the authority to approve procedures for enrolment management and hold the office of the Provost to account for approving enrolment plans.
- (c) A General Space Program describes the current state of an academic, research and/or administrative unit's activities in terms of their space needs, including student, staffing and support requirements. A space program includes a space budget that outlines how much space the unit has currently, how much it will require in the near future, and also predicts what amount of space may be required over a long-term planning period.
- (d) The word **“planning”** includes frameworks for campus and building design, development, and maintenance.
- (e) Words importing the singular number include the plural and *vice versa*.



- (f) The authority conferred upon GFC by virtue of subsection 26(1) of the PSLA is, in all respects, subject to the authority of the Board, and, where the context requires, these Terms of Reference shall be read with awareness and recognition of the foregoing.

8. Supplemental Information

[Centres and Institutes Policy](#)

[Student Financial Supports Policy](#)

[Undergraduate Student Financial Supports Procedure](#)

[Graduate Student Financial Supports Procedure](#)

[Creation of New Student Financial Supports Procedure](#)

[Space Management Policy](#)

[Planning and Renovation of Existing Facilities Policy](#)

[Long Range Development Plan](#)

DRAFT



General Faculties Council Standing Committee Report

GFC Executive Committee

- Since last reporting to GFC, the GFC Executive Committee met on February 12, 2024.

- Items Approved With Delegated Authority
 - Changes to the Faculty of Augustana Campus Faculty Council
 - Deletion of GFC Policy Manual Section 109 - Student Records: Contents, Access, Use, and Protection
 - Deletion of GFC Policy Manual Section 56 - General Appeals Committee
 - Draft Agenda for the Next Meeting of General Faculties Council

- Items Discussed
 - General Appeals Committee Report
 - Proposed revisions to GFC Academic Planning Committee Terms of Reference

Terms of reference and records of meetings for this committee can be found at:

https://www.ualberta.ca/governance/member-zone/gfc-standing-committees#GFC_EXEC

Submitted by:
W Flanagan, Chair
GFC Executive Committee

General Faculties Council Standing Committee Report

GFC Academic Planning Committee

1. Since last reporting to GFC, the GFC Academic Planning Committee met on January 31, 2024.
2. Items Recommended to Board of Governors
 - Proposed Non-regulated Exclusions to Program Fees
3. Items Discussed
 - Safety on Campus
 - Centres and Institutes Task Force Report
 - Implementation of SHAPE: The University of Alberta Strategic Plan
 - Annual Enrolment Report
 - Cannabis Code of Practice
 - Naming of Academic Entities

Terms of reference and records of meetings for this committee can be found at:

https://www.ualberta.ca/governance/member-zone/gfc-standing-committees#GFC_APC

Submitted by:
Verna Yiu, Chair
GFC Academic Planning Committee



General Faculties Council Standing Committee Report

GFC Programs Committee (PC)

1. Since last reporting to GFC, the GFC Programs Committee met on February 8, 2024
2. Items Approved with Delegated Authority from GFC
 - Course, Minor Program, and Minor Regulation Changes
 - Arts
 - Business
 - Engineering
 - Education
 - Law
 - Native Studies
 - Nursing
 - School of Public Health
 - Science
 - Terminations
 - Faculty of Arts First and Second-level Specialisations
 - Faculty of Law - Dual Degree with the University of Colorado
 - Updated Non-Credit Programming Framework & Guide
 - Major in Chemistry - Accredited option
 - Suspension of the Specialisations in Educational Policy Studies and Elementary Education in the Doctor of Education
 - Proposed New Master of Management Analytics Program
 - University of Alberta Foundation Program
3. Items Discussed
 - Senate Lay Admissions Observers

Terms of reference and records of meetings for this committee are available here:

https://www.ualberta.ca/governance/memberzone/gfcstandingcommittees/index.html#GFC_PC

Submitted by:

Janice Causgrove Dunn, Chair
GFC Programs Committee

[Distributed Electronically]

GFC Nominating Committee Report to GFC

Upon receipt and consideration of a GFC Nominating Committee (NC) Report, a GFC member has the opportunity to submit an additional nomination. For more information, please see the [NC Procedures](#).

The current nomination period ends at 12:00 pm (noon) on February 9, 2024

If no additional nominations are received by the end of the current nomination period, the GFC Nominating Committee Report to GFC is considered approved and recommended candidates are declared elected.

