

The following Motions and Documents were considered by the GFC Programs Committee at its Thursday, April 14, 2022 meeting:

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

- Agricultural, Life and Environmental Sciences
- Arts
- Augustana
- Business
- Nursing
- Science
- Library and Information Studies

CARRIED MOTION:

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the attached course and minor program change submissions from the Faculties of Agricultural, Life and Environmental Sciences, Arts, Augustana, Business, Nursing, Science, and the School of Library and Information Studies.

FINAL Item 4

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

A. Proposed Changes to Entrance Requirements for Programs in the Department of Communication Sciences & Disorders

CARRIED MOTION:

THAT the GFC Programs Committee, with delegated authority from General Faculties Council, approve:
- the proposed changes to entrance requirements for programs in the Department of Communication Sciences & Disorders as set forth in attachment A.

Final Item 5

Agenda Title: **Proposed Termination of the Baccalauréat en sciences de l'environnement et de la conservation/BSc in Environmental and Conservation Sciences**

CARRIED MOTION:

THAT the GFC Programs Committee recommend that the Board of Governors approve the proposed termination of the Baccalauréat en sciences de l'environnement et de la conservation/BSc in Environmental and Conservation Sciences, as submitted by the Faculté Saint-Jean and Faculty of Agricultural, Life, and Environmental Sciences, to take effect upon final approval.

FINAL Item 6

Agenda Title: **Proposed Dental Assisting Certificate**

CARRIED MOTION:

THAT the GFC Programs Committee recommend that the GFC Academic Planning Committee approve the Proposed Dental Assisting Certificate as submitted by the Faculty of Medicine and Dentistry, as amended, for implementation in fall 2023.

FINAL Item 7

Agenda Title: **Proposed Changes to the Embedded Certificate in Interdisciplinary Leadership Studies**

CARRIED MOTION:

THAT the GFC Programs Committee, with delegated authority from General Faculties Council, approve the proposed changes to the Embedded Certificate in Interdisciplinary Leadership Studies as set forth in attachments 1 and 2 to take effect for fall 2022.

FINAL Item 8

Agenda Title: **Proposed Changes to Academic Standing Regulations for Graduate Programs, FGSR**

CARRIED MOTION:

THAT GFC Programs Committee recommend that General Faculties Council approve the changes to the Academic Standing, Academic Probation and related portions of the Calendar for Graduate Regulations, as set forth in attachment 1, for implementation upon approval.

FINAL Item 9

FINAL Item No. 4

Governance Executive Summary
Action Item

Agenda Title	Course and Minor Program Changes <ul style="list-style-type: none"> – Agricultural, Life and Environmental Sciences – Arts – Augustana – Business – Nursing – Science – School of Library and Information Studies
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Item

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

Details

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

Engagement and Routing (Include meeting dates)

Consultation and Stakeholder Participation (parties who have seen the proposal and in what capacity)	<p><u>Those who are actively participating:</u></p> <ul style="list-style-type: none"> • Vice-Provost (Programs) and Chair, GFC Programs Committee • Faculty Councils • Representatives of the Office of the Registrar
<For information on the protocol see the Governance Resources section Student Participation Protocol >	<p><u>Those who have been consulted:</u></p> <ul style="list-style-type: none"> • Undergraduate Program Support Team • Graduate Program Support Team
	<p><u>Those who have been informed:</u></p> <ul style="list-style-type: none"> • Items have been posted on the University Governance website for information
Approval Route (Governance) (including meeting dates)	See individual item for Faculty approval information GFC PC April 14, 2022

Strategic Alignment

Item No. 4

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

Attachments

1. Agricultural, Life and Environmental Sciences
2. Arts
3. Augustana
4. Business
5. Nursing
6. Science
7. School of Library and Information Studies

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

Faculty: Agricultural, Life and Environmental Sciences
Submitted by: Robert Summers (Academic Director, U of A Sustainability Council)
Type of change request: <input checked="" type="checkbox"/> Editorial <input type="checkbox"/> Minor Program <input type="checkbox"/> Major Program <input type="checkbox"/> Regulation
For which term will this change take effect? Fall 2022
Which Calendar will this change be published in? 2022/23

Calendar Copy

URL in current Calendar (or leave blank if it is a new page):
https://calendar.ualberta.ca/content.php?filter%5B27%5D=SUST&filter%5B29%5D=&filter%5Bcourse_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur_cat_oid=34&expand=&navoid=10323&search_database=Filter&filter%5Bexact_match%5D=1#acalog_template_course_filter

To indicate requested changes, you can use track changes or comparative table formats below

SUST 201 - Introduction to Sustainability

★ 3 (fi 6) (variable, 3-0-0) An introduction to the history of sustainability as a concept, contemporary sustainability issues, and the diverse perspectives that disciplines and professions take on while approaching sustainability. Students who have credit in DEVDU 201, HGEO 250, or HGP 250 may not take SUST 201.

SUST 202 - Global Sustainable Development and the Sustainable Development Goals

★ 3 (fi 6) (variable, 3-0-0) An introduction to sustainable development with a global perspective and a focus on the United Nations Sustainable Development Goals (SDGs). Prerequisite: SUST 201. Students who have credit in DEVDU 202 may not take SUST 202.

Rationale

These changes are being made to ensure that students cannot receive credit in two equivalent courses being offered in the Faculty of ALES and Faculté Saint-Jean.

Detailed Rationale (for ALES internal use)

To expand on the above, the DEVDU 201 and 202 courses are being developed based on the SUST 201 and 202 that were introduced in the 2021-22 academic year. Given the DEVDU courses will cover the same units and general content as the SUST courses (respectively), students will not be allowed to receive academic credit in both SUST 201 & DEVDU 201 or in both SUST 202 & DEVDU 202.

HGEO 250 (and it's predecessor before a designator change, HGP 250) consist of very similar content to SUST 201 and as such, students should not be permitted to complete both of them.

Reviewed/Approved by:

REES Department Council - Feb 18th, 2022
ALES ACC - March 4, 2022

Notes:

- Multiple Calendar pages can be submitted on one form by copying the Calendar Copy (and Rationale) sections
- When sending requests to calendar@ualberta.ca, please leave this form in .docx format
- To make a course change request, see the [Calendar Guide](#) for the course change form

Faculty: ALES
Submitted by: Nadir Erbilgin, Chair, Dept. of Renewable Resources, and Program Co-Chairs for ENCS and Forestry
Type of change request: <input checked="" type="checkbox"/> Editorial <input type="checkbox"/> Minor Program <input type="checkbox"/> Major Program <input type="checkbox"/> Regulation
For which term will this change take effect? For implementation Summer 2022, and publication in the University Calendar
Which Calendar will this change be published in? 2022-2023

Calendar Copy

URL in current Calendar (or leave blank if it is a new page): (ENCS) https://calendar.ualberta.ca/preview_program.php?catoid=36&poid=42223&returnto=11330 (Forest Bus Mgmt) https://calendar.ualberta.ca/preview_program.php?catoid=36&poid=42229&returnto=11330	
CURRENT	PROPOSED
<p>Bachelor of Science in Environmental and Conservation Sciences</p> <p>...</p> <p>Requirements</p> <p>...</p> <p>The program includes a field school (REN R 299) that provides training in technical aspects of environmental sciences. REN R 299 is normally taken in the spring between second and third years. REN R 299 must be taken prior to the fourth year of study, to ensure that students are able to apply the skills learned in the last year of their program.</p>	<p>Bachelor of Science in Environmental and Conservation Sciences</p> <p>...</p> <p>Requirements</p> <p>...</p> <p>The program includes two field courses (REN R 290 and ENCS 299) that provide training in practical aspects of environmental sciences. Both courses are normally taken in the summer between second and third years. They must be taken prior to the fourth year of study, to ensure that students are able to apply the skills learned in the last year of their program.</p>
<p>Bachelor of Science in Forest Business Management</p> <p>...</p> <p>Requirements</p> <p>...</p> <p>The program includes two field schools (REN R 101 and REN R 299) that provide training in technical aspects of forestry. REN R 101 should be taken in the first year (or in the initial year in the BSc in Forest Business Management program) just before the start of regular classes. REN R 299 is normally taken in the spring between second and third years. REN R 299 must be taken prior to the fourth year of study, to ensure that students are able to apply the skills learned in the last year of their program. Students must also complete a capstone course.</p>	<p>Bachelor of Science in Forest Business Management</p> <p>...</p> <p>Requirements</p> <p>...</p> <p>The program includes three field schools (REN R 101, REN R 290, and REN R 295) that provide training in practical aspects of forestry. REN R 101 should be taken in the first year (or in the initial year in the BSc in Forest Business Management program) just before the start of regular classes in Fall. REN R 290 and REN R 295 should normally be taken immediately after the second year and must be taken prior to the fourth year of study, to ensure that students are able to apply the skills learned in the last year of their program. Students must also complete a capstone course.</p>
<p>Program Requirements (117 units)</p> <p>...</p>	<p>Program Requirements (117 units)</p> <p>...</p> <p>REN R 290 - Field Skills in Environmental, Conservation, and Forest Sciences</p>

REN R 295 - Special Topics in Field Skills and Their
Application in Forest Sciences

Rationale

Corrections to the 2022/23 calendar changes previously submitted. Some adjustments to field course delivery and new course numbers, approved for the 2022/23 calendar were overlooked.

Detailed Rationale, for internal ALES use

N/A

Proposed by and Reviewed/Endorsed/Approved by:

Proposed by Nadir Erbilgin (REN R Department Chair) and John Acorn (ENCS & Forestry Program Chair)
Approved by REN R Department Council (February 25, 2022)
Approved at ALES ACC (March 3, 2022)

This package contains: [Undergraduate - Courses](#)

Faculty approval date:

AAC Date: February, 8 ,2022

Page	Department/ Unit	What is Changing
2	History, Classics and Religion	HIST 219, 462
3	Linguistics	LING 224
4	Linguistics	LING 508
5	Modern Languages and Cultural Studies	FREN 297, 298, 301, 311, 315, 317, 318, 319, 345, 372, 399, 418, 465, 467, 468, 478, 479, 481
8	Political Science	POL S 101
9	St. Joseph's College	CHRTC 267, 272, 292,303, 341, 349, 350,351, 352, 361, 394, 396,430
12	St. Joseph's College	Phil 269
13	Women's and Gender Studies	WGS 230
14	Women's and Gender Studies	WGS 301
15	Women's and Gender Studies	WGS 321
16	Women's and Gender Studies	WGS 370
17	Women's and Gender Studies	WGS 475

Submission Deadlines: – 09.21.21, 10.05.21, 10.21.21, 02.01.22, 03.29.22

Department: History, Classics and Religion

Change: Undergraduate Course

Rationale:

HIST 219: This course will broaden departmental offerings relevant to the thematic fields of politics, conflict and law; race, empires and colonialism; and science, health and environment. It will focus in particular on themes of religion, famine, genocide, memory studies, and knowledge dissemination.

HIST 462 and HIST 662 This course is proposed by Dr. Crystal Fraser, faculty in HCR and an expert in Indian Residential Schooling histories in Canada. A third-year course on Indian Residential Schools has shown strong enrolment, and Dr. Fraser would like to teach this material as an undergraduate (400-level) and graduate (600-level) seminar on an ongoing basis. Given the current context of unmarked graves, truth and reconciliation, and an increasing number of Indigenous students in post-secondary programs at UofA, we expect that this course will attract many students. This course will broaden HCR’s offerings in Indigenous and Canadian histories and offer students a new opportunity to engage with colonial histories.

https://calendar.ualberta.ca/search_advanced.php?cur_cat_oid=34&search_database=Search&search_db=Search&cpage=1&ecpage=1&ppage=1&spage=1&tpage=1&location=33&filter%5Bkeyword%5D=HIST&filter%5Bexact_match%5D=1

Calendar Copy:

Current: Strike through and highlight deletions	Proposed: <u>Underline and highlight</u> additions
	<p><u>HIST 219: Famine as Genocide in the 20th Century: The Case of the Holodomor</u> <u>★ 3 (fi 6) (either term, 3-0-0)</u> <u>Exploration of the 1932-33 famine in Ukraine in the context of other 20th century famines, genocide, survivor experience, and Soviet history.</u></p> <p><u>HIST 462: Indian Residential Schooling in Canada</u> <u>★ 3 (fi 6) (either term, 0-3s-0)</u> <u>Histories of Indian Residential Schools in Canada, with attention to the roles of imperialism, colonialism, and racial ideologies in the implementation and eventual dismantling of the Residential Schools system. Prerequisite: *3 in HIST at the 300-level or consent of Department.</u></p>

Department Contact: Jane Samson	Department Council Approval Date: Jan. 14, 2022
Chair or Designate: Jaymie Heilman	Signature:

Submission Deadlines: – 09.21.21, 10.05.21, 10.21.21, 02.01.22, 03.29.22

Department: **Linguistics**

Change: **Undergraduate Course**

Rationale: Updating the course description

https://calendar.ualberta.ca/content.php?filter%5B27%5D=LING&filter%5B29%5D=224&filter%5Bcourse_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur_cat_oid=34&expand=&navoid=10323&search_database=Filter&filter%5Bexact_match%5D=1#acalog_template_course_filter

Calendar Copy:

Current: Strike through and highlight deletions	Proposed: <u>Underline and highlight</u> additions
<p>LING 224 - Endangered Languages ★ 3 (fi 6) (EITHER, 3-0-0)</p> <p>An examination of languages facing extinction: how language endangerment arises, local and global factors affecting loss, how linguistic and cultural diversity suffers, and how linguists can respond. Students cannot receive credit for both LING 224 and 324.</p>	<p>LING 224 - Endangered Languages ★ 3 (fi 6)(EITHER, 3-0-0)</p> <p><u>An examination of local and global factors affecting the vitality of languages: how language endangerment arises,</u> how linguistic and cultural diversity suffers, and how linguists can respond. Students cannot receive credit for both LING 224 and 324.</p>

Department Contact: Grace Jamieson	Department Council Approval Date: November 15, 2021
Chair or Designate: Juhani Järvikivi	Signature: 

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

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Linguistics**

Change: **Course**

Rationale: The change is proposed in order to offer senior undergraduate students the opportunity to pursue the topic of Morphology further. LING 608- Morphology will be deleted and LING 508 Morphology will be created. As LING 608 was not offered every year **and it will take time** to create LING 508, we do not foresee there being any Graduate student with credit in LING 608 being able to enroll in LING 508.

https://calendar.ualberta.ca/content.php?filter%5B27%5D=LING&filter%5B29%5D=608&filter%5Bcourse_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur_cat_oid=33&expand=&navoid=10000&search_database=Filter&filter%5Bexact_match%5D=1#acalog_template_course_filter

Calendar Copy:

Current: Strike through and highlight deletions	Proposed: Underline and highlight additions
	<p><u>LING 508 - Morphology</u></p> <p><u>★ 3 (fi 6) (either term, 0-3s-0) Current approaches to morphological theory and analysis and their implications for grammatical theory and models of the lexicon.</u></p> <p><u>Prerequisite: LING 308 or consent of Department. Note: Not offered every year.</u></p>

Department Contact: Grace Jamieson	Department Council Approval Date: November 15, 2021
Chair or Designate:	Signature:

Submission Deadlines: – 09.21.21, 10.05.21, 10.21.21, 02.01.22, 03.29.22

Department: Modern Languages and Cultural Studies

Change: Undergraduate Course

Rationale:

It was decided that FREN 301 (Introduction to French Literary Studies) no longer be a prerequisite for FREN 4XX courses for the following reasons: 1) FREN 301 currently limits access to FREN 4XX courses; 2) Fewer literature courses are offered at the 4XX level; 3) Several of our FREN 4XX courses (e.g., media studies and translation) no longer require a background in literary studies; 4) Several of our FREN 3XX content course already include a literary component.

It was decided to remove FREN 298 (Advanced French II) for the following reasons: 1) FREN 298 delays access to FREN 3XX courses; and 2) FREN 298 content could be covered in FREN 297 with some adjustments.

FREN 297 content will be changed accordingly so that less themes are covered and more emphasis is put on writing skills to ensure students are well-prepared for FREN 3XX content courses. Accordingly, FREN 297 course name will be changed to “Advanced French”.

It is expected that both changes will have a positive impact on enrolment by simplifying access to FREN 3XX and 4XX courses, and reducing time for program completion.

The Department of Secondary Education (Second Languages: French) should be informed of these changes.

https://calendar.ualberta.ca/content.php?filter%5B27%5D=FREN&filter%5B29%5D=&filter%5Bcourse_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur_cat_oid=34&expand=&navoid=10323&search_database=Filter&filter%5Bexact_match%5D=1#acalog_template_course_filter

Calendar Copy:

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
<p>FREN 297 - Advanced French ↓</p> <p>★ 3 (fi 6) (either term, 3-0-2) Designed to improve the student’s command of French through intensive oral practice and advanced written exercises. Prerequisite: FREN 212 or consent of Department. Note: not to be taken by students with credit in FREN 251, 252 or FRANC 165, 166, 210, 211.</p> <p>FREN 298 - Advanced French II</p> <p>★ 3 (fi 6) (either term, 3-0-2) Emphasis on the improvement of writing and speaking skills by means of numerous compositions based on texts read and discussed in class. Prerequisite: FREN 297 or consent of Department. Note: not to be taken by students with credit in FREN 252 or FRANC 165, 166, 210, 211.</p> <p>FREN 301 - Introduction to French Literary Studies</p> <p>★ 3 (fi 6) (either term, 3-0-0) Tools necessary to conduct literary analyses and essay writing. Prerequisite: <u>FREN 298</u>.</p> <p>FREN 311 - Mystery, Myth, and Supernatural</p>	<p>FREN 297 - Advanced French</p> <p>★ 3 (fi 6) (either term, 3-0-2) Designed to improve the student’s command of French through intensive oral practice and advanced written exercises. Prerequisite: FREN 212 or consent of Department. Note: not to be taken by students with credit in FREN 251, 252 or FRANC 165, 166, 210, 211.</p> <p>FREN 301 - Introduction to French Literary Studies</p> <p>★ 3 (fi 6) (either term, 3-0-0) Tools necessary to conduct literary analyses and essay writing. Prerequisite: <u>FREN 297</u>.</p> <p>FREN 311 - Mystery, Myth, and Supernatural</p>

★ 3 (fi 6) (either term, 3-0-0) Mythology, the supernatural, superstition as cultural and literary phenomena in the French-speaking world. Prerequisite: **FREN 298**.

FREN 315 - Cultural Representations of Food

★ 3 (fi 6) (either term, 3-0-0) Functions and manifestations of the food paradigm in Francophone cinematographic and narrative texts. Prerequisite: **FREN 298**.

FREN 317 - Postcolonial Issues in French and Francophone Societies

★ 3 (fi 6) (either term, 3-0-0) Francophone cultural texts from a postcolonial perspective with a focus on migration, community, exile, and identity. Prerequisite: **FREN 298**.