Please refer to the following list of **Membership Recommendations** as determined by the NC at their meeting of January 24, 2024:

| GFC Standing Committees | | | | |
|--|------------------------------------|-----------------------------|-------------|---------------|
| Name | Faculty/Office | Membership Category | Term Start | Term End |
| University Teaching Awards Committee (UTAC) | | | | |
| Ken Corr | Pharmacy & Pharmaceutical Sciences | Academic Staff | Immediately | June 30, 2026 |
| Executive Committee (EC) | | | | |
| John C Spence | Kinesiology, Sport, and Recreation | Academic Staff (GFC Member) | Immediately | June 30, 2024 |

| Judiciary Committees | | | | |
|--|----------------------|------------------------------|-------------|---------------|
| Name | Faculty/Office | Role | Term Start | Term End |
| University Appeal Board (UAB)/Student Misconduct Appeal Panel | | | | |
| Denilson Barbosa | Science | Academic Staff Member, Chair | immediately | June 30, 2027 |
| Academic Appeals Committee (AAC) | | | | |
| Adrian Wagg | Medicine & Dentistry | Academic Staff Member, Chair | immediately | June 30, 2027 |
| John Paul Zonneveld | Science | Academic Staff Member, Chair | immediately | June 30, 2027 |

Additional Information:

For terms of references and current membership lists for GFC and GFC standing committees, please visit University Governance [Member Zone](#). For judiciary governance details, please visit: [University-level Appeal Bodies](#).

Contact for GFC Nominations and Elections

Kate Peters, Secretary to General Faculties Council
Email: peters3@ualberta.ca



John Lemieux <jlemieu1@ualberta.ca>

Action Required: Presidential Review Process Ballot

1 message

Kate Peters <peters3@ualberta.ca>

Mon, Jan 29, 2024 at 12:00 PM

Cc: John Lemieux <jlemieu1@ualberta.ca>, Faiza Billo <faizad@ualberta.ca>

Dear elected faculty representatives and appointed academic staff representatives on GFC,
As per the attached January 15, 2024 Memo from University Secretary John Lemieux, please cast your anonymous vote for the election of three academic staff members to serve on the Presidential Review Committee by Friday, February 2, 2024.

In this [Google Drive](#), you will find the confidential applicant profiles for the eight (8) eligible academic staff members as per the criteria established in the [Presidential Search and Review Procedure \(Appendix A\): Committees for President Position Definitions and Eligibility](#). You are asked not to download the profiles and to keep confidential the applicant names and information.

The ballot is accessible through the [Vote platform](#) and requires single sign-on to be viewed under "Current Ballots". Please contact me if you have any questions.

Thank you,

Kate

ITEM NO. 17A

 Decision Discussion Information

ITEM OBJECTIVE: To inform the GFC Executive Committee about the Annual General Appeals committee's work over the 2022-2023 year and to provide an opportunity to raise any policy or procedural issues.

| | |
|------------------------------|---------------------------------------|
| DATE | February 26, 2024 |
| TO | General Faculties Council |
| RESPONSIBLE PORTFOLIO | Provost and Vice-President (Academic) |

EXECUTIVE SUMMARY:

The General Appeals Committee (GAC) is a committee established under Article A8 of the collective agreement between the Governors of the University of Alberta and the Association of Academic Staff of the University of Alberta (AASUA) (the "Collective Agreement"). In 2002, GFC requested an annual statistical summary of cases and their disposition from the past academic year. The statistical information will be presented in such a way to ensure that the confidentiality of individual cases will not be breached. The purpose of the annual report is to ensure that the Committee may discuss the report and provides an opportunity to raise any policy or procedural issues. As requested by GFC Exec, the report includes the total number of appeals for the previous five years, broken down by Faculty.

Where applicable, list the legislation that is being relied upon

1. **Post-Secondary Learning Act (PSLA):** The *Post-Secondary Learning Act (PSLA)* gives GFC responsibility, subject to the authority of the Board of Governors, over academic affairs (Section 26(1)).

2. **GFC Policy Manual:** GFC requests that the GAC report annually to Council (Section 56.2 (*General Appeals Committee*) of the GFC Policy Manual). The GAC is a committee established under Article A8 of the Board/AASUA Collective Agreement (Academic Faculty Schedule) and, until 1977, was a GFC committee. Currently, it is one of several non-GFC committees requested to provide an annual report to GFC. GFC requests that the report include a statistical summary of cases and their dispositions and protect the confidentiality of individual cases.

3. **GFC Terms of Reference (GFC Procedures (GFC Agendas) (Reports)):** "Reports not requiring action by GFC will be discussed by the Executive Committee (with committee chairs in attendance) and placed on the GFC agenda for information. If a GFC member has a question about a report, or feels that the report should be discussed by GFC, the GFC member should notify the Secretary to GFC, in writing, two business days or more before GFC meets so that the committee chair can be invited to attend. Such reports will be discussed as the last of the standing items." (Section 4.a.)

Supporting Materials:

Attachment 1- Annual GAC Report 2022-2023

GENERAL APPEALS COMMITTEE

Annual Report to General Faculties Council
July 1, 2022 – June 30, 2023

The General Appeals panel members for the year were:

| | |
|---------------------|---|
| Dr. G. Anderson | Faculty of Arts |
| Dr. R. Breitzkreuz | Faculty of Agricultural, Life, and Environmental Sciences |
| Dr. S. Caulfield | Faculty of Arts |
| Dr. C. Deutsch | Faculty of Engineering |
| Dr. R. Girgis | Faculty of Medicine & Dentistry |
| Dr. M. Gowrishankar | Faculty of Medicine & Dentistry |
| Dr. D. Gross | Faculty of Rehabilitation Medicine |
| Dr. K. Haggerty | Faculty of Arts |
| Dr. I. Mann | Faculty of Science |
| Dr. F. Marsiglio | Faculty of Science |
| Dr. C. Norris | Faculty of Nursing |
| Dr. C. Poth | Faculty of Education |
| Dr. K. Raine | School of Public Health |
| Dr. T. Samek | Library and Information Studies |
| Dr. B. Stelmach | Faculty of Education |
| Dr. T. Tang | Faculty of Engineering |
| Dr. M. van der Baan | Faculty of Science |

Panel of Chairs as Provost and Vice-President (Academic) designates:

| | |
|-------------------|--|
| Dr. S. Forgie | Faculty of Medicine & Dentistry |
| Dr. D. McConnell | Faculty of Rehabilitation Medicine |
| Dr. J.C. Spence | Faculty of Kinesiology, Sport & Recreation |
| Dr. E. Adams | Faculty of Law |
| Dr. J. Harrington | Faculty of Law |

Five appeals were made under the provisions of Article A8 of the Collective Agreement (Schedule A – Academic Faculty). This Article provides for appeals of Faculty Evaluation Committee decisions to be heard by the General Appeals Committee (GAC), the membership of which shall be the Provost and Vice-President (Academic) or a designate as Chair; three members from the above Panel, none of whom shall be from the same Faculty as the appellant; and two tenured staff members selected jointly by the President of the University and the President of the AASUA, who shall be from the same Faculty as the appellant.

Three of these appeals were submitted from Campus Saint Jean, necessitating proficiency in the French language. As a result, a special panel was put together in consultation with the AASUA for these appeals.

It should also be noted that the hearings were again conducted via ZOOM which worked well and we will continue to propose conducting the hearings remotely in future.

The results of the five appeals can be categorized as follows:

- Three appeals from an FEC awarding a Zero increment. Two of these appeals were dismissed, and the third appeal was withdrawn.
- Two appeals from an FEC awarding less than 1.0 increment. One of these appeals was dismissed and the second appeal was withdrawn.

During the last five years, the GAC has changed FEC decisions in 64% of the cases that proceed to a hearing.

Two five-year summaries are attached for information (one by decision, and one by Faculty).

Five -Year Summary by Faculty of Cases Filed (includes withdrawn cases)

2018-19 to 2022-23

| Faculty | Number of Appeals |
|-----------------------------------|--------------------------|
| ALES | 1 |
| Arts | 0 |
| Augustana | 4 |
| Business | 1 |
| Education | 1 |
| Engineering | 0 |
| Kinesiology, Sport and Recreation | 1 |
| Law | 0 |
| Medicine and Dentistry | 0 |
| Native Studies | 0 |
| Nursing | 0 |
| Pharmacy | 0 |
| Public Health | 0 |
| Rehabilitation Medicine | 0 |
| Science | 3 |
| Campus Saint Jean | 4 |
| TOTAL: | 15 |