FREN 318 - Socio-Cultural Aspects of Contemporary Francophone Societies

★ 3 (fi 6) (either term, 3-0-0) The evolution of Francophone societies from a multidisciplinary perspective. Prerequisite: **FREN 298**.

FREN 319 - Beauty, Passions, and Obsessions

★ 3 (fi 6) (either term, 3-0-0) Addresses either a given period or a particular facet of Francophone literary texts tied to three loosely connected themes that go back to the very origins of French as a language and continue to shape cultural expression. Prerequisite: **FREN 298**.

FREN 345 - Introduction to Contemporary French Cinema and Media

★ 3 (fi 6) (either term, 3-0-0) French & Francophone cultures as expressed in media other than literature, from the invention of cinema through contemporary artistic, socio-cultural, and political forms. Prerequisite: **FREN 298**.

FREN 372 - French Phonetics

★ 3 (fi 6) (either term, 3-0-0) Overview of the pronunciation of Standard French. Prerequisite: **FREN 298** or consent of Department.

FREN 399 - Special Topics

★ 3 (fi 6) (either term, 3-0-0) Prerequisite: **FREN 298**.

FREN 418 - Topics on Language and Society in the Francophone World

★ 3 (fi 6) (either term, 0-3s-0) Interactions between language and society in the Francophone world. Prerequisite: **FREN 301 and one of FREN 311, 312, 313, 314, 315, 316, 317, 318, 319, 333**.

★ 3 (fi 6) (either term, 3-0-0) Mythology, the supernatural, superstition as cultural and literary phenomena in the French-speaking world. Prerequisite: **FREN 297**.

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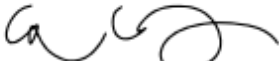
FREN 399 - Special Topics

★ 3 (fi 6) (either term, 3-0-0) Prerequisite: **FREN 297**.

FREN 418 - Topics on Language and Society in the Francophone World

★ 3 (fi 6) (either term, 0-3s-0) Interactions between language and society in the Francophone world. Prerequisite: **6 units from: FREN 301, 311, 312, 313, 314, 315, 316, 317, 318, 319, 333**.

<p>FREN 465 - Caribbean Culture ★ 3 (fi 6) (either term, 3-0-0) Colonialism, identity, diaspora and cultural diversity in French Caribbean literature, films, and music. Prerequisites: FREN 301 or FRANC 225, and one of FREN 311, 312, 313, 314, 315, 316, 333.</p> <p>FREN 467 - Women Writing in French ★ 3 (fi 6) (either term, 3-0-0) Texts written in various Francophone parts of the world from different periods. Prerequisites: FREN 301 or FRANC 225, and one of FREN 311, 312, 313, 314, 315, 316, 333.</p> <p>FREN 468 - Topics in Quebec/French Canadian Literature ★ 3 (fi 6) (either term, 3-0-0). Prerequisites: FREN 301 or FRANC 225, and one of FREN 311, 312, 313, 314, 315, 316, 333.</p> <p>FREN 478 - Topics in French Literature and Culture I ★ 3 (fi 6) (either term, 0-3s-0) From medieval times through the 19th century. Prerequisite: FREN 301 and one of FREN 311, 312, 313, 314, 315, 316, 317, 318, 319, 333.</p> <p>FREN 479 - Topics in French Literature and Culture II ★ 3 (fi 6) (either term, 0-3s-0) From the 20th through the 21st century. Prerequisite: FREN 301 and one of FREN 311, 312, 313, 314, 315, 316, 317, 318, 319, 333.</p> <p>FREN 481 - Topics in Folklore and Popular Culture ★ 3 (fi 6) (either term, 3-0-0) Study of French oral, materials, and popular culture in various parts of the Francophone world. Variable content; may be repeated for credit. Prerequisites: FREN 301 or FRANC 225; and one of FREN 311, 312, 313, 314, 315, 316, 333.</p>	<p>FREN 465 - Caribbean Culture ★ 3 (fi 6) (either term, 3-0-0) Colonialism, identity, diaspora and cultural diversity in French Caribbean literature, films, and music. Prerequisite: 6 units from: FREN 301, 311, 312, 313, 314, 315, 316, 317, 318, 319, 333.</p> <p>FREN 467 - Women Writing in French ★ 3 (fi 6) (either term, 3-0-0) Texts written in various Francophone parts of the world from different periods. Prerequisite: 6 units from: FREN 301, 311, 312, 313, 314, 315, 316, 317, 318, 319, 333.</p> <p>FREN 468 - Topics in Quebec/French Canadian Literature ★ 3 (fi 6) (either term, 3-0-0). Prerequisite: 6 units from: FREN 301, 311, 312, 313, 314, 315, 316, 317, 318, 319, 333.</p> <p>FREN 478 - Topics in French Literature and Culture I ★ 3 (fi 6) (either term, 0-3s-0) From medieval times through the 19th century. Prerequisite: 6 units from: FREN 301, 311, 312, 313, 314, 315, 316, 317, 318, 319, 333.</p> <p>FREN 479 - Topics in French Literature and Culture II ★ 3 (fi 6) (either term, 0-3s-0) From the 20th through the 21st century. Prerequisite: 6 units from: FREN 301, 311, 312, 313, 314, 315, 316, 317, 318, 319, 333.</p> <p>FREN 481 - Topics in Folklore and Popular Culture ★ 3 (fi 6) (either term, 3-0-0) Study of French oral, materials, and popular culture in various parts of the Francophone world. Variable content; may be repeated for credit. Prerequisite: 6 units from: FREN 301, 311, 312, 313, 314, 315, 316, 317, 318, 319, 333.</p>
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Department Contact: Sathya Rao	Department Council Approval Date: Jan. 17, 2022
Chair or Designate: Natalie Van Deusen	Signature: 

Submission Deadlines: – 09.21.21, 10.05.21, 10.21.21, 02.01.22, 03.29.22

Department: **Political Science**


Change: **Undergraduate Course**

Rationale: In 2020, the department piloted an online version of the course in which students were divided into smaller seminar groups supervised by individual instructors. The overall course was overseen by a senior instructor. Given the success of this method of course delivery, the department would like to be able to provide this as **one** option for students in the future in addition to the traditional lecture-based approach. The proposed course might be offered on-line or in-person.

https://apps.ualberta.ca/catalogue/course/pol_s/101

Calendar Copy:

Current: Strike through and highlight deletions	Proposed: <u>Underline and highlight</u> additions
<p>POL S 101 - Introduction to Politics</p> <p>★ 3 (fi 6)(either term, 3-0-0)</p> <p>An introduction to major political concepts and to the study of politics. Note: Not open to students wit credit in POL S 100 or 103.</p>	<p>POL S 101 - Introduction to Politics</p> <p>★ 3 (<u>fi 6</u>)(either term, <u>variable</u>)</p> <p>An introduction to major political concepts and to the study of politics. Note: Not open to students with credit in POL S 100 or 103.</p>

Department Contact: John Church	Department Council Approval Date: 27 Jan 2022
Chair or Designate: Lori Thorlakson	Signature: 

Submission Deadlines: – 09.21.21, 10.05.21, 10.21.21, 02.01.22, 03.29.22

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

Change: **Undergraduate Course**

Rationale: St. Joseph's College Faculty Council has undertaken a review of our courses with an eye towards simplification, modernization and clarity. Student input was informally garnered in some classes. SJC Faculty Council agreed to the following proposed changes on January 17th, 2022.

[https://calendar.ualberta.ca/search_advanced.php?cur_cat_oid=34&search_database=Search&search_db=Search&cpage=1&ecpage=1&ppage=1&spage=1&tpage=1&location=33&filter%5Bkeyword%5D=chrtc&filter%5Bexact_ma](https://calendar.ualberta.ca/search_advanced.php?cur_cat_oid=34&search_database=Search&search_db=Search&cpage=1&ecpage=1&ppage=1&spage=1&tpage=1&location=33&filter%5Bkeyword%5D=chrtc&filter%5Bexact_match%5D=1)

Calendar Copy:

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
<p>CHRTC 267 The New Testament Letters: <u>An Introduction</u> ★ 3 (fi 6) (either term, 3-0-0) A theological and scriptural exploration of the central themes of the New Testament letters and their contemporary relevance.</p> <p>CHRTC 272 Catholic Moral Thought: <u>An Introduction</u> ★ 3 (fi 6) (either term, 3-0-0) Major themes in Catholic moral reflection with application to contemporary issues. The meaning of morality and Christian conversion: the role of experience, the Bible, the Church, moral norms, the development of conscience, and personal responsibility. Not open to students with credit in CHRTC 172.</p> <p>CHRTC 292 Spirituality <u>for Today's Christian</u> ★ 3 (fi 6) (either term, 3-0-0) Developing an understanding of the role of prayer, leisure, and work within a Christian lifestyle in the light of Scripture, Christian tradition, current theological reflection, and personal differences.</p> <p>CHRTC 303 Well-being and Resilience: <u>Christian Perspectives</u> ★ 3 (fi 6) (either term, 3-0-0) This course will examine resilience and well-being through engagement with psychological, spiritual and Christian wisdom. Practical theology will offer a framework for enhancing self-awareness and resilience amidst life transitions and experiences.</p> <p>CHRTC 341 <u>Contemporary</u> Film and Christian <u>Values</u> ★ 3 (fi 6) (either term, 3-0-0) Theological themes arising out of contemporary film. Themes may include relationships, family, gender, possessions, work freedom, violence, suffering, death, happiness, and hope.</p>	<p>CHRTC 267 The New Testament Letters ★ 3 (fi 6) (either term, 3-0-0) A theological and scriptural exploration of the central themes of the New Testament letters and their contemporary relevance.</p> <p>CHRTC 272 Catholic Moral Thought ★ 3 (fi 6) (either term, 3-0-0) Major themes in Catholic moral reflection with application to contemporary issues. The meaning of morality and Christian conversion: the role of experience, the Bible, the Church, moral norms, the development of conscience, and personal responsibility. Not open to students with credit in CHRTC 172.</p> <p>CHRTC 292 <u>Christian</u> Spirituality ★ 3 (fi 6) (either term, 3-0-0) Developing an understanding of the role of prayer, leisure, and work within a Christian lifestyle in the light of Scripture, Christian tradition, current theological reflection, and personal differences.</p> <p>CHRTC 303 Well-being and Resilience ★ 3 (fi 6) (either term, 3-0-0) This course will examine resilience and well-being through engagement with psychological, spiritual and Christian wisdom. Practical theology will offer a framework for enhancing self-awareness and resilience amidst life transitions and experiences.</p> <p>CHRTC 341 Film and Christian <u>ity</u> ★ 3 (fi 6) (either term, 3-0-0) Theological themes arising out of contemporary film. Themes may include relationships, family, gender, possessions, work freedom, violence, suffering, death, happiness, and hope.</p>

CHRTC 349 Social Justice and Christianity
★ 3 (fi 6) (either term, 3-0-0) An examination of particular social justice issues related to the economy, **women**, **native** peoples, the environment, etc., in light of Catholic social teachings and other Christian perspectives; social action strategies, and education for social justice.

CHRTC 350 Science and Religion: **Christian Perspectives**
★ 3 (fi 6) (either term, 3-0-0) An examination of relationships between science and religion. Topics may include Galileo affair, geology and Noah's flood, Darwin's religious beliefs, evolution vs creation debate, intelligent design, natural evil, interpretations of Genesis 1-11.

CHRTC 351 Sex, Love and Marriage: **Christian Perspectives**
★ 3 (fi 6) (either term, 3-0-0) Questions of meaning and morality concerning sex, love, marriage, non-marital sex, parenthood, relationship and marriage breakup, celibacy, gender, and homosexuality, considered in the light of experience, the Bible, Catholic teaching, traditional and contemporary theological discussion.

CHRTC 352 Bioethical Issues: **Christian Perspectives**
★ 3 (fi 6) (either term, 3-0-0) Reproductive and genetic technologies, abortion, transplantation, resource allocation, research, withdrawing treatment, personal directives, euthanasia, considered in light of human experience. Catholic Church teaching, other Christian perspectives and contemporary ethical discussion.

CHRTC 361 Death, Dying and Culture: **Christian Perspectives**
★ 3 (fi 6) (either term, 3-0-0) Facets of death and dying as they manifest in the Christian tradition and contemporary culture. Topics may include: faith and death, ritual, spiritual practices, caring for the dying, allowing to die, assisting in death, medical perceptions of death, social responses to death/dying, grief and mourning.

CHRTC 394 Business Ethics: **Christian Perspectives**
★ 3 (fi 6) (either term, 3-0-0) A theological study of ethical issues in business settings, dealing with such themes as employer-employee relations, job security, advertising, distribution of wealth, acquisitive individualism, the common good; decisions on ethical issues in light of contemporary Catholic teaching.

CHRTC 396 **Environmental Issues: Christian Perspectives**
★ 3 (fi 6) (either term, 3-0-0) Theological and ethical issues concerning our relationship to the planet earth: responsible stewardship, non-renewable resources, pollution, the use of technology.

CHRTC 349 Social Justice and Christianity
★ 3 (fi 6) (either term, 3-0-0) An examination of particular social justice issues related to the economy, **gender**, **Indigenous** peoples, the environment, etc., in light of Catholic social teachings and other Christian perspectives; social action strategies, and education for social justice.

CHRTC 350 Science and Religion
★ 3 (fi 6) (either term, 3-0-0) An examination of relationships between science and religion. Topics may include Galileo affair, geology and Noah's flood, Darwin's religious beliefs, evolution vs creation debate, intelligent design, natural evil, interpretations of Genesis 1-11.

CHRTC 351 Sex, Love and Marriage
★ 3 (fi 6) (either term, 3-0-0) Questions of meaning and morality concerning sex, love, marriage, non-marital sex, parenthood, relationship and marriage breakup, celibacy, gender, and homosexuality, considered in the light of experience, the Bible, Catholic teaching, traditional and contemporary theological discussion.


CHRTC 352 Bioethics **and Christianity**
★ 3 (fi 6) (either term, 3-0-0) Reproductive and genetic technologies, abortion, transplantation, resource allocation, research, withdrawing treatment, personal directives, euthanasia, considered in light of human experience. Catholic Church teaching, other Christian perspectives and contemporary ethical discussion.

CHRTC 361 Death, Dying and Culture
★ 3 (fi 6) (either term, 3-0-0) Facets of death and dying as they manifest in the Christian tradition and contemporary culture. Topics may include: faith and death, ritual, spiritual practices, caring for the dying, allowing to die, assisting in death, medical perceptions of death, social responses to death/dying, grief and mourning.

CHRTC 394 Business Ethics **and Christianity**
★ 3 (fi 6) (either term, 3-0-0) A theological study of ethical issues in business settings, dealing with such themes as employer-employee relations, job security, advertising, distribution of wealth, acquisitive individualism, the common good; decisions on ethical issues in light of contemporary Catholic teaching.

CHRTC 396 **Environment and Christianity**
★ 3 (fi 6) (either term, 3-0-0) Theological and ethical issues concerning our relationship to the planet earth: responsible stewardship, non-renewable resources, pollution, the use of technology.

<p>CHRTC 430 The Human Sexual Body: Christian Perspectives</p> <p>★ 3 (fi 6) (either term, 3-0-0) Historical and contemporary perspectives on the sexual body in Christian thought. Not to be taken by students with credit in CHRTC 393</p>	<p>CHRTC 430 The Sexual Body and Christianity</p> <p>★ 3 (fi 6) (either term, 3-0-0) Historical and contemporary perspectives on the sexual body in Christian thought. Not to be taken by students with credit in CHRTC 393</p>
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<p>Department Contact: Sara McKeon</p>	<p>Department Council Approval Date: Jan 17, 2022</p>
<p>Chair or Designate: Dr. Matthew Kostelecky, Vice-President (Academic) and Dean, St. Joseph's College</p>	<p>Signature:</p> 

Submission Deadlines: – 09.21.21, 10.05.21, 10.21.21, 02.01.22, 03.29.22

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

Change: **Undergraduate Course**


Rationale: St. Joseph’s College Faculty Council has undertaken a review of our courses with an eye towards simplification, modernization and clarity. Student input was informally garnered in some classes. SJC Faculty Council agreed to the following proposed changes on January 17th, 2022. All PHIL course numbers ending in the number ‘9’ belong to St. Joseph’s College.

https://calendar.ualberta.ca/search_advanced.php?cur_cat_oid=34&ecpage=1&cpage=1&ppage=1&pcpage=1&spage=1&tpage=1&search_database=Search&filter%5Bkeyword%5D=phil&filter%5Bexact_match%5D=1&filter%5B3%5D=1&filter%5B31%5D=1&filter%5B1%5D=1&filter%5B28%5D=1&filter%5B30%5D=1

Calendar Copy:

Note: All PHIL courses ending in (9) are owned by SJC

Current: Strike through and highlight deletions	Proposed: <u>Underline and highlight</u> additions
PHIL 269 Moral Issues in a Christian Context ★ 3 (fi 6) (either term, 3-0-0) Analysis and evaluation of selected moral and social issues.	PHIL 269 Moral <u>Philosophy and the Christian Tradition</u> ★ 3 (fi 6) (either term, 3-0-0) Analysis and evaluation of selected moral and social issues.

Department Contact: Sara McKeon	Department Council Approval Date: Jan 17, 2022
Chair or Designate: Dr. Matthew Kostelecky, Vice-President (Academic) and Dean, St. Joseph’s College	Signature: 

Submission Deadlines: – 09.21.21, 10.05.21, 10.21.21, 02.01.22, 03.29.22

Department: **Women's and Gender Studies**

Change: **Undergraduate Course**

Rationale: The department of Women's and Gender Studies proposed the addition of an undergraduate course on Consent. The course will contribute to a suite of second year courses that focus on specific fields of WGS scholarship (other classes include 270: Feminsim and Sexuality, 220: Feminism and Popular Culture, 206: Women and War, etc.).


The proposed class has been offered as WGS 298 Critical Issues, which is a variable topics class. Fall 2018 registration was 49 students, Fall 2019 registration was 44 students, the class was cancelled in Fall 2020 due to the unsuitability of the remote learning environment for this course. It is scheduled again as WGS 298: Consent in Winter 2022 with 32 students currently registered. The course appeals to a broad range of students inside and outside the Faculty of Arts. Like other 200 level classes in our curriculum, it does not have a prerequisite and it introduces students not only to the concept of consent, but also to fundamental theoretical concepts in the field of Women's and Gender Studies.