Five Year Summary
2018-19 to 2022-23

| Year | Faculty | Tenure | Promotion | Increment | | | | Faculty Total | Year Total |
|---------------|-----------------|----------|-----------|------------------|----------|----------|----------|---------------|------------|
| | | | | 0d | 0b | 0.5 | 0.75 | | |
| 2018-19 | ALES | | | | | | 1 U | 1 | 3 |
| | Augustana | | | 1UW | | | | 1 | |
| | Science | | | | 1UW | | | 1 | |
| 2019-20 | KSR | | 1 G | | | | | 1 | 1 |
| 2020-21 | Education | | 1 G | | | | | 1 | 3 |
| | Science | | | | | | 1 G | 1 | |
| | Campus St Jean | | 1 G | | | | | 1 | |
| 2021-22 | Science | | | 1 G ₁ | | | | 1 | 3 |
| | Business | | 1 G | | | | | 1 | |
| | Augustana | | 1 G | | | | | 1 | |
| 2022-23 | Campus St. Jean | | | | 1U | 1UW | 1U | 3 | 5 |
| | Augustana | | | 1UW | 1U | | | 2 | |
| TOTALS | | 0 | 5 | 3 | 3 | 1 | 3 | 15 | 15 |

LEGEND:

| | |
|----------------|--|
| G | FEC decision overturned (Appeal granted) |
| G ₁ | FEC decision overturned. Replaced with 0(b) |
| G ₂ | FEC decision overturned. Replaced with single increment. |
| G ₃ | FEC decision overturned. Replaced with partial increment (0.25, 0.5, 0.75) |
| G ₄ | Extension granted |
| U | FEC decision upheld – FEC decision stands (Appeal dismissed) |
| UW | Withdrawn |

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. | |

Non-credit Micro-credential DEVELOPMENT GUIDE

January 2024



Prepared by:

Jessica Butts Scott - AVP, Online Learning & Continuing Education

Janice Causgrove Dunn - Vice Provost, Programs

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Purpose + Scope

The University of Alberta's Strategic Plan, *SHAPE*, calls to utilize the U of A's expertise in continuing education to support a wide range of credentials and pathways into the university for lifelong learners.

To mobilize *SHAPE*, a one-university approach is needed to support Faculties, Units, and proponents in the planning, design, and delivery of sustainable and scalable non-credit micro-credentials. The *Non-credit Micro-credential Guide* (MC Guide) is intended to provide guidance and required steps to move from ideation to implementation in a structured way.

Micro-credentials are different from the traditional credentials offered at most post-secondary institutions, including the U of A. They are short, competency-based learning experiences that can be credit or non-credit-bearing, and are assessed and recognized by a digital credential. Most notably, micro-credentials are often developed in collaboration with external partners including employers, professional associations, Indigenous and community organizations - to identify competencies and skills gaps *and* to inform on the design and delivery of programming. Therefore, the development and delivery of sustainable micro-credentials requires new approaches and processes that are addressed in the MC Guide.

While micro-credentials can be credit or non-credit-bearing, the scope of the MC Guide is focused on equipping Faculties and Units with clear steps, best practices, and supports/services available from the Continuing Education unit to develop **non-credit** micro-credentials in alignment with the [Non-credit Programming Framework](#) (Framework).

As the non-credit micro-credential landscape continues to grow and change within Canada and globally, the MC Guide is intended to be a living document that will evolve.

Action Group: Acknowledgments

The Micro-credential Action Group - supported work on the co-creation of the vision, definition, and principles 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 - Jessica Butts Scott (Online Learning & Continuing Education) and Janice Causgrove Dunn (Office of the Provost)

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 Medicine & 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)

Vision + Definition

Vision

To enable competency development by upskilling and reskilling delivered through flexible and stackable non-credit micro-credentials designed for professionals and organizations.

Definition

A non-credit micro-credential is an assessed, small volume of learning that develops specific competencies, skills, and knowledge through a short course/s that may strategically stack into credit programs.

Non-credit micro-credentials enable higher education to be more accessible, inclusive, affordable, and flexible - therefore removing barriers for learners to achieve their learning goals.

Learner Lifecycle



Discovery of Learning Opportunities

Learners and organizations discover all non-credit micro-credential offerings in one website <https://www.ualberta.ca/continuing-education>.



Registration and Purchase

Learners and organizations register and pay through the U of A's approved online e-commerce website.



Learn, Apply Knowledge, and Assess

Learners link the application of theory to practice with competencies assessed and validated.



Earn and Stack

Learners earn digital awards that may stack into a credential or a credit program.



Share the Achievement

Learners can share and port digital awards.

Principles



Assessed and Validated

Micro-credentials include assessments validating learning outcomes and competencies represented by digital awards.