No prerequisites.

https://calendar.ualberta.ca/search_advanced.php?cur_cat_oid=34&ecpage=1&cpage=1&ppage=1&pcpag=1&spage=1&tpage=1&search_database=Search&filter%5Bkeyword%5D=WGS&filter%5Bexact_match%5D=1&filter%5B3%5D=1&filter%5B31%5D=1&filter%5B1%5D=1

Calendar Copy:

Current: Strike through and highlight deletions	Proposed: <u>Underline and highlight</u> additions
	<p><u>WGS 230 - Consent</u> <u>★3 (fi 6) (either term, 3-0-0) An interdisciplinary exploration of the concept of sexual consent. Topics covered may include: the role of sexual violence in colonization, feminist law reform, unwanted sex, sexual agency, sexual fraud, and the limitations of consent-based prevention.</u></p>

Department Contact: Michelle Meagher	Department Council Approval Date: October 27, 2021
Chair or Designate: Michelle Meagher	 Signature:

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

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Women's and Gender Studies**

Change: **WGS 301 - History of Feminist Thought**

Rationale: We are proposing a small change to the description of this course. WGS 301 has been taught in the department of Women's and Gender Studies for decades as a class that introduces students to the history of feminist thought with an emphasis on European and North American scholarship. In recent years, instructors have expanded the content to include a much broader and indeed global perspective on the history of feminist thought. The time period covered has also expanded, with texts as recent as the 1980s regularly included on the syllabus.

Our department council discussion concluded that the current course description does not adequately describe either what is actually happening in the course, or what curricular contributions we want the course to provide. The point of the class is not to provide full coverage of the history of feminist thought - such a goal would inevitably fail. The point of the course is to provide students a historical perspective on feminist thought, something that they otherwise tend to imagine is a new phenomenon.


Ultimately, the course does not need to stick to a particular regional focus or to a particular timeline in order to accomplish its main task, which is to train students to think historically about feminist theory, thought, activism, and practice, which includes art, broadly defined.

Note that we are also removing the reference to W ST in the description of prerequisites as W ST classes have not been offered for nearly a decade, having been replaced by the WGS course designator

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Calendar Copy:

Current: Strike through and highlight deletions	Proposed: <u>Underline and highlight</u> additions
<p>WGS 301 - History of Feminist Thought ★ 3 (fi 6) (either term, 3-0-0) Historical study of selected feminist writers and activists. Emphasis is on European and North American feminist thought up to the mid twentieth century. Prerequisite: Any 100 or 200 level WGS or W-ST course, or departmental consent.</p>	<p>WGS 301 - History of Feminist Thought ★ 3 (fi 6) (either term, 3-0-0) Historical study of selected feminist writers, <u>activists, and/or artists.</u> Prerequisite: Any 100 or 200 level WGS course, or departmental consent.</p>

Department Contact: Michelle Meagher	Department Council Approval Date: October 27, 2021
Chair or Designate: Michelle Meagher	Signature: 

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

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: Women's and Gender Studies

Change: Undergraduate Course


Rationale: We are proposing to remove the lab section from this course. The lab was originally intended to provide an opportunity to students to view films covered in class. This is no longer required because students can easily access films on online databases. The lab has been unscheduled for the last several years and so we propose its removal.

We're also removing the reference to WST, a course designator that has not been used in about a decade.

https://calendar.ualberta.ca/search_advanced.php?cur_cat_oid=34&search_database=Search&search_db=Search&cpage=1&ecpage=1&ppage=1&spage=1&tpage=1&location=3&filter%5Bkeyword%5D=WGS&filter%5Bexact_match%5D=1

Calendar Copy:

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
WGS 321 - Feminism and Film ★ 3 (fi 6) (either term, 3-0- 3) Feminist analysis of gender, sexuality, ability, race/ethnicity, and class/status in film. Content will vary in terms of genre, production, and language. Prerequisite: Any 100 or 200 level WGS or WST course, or consent of department.	WGS 321 - Feminism and Film ★ 3 (fi 6) (either term, 3-0- <u>0</u>) Feminist analysis of gender, sexuality, ability, race/ethnicity, and class/status in film. Content will vary in terms of genre, production, and language. Prerequisite: Any 100 or 200 level WGS course, or consent of department.

Department Contact: Michelle Meagher	Department Council Approval Date: November 24, 2021
Chair or Designate: Michelle Meagher	 Signature:

Submission Deadlines: – 09.21.21, 10.05.21, 10.21.21, 02.01.22, 03.29.22

Department: **Women's and Gender Studies**

Change: **Undergraduate Course**

Rationale: The department of Women's and Gender Studies is adding a course in Queer Theory. Queer Theory has been offered multiple times as a special topics course using the designator WGS 498 Special Topics, or WGS 470 Sexualities. With the addition of Dr. Simone Pflieger to our permanent faculty, we are now able to regularly offer a course on the topic of queer theory. The introduction of a Queer Theory course at the 300 level will complement our other 300 level theory course (WGS 332) and will prepare students for advanced study of queer theory topics at the 400 level.


The proposed WGS 370 course will be part of a suite of courses that will support the proposed undergraduate certificate in Sexuality Studies.

We have consulted with English, which offers ENGL 392 Queer and Trans Studies, and have had confirmation from Associate Chair (Undergraduate) Karyn Ball that EFS supports this proposal. We have also consulted with Sociology, which offers SOC 492 Queering the Social. In an email dated November 3rd, 2021, Associate Chair (Undergraduate) Alison Dunwoody supports this proposal on behalf of the Department of Sociology.

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Calendar Copy:

Current: Strike through and highlight deletions	Proposed: <u>Underline and highlight</u> additions
	<p><u>WGS 370 - Queer Theory</u> <u>★3 (fi 6) (either term, 3-0-0) A survey of core texts and key debates that have shaped queer theory.</u> <u>Prerequisite: Any 100 or 200 level WGS course, or departmental consent.</u></p>

Department Contact: Michelle Meagher	Department Council Approval Date: October 27 2021
Chair or Designate: Michelle Meagher	<p style="text-align: center;"></p> <p>Signature:</p>

Submission Deadlines: – 09.21.21, 10.05.21, 10.21.21, 02.01.22, 03.29.22

Department: **Women's and Gender Studies**

Change: **Undergraduate Course**

Rationale: The department of Women's and Gender Studies proposes the addition of a senior level course in Indigenous Genders and Sexualities. This course reflects the expertise of Dr. Lana Whiskeyjack, who joined our unit in July 2020. She has taught the class 3 times as WGS 498 Special Topics, which is a variable topics class.


This course has been popular with both undergraduate and graduate students. Moreover, it makes an important contribution to the decolonization of WGS and so it is a vital addition to our curriculum. This course will be part of a suite of courses that will support the proposed undergraduate certificate in Sexuality Studies.

We have consulted with Native Studies, which offers NS 360 Indigenous Erotics, and NS 362 Indigenous Women, courses which may have some overlap with the proposed course. In an email dated December 2nd, Nathalie Kermaal, Associate Dean (Academic) in the Faculty of Native Studies writes: "FNS supports the addition of a course on Indigenous Genders and Sexualities."

https://calendar.ualberta.ca/search_advanced.php?cur_cat_oid=34&ecpage=1&cpage=1&ppage=1&pcpage=1&spage=1&tpage=1&search_database=Search&filter%5Bkeyword%5D=WGS&filter%5Bexact_match%5D=1&filter%5B3%5D=1&filter%5B31%5D=1&filter%5B1%5D=1

Calendar Copy:

Current: Strike through and highlight deletions	Proposed: <u>Underline and highlight</u> additions
	<p><u>WGS 475 Indigenous Genders and Sexualities</u> <u>★3 (fi 6) (either term, 3-0-0) Exploration of gender diversity and sexualities from Indigenous and Indigenous feminist worldviews, including critical examination of colonial constructions of gender and sexuality.</u> <u>Prerequisite: Any 100 or 200 level WGS course, or departmental consent.</u></p>

Department Contact: Michelle Meagher	Department Council Approval Date: October 27 2021
Chair or Designate: Michelle Meagher	 Signature:

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

Faculty approval date:

AAC Date: February 08 2022

Page	Department or Unit	What is Changing
2	Faculty of Arts / USS	Minor in Business

Submission Deadlines: – 09.21.21, 10.05.21, 10.21.21, 02.01.22, 03.29.22

Department: Faculty / Undergraduate Student Services
Change: Undergraduate Major Program Change

Rationale: Correcting the admission requirement to be consistent with the BA Common Admission Requirements to exclude ENGL 150 and include 100-level WRS units/credits.

« 2022-23 Draft »

Calendar Copy:

Current: Strike through and highlight deletions	Proposed: <u>Underline and highlight</u> additions
<p>Minor in Business (Alberta School of Business) [Arts] General Information The minor in Business seeks to provide Arts students with introductory training in a variety of business areas.</p> <p>Admission Requirements Admission to the minor in Business will be determined once per year through an internal application process to the Faculty of Arts Undergraduate Student Services Office. Students are not eligible to select the minor in Business directly from high school. Enrolment in the minor is limited and requires a competitive average (minimum of 2.3) based on a minimum of 24 units and must include the following pre-requisite courses:</p> <p>3 units in 100-level ENGL</p> <p>ECON 101 - Introduction to Microeconomics ECON 102 - Introduction to Macroeconomics STAT 161 - Introductory Statistics for Business and Economics (or equivalent) NOTE: Having the minimum average does not guarantee admission to the minor. A higher competitive average may be required.</p> <p>For more information contact arts.undergrad@ualberta.ca</p>	<p>Minor in Business (Alberta School of Business) [Arts] General Information The minor in Business seeks to provide Arts students with introductory training in a variety of business areas.</p> <p>Admission Requirements Admission to the minor in Business will be determined once per year through an internal application process to the Faculty of Arts Undergraduate Student Services Office. Students are not eligible to select the minor in Business directly from high school. Enrolment in the minor is limited and requires a competitive average (minimum of 2.3) based on a minimum of 24 units and must include the following pre-requisite courses:</p> <p>3 units in 100-level ENGL <u>(Except ENGL 150)</u> <u>OR</u> <u>3 Units in 100-level WRS</u></p> <p>ECON 101 - Introduction to Microeconomics ECON 102 - Introduction to Macroeconomics STAT 161 - Introductory Statistics for Business and Economics (or equivalent) NOTE: Having the minimum average does not guarantee admission to the minor. A higher competitive average may be required.</p> <p>For more information contact arts.undergrad@ualberta.ca</p>

Department Contact: Kristy Wuetherick	Department Council Approval Date: N/A
Chair or Designate: Kristy Wuetherick	Signature:

This package contains: [Graduate - Courses](#)

Faculty approval date:

AAC Date: February 8, 2022

Page	Department/ Unit	What is Changing
2	Women's and Gender Studies	GSJ 575
3	History, Classics and Religion	HIST 662
4	Linguistics	LING 608 (delete)

Submission Deadlines: – 09.21.21, 10.05.21, 10.21.21, 02.01.22, 03.29.22

Department: **Women's and Gender Studies**

Change: **Graduate Course**

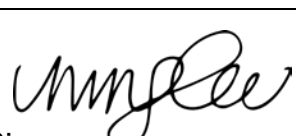
Rationale: The department of Women’s and Gender Studies proposes the addition of a graduate level course in Indigenous Genders and Sexualities. This course reflects the expertise of Dr. Lana Whiskeyjack, who joined our unit in July 2020. She has taught the class 3 times as GSJ 598 Special Topics, a variable topics class that is regularly taught in combination with WGS 498, a senior level undergraduate variable topics class..

This course has been popular with both undergraduate and graduate students. Moreover, it makes an important contribution to the decolonization of WGS and so it is a vital addition to our curriculum. In an email dated December 2nd, Nathalie Kermaal, Associate Dean (Academic) in the Faculty of Native Studies writes: “FNS supports the addition of a course on Indigenous Genders and Sexualities.”

https://calendar.ualberta.ca/search_advanced.php?cur_cat_oid=34&ecpage=1&cpage=1&ppage=1&pcpage=1&spage=1&tpage=1&search_database=Search&filter%5Bkeyword%5D=WGS&filter%5Bexact_match%5D=1&filter%5B3%5D=1&filter%5B31%5D=1&filter%5B1%5D=1

Calendar Copy:

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
	<p><u>GSJ 575 - Indigenous Genders and Sexualities</u> <u>★3 (fi 6) (either term, 3-0-0) Exploration of gender diversity and sexualities from Indigenous and Indigenous feminist worldviews, including critical examination of colonial constructions of gender and sexuality.</u></p>

Department Contact: Michelle Meagher	Department Council Approval Date: October 27 2021
Chair or Designate: Michelle Meagher	<p style="text-align: center;"></p> <p>Signature:</p>

Submission Deadlines: – 09.21.21, 10.05.21, 10.21.21, 02.01.22, 03.29.22

Department: History, Classics and Religion

Change: Undergraduate Course

Rationale:

HIST 462 and **HIST 662** This course is proposed by Dr. Crystal Fraser, faculty in HCR and an expert in Indian Residential Schooling histories in Canada. A third-year course on Indian Residential Schools has shown strong enrolment, and Dr. Fraser would like to teach this material as an undergraduate (400-level) and graduate (600-level) seminar on an ongoing basis. Given the current context of unmarked graves, truth and reconciliation, and an increasing number of Indigenous students in post-secondary programs at UofA, we expect that this course will attract many students. This course will broaden HCR’s offerings in Indigenous and Canadian histories and offer students a new opportunity to engage with colonial histories.

https://calendar.ualberta.ca/search_advanced.php?cur_cat_oid=34&search_database=Search&search_db=Search&cpage=1&ecpage=1&ppage=1&spage=1&tpage=1&location=33&filter%5Bkeyword%5D=HIST&filter%5Bexact_match%5D=1

Calendar Copy:

Current: Strike through and highlight deletions	Proposed: <u>Underline and highlight</u> additions
	<p><u>HIST 662: Indian Residential Schooling in Canada</u> <u>★ 3 (fi 6) (either term, 0-3s-0)</u> <u>Histories of Indian Residential Schools in Canada, with attention to the roles of imperialism, colonialism, and racial ideologies in the implementation and eventual dismantling of the Residential Schools system.</u></p>

Department Contact: Jane Samson	Department Council Approval Date: Jan. 14, 2022
Chair or Designate: Jaymie Heilman	Signature:

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

Submission Deadlines: 22-23 Calendar – 01.13.21, 03.31.21

Department: **Linguistics**

Change: **Course**

Rationale: The change is proposed in order to offer senior undergraduate students the opportunity to pursue the topic of Morphology further. LING 608- Morphology will be deleted and LING 508 Morphology will be created.

https://calendar.ualberta.ca/content.php?filter%5B27%5D=LING&filter%5B29%5D=608&filter%5Bcourse_type%5D=-1&filter%5Bkeyword%5D=&filter%5B32%5D=1&filter%5Bcpage%5D=1&cur_cat_oid=33&expand=&navoid=10000&search_database=Filter&filter%5Bexact_match%5D=1#acalog_template_course_filter

Calendar Copy:

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
<p>LING 608 – Morphology</p> <p>★ 3 (fi 6) (either term, 0-3s-0) Current approaches to morphological theory and analysis and their implications for grammatical theory and models of the lexicon.</p> <p>Prerequisite: consent of Department. Note: offered in alternate years.</p>	

Department Contact: Grace Jamieson	Department Council Approval Date: November 15, 2021
Chair or Designate:	Signature:

Calendar Change Request Form for Course Changes

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

Faculty (& Department or Academic Unit):	Augustana Faculty
Contact Person:	Jonathan Hawkins jh12@ualberta.ca
Level of change (choose one only) [?]	<input checked="" type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate
For which term will this change take effect?	Fall 2022 (Early Implementation requested)

Rationale

AUIDS 401 is the Capstone course in the new Augustana Project-Based Core program, planned to be offered for the first time in January 2023. When the Core was initially proposed, the expectation was that AUIDS 401 would be a 6-unit offering. However, as the new Core has developed (AUIDS 301 is currently being offered for the first time), it has become apparent that the desired learning outcomes included in AUIDS 401 can be achieved in a 3-unit version of the course. Shrinking the course from 6 units to 3 will also make it easier for students to include in their course schedules, and relieve potential workload pressures on the instructors required to offer the course.

Course Template

Current	Proposed
AUIDS 401	AUIDS 401
Advanced Integration Project	Advanced Integration Project
Course Career Undergraduate	Course Career Undergraduate
Units 6	Units 3
Approved Hours VARIABLE	Approved Hours VARIABLE
Fee index 42	Fee index 6
Faculty Augustana	Faculty Augustana
Department AU Social Sciences	Department AU Social Sciences
Typically Offered variable	Typically Offered variable
Description A project-based course which allows students to work in small interdisciplinary teams to propose a solution to a real-world issue with the support of a faculty advisor. Prerequisite: AUIDS 301.	Description A project-based course which allows students to work in small interdisciplinary teams to propose a solution to a real-world issue with the support of a faculty advisor. Prerequisite: AUIDS 301.

Reviewed/Approved by:

Augustana Faculty Council: March 11, 2022

Department/Program Office: Marketing, Business Economics & Law

Change: Course - Change 1 (all)

In which academic year is this change requested? **2022-2023**

Calendar Copy:

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
<p>BUEC 311 – Business Economics, Organizations and Management</p> <p>★ 3 (<i>fi</i> 6) (either term, 3-0-0)</p> <p>Business organizations as systems of mutually reinforcing functional areas where decision making is driven by underlying economic forces. Application of economic theory to facilitate complex decision making within organizations; economic models of decision making are linked directly to functional areas of management. Topics include the organization of firms and industries; meeting customer needs; and decision making involving production, resource use, dealing with risk and uncertainty, scale and scope of operations, competitive advantage, and product pricing. Prerequisite: ECON 101, ECON 102, and MATH 114 or equivalent. Not open to students with previous credit in ECON 281.</p>	<p>BUEC 311 – Business Economics, Organizations and Management</p> <p>★ 3 (<i>fi</i> 6) (either term, 3-0-0)</p> <p><u>Decision-making by businesses and consumers underlies our economic system. This class applies economic theory to build better understanding of complex decision making within organizations and strategic interactions between firms, along with a detailed examination of budget-constrained consumer decision-making. Other topics include decision-making involving production, resource use, risk management, scale and scope of operations, competitive advantage, and product pricing; game theory; and government intervention in markets.</u> Prerequisite: ECON 101, ECON 102, and MATH <u>154</u> or equivalent. Not open to students with previous credit in ECON 281.</p>

Rationale:
 The course title and description is being updated to reflect current business economics topics and concepts. The prerequisite of MATH 154 is updated from the old prerequisite of MATH 114, which no longer applies.

Submitted by: Andrew Leach with support from Department and Chair
 Title: Associate Professor

Date: February 17, 2022

Approved by Business Council

Date: March 2nd 2022

**Faculty of Business
Master's Programs Office
Calendar Change Request Form**

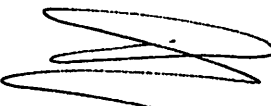
Department:	<i>Marketing, Business Economics and Law</i>		
Implementation:	<i>Session & Term: Winter 2023</i>	<i>Normal:</i>	<i>Early: X</i>
Type of Change:	<i>Course Deletion: X</i>	<i>Course Change:</i>	<i>New Program:</i>
	<i>New Course:</i>	<i>Program Change:</i>	<i>Other:</i>

CURRENT:	PROPOSED:
<p>BUEC 678 – Managing Business-Government Relations in Canada ★3 (fi 6)(EITHER, 3-0-0) The role of business in the public policy process: How business organizations influence public policy and its administration, and how public policies affect business. Processes of change are of particular interest. Attention is placed on the motivation, behavior patterns, and the dynamics of the interaction of different stakeholder groups, policy makers, and managers responsible for the implementation of public policies. Develops a framework for analysis of the effectiveness and efficiency of different fiscal, regulatory, and promotional policies; consideration is given to the impact of technological, economic, and social change on policy choice in the long run. Prerequisites: BUEC 502 or 503.</p>	<p>BUEC 678 – Managing Business-Government Relations in Canada ★3 (fi 6)(EITHER, 3-0-0) The role of business in the public policy process: How business organizations influence public policy and its administration, and how public policies affect business. Processes of change are of particular interest. Attention is placed on the motivation, behavior patterns, and the dynamics of the interaction of different stakeholder groups, policy makers, and managers responsible for the implementation of public policies. Develops a framework for analysis of the effectiveness and efficiency of different fiscal, regulatory, and promotional policies; consideration is given to the impact of technological, economic, and social change on policy choice in the long run. Prerequisites: BUEC 502 or 503.</p>

Rationale: This course is being replaced with SEM 678.

Submitted by: 
 Robert Fisher, Department Chair

Date: Feb. 15, 2022

Submitted by: 
 Michael Maier, Chair, GSPC

Date: Feb. 15, 2022

Approved: GSPC - February 15, 2022


Approved: Business Faculty Council - March 2, 2022

**Faculty of Business
Master's Programs Office
Calendar Change Request Form**

Department:	<i>Strategy, Entrepreneurship and Management</i>		
Implementation:	<i>Session & Term: Winter 2023</i>	<i>Normal:</i>	<i>Early: X</i>
Type of Change:	<i>Course Deletion:</i>	<i>Course Change:</i>	<i>New Program:</i>
	<i>New Course: X</i>	<i>Program Change:</i>	<i>Other:</i>

CURRENT:	PROPOSED:
	<p>SEM 678 – Managing Business-Government Relations in Canada ★ 3 (fi 6)(EITHER, 3-0-0) The role of business in the public policy process: How business organizations influence public policy and its administration, and how public policies affect business. Processes of change are of particular interest. Attention is placed on the motivation, behavior patterns, and the dynamics of the interaction of different stakeholder groups, policy makers, and managers responsible for the implementation of public policies. Develops a framework for analysis of the effectiveness and efficiency of different fiscal, regulatory, and promotional policies; consideration is given to the impact of technological, economic, and social change on policy choice in the long run.</p>

Rationale: The course is being moved from the MBEL department to the SEM department.

Submitted by: 
 Ian Gellatly, Department Chair

Date: Feb. 15, 2022

Submitted by: 
 Michael Maier, Chair, GSPC

Date: Feb. 15, 2022

Approved: GSPC - February 15, 2022
 Approved: Business Faculty Council - March 2, 2022

**Faculty of Nursing
Calendar Change Request Form
For Implementation in 2021-2022**

CURRENT	PROPOSED
<p><u>Standard First Aid Certificate</u></p> <p>Students must provide a copy of a current standard first aid certificate. This does not need to be renewed throughout the program. Emergency First Aid is not equivalent to Standard First Aid and will not be accepted.</p> <p>Students may find it easier to take a combined Basic Life Support Provider CPR course with First Aid as stand-alone first aid courses are difficult to find.</p>	<p>NO WORDING</p>
<p><u>Standard First Aid Certificate</u>: Undergraduate nursing students must provide a standard first aid certificate to participate in clinical practice courses. Refer to the Faculty of Nursing website at www.nursing.ualberta.ca for program-specific deadlines.</p>	<p>NO WORDING</p>
<p><u>12) Review the Faculty of Nursing's health and safety requirements.</u></p> <p>These are explained in detail on the Health and Safety Requirements page of the Faculty of Nursing website and include CPR and First Aid training, immunization requirements, confidentiality agreements, etc. These requirements are not due as part of your application, but must be completed by the deadline indicated for your program on the Health and Safety Requirements page.</p>	<p><u>12) Review the Faculty of Nursing's health and safety requirements.</u></p> <p>These are explained in detail on the Health and Safety Requirements page of the Faculty of Nursing website and include CPR training, immunization requirements, confidentiality agreements, etc. These requirements are not due as part of your application, but must be completed by the deadline indicated for your program on the Health and Safety Requirements page.</p>

Rationale:

The Standard First Aid Certificate is no longer a requirement for clinical placements in the Faculty of Nursing.

Approval:

Undergraduate Curriculum Committee Approved – December 8, 2020

Faculty Caucus Discussed – Dec 16 2020

Faculty of Nursing Executive Council Approved – Mar 8 2022

Final Approval by University Governance –

**Faculty of Nursing
Calendar Change Request Form
For Implementation in 2022-2023**

CURRENT	PROPOSED
Course Listings - University of Alberta - Acalog ACMS™	Course Listings - University of Alberta - Acalog ACMS™
<p>NURS 125 - Nursing Practice - Health Assessment and Nursing Process</p>	<p>NURS 125 - Nursing Practice - Health Assessment and Nursing Process</p>
<p>★ 4 (fi 8) (second term, 2-15 total hrs-2) The focus is on the health assessment of the adult, and expected health assessment findings throughout the lifespan. The course provides a beginning foundation of the nursing process as framework for developing assessment skills and use of clinical technologies necessary for determining client health status and provision of care. Course includes 15 clinical hours total. Note: Available only to nursing students in the Collaborative Program and Bilingual Program. Prerequisites for Collaborative Program students: MMI 133, NURS 106 (or NURS 140 and 150), and NURS 120 (or NURS 103); Corequisite: NURS 124 (or NURS 103). Prerequisites for Bilingual Program students: MICRE 133. Students must achieve a minimum grade of C+ in order to progress in the program. Credit cannot be obtained for NURS 125 if credit is granted for NURS 105 or 305.</p>	<p>★ 4 (fi 8) (second term, 2-15 total hrs-2) The focus is on the health assessment of the adult, and expected health assessment findings throughout the lifespan. The course provides a beginning foundation of the nursing process as framework for developing assessment skills and use of clinical technologies necessary for determining client health status and provision of care. Course includes 15 clinical hours total. Note: Available only to nursing students in the Collaborative Program and Bilingual Program. Prerequisites for Collaborative Program students: MMI 133, NURS 106 (or NURS 140 and 150), and NURS 120 (or NURS 103); Corequisite: NURS 124 (or NURS 103). Prerequisites for Bilingual Program students: ANATE 140, MICRE 133. Students must achieve a minimum grade of C+ in order to progress in the program. Credit cannot be obtained for NURS 125 if credit is granted for NURS 105 or 305.</p>

Rationale:

ANATE 140 is already listed as a FMP course ([Faculty of Nursing Regulations - University of Alberta - Acalog ACMS™](#)) meaning that NURS 125 cannot be taken in sequence ([Program: BScN—Bilingual Program/Baccalauréat ès sciences infirmières \(bilingue\) - University of Alberta - Acalog ACMS™](#)) without it. This also standardizes the wording of NURS 125 prerequisites with that of the Collaborative program.

Approval:

Undergraduate Curriculum Committee Approved – February 8, 2022

Faculty Caucus Discussed – February 14 and 15, 2022

Faculty of Nursing Executive Council Approved – Mar 04 2022

Final Approval by University Governance –

Calendar Change For Immediate Implementation

Current	Proposed
<p>The Degree of PhD (Nursing) [Graduate]</p> <p>Program Requirements</p> <p>Examinations</p> <p>There are three examinations during the PhD program: The Comprehensive Examination at the completion of the coursework, typically at the end of the second year; The Doctoral Candidacy Exam which must be completed by the end of the third year; and the Doctoral Final Oral Exam. English is the language of study. All requirements for the degree must normally be completed within six years from the time a student first registers as a graduate student.</p>	<p>The Degree of PhD (Nursing) [Graduate]</p> <p>Program Requirements</p> <p>Examinations</p> <p>There are two examinations during the PhD program: The Doctoral Candidacy Exam which must be completed by the end of the third year; and the Doctoral Final Oral Exam. English is the language of study. All requirements for the degree must normally be completed within six years from the time a student first registers as a graduate student.</p>

Approvals:

Faculty of Nursing Council - February 14, 2022

GPST - Graduate Program Support Team - February 28, 2022

PRC - Program Review Committee - March 9, 2022

FGSR Council - March 30, 2022

Rationale:

Doctoral students in the Faculty of Nursing are currently required to complete both a written comprehensive examination (WCE) and an oral doctoral candidacy examination. The motion would eliminate the PhD written comprehensive examination as a requirement for the PhD degree within the Faculty of Nursing. This change should be implemented upon final approval and included in the calendar as soon as possible.

This motion was initiated by the Doctoral Core Curriculum Working Group, which has a mandate to develop and bring forward recommendations for revisions to the doctoral curriculum in the Faculty of Nursing. The motion was approved by the Faculty of Nursing Graduate Education Committee, but was tabled at the October 2021 Faculty of Nursing Council meeting, with recommendations for further consultation and development that have now been addressed. The need for this change is supported by an analysis of timelines for program progression and completion, which showed that over the 3-year period of 2018-2021, 39% of doctoral nursing students were failing to meet the FGSR 3-year requirement for completion of the doctoral oral candidacy examination. The written comprehensive exam contributes to the delay to the candidacy exam, and measures will be implemented to address other contributing factors (described below).

The working group has developed an action plan to ensure that doctoral students are successfully prepared for the candidacy examination, including:

1. Revisions to Faculty of Nursing Doctoral Candidacy Guidelines reflect that both the substantive knowledge of the discipline and the research proposal should be assessed at the doctoral candidacy exam.
2. Doctoral program learning outcomes have been drafted which will enable expectations to be levelled across each year of the doctoral program, and will inform revisions to doctoral courses which are preparatory to the candidacy exam.

3. An annual doctoral colloquium will be held each spring to provide opportunities for students to develop and demonstrate program outcomes across each year of the doctoral program (by presenting and sharing their work, integrating and applying learning, preparing for upcoming learning outcomes and program milestones).
4. A discussion forum for graduate supervisors will meet on a regular basis for mentorship and support related to graduate supervision to share supervisory experience and practices, and build consensus and consistency regarding expectations for program progression.
5. Strategies to strengthen and support development of writing skills will be developed and implemented.

**Faculty of Science
Department of Cell Biology
Calendar Changes 2023-2024**

Approved by Faculty Council
January 21, 2022

Current	Proposed
<p>Specialization in Cell Biology [Science]</p> <hr/> <p>Continuation in the Specialization in Cell Biology program requires successful completion of at least ★24 with a minimum 2.3 GPA in each preceding Fall/Winter.</p> <hr/> <p>Year 3 and 4</p> <hr/> <p>CELL 300 – Advanced Cell Biology I CELL 301 – Advanced Cell Biology II CELL 302 – Diversity of the Cell *3 from BIOCH 310, 320 or 330 *3 from 400-level CELL course *3 from Group A (CELL 398 recommended) *12 from Group A option *9 Science option *12 Open option * 9 Arts option</p>	<p>Specialization in Cell Biology [Science]</p> <hr/> <p>Continuation in the Specialization in Cell Biology program requires successful completion of at least ★24 with a minimum 2.3 GPA in each preceding Fall/Winter.</p> <hr/> <p>Year 3 and 4</p> <hr/> <p>CELL 300 – Advanced Cell Biology I CELL 301 – Advanced Cell Biology II CELL 302 – Diversity of the Cell *3 from BIOCH 310, 320 or 330 *3 <u>CELL 400 level (excluding CELL 498 and CELL 499)</u> *3 from Group A (CELL 398 recommended) *12 from Group A option *9 Science option *12 Open option * 9 Arts option</p>
<p>Honors in Cell Biology [Science]</p> <p>Continuation in the Honors in Cell Biology program requires successful completion of at least ★24 with a minimum 3.0 GPA in each preceding Fall/Winter.</p> <p>Year 1 and 2</p> <hr/> <p>BIOL 107 – Introduction to Cell Biology BIOL 207 – Molecular Genetics and Heredity BIOCH 200 – Introductory Biochemistry CELL 201 – Intro to Cell Biology or BIOL 201</p>	<p>Honors in Cell Biology [Science]</p> <p>Continuation in the Honors in Cell Biology program requires successful completion of at least ★24 with a minimum 3.0 GPA in each preceding Fall/Winter.</p> <p>Year 1 and 2</p> <hr/> <p>BIOL 107 – Introduction to Cell Biology BIOL 207 – Molecular Genetics and Heredity BIOCH 200 – Introductory Biochemistry CELL 201 – Intro to Cell Biology or BIOL 201</p>

**Faculty of Science
Department of Cell Biology
Calendar Changes 2023-2024**

<p>CHEM 101 – Introductory Chemistry I CHEM 102 – Introductory Chemistry II CHEM 164 or 261 – Organic Chemistry I CHEM 263 – Organic Chemistry II GENET 270 – Foundation of Molecular Genetics MICRB 265 – General Microbiology MATH 114 or 134 – Elementary Calculus I STAT 141 or 151 – Intro to (Applied) Statistics PHYS 124 – Particles and Waves PHYS 126 – Fluids, Fields, and Radiation ★3 junior ENGL or junior WRS ★3 from Group A (IMIN 200 recommended) ★3 Science option (SCI 101 recommended) ★3 Science option ★6 Arts option</p> <p>Year 3 and 4</p> <hr/> <p>CELL 300 – Advanced Cell Biology I CELL 301 – Advanced Cell Biology II CELL 302 – Diversity of the Cell BIOCH 320 or Chem 371 ★3 from 400-level CELL course CELL 499A – 2 term Research Project CELL 499B – 2 term Research Project ★3 Group A option (Cell 398 recommended) ★12 Group A option ★3 Science option ★12 Open option ★9 Arts option</p>	<p>CHEM 101 – Introductory Chemistry I CHEM 102 – Introductory Chemistry II <u>CHEM 261</u> – Organic Chemistry I CHEM 263 – Organic Chemistry II GENET 270 – Foundation of Molecular Genetics MICRB 265 – General Microbiology MATH 114 or 134 – Elementary Calculus I STAT 141 or 151 – Intro to (Applied) Statistics PHYS 124 – Particles and Waves PHYS 126 – Fluids, Fields, and Radiation ★3 junior ENGL or junior WRS ★3 from Group A (IMIN 200 recommended) ★3 Science option (SCI 101 recommended) ★3 Science option ★6 Arts option</p> <p>Year 3 and 4</p> <hr/> <p>CELL 300 – Advanced Cell Biology I CELL 301 – Advanced Cell Biology II CELL 302 – Diversity of the Cell BIOCH 320 or Chem 371 ★3 <u>CELL 400 level (excluding CELL 498)</u> CELL 499A – 2 term Research Project CELL 499B – 2 term Research Project ★3 Group A option (Cell 398 recommended) ★12 Group A option ★3 Science option ★12 Open option ★9 Arts option</p>
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Rationale: we want students to have a classroom taught course at the 400 level. The option to take a research project was deemed a loop-hole that allowed student to bypass formal cell biology training at the senior level.

Immunology and Infection (Specialization)

CURRENT	PROPOSED
Year 1	Year 1
<p>BIOL 107 - Introduction to Cell Biology BIOL 108 - Introduction to Biological Diversity CHEM 101 - Introductory University Chemistry I CHEM 102 - Introductory University Chemistry II</p> <p>CHEM 164 - Organic Chemistry I OR CHEM 261 - Organic Chemistry I</p> <p>MATH 114 - Elementary Calculus I OR MATH 117 - Honors Calculus I OR MATH 134 - Calculus for the Life Sciences I OR MATH 144 - Calculus for the Physical Sciences I OR MATH 125 - Linear Algebra I</p> <p>STAT 151 - Introduction to Applied Statistics I</p> <p>★3 Approved Option ★6 Arts options (junior level ENGL or junior WRS recommended)</p>	<p>No changes</p>
Year 2	Year 2
<p>BIOCH 200 - Introductory Biochemistry BIOL 201 - Eukaryotic Cellular Biology BIOL 207 - Molecular Genetics and Heredity BIOL 208 - Principles of Ecology CHEM 263 - Organic Chemistry II IMIN 200 - Infection and Immunity MICRB 265 - General Microbiology</p> <p>★3 from (see Note 1) GENET 270 - Foundations of Molecular Genetics BIOCH 330 - Nucleic Acids and Molecular Biology</p> <p>Options ★6 Arts options</p>	<p>No changes.</p>
Years 3 and 4	Years 3 and 4

ZOOL 241 - Animal Physiology I: Homeostasis AND ZOOL 242 - Animal Physiology II: Intercellular Communication OR PHYSL 210 - Human Physiology OR	
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PHYSL 212 - Human Physiology I
AND PHYSL 214 - Human
Physiology II

IMIN 324 - Basic Virology
IMIN 371 - Introduction to
Immunology IMIN 452 - Advanced
Immunology
MMI 351 - Bacterial Pathogenesis
ZOOOL 352 - Principles of Parasitism

★3 from:

BIOCH 430 - Biochemistry of Eukaryotic
Gene Expression

OR

GENET 304 - Gene Expression and
its Regulation

MICRB 316 - Molecular Microbiology

Options

★6 Arts options

★9 from the List below (see Note 2)

★21 in approved options from the List below
or options approved by an advisor (see Note
3)

List

BIOCH 320 - Structure and Catalysis
BIOCH 330 - Nucleic Acids and
Molecular Biology
BIOCH 430 - Biochemistry of Eukaryotic
Gene Expression
BIOCH 450 - The Molecular Biology
of Mammalian Viruses
BIOL 391 - Techniques in Molecular
Biology and Bioinformatics
BIOL 409 - Zoonoses
CELL 300 - Advanced Cell Biology I
ENT 378 - Insect Pathology
GENET 304 - Gene Expression and
its Regulation
IMIN 372 - Research Techniques in
Immunology
IMIN 401 - Comparative Immunology
IMIN 405 - Innate Immunity
IMIN 410 - Bioinformatics for
Molecular Biologists

Options

★6 Arts options

★9 from the List below (see Note 2)

★21 in approved options from the List
below or options approved by an advisor
(see Note 3)

List

BIOCH 320 - Structure and Catalysis
BIOCH 330 - Nucleic Acids and
Molecular Biology
BIOCH 430 - Biochemistry of
Eukaryotic Gene Expression
BIOCH 450 - The Molecular Biology
of Mammalian Viruses
BIOL 391 - Techniques in Molecular
Biology and Bioinformatics
BIOL 409 - Zoonoses
CELL 300 - Advanced Cell Biology I
ENT 378 - Insect Pathology
GENET 304 - Gene Expression and
its Regulation
IMIN 372 - Research Techniques in
Immunology
IMIN 401 - Comparative
Immunology IMIN 405 - Innate
Immunity
IMIN 410 - Bioinformatics for
Molecular Biologists
MICRB 316 - Molecular
Microbiology MMI 352 - Microbial
Pathogenesis
MMI 391 - Current Methods in
Molecular Biology
**IMIN 414 - Current Topics in Bacterial
Pathogenesis**
MMI 415 - Advanced Viral Pathogenesis
MMI 426 - Medical Parasitology