Short Programming

The term *micro* identifies programming to be short and focused, with specialized learning aligned to the development of specific competencies and/or skills.



Foster Partnerships and Connections

Where possible, micro-credentials are developed in collaboration with industry, government, employers, Indigenous communities, and other academic institutions.



Learner-centered Design

Micro-credentials are designed and delivered to meet the flexibility requirements of individuals and working professionals.



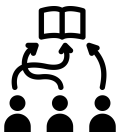
Equity and Inclusivity

Micro-credentials remove traditional barriers to accessing post-secondary learning and the design incorporates inclusive design principles.



Quality Assured

Micro-credentials are rooted in the best pedagogical practices and quality assurance measures and deliver an exceptional student experience.



Pathway Opportunities

Micro-credentials enable opportunities for learners to stack and ladder non-credit achievements into credit learning pathways.

Support Unit: Continuing Education

The Continuing Education (CE) unit is a service, support, and revenue-generating unit with deep expertise in the development and delivery of non-credit programming. The CE unit offers over 230+ non-credit courses and 40 credentials, driving close to 8,000 enrolments annually. The unit will leverage its experience, expertise, infrastructure, and support services (if needed) to collaborate with Faculties, Units, and proponents to develop and deliver sustainable non-credit micro-credential offerings.

The CE unit has identified goals and initiatives to support the delivery of non-credit programming across the academy:

Goal 1: Co-create and collaborate with Faculties and Units to provide resources and administrative support where needed.

Goal 2: Develop high-quality non-credit micro-credentials in areas of strength that are linked to outcomes. Non-credit programming development is guided by industry collaboration (where possible) and aligned to the [Non-credit Programming Framework](#).

Goal 3: Implement the infrastructure (registration system, learning management system, digital credential platform) to scale growth and revenue generation. The CE unit will support the onboarding of Faculties and Units to the U of A's approved non-credit infrastructure.

Goal 4: Establish a central web presence to promote all continuing education programming across the U of A, that integrates with the main website.

For questions about the MC Guide, or Continuing Education services and supports:

- Brian Pardell - Director, Continuing Education - bpardell@ualberta.ca
- Sandra Lacza - Manager, Continuing Education - sandra.lacza@ualberta.ca

ualberta.ca/continuing-education

Programming Framework

A [Non-credit Programming Framework](#) (Framework) identifies the four programming categories aligned to micro-credentials. All non-credit micro-credential programming must align with the Framework.

| Micro-credential Programming Categories | | | |
|--|---|--|---|
| Micro-course | Course | Certificate | Diploma |
| 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. |

Development Steps

Once it is determined, through consultation with the Programs Team in the Office of the Provost and Vice-President (Academic) that a non-credit micro-credential is the ideal programming structure, the steps detailed below should be followed. The steps balance the importance of quality assurance and governance oversight, with the autonomy needed for rapid development.

Step 1: Initiation

Faculties and Units with potential micro-credential initiatives are encouraged to contact Continuing Education (CE) to explore opportunities. CE will schedule an initial discussion with the proponent to gain a better understanding of the initiative and to determine the next steps. Prior to this initial discussion, CE recommends that the proponent complete the [Micro-Credential Concept Form](#).

Step 2: Preliminary Assessment

CE will meet with the proponent to conduct an opportunity assessment. Working collaboratively, CE and the proponent will scope out the opportunity, identify the key learner segments, describe the specific program, and assess the overall potential of the initiative. From this meeting, a collaborative recommendation is made about the next steps which could include; moving forward with the opportunity, gathering more information, or a recommendation to not proceed that is rooted in data and information.

Step 3: Feasibility and Approval

Working collaboratively, CE and the proponent will develop a detailed program description, assess the potential program market, and engage with key stakeholders within the Institution and with external bodies as required. From this, a feasibility assessment is prepared with recommendations for future steps and if required, a program submission is prepared for Academic Governance review and approval.

If the proponent requires [support services from CE](#), a financial analysis and cost-sharing structure are established. Working collaboratively, CE and the proponent will develop a detailed program development, delivery, and administration plan, including defining the services offered and costs associated with these services. A range of factors are considered including tuition levels, enrolment, delivery costs, etc. A Service Agreement between CE and the Faculty will be created and approved before proceeding further.