<p>MICRB 316 - Molecular Microbiology MICRB 410 MMI 352 - Microbial Pathogenesis MMI 391 - Current Methods in Molecular Biology MMI 405 - Advanced Microbial Pathogenicity MMI 415 - Advanced Viral Pathogenesis</p>		
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<p>MMI 426 - Medical Parasitology MMI 436 - Inflammation MMI 445 - Clinical Microbiology and Human Health ZOOL 354 - Wildlife Disease ZOOL 452 - Topics in Parasitology</p> <p>Notes GENET 270 is the prerequisite for GENET 304, MICRB 316; while BIOCH 320 and BIOCH 330 are prerequisites for BIOCH 430. At least ★3 must be in a course with a laboratory component. Normally only ★12 are allowed outside the Faculties of Science and Arts in the entire program. See details of courses for courses outside the Faculty of Science that will be considered as Science options. Credit in SCI 100 is considered equivalent to BIOL 107, BIOL 108, CHEM 101, CHEM 102, CHEM 164, MATH 114 and ★9 approved options. Credit in SCI 151 will be considered equivalent to STAT 151 and ★3 Science option.</p>	<p>MMI 436 - Inflammation MMI 445 - Clinical Microbiology and Human Health ZOOL 452 - Topics in Parasitology</p>
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Immunology and Infection (Honors)

CURRENT	PROPOSED
Year 1	Year 1

<p>BIOL 107 - Introduction to Cell Biology BIOL 108 - Introduction to Biological Diversity CHEM 101 - Introductory University Chemistry I CHEM 102 - Introductory University Chemistry II</p> <p>CHEM 164 - Organic Chemistry I OR CHEM 261 - Organic Chemistry I</p> <p>MATH 114 - Elementary Calculus I OR MATH 117 - Honors Calculus I OR MATH 125 - Linear Algebra I OR MATH 134 - Calculus for the Life Sciences I OR MATH 144 - Calculus for the Physical Sciences I STAT 151 - Introduction to Applied Statistics I</p> <p>★3 Approved Option ★6 Arts options (junior level ENGL or junior WRS recommended)</p>	<p>No changes.</p>
<p>Year 2</p>	<p>Year 2</p>
<p>BIOCH 200 - Introductory Biochemistry BIOL 201 - Eukaryotic Cellular Biology BIOL 207 - Molecular Genetics and Heredity BIOL 208 - Principles of Ecology CHEM 263 - Organic Chemistry II IMIN 200 - Infection and Immunity MICRB 265 - General Microbiology</p> <p>GENET 270 - Foundations of Molecular Genetics OR BIOCH 330 - Nucleic Acids and Molecular Biology (see Note 1)</p> <p>★6 Arts options</p>	<p>No changes.</p>
<p>Years 3 and 4</p>	<p>Years 3 and 4</p>

IMIN 324 - Basic Virology
IMIN 371 - Introduction to
Immunology IMIN 452 - Advanced
Immunology
MMI 351 - Bacterial Pathogenesis

ZOOL 241 - Animal Physiology I:
Homeostasis **AND**
ZOOL 242 - Animal Physiology II:
Intercellular Communication
OR
PHYSL 210 - Human Physiology

- IMIN 324 - Basic Virology
- IMIN 371 - Introduction to
Immunology
- IMIN 452 - Advanced Immunology
- MMI 351 - Bacterial Pathogenesis
-
- ZOOL 241 - Animal Physiology
I: Homeostasis **AND**
- ZOOL 242 - Animal Physiology
II: Intercellular Communication
- **OR**

OR

PHYSL 212 - Human Physiology I
AND PHYSL 214 - Human
Physiology II

ZOOL 352 - Principles of Parasitism

BIOL 499 - Research Project OR
MMI 499 - Independent Research in
Infection and Immunity

BIOCH 430 - Biochemistry of Eukaryotic
Gene Expression OR

GENET 304 - Gene Expression and
its Regulation OR

MICRB 316 - Molecular Microbiology

BIOL 391 - Techniques in Molecular
Biology and Bioinformatics OR
MMI 391 - Current Methods in
Molecular Biology

★6 Arts options

★9 from the List below (see Note 2)

★12 in approved options from the List below
or approved by the Departmental Advisor
List

BIOCH 320 - Structure and Catalysis

BIOCH 330 - Nucleic Acids and
Molecular Biology

BIOCH 430 - Biochemistry of Eukaryotic
Gene Expression

BIOCH 450 - The Molecular Biology
of Mammalian Viruses

BIOL 409 - Zoonoses

CELL 300 - Advanced Cell Biology I

ENT 378 - Insect Pathology

GENET 304 - Gene Expression and
its Regulation

IMIN 372 - Research Techniques in
Immunology

IMIN 401 - Comparative Immunology

IMIN 405 - Innate Immunity

IMIN 410 - Bioinformatics for

PHYSL 210 - Human
Physiology OR

PHYSL 212 - Human
Physiology I AND

PHYSL 214 - Human Physiology
II

ZOOL 352 - Principles of
Parasitism

BIOL 499 - Research Project OR
MMI 499 - Independent Research in
Infection and Immunity

BIOCH 430 - Biochemistry of
Eukaryotic Gene Expression OR

GENET 304 - Gene Expression
and its Regulation OR

MICRB 316 - Molecular
Microbiology

BIOL 391 - Techniques in
Molecular Biology and Bioinformatics
OR

MMI 391 - Current Methods in
Molecular Biology

★6 Arts options

★9 from the List below (see Note 2)

★12 in approved options from the
List below or approved by the
Departmental Advisor

List

BIOCH 320 - Structure and
Catalysis BIOCH 330 - Nucleic
Acids and Molecular Biology

BIOCH 430 - Biochemistry of
Eukaryotic Gene Expression

BIOCH 450 - The Molecular
Biology of Mammalian Viruses

BIOL 409 - Zoonoses

CELL 300 - Advanced Cell Biology
I ENT 378 - Insect Pathology

GENET 304 - Gene Expression
and its Regulation

IMIN 372 - Research Techniques
in Immunology

IMIN 401 - Comparative Immunology

Molecular Biologists
MICRB 316 - Molecular Microbiology

MICRB 410

MMI 352 - Microbial Pathogenesis
~~MMI 405 - Advanced Microbial Pathogenicity~~ MMI 415 - Advanced Viral Pathogenesis
MMI 426 - Medical Parasitology
MMI 436 - Inflammation
MMI 445 - Clinical Microbiology and Human Health
~~ZOOL 354 - Wildlife Disease~~
ZOOL 452 - Topics in Parasitology Notes

GENET 270 is the prerequisite for GENET 304 and MICRB 316, while BIOCH

320 and BIOCH 330 are prerequisites for BIOCH 430.

At least ★3 must be in a course with a laboratory component.

Normally only ★12 are allowed outside the Faculties of Science and Arts in the entire program. See details of courses for courses outside the Faculty of Science that will be considered as Science options

Credit in SCI 100 will be considered equivalent to BIOL 107, BIOL 108, CHEM 101, CHEM 102, CHEM 164, MATH 114 and ★9 approved options.

Credit in SCI 151 will be considered equivalent to STAT 151 and ★3 Science option.

IMIN 405 - Innate Immunity
IMIN 410 - Bioinformatics for Molecular Biologists

IMIN 414 - Current Topics in Bacterial Pathogenesis

MICRB 316 - Molecular Microbiology
MMI 352 - Microbial Pathogenesis
MMI 415 - Advanced Viral

Pathogenesis

MMI 426 - Medical Parasitology
MMI 436 - Inflammation

MMI 445 - Clinical Microbiology and Human Health

ZOOL 452 - Topics in Parasitology Notes

GENET 270 is the prerequisite for GENET 304 and MICRB 316, while BIOCH 320 and BIOCH 330 are prerequisites for BIOCH 430.

At least ★3 must be in a course with a laboratory component.

Normally only ★12 are allowed outside the Faculties of Science and Arts in the entire program. See details of courses for courses outside the

Faculty of Science that will be considered as Science options

Credit in SCI 100 will be considered equivalent to BIOL 107, BIOL

108, CHEM 101, CHEM 102, CHEM 164, MATH 114 and ★9 approved options.

Credit in SCI 151 will be considered equivalent to STAT 151 and ★3 Science option.

Mathematical and Statistical Sciences
Undergraduate Course and Calendar Changes
Program Changes February 1, 2022

Current	Proposed
Specialization in Mathematics and Economics [Science]	Specialization in Mathematics and Economics [Science]
<hr/> Year 2	<hr/> Year 2
<ul style="list-style-type: none"> • CMPUT 174 - Introduction to the Foundations of Computation I • CMPUT 175 - Introduction to the Foundations of Computation II • ECON 281 - Intermediate Microeconomic Theory I • ECON 282 - Intermediate Macroeconomic Theory I • MATH 214 - Intermediate Calculus I (see Note 2) • MATH 215 - Intermediate Calculus II (see Note 2) • MATH 216 - Introduction to Analysis (see Note 3) • MATH 225 - Linear Algebra II (see Note 2) • STAT 265 - Statistics I • STAT 266 - Statistics II 	<ul style="list-style-type: none"> • CMPUT 174 - Introduction to the Foundations of Computation I • CMPUT 175 - Introduction to the Foundations of Computation II • ECON 281 - Intermediate Microeconomic Theory I • ECON 282 - Intermediate Macroeconomic Theory I • MATH 214 - Intermediate Calculus I (see Note 2) • MATH 216 - Introduction to Analysis (see Note 3) • MATH 225 - Linear Algebra II (see Note 2) • STAT 265 - Statistics I • STAT 266 - Statistics II
Years 3 and 4	<hr/> Options
<ul style="list-style-type: none"> • ECON 384 - Intermediate Microeconomic Theory II (or an 	<ul style="list-style-type: none"> • ★3 in an approved Science option (see details of courses)

approved ECON option at the 400-level or higher)

- [ECON 385 - Intermediate Macroeconomic Theory II](#) (or an approved ECON option at the 400-level or higher)
- [ECON 399 - Introductory Econometrics](#)

Options

- ★15 in approved ECON options at the 200-level or higher, of which at least ★3 must be at the 400-level or higher
- ★18 in approved MATH, MA PH or STAT options, of which at least ★12 must be at the 300-level or higher, and ★3 at the 400-level
- ★12 in approved Science options (see details of courses)
- ★6 in approved options

Notes

1. Each student's program must have the approval of the Department of Mathematical and Statistical Sciences.
2. Students may substitute MATH 100, MATH 114, MATH 117, MATH 134 or MATH 144 for MATH 154; MATH 101, MATH 115, MATH 118, MATH 136 or MATH 146 for MATH 156; MATH 102 or MATH 127 for MATH 125; MATH 217 for MATH 214; MATH 317 for MATH 215; MATH 227 for MATH 225.
3. Students presenting MATH 118 must substitute a senior MATH option for [MATH 216](#).
4. Credit will not be given for [ECON 299](#), [ECON 386](#) or [ECON 387](#).

Years 3 and 4

- [ECON 384 - Intermediate Microeconomic Theory II](#) (or an approved ECON option at the 400-level or higher)
- [ECON 385 - Intermediate Macroeconomic Theory II](#) (or an approved ECON option at the 400-level or higher)
- [ECON 399 - Introductory Econometrics](#)

Options

- ★15 in approved ECON options at the 200-level or higher, of which at least ★3 must be at the 400-level or higher
- ★21 in approved MATH, MA PH or STAT options, of which at least ★12 must be at the 300-level or higher, and ★3 at the 400-level
- ★9 in approved Science options (see details of courses)
- ★6 in approved options

Notes

1. Each student's program must have the approval of the Department of Mathematical and Statistical Sciences.
2. Students may substitute MATH 100, MATH 114, MATH 117, MATH 134 or MATH 144 for MATH 154; MATH 101, MATH 115, MATH 118, MATH 136 or MATH 146 for MATH 156; MATH 102 or MATH 127 for MATH 125; MATH 217 for MATH 214; MATH 317 for MATH 215; MATH 227 for MATH 225.

<ol style="list-style-type: none"> 5. The ECON 299 prerequisite for ECON 399 is met by STAT 265 and STAT 266. 6. Students who are considering graduate work in Economics should take ECON 497. 7. Students are encouraged to take at least ★6 in ECON, MATH, or STAT in each Fall/Winter of the program. 8. Credit in SCI 100 will be considered equivalent to MATH 114, MATH 115, CMPUT 174, ★12 Science options (see details of courses) and ★6 options. 9. Credit in SCI 151 will be considered equivalent to ★6 Science options. 10. STAT 161 can be replaced by STAT 151. 11. 300- and 400-level ECON courses require successful completion of either the Assessment of Reading, Comprehension, and Writings in Economics or ECON 109. The later course may be used as a junior option in the degree. 	<ol style="list-style-type: none"> 3. Students presenting MATH 117 must substitute a senior MATH option for MATH 216. 4. Credit will not be given for ECON 299, ECON 386 or ECON 387. 5. The ECON 299 prerequisite for ECON 399 is met by STAT 265 and STAT 266. 6. Students who are considering graduate work in Economics should take ECON 497. 7. Students are encouraged to take at least ★6 in ECON, MATH, or STAT in each Fall/Winter of the program. 8. Credit in SCI 100 will be considered equivalent to MATH 114, MATH 115, CMPUT 174, ★12 Science options (see details of courses) and ★6 options. 9. Credit in SCI 151 will be considered equivalent to ★6 Science options. 10. STAT 161 can be replaced by STAT 151. 11. 300- and 400-level ECON courses require successful completion of either the Assessment of Reading, Comprehension, and Writings in Economics or ECON 109. The later course may be used as a junior option in the degree. 12. Up to *12 in outside options (i.e. courses from Faculties other than Arts or Science) can be credited to the degree with approval of the Department of Mathematical and Statistical Sciences.
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Rationale : The reorganization of the topics in the second year calculus sequence MATH 214/215 eliminates the need for MATH 215 in the Specialization Math/Econ degree. The added note 12 makes official the practice of allowing Specialization students the

opportunity to take options from Faculties other than Arts or Science. Finally, the change to note 3 reflects the change to the Calendar description of MATH 216.

Current	Proposed
<p>Specialization in Mathematics and Finance [Science]</p> <p>Year 2</p> <hr/> <ul style="list-style-type: none"> • ACCTG 311 - Introduction to Accounting for Financial Performance • ECON 281 - Intermediate Microeconomic Theory I • MATH 214 - Intermediate Calculus I (see Note 2) • MATH 215 - Intermediate Calculus II (see Note 2) • MATH 216 - Introduction to Analysis (see Note 3) • MATH 225 - Linear Algebra II (see Note 2) • MATH 253 - Theory of Interest • OM 352 - Operations Management • STAT 265 - Statistics I • STAT 266 - Statistics II <p>Year 3</p> <hr/> <ul style="list-style-type: none"> • FIN 301 - Introduction to Finance • MATH 356 - Introduction to Mathematical Finance I 	<p>Specialization in Mathematics and Finance [Science]</p> <p>Year 2</p> <hr/> <ul style="list-style-type: none"> • ACCTG 311 - Introduction to Accounting for Financial Performance • ECON 281 - Intermediate Microeconomic Theory I • MATH 214 - Intermediate Calculus I (see Note 2) • MATH 216 - Introduction to Analysis (see Note 3) • MATH 225 - Linear Algebra II (see Note 2) • MATH 253 - Theory of Interest • OM 352 - Operations Management • STAT 265 - Statistics I • STAT 266 - Statistics II <p>Options</p> <hr/> <p><u>★3 in an approved Science option</u></p> <p>Year 3</p> <hr/>

- [MATH 357 - Introduction to Mathematical Finance II](#)
- [STAT 371 - Probability and Stochastic Processes](#)

Options

- ★3 in an approved FIN option
- ★3 in approved MATH, MA PH or STAT options
- ★12 in approved options

Notes

1. Each student's program must have the approval of the Department of Mathematical and Statistical Sciences and must include:
 - a. ★18 in Arts courses
 - b. ★63 in Science courses
 - c. ★33 in ACCTG, ECON, FIN, MGTSC or OM, including ★9 in 400-level FIN. ECON 109 may not be used to satisfy this requirement.
2. Students may substitute MATH 100, MATH 114, MATH 117, MATH 134 or MATH 144 for MATH 154; MATH 101, MATH 115, MATH 118, MATH 136 or MATH 146 for MATH 156; MATH 102 or MATH 127 for MATH 125; MATH 217 for MATH 214; MATH 317 for MATH 215; MATH 227 for MATH 225.
3. Students presenting [MATH 118](#) must substitute a senior MATH option for [MATH 216](#).
4. Approved ACCTG, ECON, FIN and MGTSC options include [ACCTG 322](#), [ACCTG 412](#), [ACCTG 432](#); [ECON 282](#), [ECON 384](#), [ECON](#)

- [FIN 301 - Introduction to Finance](#)
- [MATH 356 - Introduction to Mathematical Finance I](#)
- [MATH 357 - Introduction to Mathematical Finance II](#)
- [STAT 371 - Probability and Stochastic Processes](#)

Options

- ★3 in an approved FIN option
- ★6 in approved MATH, MA PH or STAT options
- ★9 in approved options

Notes

1. Each student's program must have the approval of the Department of Mathematical and Statistical Sciences and must include:
 - a. ★18 in Arts courses
 - b. ★63 in Science courses
 - c. ★33 in ACCTG, ECON, FIN, MGTSC or OM, including ★9 in 400-level FIN. ECON 109 may not be used to satisfy this requirement.
2. Students may substitute MATH 100, MATH 114, MATH 117, MATH 134 or MATH 144 for MATH 154; MATH 101, MATH 115, MATH 118, MATH 136 or MATH 146 for MATH 156; MATH 102 or MATH 127 for MATH 125; MATH 217 for MATH 214; MATH 317 for MATH 215; MATH 227 for MATH 225.
3. Students presenting [MATH 117](#) must substitute a senior MATH option for [MATH 216](#).

<p>385, ECON 399, ECON 481, ECON 482, ECON 497; FIN 412, FIN 413, FIN 414, FIN 415, FIN 416, FIN 422, FIN 434, FIN 442; MGTSC 405. Credit will not be given for ECON 299, ECON 386 or ECON 387.</p> <p>5. Students planning on taking ECON 399 in place of STAT 378 will need to include ECON 282 in their program and ensure successful completion of either the Assessment of Reading, Comprehension, and Writing in Economics or ECON 109. The ECON 299 prerequisite for ECON 399 is met by STAT 265 and 266.</p> <p>6. MGTSC 312 prerequisites are waived by Business for students in this program.</p> <p>7. Recommended Science options include: MATH 334, MATH 337, MATH 381, MATH 432, MATH 481; STAT 353, STAT 472, STAT 479.</p> <p>8. Credit in SCI 100 will be considered equivalent to CMPUT 174, MATH 114, MATH 115 and ★18 options.</p> <p>9. Credit in SCI 151 will be considered equivalent to STAT 151 and ★3 Science option.</p> <p>10. STAT 161 can be replaced by STAT 151.</p>	<p>4. Approved ACCTG, ECON, FIN and MGTSC options include ACCTG 322, ACCTG 412, ACCTG 432; ECON 282, ECON 384, ECON 385, ECON 399, ECON 481, ECON 482, ECON 497; FIN 412, FIN 413, FIN 414, FIN 415, FIN 416, FIN 422, FIN 434, FIN 442; MGTSC 405. Credit will not be given for ECON 299, ECON 386 or ECON 387.</p> <p>5. Students planning on taking ECON 399 in place of STAT 378 will need to include ECON 282 in their program and ensure successful completion of either the Assessment of Reading, Comprehension, and Writing in Economics or ECON 109. The ECON 299 prerequisite for ECON 399 is met by STAT 265 and 266.</p> <p>6. MGTSC 312 prerequisites are waived by Business for students in this program.</p> <p>7. Recommended Science options include: MATH 334, MATH 337, MATH 381, MATH 432, MATH 481; STAT 353, STAT 472, STAT 479.</p> <p>8. Credit in SCI 100 will be considered equivalent to CMPUT 174, MATH 114, MATH 115 and ★18 options.</p> <p>9. Credit in SCI 151 will be considered equivalent to STAT 151 and ★3 Science option.</p> <p>10. STAT 161 can be replaced by STAT 151.</p> <p>11. <u>Up to *12 in outside options (i.e. courses from Faculties other than Arts, Business, or Science) can be credited to the degree with approval of the Department of Mathematical and Statistical Sciences</u></p>

Rationale : The reorganization of the topics in the second year calculus sequence MATH 214/215 eliminates the need for MATH 215 in the Specialization Math/Fin degree. The added note 11 makes official the practice of allowing Specialization students the opportunity to take options from Faculties other than Arts, Business, or Science. Finally, the change to note 3 reflects the change to the Calendar description of MATH 216.

Current	Proposed
<p>Specialization in Statistics [Science]</p> <p>Year 2</p> <hr/> <ul style="list-style-type: none"> ● MATH 216 - Introduction to Analysis (see Note 3) ● STAT 252 - Introduction to Applied Statistics II ● STAT 265 - Statistics I ● STAT 266 - Statistics II <p>★6 from</p> <hr/> <ul style="list-style-type: none"> ● MATH 214 - Intermediate Calculus I ● MATH 215 - Intermediate Calculus II ● MATH 217 - Honors Advanced Calculus I ● MATH 317 - Honors Advanced Calculus II <p>★3 from</p> <hr/> <ul style="list-style-type: none"> ● MATH 225 - Linear Algebra II ● MATH 227 - Honors Linear Algebra II <p>Options</p> <hr/> <p>★6 in approved Arts options ★3 in approved Science options (see details of courses)</p>	<p>Specialization in Statistics [Science]</p> <p>Year 2</p> <hr/> <ul style="list-style-type: none"> ● MATH 216 - Introduction to Analysis (see Note 3) ● STAT 252 - Introduction to Applied Statistics II ● STAT 265 - Statistics I ● STAT 266 - Statistics II <p>★3 from</p> <hr/> <ul style="list-style-type: none"> ● MATH 214 - Intermediate Calculus I ● MATH 217 - Honors Advanced Calculus I <p>★3 from</p> <hr/> <ul style="list-style-type: none"> ● MATH 225 - Linear Algebra II ● MATH 227 - Honors Linear Algebra II <p>Options</p> <hr/> <ul style="list-style-type: none"> ● ★6 in approved Arts options ● ★6 in approved Science options (see details of courses) <p>Notes</p>

Notes	
<ol style="list-style-type: none"> 1. Each student's program must have the approval of the Department of Mathematical and Statistical Sciences. 2. Credit will not be granted for ECON 299, ECON 386 or ECON 387. 3. Students presenting MATH 118 must substitute a senior MATH or STAT option for MATH 216. 4. Credit in SCI 100 will be considered equivalent to CMPUT 174, MATH 114, MATH 115 and ★18 approved Science options (see details of courses). 5. Credit in SCI 151 will be considered equivalent to STAT 151 and ★3 Science option. 	<ol style="list-style-type: none"> 1. Each student's program must have the approval of the Department of Mathematical and Statistical Sciences. 2. Credit will not be granted for ECON 299, ECON 386 or ECON 387. 3. Students presenting MATH 117 must substitute a senior MATH or STAT option for MATH 216. 4. Credit in SCI 100 will be considered equivalent to CMPUT 174, MATH 114, MATH 115 and ★18 approved Science options (see details of courses). 5. Credit in SCI 151 will be considered equivalent to STAT 151 and ★3 Science option. 6. Up to *12 in outside options (i.e. courses from Faculties other than Arts or Science) can be credited to the degree with approval of the Department of Mathematical and Statistical Sciences.

Rationale : The reorganization of the topics in the second year calculus sequence MATH 214/215 eliminates the need for MATH 215 in the Specialization Statistics degree. The added note 6 makes official the practice of allowing Specialization students the opportunity to take options from Faculties other than Arts or Science. Finally, the change to note 3 reflects the change to the Calendar description of MATH 216.

Current	Proposed
Specialization in Mathematics [Science]	Specialization in Mathematics [Science]
Year 2	Year 2

[MATH 216 - Introduction to Analysis](#) (see Note 3)
[MATH 228 - Algebra: Introduction to Ring Theory](#)

★6 from

- ~~[MATH 214 - Intermediate Calculus I](#)~~
- ~~[MATH 215 - Intermediate Calculus II](#)~~
- ~~[MATH 217 - Honors Advanced Calculus I](#)~~
- ~~[MATH 317 - Honors Advanced Calculus II](#)~~

★3 from

[MATH 225 - Linear Algebra II](#)
[MATH 227 - Honors Linear Algebra II](#)
Options

- ★3 in an approved Science option (see [details of courses](#))
- ★6 in approved Arts options
- ★6 in approved options

Notes

1. Each student's program must have the approval of the Department of Mathematical and Statistical Sciences.
2. Students are encouraged to take at least ★6 in MATH in each Fall/Winter of the program.
3. Students presenting [MATH 118](#) must substitute a senior MATH option for [MATH 216](#).
4. Credit will not be given for [ECON 299](#), [ECON 386](#) or [ECON 387](#).
5. Credit in SCI 100 will be considered equivalent to [MATH 114](#), [MATH](#)

- [MATH 216 - Introduction to Analysis](#) (see Note 3)
- [MATH 228 - Algebra: Introduction to Ring Theory](#)

★3 from

- [MATH 214 - Intermediate Calculus I](#)
- [MATH 217 - Honors Advanced Calculus I](#)

★3 from

- [MATH 215 - Intermediate Calculus II](#)
- [MATH 317 - Honors Advanced Calculus II](#)

★3 from

- [MATH 225 - Linear Algebra II](#)
- [MATH 227 - Honors Linear Algebra II](#)

Options

- ★3 in an approved Science option (see [details of courses](#))
- ★6 in approved Arts options
- ★6 in approved options

Notes

1. Each student's program must have the approval of the Department of Mathematical and Statistical Sciences.
2. Students are encouraged to take at least ★6 in MATH in each Fall/Winter of the program.
3. Students presenting [MATH 117](#) must substitute a senior MATH option for [MATH 216](#).

<p>115, CMPUT 174 and ★18 Science options (see details of courses).</p> <p>6. Credit in SCI 151 will be considered equivalent to ★6 Science options.</p>	<p>4. Credit will not be given for ECON 299, ECON 386 or ECON 387.</p> <p>5. Credit in SCI 100 will be considered equivalent to MATH 114, MATH 115, CMPUT 174 and ★18 Science options (see details of courses).</p> <p>6. Credit in SCI 151 will be considered equivalent to ★6 Science options.</p> <p>7. Up to *12 in outside options (i.e. courses from Faculties other than Arts or Science) can be credited to the degree with approval of the Department of Mathematical and Statistical Sciences.</p>
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Rationale : The added note 7 makes official the practice of allowing Specialization students the opportunity to take options from Faculties other than Arts or Science. Finally, the change to note 3 reflects the change to the Calendar description of MATH 216.

The change to the intermediate calculus requirement eliminates it being satisfied by MATH 214 and MATH 217.

Current	Proposed
<p>Specialization in Mathematics - Computational Science [Science]</p> <p>Year 2</p> <hr/> <ul style="list-style-type: none"> • CMPUT 201 - Practical Programming Methodology • CMPUT 204 - Algorithms I • CMPUT 272 - Formal Systems and Logic in Computing Science • MATH 216 - Introduction to Analysis (see Note 3) 	<p>Specialization in Mathematics - Computational Science [Science]</p> <p>Year 2</p> <hr/> <ul style="list-style-type: none"> • CMPUT 201 - Practical Programming Methodology • CMPUT 204 - Algorithms I • CMPUT 272 - Formal Systems and Logic in Computing Science • MATH 216 - Introduction to Analysis (see Note 3)

- [STAT 265 - Statistics I](#)

★**6** from

- [MATH 214 - Intermediate Calculus I](#)
- ~~[MATH 215 - Intermediate Calculus II](#)~~
- [MATH 217 - Honors Advanced Calculus I](#)
- ~~[MATH 317 - Honors Advanced Calculus II](#)~~

★**3** from

- [MATH 225 - Linear Algebra II](#)
- [MATH 227 - Honors Linear Algebra II](#)

Options

- ★3 in approved Arts options
- ★3 in approved options

Notes

1. Each student's program must have the approval of the Department of Mathematical and Statistical Sciences.
2. The program must contain at least ★72 in Science (see [details of courses](#)) and ★18 in Arts.
3. Students presenting [MATH 118](#) must substitute a senior MATH option for MATH 216.
4. Recommended MATH options include [MATH 322](#), [MATH 324](#), [MATH 325](#), [MATH 334](#), [MATH 337](#), [MATH 373](#), [MATH 421](#), [MATH 422](#), MATH 481.
5. Recommended CMPUT options include [CMPUT 301](#), [CMPUT 304](#), [CMPUT 313](#), [CMPUT](#)

- [STAT 265 - Statistics I](#)

★**3** from

- [MATH 214 - Intermediate Calculus I](#)
- [MATH 217 - Honors Advanced Calculus I](#)

★**3** from

- [MATH 225 - Linear Algebra II](#)
- [MATH 227 - Honors Linear Algebra II](#)

Options

- ★3 in [MATH, MA PH, or STAT](#)
- ★3 in approved Arts options
- ★3 in approved options

Notes

1. Each student's program must have the approval of the Department of Mathematical and Statistical Sciences.
2. The program must contain at least ★72 in Science (see [details of courses](#)) and ★18 in Arts.
3. Students presenting [MATH 117](#) must substitute a senior MATH option for MATH 216.
4. Recommended MATH options include [MATH 322](#), [MATH 324](#), [MATH 325](#), [MATH 334](#), [MATH 337](#), [MATH 373](#), [MATH 421](#), [MATH 422](#), MATH 481.
5. Recommended CMPUT options include [CMPUT 301](#), [CMPUT 304](#), [CMPUT 313](#), [CMPUT](#)

<p><u>325, CMPUT 379, CMPUT 391, CMPUT 401, CMPUT 411.</u></p> <p>6. Recommended STAT options include STAT 368, STAT 371, STAT 378, STAT 471, STAT 479.</p> <p>7. Credit will not be given for ECON 299, ECON 386 or ECON 387.</p> <p>8. Credit in SCI 100 will be considered equivalent to CMPUT 174, MATH 114, MATH 115 and ★18 options.</p> <p>9. Credit in SCI 151 will be considered equivalent to ★6 Science options.</p>	<p><u>325, CMPUT 379, CMPUT 391, CMPUT 401, CMPUT 411.</u></p> <p>6. Recommended STAT options include STAT 368, STAT 371, STAT 378, STAT 471, STAT 479.</p> <p>7. Credit will not be given for ECON 299, ECON 386 or ECON 387.</p> <p>8. Credit in SCI 100 will be considered equivalent to CMPUT 174, MATH 114, MATH 115 and ★18 options.</p> <p>9. Credit in SCI 151 will be considered equivalent to ★6 Science options.</p> <p>10. <u>Up to *12 in outside options (i.e. courses from Faculties other than Arts or Science) can be credited to the degree with approval of the Department of Mathematical and Statistical Sciences.</u></p>
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Current	Proposed
<p>Admission Tables</p> <p>Specialization Mathematics and Finance</p> <p>Transfer - Admission to this program is subject to enrolment management and is therefore competitive.</p> <p>For Year 2 entry - Students must have completed:</p> <ol style="list-style-type: none"> 1. at least ★24 in the preceding Fall/Winter with a GPA of at least 2.7, and 2. Requirements 1-5 (inclusive) for Year 2 entry (see requirements at right) with a GPA of at least 2.7. 	<p>Admission Tables</p> <p>Specialization Mathematics and Finance</p> <p>Transfer - Admission to this program is subject to enrolment management and is therefore competitive.</p> <p>For Year 2 entry - Students must have completed:</p> <ol style="list-style-type: none"> 1. at least ★24 in the preceding Fall/Winter with a GPA of at least 2.7, and 2. Requirements 1-5 (inclusive) for Year 2 entry (see requirements at right) with a GPA of at least 2.7.

<p>Course requirements for Year 2 entry:</p> <ol style="list-style-type: none"> 1. MATH 154, MATH 156 2. MATH 125 3. STAT 161 4. ECON 101, ECON 102 5. ★6 junior English, or ★3 junior ENGL and ★3 junior WRS <p>For Year 3 Entry - Students must have completed:</p> <ol style="list-style-type: none"> 1. at least ★24 in each preceding Fall/Winter with a GPA of at least 2.7, and 2. ★60 applicable including the required courses for Year 3 entry (see requirements at right) with a GPA of at least 2.7. <p>Course Requirements for Year 3 entry:</p> <ol style="list-style-type: none"> 1-5. Above 6. MATH 214, MATH 215 7. MATH 225 8. MATH 253 9. STAT 265, STAT 266 10. ECON 281 	<p>Course requirements for Year 2 entry:</p> <ol style="list-style-type: none"> 1. MATH 154, MATH 156 2. MATH 125 3. STAT 161 4. ECON 101, ECON 102 5. ★6 junior English, or ★3 junior ENGL and ★3 junior WRS <p>For Year 3 Entry - Students must have completed:</p> <ol style="list-style-type: none"> 1. at least ★24 in each preceding Fall/Winter with a GPA of at least 2.7, and 2. ★60 applicable including the required courses for Year 3 entry (see requirements at right) with a GPA of at least 2.7. <p>Course Requirements for Year 3 entry:</p> <ol style="list-style-type: none"> 1-5. Above 6. MATH 214 7. MATH 225 8. MATH 253 9. STAT 265, STAT 266 10. ECON 281
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Rationale : Updated to reflect proposed program requirements.

Department of Mathematical and Statistical Sciences

October 5, 2021

Course Changes

Current	Proposed
New Course	<p>STAT 276 – Statistics for Data Science ★ 3 (fi 6) (either term, 3-0-0) Fundamental principles of statistical learning and inference for data science. Understanding of types of analytics, probability, variability, relationship between variables, probability distributions, law of large numbers, Central Limit Theorem, hypothesis testing and statistical significance, and elementary theory of regression. Prerequisite : MATH 281 or STAT 265. Students presenting STAT 265 must also present one of MATH 117 or MATH 216 as corequisite. Credit can only be obtained in one of STAT 266 or STAT 276.</p>

Current	Proposed
New Course Early Implementation	<p>MATH 181 – Introduction to Combinatorics and Probability ★ 3 (fi 6) (either term, 3-0-0) Induction; principles of counting, multinomial coefficients, negative binomial distribution; maximum likelihood estimation, probability axioms; conditional probability, Bayes' rule; independence; probability mass, distribution, and moment generating functions; strong law of large numbers; conditional expectation estimators;</p>

	<p>gambler's ruin; transience and recurrence; compound processes; applications. Corequisite : One of MATH 101, 118, 136, 146, or 156. Prerequisite : One of MATH 125 or 127. Note : Credit can be obtained in at most two of MATH 181, MATH 281, or STAT 265.</p>
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Current	Proposed
New Course	<p>MATH 281 – Probability by Counting and Queuing ★ 3 (fi 6) (either term, 3-0-0) Review of binomial and negative binomial distributions; continuous random variables; uniform, exponential, and gamma distributions; conditional probability; properties of conditional expectation; stochastic processes; finite-dimensional distributions, Poisson approximation; Poisson measures; counting processes, Markov queues, customer time in queues; steady-state distributions; applications. Corequisite : One of MATH 209, 214, or 217. Credit can be obtained in at most two of MATH 181, STAT 265, or MATH 281. Credit can only be obtained in one of MATH 281 or STAT 371.</p>

Current	Proposed

Department of Mathematical and Statistical Sciences

February 1, 2022

Course Changes

Current	Proposed
<p>Early Implementation</p> <p>MATH 216 - Introduction to Analysis</p> <p>★ 3 (<i>fi</i> 6) (either term, 3-0-0) Sets and functions. Induction. Axiomatic introduction of the real numbers. Sequences and series. Continuity and properties of continuous functions. Differentiation. Riemann integral. Corequisite: One of MATH 101, 115, 136, 146, 156 or SCI 100. Note: This course may not be taken for credit if credit has already been obtained in MATH 118. Credit can only be obtained in one of MATH 216 and MATH 314.</p>	<p>Early Implementation</p> <p>MATH 216 - Introduction to Analysis</p> <p>★ 3 (<i>fi</i> 6) (either term, 3-0-0) Sets and functions. Induction. Axiomatic introduction of the real numbers. Sequences and series. Continuity and properties of continuous functions. Differentiation. Riemann integral. Corequisite: One of MATH 101, 115, 136, 146, 156 or SCI 100. Note: This course may not be taken for credit if credit has already been obtained in MATH 117. Credit can only be obtained in one of MATH 216 or MATH 314.</p>

Rationale : The analysis content in MATH 117/118 is primarily concentrated in the first course, so MATH 216 should be viewed as a replacement for MATH 117 and not MATH 118.