Step 4: Micro-credential Planning

During the planning phase, the proponent and the CE unit determine the resource requirements for the proposed program development. In collaboration, they identify the purpose and high-level scope of the program. A project charter will be established that outlines roles, responsibilities, timelines, financial investments, revenue-sharing structures, and deliverables (persona development, modality recommendations, etc.). The project charter is agreed to and signed off by the involved stakeholders.

Step 5: Design and Production

Design and Production of the new program is initiated. Based on the developmental plan a range of resources (internal and external) are identified and secured to support the asset design and production.

Step 6: Launch & Optimization

Depending on the services agreement developed in the Feasibility and Approval stage, CE will work collaboratively with the proponent to launch and administer the new program.

Development Stages Summary



Appendix I: Glossary of Terms

| Term | Description |
|-------------------|---|
| Active/Inactive | Status of a micro-credential's ability to be awarded in the University of Alberta's Inventory |
| Assessment | Evidence of learning, submitted by the learner that is evaluated against the established criteria before a micro-credential can be awarded - assessments are intentionally aligned to course learning outcomes |
| Award | The act of granting or issuing a micro-credential to a learner once they have completed all requirements of the micro-credential. |
| Badge | A digital graphic icon that contains metadata linked to a description of the micro-credential, the requirements for successful completion, and the artifacts the learner provided |
| Consumer | A person who views a learner's awarded micro-credential. Consumers may include employers, potential employers, the learner's professional network, or members of social media networks. |
| Destiny One | The U of A's enterprise-approved Continuing Education operational system that provides seamless registration, fee collection, learner records, and populates the public-facing Continuing Education web portal. Destiny One is a cloud-based SaaS product powered by Modern Campus. |
| Digital Image | A visual symbol of accomplishment. Each micro-credential has its own unique digital image associated with it. |
| Course | A micro-credential learning experience (best practice - 12-24 hours) that is focused on specific competencies and can be delivered online, or in-person - courses can stack to enable the learner to earn a certificate |
| Certificate | A type of non-credit micro-credential offering that meets the U of A's defined institutional quality assurance process and is awarded for a collection of stackable badges representing the achievement of skills and competencies |
| Learner Activity | A task associated with a micro-credential that results in learning outcomes. |
| EMSI by Lightcast | A labor market analytics firm that uses data to drive economic prosperity. EMSI provides a database of over 32,000 available skills that are included within a micro-credential. |

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| Hours | The general investment in the number of hours or effort to complete the micro-credential |
| Icon | The clip art image that is found on a digital badge that aligns with a micro-credential subject area, skill, or competency. |
| Inventory | The complete list of past and current micro-credentials offered at the University of Alberta. |
| Issuer | The office, department, or faculty of ownership for a micro-credential that assigns individuals to award the micro-credentials. |
| Laddering | A structural micro-credential that is applied toward earning a credit offering - ie: non-credit certificate laddering for credit into a graduate certificate. |
| Learner | An individual who signs up for and completes a micro-credential based on its established criteria. |
| Learning Outcome | That which a learner is expected to know, understand, or be able to do after successful completion of a micro-credential. |
| Levels | A term used to describe the degree of sophistication of the material covered, the expected learning outcome, and the degree of mastery of the micro-credential earned. At the simplest level, the skill or competency is attained at a proficiency where it can be completed under supervision, while at the highest level, those who earn the micro-credential would be able to generate new understanding or teach the skill to others. |
| Micro-Course | A micro-credential learning experience that is short (best practice - 4-8 hours), typically delivered on-demand and has appropriate assessment criteria. |
| Metadata | The computer code that identifies critical information about the learner, the micro-credential itself, and the organization offering it. |
| Micro-credential | A U of A micro-credential is an assessed, small volume of learning that develops specific competencies, skills, and knowledge through a short course/s that may stack into credentials. |
| Modern Campus | Modern Campus is the company that owns Destiny One. |
| Open Badge | A specialized type of digital badge that contains verifiable information that is universally accepted by employers across the globe. The Open Badge Standard provides recommendations for consistent elements embedded in each digital badge that is awarded for a micro-credential. |
| Skills | Competencies that add market value to a micro-credential. |



| | |
|-------------------|---|
| Stack or Stacking | A collection of earned micro-credentials that combines skills or competencies within an area of focus or learning pathway. When all of the micro-credentials within the collection are achieved, the resulting outcome is generally referred to as a stack or bundle - ie: micro-courses and courses stacking toward a certificate. |
| Tag | A keyword or term assigned to a piece of information that may include the topic, type, Issuer, distinction, or other important data associated with a micro-credential. |