Current	Proposed
<p>Early Implementation</p> <p>MATH 317 - Honors Advanced Calculus II</p> <hr/> <p>★ 3 (fi 6) (second term, 4-0-0) Implicit function theorem. Transformations of multiple integrals. Line integrals; theorems of Green, Gauss and Stokes. Sequences and series of functions. Uniform convergence. Prerequisite: MATH 217.</p>	<p>Early Implementation</p> <p>MATH 317 - Honors Advanced Calculus II</p> <hr/> <p>★ 3 (fi 6) (second term, 4-0-0) Implicit function theorem. Proof of the Change of Variables Theorem. Line integrals; Theorems of Green, Gauss and Stokes in their classical form. Differential forms and Stokes' Theorem in their context. Sequences and series of functions. Uniform convergence. Prerequisite: MATH 217.</p>

Current	Proposed
<p>Early Implementation</p> <p>STAT 252 - Introduction to Applied Statistics II</p> <hr/> <p>★ 3 (fi 6) (either term, 3-0-2) Methods in applied statistics including regression techniques, analysis of variance and covariance, and methods of data analysis. Applications are taken from Biological, Physical and Social Sciences, and Business. Prerequisite: One of STAT 141, 151, 161, 235 or SCI 151. Notes: (1) Credit can be obtained in at most one of STAT 252, 319, 337 or 341, or AREC 313. (2) This course may not be taken for credit if credit has already been obtained in STAT 368 or 378.</p>	<p>Early Implementation</p> <p>STAT 252 - Introduction to Applied Statistics II</p> <hr/> <p>★ 3 (fi 6) (either term, 3-0-0) Methods in applied statistics including regression techniques, analysis of variance and covariance, and methods of data analysis. Applications are taken from Biological, Physical and Social Sciences, and Business. Prerequisite: One of STAT 141, 151, 161, 235 or SCI 151. Notes: (1) Credit can be obtained in at most one of STAT 252, 319, 337 or 341, or AREC 313. (2) This course may not be taken for credit if credit has already been obtained in STAT 368 or 378.</p>

Rationale : The technology component of STAT 252 is being redesigned so that a formal lab is no longer necessary. This is similar to what was done in STAT 151 a number of years ago.

Current	Proposed
<p>STAT 265 - Statistics I</p> <hr/> <p>★ 3 (fi 6) (first term, 3-0-0) Sample space, events, combinatorial probability, conditional probability, independent events, Bayes Theorem, random variables, discrete random variables, expected values, moment generating function, inequalities, continuous distributions, multivariate distributions, independence. Corequisite: One of MATH 209, 214 or 217.</p>	<p>STAT 265 - Statistics I</p> <hr/> <p>★ 3 (fi 6) (first term, 3-0-0) Sample space, events, combinatorial probability, conditional probability, independent events, Bayes Theorem, random variables, discrete random variables, expected values, moment generating function, inequalities, continuous distributions, multivariate distributions, independence. Corequisite: One of MATH 209, 214 or 217. Note : Credit can be obtained in at most two of MATH 181, MATH 281, or STAT 265.</p>

Rationale : Bring STAT 265 in line with the new data science probability courses.

Current	Proposed
<p>STAT 266 - Statistics II</p> <hr/> <p>★ 3 (fi 6) (second term, 3-0-0) Functions of random variables, sampling distributions, Central Limit Theorem, law of large numbers, statistical models for the data, likelihood, parameters and their interpretation, objectives of statistical inference, point and interval estimation, method of moments, basic notions of testing of hypotheses, errors of the first and second kind, significance level, power, pvalue. Prerequisite: STAT 265. Corequisites: One of MATH 225 or 227, and one of MATH 215 or 317.</p>	<p>STAT 266 - Statistics II</p> <hr/> <p>★ 3 (fi 6) (second term, 3-0-0) Functions of random variables, sampling distributions, Central Limit Theorem, law of large numbers, statistical models for the data, likelihood, parameters and their interpretation, objectives of statistical inference, point and interval estimation, method of moments, basic notions of testing of hypotheses, errors of the first and second kind, significance level, power, p-value. Prerequisites: one of MATH 209, MATH 214, or MATH 217 and one of STAT 265 or MATH 281. Corequisites: One of MATH 225 or 227, and one of MATH 215 or 317. Credit can only be obtained in one of STAT 266 or STAT 276.</p>

Rationale : MATH 215 is no longer needed as a co-requisite, as the calculus content required for STAT 266 has been moved to MATH 214. The note and prerequisite changes take into account the new statistics and probability courses for data science.

Current	Proposed
<p>STAT 371 - Probability and Stochastic Processes</p> <hr/> <p>★ 3 (fi 6) (either term, 3-0-0) Problem solving of classical probability questions, random walk, gambler's ruin, Markov chains, branching</p>	<p>STAT 371 - Probability and Stochastic Processes</p> <hr/> <p>★ 3 (fi 6) (either term, 3-0-0) Problem solving of classical probability questions, random walk, gambler's ruin, Markov chains, branching processes.</p>

processes. Selected topics of the instructor's choice. Prerequisite: STAT 265.	Selected topics of the instructor's choice. Prerequisite: STAT 265. Note : Credit can be obtained in at most one of MATH 281 or STAT 371.
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Rationale : Note takes into account the new probability course introduced for data sciences.

Current	Proposed
<p>STAT 372 - Mathematical Statistics</p> <hr/> <p>★ 3 (fi 6) (either term, 3-0-0) Laws of large numbers, weak convergence, some asymptotic results, delta method, maximum likelihood estimation, testing, UMP tests, LR tests, nonparametric methods (sign test, rank test), robustness, statistics and their sensitivity properties, prior and posterior distributions, Bayesian inference, conjugate priors, Bayes estimators. Prerequisite: STAT 266.</p>	<p>STAT 372 - Mathematical Statistics</p> <hr/> <p>★ 3 (fi 6) (either term, 3-0-0) Laws of large numbers, weak convergence, some asymptotic results, delta method, maximum likelihood estimation, testing, UMP tests, LR tests, nonparametric methods (sign test, rank test), robustness, statistics and their sensitivity properties, prior and posterior distributions, Bayesian inference, conjugate priors, Bayes estimators. Prerequisites: STAT 266 or STAT 276.</p>

Current	Proposed
<p>STAT 353 - Life Contingencies I</p> <hr/> <p>★ 3 (fi 6) (either term, 3-0-0) Time at death random variables, continuous and discrete insurances, endowments and varying annuities, net premiums and reserves. Prerequisites: MATH 253 and STAT 265. Corequisite: MATH 215 or 317.</p>	<p>STAT 353 - Life Contingencies I</p> <hr/> <p>★ 3 (fi 6) (either term, 3-0-0) Time at death random variables, continuous and discrete insurances, endowments and varying annuities, net premiums and reserves. Prerequisites: MATH 253 and one of STAT 265 or MATH 281.</p>

Current	Proposed
<p>STAT 361 - Sampling Techniques</p> <hr/> <p>★ 3 (<i>fi 6</i>) (either term, 3-0-0) Simple random sampling from finite populations, stratified sampling, regression estimators, cluster sampling. Prerequisite: STAT 266, or STAT 235 with consent of the Department. Note: This course may only be offered in alternate years.</p>	<p>STAT 361 - Sampling Techniques</p> <hr/> <p>★ 3 (<i>fi 6</i>) (either term, 3-0-0) Simple random sampling from finite populations, stratified sampling, regression estimators, cluster sampling. Prerequisite: One of STAT 266 or STAT 276, or STAT 235 with consent of the Department. Note: This course may only be offered in alternate years.</p>

Current	Proposed
<p>STAT 368 - Introduction to Design and Analysis of Experiments</p> <hr/> <p>★ 3 (<i>fi 6</i>) (either term, 3-0-0) Basic principles of experimental design, completely randomized design-one way ANOVA and ANCOVA, randomized block design, Latin square design, Multiple comparisons. Nested designs. Factorial experiments. Prerequisite: STAT 266, or STAT 235 with consent of the Department.</p>	<p>STAT 368 - Introduction to Design and Analysis of Experiments</p> <hr/> <p>★ 3 (<i>fi 6</i>) (either term, 3-0-0) Basic principles of experimental design, completely randomized design-one way ANOVA and ANCOVA, randomized block design, Latin square design, Multiple comparisons. Nested designs. Factorial experiments. Prerequisite: One of STAT 266 or STAT 276, or STAT 235 with consent of the Department.</p>

Current	Proposed
<p>STAT 378 - Applied Regression Analysis</p> <hr/> <p>★ 3 (<i>fi 6</i>) (either term, 3-0-0) Simple linear regression analysis, inference on regression parameters, residual analysis, prediction intervals, weighted least squares. Multiple regression analysis, inference about regression parameters, multicollinearity and its effects, indicator variables, selection of independent variables. Non-linear regression. Prerequisite: STAT 266, or STAT 235 with consent of the Department.</p>	<p>STAT 378 - Applied Regression Analysis</p> <hr/> <p>★ 3 (<i>fi 6</i>) (either term, 3-0-0) Simple linear regression analysis, inference on regression parameters, residual analysis, prediction intervals, weighted least squares. Multiple regression analysis, inference about regression parameters, multicollinearity and its effects, indicator variables, selection of independent variables. Non-linear regression. Prerequisite: One of STAT 266 or STAT 276, or STAT 235 with consent of the Department.</p>

Current	Proposed
<p>STAT 413 - Introduction to Computing for Data Science</p> <hr/> <p>★ 3 (<i>fi 6</i>) (second term, 3-0-0) Survey of contemporary languages/environments suitable for algorithms of Statistics and Data Science. Introduction to Monte Carlo methods, random number</p>	<p>STAT 413 - Introduction to Computing for Data Science</p> <hr/> <p>★ 3 (<i>fi 6</i>) (second term, 3-0-0) Survey of contemporary languages/environments suitable for algorithms of Statistics and Data Science. Introduction to Monte Carlo</p>

<p>generation and numerical integration in statistical context and optimization for both smooth and constrained alternatives, tailored to specific applications in statistics and machine learning. Prerequisites: STAT 265 or consent of the instructor.</p>	<p>methods, random number generation and numerical integration in statistical context and optimization for both smooth and constrained alternatives, tailored to specific applications in statistics and machine learning. Prerequisites: One of STAT 265 or MATH 281, or consent of the Department.</p>
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Current	Proposed
<p>STAT 453 - Risk Theory</p> <hr/> <p>★ 3 (<i>fi</i> 6) (either term, 3-0-0) Classical ruin theory, individual risk models, collective risk models, models for loss severity: parametric models, tail behavior, models for loss frequency, mixed Poisson models; compound Poisson models, convolutions and recursive methods, probability and moment generating functions. Prerequisite: STAT 371.</p>	<p>STAT 453 - Risk Theory</p> <hr/> <p>★ 3 (<i>fi</i> 6) (either term, 3-0-0) Classical ruin theory, individual risk models, collective risk models, models for loss severity: parametric models, tail behavior, models for loss frequency, mixed Poisson models; compound Poisson models, convolutions and recursive methods, probability and moment generating functions. Prerequisite: One of STAT 371 or MATH 281.</p>

Current	Proposed
<p>STAT 471 - Probability I</p> <hr/> <p>★ 3 (<i>fi</i> 6) (either term, 3-0-0) Probability spaces, algebra of events. Elements of combinatorial analysis. Conditional probability, stochastic independence. Special discrete and continuous</p>	<p>STAT 471 - Probability I</p> <hr/> <p>★ 3 (<i>fi</i> 6) (either term, 3-0-0) Probability spaces, algebra of events. Elements of combinatorial analysis. Conditional probability, stochastic independence. Special discrete and</p>

distributions. Random variables, moments, transformations. Basic limit theorems. Prerequisite: STAT 371.	continuous distributions. Random variables, moments, transformations. Basic limit theorems. Prerequisite: One of STAT 371 or MATH 281.
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Rationale : Prerequisites take into account the introduction of the new probability and statistics courses.

Current	Proposed
<p>MATH 356 - Introduction to Mathematical Finance I</p> <hr/> <p>★ 3 (fi 6) (first term, 3-0-0) Simple Market Model: one-step binomial model, basic notions and assumptions. Risk-Free Assets: simple interest, zero-coupon bonds, money market account. Risky Assets: dynamic of stock prices, binomial tree model, trinomial tree model. Discrete time market model: stock and money market model, extended models. Portfolio management: risk, two securities, capital asset pricing model. Prerequisite: MATH 253 and STAT 265 or consent of the Department.</p>	<p>MATH 356 - Introduction to Mathematical Finance I</p> <hr/> <p>★ 3 (fi 6) (first term, 3-0-0) Simple Market Model: one-step binomial model, basic notions and assumptions. Risk-Free Assets: simple interest, zero-coupon bonds, money market account. Risky Assets: dynamic of stock prices, binomial tree model, trinomial tree model. Discrete time market model: stock and money market model, extended models. Portfolio management: risk, two securities, capital asset pricing model. Prerequisite: MATH 253 and one of STAT 265 or MATH 281, or consent of the Department.</p>

CURRENT	PROPOSED
NEW COURSE	<p>BIOL 542. Advanced Global Biogeochemical Cycles</p> <p>★ 3 (fi 6) (second term, 0-3s-0). This course explores the intersecting biological, chemical, and geological processes and reactions governing the cycling of elements that control our environment. Course discussions will include consideration of the atmosphere, lithosphere, hydrosphere and biosphere, and will be framed by our understanding that elemental cycling on Earth is fundamentally altered by organisms. Coursework will incorporate current topics in anthropogenic alteration of the natural cycles critical for organismal and planetary function. Seminars are the same as for BIOL 442, but with additional assignments and evaluation appropriate to graduate studies. Prerequisite: consent of instructor. Credit cannot be obtained for both BIOL 442 and 542.</p>

CURRENT	PROPOSED
<p>BIOL 340: Global Biogeochemistry ★ 3 (fi 6) (second term, 3-0-0) An introduction to biogeochemical cycles in the environment. Discusses processes and reactions governing cycles in the atmosphere, lithosphere, terrestrial ecosystems, freshwater wetlands and lakes, river estuaries, and the oceans. Outlines the global cycles of water, carbon, nitrogen, phosphorus, and sulfur. Group discussions will incorporate current topics in anthropogenic alterations of natural cycles that lead to ecosystem degradation. Prerequisites: CHEM 101 or SCI 100 and BIOL 208. MICRB 265 strongly recommended.</p>	<p>BIOL 442: Global Biogeochemical Cycles ★ 3 (fi 6) (second term, 0-3s-0). This course explores the intersecting biological, chemical, and geological processes and reactions governing the cycling of elements that control our environment. Course discussions will include consideration of the atmosphere, lithosphere, hydrosphere and biosphere, and will be framed by our understanding that elemental cycling on Earth is fundamentally altered by organisms. Coursework will incorporate current topics in anthropogenic alteration of the natural cycles critical for organismal and planetary function. Prerequisites: CHEM 101 and BIOL 208. Credit cannot be obtained for both BIOL 442 and 542.</p>

NEW COURSE

IMIN 414. Current Topics in Bacterial Pathogenesis

★ 3 (fi 6) (fall term, 3-0-0). This course will focus on the mechanisms by which bacterial pathogens cause disease, covering topics such as mechanisms of host-pathogen interactions and immune evasion, pathogen evolution, antibiotic resistance and contemporary approaches to combat bacterial infections. This advanced course will be interactive and will include student-run seminars that critically analyze impactful papers related to bacterial pathogenesis. Prerequisites: BIOCH 200 and MMI 351 or MLSCI 242 or 243 or consent of the Instructor. Credit will only be given for one of IMIN 414, 514, MMI 405 and 505.

NEW COURSE

**IMIN 514: Advanced Current Topics
in Bacterial Pathogenesis**

★ 3 (fi 6) (fall term, 3-0-0). This course will focus on the mechanisms by which bacterial pathogens cause disease, covering topics such as mechanisms of host-pathogen interactions and immune evasion, pathogen evolution, antibiotic resistance and contemporary approaches to combat bacterial infections. This advanced course will be interactive and will include student-run seminars that critically analyze impactful papers related to bacterial pathogenesis. Lectures and seminars are the same as for IMIN 414, but with additional assignments and evaluation appropriate to graduate studies. Prerequisites: consent of the Instructor. Credit will only be given for one of IMIN 414, 514, MMI 405 and 505.

CALENDAR CHANGE REQUEST FORM

Department: Psychology

Change: Course

Rationale: The Department's Undergraduate Program Committee has reviewed our course prerequisites.

PSYCH 258: removing STAT 151/161 as a prerequisite for PSYCH 258 creates more flexibility so students will be able to take 258 before they take Statistics. Statistics is not a requirement to succeed in this course.

Paste [current](#) calendar URL here

Calendar Copy:

Current: <u>Strike through and highlight</u> deletions	Proposed: <u>Underline and highlight</u> additions
<p style="text-align: center; background-color: #cccccc; margin: 0;">PSYCH 258 - Cognitive Psychology</p> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <p>★ 3 (<i>fi</i> 6) (either term, 3-0-0) A survey of findings of theoretical issues in the study of cognition, such as perception, attention, knowledge representation, memory, learning, language, reasoning, and problem solving. Prerequisites: PSYCH 104 or SCI 100, <u>STAT 141 or 151 or 161 or SCI 151</u>. [Faculty of Science]</p>	<p style="text-align: center; background-color: #cccccc; margin: 0;">PSYCH 258 - Cognitive Psychology</p> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <p>★ 3 (<i>fi</i> 6) (either term, 3-0-0) A survey of findings of theoretical issues in the study of cognition, such as perception, attention, knowledge representation, memory, learning, language, reasoning, and problem solving. Prerequisites: PSYCH 104 or SCI 100. [Faculty of Science]</p>

Department Contact: Kerry Ann Berrisford	Department Council Approval Date: 29 October 21
Chair or Designate: Dr Cor Baerveldt	Faculty Approval Date:

CALENDAR CHANGE REQUEST FORM

Department: _____

Highlight type of change request below:

1. **Course Change** 2. Editorial Change 3. Admission Requirement 4. Program Regulation

CURRENT	PROPOSED
<p>GEOPH 521 - Global Geodynamics</p> <p>Topics to be discussed include plate tectonics, continental breakup and assembly; faulting and earthquakes; mantle and lithosphere rheology; global gravity and Earth's rotation; heat transfer and convection in the Earth and planets; hotspots and mantle plumes, plate accretion and subduction; dynamics of the core, planetary magnetism and the geodynamo. Prerequisite: Consent of instructor.</p>	<p>GEOPH 521 - Global Geodynamics</p> <p>Topics to be discussed include plate tectonics; continental breakup and assembly; faulting and earthquakes; mantle and lithosphere rheology; global gravity and Earth's rotation; deep Earth structures; heat transfer and convection in the Earth; dynamics of the core; planetary magnetism and the geodynamo; application to other planets. Prerequisite: Consent of instructor. Note: credit may only be obtained for one of GEOPH 440 and GEOPH 521. Prerequisite: Consent of instructor.</p>
<p>GEOPH 526 - Signal Processing in Geophysics</p> <p>Application of time series analyses and image processing techniques to large geophysical data sets; sampling of data and problems of aliasing; one and two dimensional Fourier transforms; the Z transformation; spectral analysis, filtering, and deconvolution; application of 1D and 2D filtering to seismic and gravity/magnetic data analysis. Note: This course cannot be taken for credit if credit has already been given for GEOPH 426.</p>	<p>GEOPH 526 - Signal Analysis in Geophysics</p> <p>Application of time-series analyses and image-processing techniques to large geophysical data sets; sampling and aliasing of signals; one- and two-dimensional Fourier transforms; the Z transformation; spectral analysis, filtering, and deconvolution; application of 1D and 2D filtering to geophysical data analysis, processing, and decomposition. Note: credit may only be obtained for one of GEOPH 426 and GEOPH 526. Prerequisite: Consent of instructor.</p>
<p>GEOPH 531 - Seismic Data Processing</p> <p>Quantitative methods to determine the physical properties of the Earth from indirect geophysical observations; formal treatment of geophysical inverse theory; topics include linear and nonlinear inverse problems, regularization techniques, model norms and misfit, tomography, and case histories of interpretation and analysis. Note: This course cannot be taken for credit if credit has already been given for GEOPH 431.</p>	<p>GEOPH 531 - Seismic Data Processing</p> <p>Quantitative methods to determine the physical properties of the Earth from indirect geophysical observations; formal treatment of geophysical inverse theory; topics include linear and nonlinear inverse problems, regularization techniques, model norms and misfit, tomography, and case histories of interpretation and analysis. Note: credit may only be obtained for one of GEOPH 431 and GEOPH 531.</p>

GEOPH 538 - Seismic Data Processing

A variety of seismic and ground penetrating radar data sets are obtained by the student during field school; these data are corrected, enhanced, and imaged in a computer workstation laboratory, leading to a final geologic interpretation. Results obtained by the student will be presented in the format of a series of professional technical reports. Note: This course cannot be taken for credit if credit has already been given for GEOPH 438.

GEOPH 538 - Seismic Data Processing

A variety of seismic and ground-penetrating radar data sets are corrected, enhanced, and imaged using commercial and student-written software, to reveal subsurface structures. Results obtained by the student will be presented as professional technical reports. Note: credit may only be obtained for one of GEOPH 438 and GEOPH 538. Prerequisite: Consent of instructor.

GEOPH 536 - Geophysics Field School

★ 3 (fi 6) (first term, 10 days) Students conduct a wide variety of geophysical field measurements and process and interpret the collected data. The field component of the course is usually run immediately prior to the fall term. Requires payment of additional student instructional support fees. Refer to the Tuition and Fees page in the University Regulations section of the Calendar. Prerequisite: consent of instructor. Note: credit may only be obtained for one of GEOPH 436 and GEOPH 536.

GEOPH 541 - Seismology and the Physical Structure of the Earth

★ 3 (fi 6) (either term, 3-0-0) Seismology and earthquakes; travel-time, amplitude, and waveform computations; body and surface waves; normal modes and free oscillations; source mechanisms; Earth's structure from inversion of teleseismic observations; seismometers; earthquake hazards and risks. Prerequisites: consent of instructor. Note: Credit may be obtained for only one of GEOPH 421 and GEOPH 541.

Rationale for change: (Not required for course deletion or editorial changes)

(Include documentation that other departments or Faculties offering similar courses support this proposal. In the case of substantial program changes you must also include evidence of consultation with students.)

Overarching rationale for all GEOPH 200-level, 300-level and 400-level courses: Reducing potential enrollment thresholds for non-Geophysics students. No change in course level or delivery.

Rationales:

- GEOPH 210, 223 and 224 are service courses to EAS. EAS requested simplification of pre- and co-requisites for all GEOPH 200-level courses. No substantive comments received from EAS on suggested new pre-reqs for these courses. New pre-reqs are designed to reduce enrollment thresholds. Course content and level will remain unchanged.
- GEOPH 325, 326, 332: Housekeeping and more descriptive titles
- GEOPH 421, 431, 436, 438, 440: Housekeeping and more descriptive titles
- GEOPH 521, 526, 538: Housekeeping: identical calendar descriptions to cross-listed 400-level courses
- GEOPH 536 and 541: New 500 level courses to be cross listed with existing 400 level courses. Rationale: Increase options for Geophysics postgraduate students. There is also an educational benefit to having undergraduate and postgraduate students in the same class together. In addition, for GEOPH 536 postgraduate students from other Faculties/Departments request to participate in the Geophysics Field School to learn about geophysical remote sensing methods (e.g., for archeology, environmental monitoring and hydrology purposes), but not all are allowed to take 400 level courses.

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Department Contact Name: Erik Rosolowsky	Department Chair or Designate Name: Roger Moore	Date approved by Dept Council: Dec. 14, 2021
Email: rosolowsky@ualberta.ca	Email:rwmoore@ualberta.ca	Date submitted to FoS: Dec. 14, 2021
		Approved by Faculty Council January 21, 2022

Upload this form to the FoS Calendar Google Site.

CALENDAR CHANGE REQUEST FORM

Department:

Highlight type of change request below:

1. **Course Change** 2. Editorial Change 3. Admission Requirement 4. Program Regulation

CURRENT	PROPOSED
<p>GEOPH 210 - Introduction to Earth and Planetary Physics</p> <p>This course presents an overview of the interior structure, composition, dynamics and evolution of the Earth, Planets and Moons. Topics to be covered include: formation of the solar system; planets and exoplanets; the plate tectonics revolution; mountain building and continental dynamics; earthquakes, volcanoes and other geo-hazards; Earth's interior structure and dynamics from seismology, gravity and magnetism; the rotational dynamics of planetary bodies; mantle convection and dynamos. Prerequisites: one of MATH 101, 115, 118, 146; one of PHYS 124, PHYS 144, or EN PH 131, and one of PHYS 126, PHYS 146, or PHYS 130. Note: credit will be given for only one of GEOPH 110 or GEOPH 210</p>	<p>GEOPH 210 - Introduction to Earth and Planetary Physics</p> <p>This course presents an overview of the interior structure, composition, dynamics, and evolution of the Earth, planets, and moons. Topics to be covered include: formation of the solar system; planets and exoplanets; the plate tectonics revolution; mountain building and continental dynamics; earthquakes, volcanoes, and other geo-hazards; Earth's interior structure and dynamics from seismology, gravity, and magnetism; the rotational dynamics of planetary bodies; mantle convection and dynamos. Prerequisites: Physics 20 and Mathematics 30. Note: credit will be given for only one of GEOPH 110 or GEOPH 210.</p>
<p>GEOPH 223 - Environmental Geophysics</p> <p>Near surface geophysical imaging techniques with focus on applications in hydrogeology, glaciology and environmental studies; rock properties; imaging methods covered include: shallow seismic exploration, magnetic exploration, radiometric techniques, electrical resistivity tomography (ERT); electromagnetic (EM) methods; ground penetrating radar (GPR), application to environmental monitoring, climate change, environmental legislation. Prerequisites: one of MATH 101, 115, 118, 146; one of PHYS 124, PHYS 144, or EN PH 131, and one of PHYS 126, PHYS 146, or PHYS 130. Note: Not available to students in Honors or Specialization Geophysics. Note: Offered alternate years only. Consult Department for course schedule.</p>	<p>GEOPH 223 - Environmental Geophysics</p> <p>Near surface geophysical imaging techniques with focus on applications in hydrogeology, glaciology, and environmental studies; rock properties; imaging methods covered include: shallow seismic exploration, magnetic exploration, radiometric techniques, electrical resistivity tomography (ERT); electromagnetic (EM) methods; ground penetrating radar (GPR), application to environmental monitoring, climate change, environmental legislation. Prerequisites: Mathematics 30 and Physics 20. Note: Not available to students in Honors or Specialization Geophysics.</p>

GEOPH 224 - Geophysical Exploration Techniques

Geophysical exploration with focus on techniques relevant to hydrocarbon and mineral exploration; gravity and magnetic exploration techniques; basics of seismic wave propagation in Earth; seismic data processing; the geological interpretation of seismic reflection and refraction data. Prerequisites: ~~one of MATH 101, 115, 118, 146; one of PHYS 124, PHYS 144, or EN PH 131, and one of PHYS 126, PHYS 146, or PHYS 130.~~ Note: Not available to students in Honors or Specialization Geophysics. Note: offered alternate years only. Consult Department for course schedule.

GEOPH 325 - Gravity, Magnetic, and Electrical Geophysics

Theory of gravity, shape of the earth, nature of the geomagnetic field, magnetic, and electrical exploration methods; factors controlling density, resistivity, ~~and~~ magnetic properties of rocks; applications in environmental geophysics, continental dynamics and mineral exploration; instrumentation. Analysis of gravity, magnetic and resistivity data. Prerequisite: PHYS 281 or 230, MATH 215 or 209 or 317.

GEOPH 326 - Seismic Imaging

Use of reflection and refraction seismology to image the Earth's interior, ~~with~~ application to ~~gas/oil and mineral exploration and~~ environmental assessment; study of current technologies utilized to acquire, image and interpret 2D and 3D data sets. Real data sets and computer assignments will be used to produce seismic images of the subsurface. Prerequisite: PHYS 281 or 230, MATH 215 or 209 or 317.

GEOPH 332 - Physical Properties of Geomaterials

GEOPH 224 - Geophysical Exploration Techniques

Geophysical exploration with focus on techniques relevant to hydrocarbon and mineral exploration; gravity and magnetic exploration techniques; basics of seismic wave propagation in Earth; seismic data processing; the geological interpretation of seismic reflection and refraction data. Prerequisites: **Physics 20 and Mathematics 30**. Note: Not available to students in Honors or Specialization Geophysics. Note: offered alternate years only. Consult Department for course schedule.

Geoph 325 - Geophysical imaging of Earth's interior

Theory of gravity, shape of the earth, nature of the geomagnetic field, magnetic, and electrical exploration methods; factors controlling density, resistivity, magnetic properties of rocks, ~~and planetary studies;~~ applications in environmental geophysics, continental dynamics, and mineral exploration; instrumentation. Analysis of ~~gravitational~~, magnetic, and resistivity data. Prerequisite: PHYS 281 or 230, MATH 215 or 209 or 317

GEOPH 326 - Seismic Imaging of Earth's Interior

Use of reflection and refraction seismology to image the Earth's interior, ~~including~~ application to environmental assessment, ~~mineral and hydrocarbon exploration, geothermal energy, and tectonics;~~ study of current technologies ~~used~~ to acquire, image, and interpret 2D and 3D data sets. Real data sets and computer assignments will be used to produce seismic images of the subsurface. Prerequisite: PHYS 281 or 230, MATH 215 or 209 or 317

GEOPH 332 - Borehole & Laboratory Methods in

Overview of the fundamental physical properties of geophysically important materials; physics involved in the measurement of physical properties in the Earth especially in the context of geophysical well logging and laboratory measurement; integration of measurements with geological and geophysical field observations. Prerequisites: PHYS 271 or 208, 281 or 230, MATH 215 or 209 or 317.

GEOPH 421 - Seismology and the Physical Structure of the Earth

Seismology; solutions to the elastic wave equation in layered media; three component seismic field and ray theory; body and surface waves; normal modes and free oscillations; source mechanism; structure of the Earth; seismometers; inversion of seismic data. Pre or corequisite: Math 334. Prerequisites: PHYS 281.

GEOPH 424 - Electromagnetic Methods in Geophysics

Theory and application of Maxwell's equations to geophysics; resistivity of rocks, electromagnetic exploration; magnetotellurics, frequency and time domain EM methods, forward and inverse techniques to image crustal and mantle structures. Analysis of EM data collected at field school. Pre- or corequisite: MATH 337. Prerequisites: PHYS 281 or 230, 381, GEOPH 325.

GEOPH 426 - Signal Processing in Geophysics

Application of time series analyses and image processing techniques to large geophysical data sets; sampling of data and problems of aliasing; one and two dimensional Fourier transforms; the Z transformation; spectral analysis, filtering, and deconvolution; application of 1D and 2D filtering to seismic and gravity/magnetic data analysis. Prerequisites: MATH 311, GEOPH 326, PHYS 234 or equivalent.

Geophysics & Petrophysics

Overview of the fundamental physical properties of geophysically important materials; physics involved in the measurement of physical properties in the Earth especially in the context of geophysical well logging and laboratory measurement; integration of measurements with geological and geophysical field observations. Prerequisites: Any 100-level PHYS course or EN PH 131, Any 100-level MATH course.

GEOPH 421 - Seismology and the Physical Structure of the Earth

Seismology and earthquakes; travel-time, amplitude, and waveform computations; body and surface waves; normal modes and free oscillations; source mechanisms; Earth's structure from inversion of teleseismic observations; seismometers; earthquake hazards and risks. Pre or corequisite: MATH 215 or 209 or 317, and any 300-level GEOPH course. Note: Credit may be obtained for only one of GEOPH 421 and GEOPH 541.

GEOPH 424 - Electromagnetic Methods in Geophysics

Theory and application of Maxwell's equations to geophysics; resistivity of rocks, electromagnetic exploration; magnetotellurics, frequency and time domain EM methods, forward and inverse techniques to image crustal and mantle structures. Analysis of EM data collected at field school. Pre- or corequisite: MATH 337. Prerequisites: PHYS 281 or 230, 381, GEOPH 325.

GEOPH 426 - Signal Analysis in Geophysics

Application of time-series analyses and image-processing techniques to large geophysical data sets; sampling and aliasing of signals; one- and two-dimensional Fourier transforms; the Z transformation; spectral analysis, filtering, and deconvolution; application of 1D and 2D filtering to geophysical data analysis, processing and decomposition. Prerequisites: MATH 311, GEOPH 326, PHYS 234 or equivalent. Note: credit may only be obtained for one of GEOPH 426 and GEOPH 526.

GEOPH 431 - Geophysical Inverse Theory

Quantitative methods to determine the physical properties of the Earth from indirect geophysical observations; formal treatment of geophysical inverse theory; topics include linear and nonlinear inverse problems, regularization techniques, model norms and misfit, tomography, and case histories of interpretation and analysis. Prerequisites: PHYS 234, 381, MATH 311, 337, GEOPH 325, 326 or permission of instructor.

GEOPH 436 - Geophysics Field School

Students conduct a wide variety of geophysical measurements in a field situation. The field school is run immediately prior to the fall term. Requires payment of additional student instructional support fees. Refer to the Tuition and Fees page in the University Regulations section of the Calendar. Prerequisites: GEOPH 325 and 326, or consent of instructor. Intended for students in a Specialization or Honours Geophysics program. Students in other programs should contact the Department of Physics for permission. Note: this course is graded on a credit/no credit basis.

GEOPH 438 - Seismic Data Processing

A variety of seismic and ground penetrating radar data sets are obtained by the student during field school; these data are corrected, enhanced, and imaged in a computer workstation laboratory, leading to a final geologic interpretation. Results obtained by the student will be presented in the format of a series of professional technical reports. Prerequisites: MATH 209, 214, or equivalent, GEOPH 326, PHYS 234 or equivalent. Pre- or corequisite: GEOPH 426 and 436 (field school).

GEOPH 440 - Global Geodynamics

Topics to be discussed include plate tectonics, continental breakup and assembly; faulting and earthquakes; mantle and lithosphere rheology; global gravity and Earth's rotation; heat transfer and convection in the Earth and planets; hotspots and mantle plumes, plate accretion and subduction; dynamics of the core, planetary magnetism and the geodynamo. Pre- or corequisite: MATH 337. Prerequisites: PHYS 281.

GEOPH 431 - Geophysical Inverse Theory

Quantitative methods to determine the physical properties of the Earth from indirect geophysical observations; formal treatment of geophysical inverse theory; topics include linear and nonlinear inverse problems, regularization techniques, model norms and misfit, tomography, and case histories of interpretation and analysis. Prerequisites: MATH 311. Note: credit may only be obtained for one of GEOPH 431 and GEOPH 531.

GEOPH 436 - Geophysics Field School

Students conduct a wide variety of geophysical field measurements and process and interpret the collected data. The field component of the course is usually run immediately prior to the fall term. Requires payment of additional student instructional support fees. Refer to the Tuition and Fees page in the University Regulations section of the Calendar. Prerequisites: GEOPH 325 or 326, or consent of instructor. Intended for students in a Geophysics program. Students in other programs should contact the Department of Physics for permission. Note: credit may only be obtained for one of GEOPH 436 and GEOPH 536.

GEOPH 438 - Seismic Data Processing

A variety of seismic and ground-penetrating radar data sets are corrected, enhanced, and imaged using commercial and student-written software, to reveal subsurface structures. Results obtained by the student will be presented as professional technical reports. Prerequisites: GEOPH 326, PHYS 234 or equivalent. Pre- or corequisite: GEOPH 426. Note: credit may only be obtained for one of GEOPH 438 and GEOPH 538.

GEOPH 440 - Global Geodynamics

Topics to be discussed include plate tectonics; continental breakup and assembly; faulting and earthquakes; mantle and lithosphere rheology; global gravity and Earth's rotation; deep Earth structures; heat transfer and convection in the Earth; dynamics of the core; planetary magnetism and the geodynamo; application to other planets. Prerequisites: Any 200-level GEOPH course, or any 300-level GEOPH course, or any 200-level PHYS course. Note: credit may only be obtained for one of GEOPH 440 and GEOPH 521.

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Rationale for change: (Not required for course deletion or editorial changes)

(Include documentation that other departments or Faculties offering similar courses support this proposal. In the case of substantial program changes you must also include evidence of consultation with students.)

Overarching rationale for all GEOPH 200-level, 300-level and 400-level courses: Reducing potential enrollment thresholds for non-Geophysics students. No change in course level or delivery.

Rationales:

- GEOPH 210, 223 and 224 are service courses to EAS. EAS requested simplification of pre- and co-requisites for all GEOPH 200-level courses. No substantive comments received from EAS on suggested new pre-reqs for these courses. New pre-reqs are designed to reduce enrollment thresholds. Course content and level will remain unchanged.
- GEOPH 325, 326: Housekeeping and more descriptive titles
- GEOPH 332: Housekeeping and more descriptive titles. New pre-reqs are designed to reduce enrollment barriers. Course content and level will remain unchanged.
- GEOPH 421, 431, 436, 438, 440: Housekeeping and more descriptive titles
- GEOPH 521, 526, 538: Housekeeping: identical calendar descriptions to cross-listed 400-level courses
- GEOPH 536 and 541: New 500 level courses to be cross listed with existing 400 level courses. Rationale: Increase options for Geophysics postgraduate students. There is also an educational benefit to having undergraduate and postgraduate students in the same class together. In addition, for GEOPH 536 postgraduate students from other Faculties/Departments request to participate in the Geophysics Field School to learn about geophysical remote sensing methods (e.g., for archeology, environmental monitoring and hydrology purposes), but not all are allowed to take 400 level courses.

Department Contact Name: Erik Rosolowsky	Department Chair or Designate Name: Roger Moore	Date approved by Dept Council: Dec. 14, 2021
Email: rosolowsky@ualberta.ca	Email:rwmoore@ualberta.ca	Date submitted to FoS: Dec. 14, 2021
		Approved by Faculty Council January 21, 2022

Upload this form to the FoS Calendar Google Site.

Course and Program Changes
2023-2024 Calendar
February 9, 2022 Departmental Council Meeting

CURRENT	PROPOSED
<p>ZOOL 370 - Ethological Mechanisms ★3 (fi 6)(SECOND, 3-0-3)</p> <p>Faculty of Science</p> <p>Animal behavior from an ethological perspective, with emphasis on the mechanisms underlying a variety of behaviors. The material is intended to complement that of ZOOL 371. Prerequisite or corequisite: ZOOL 241 or 242 or PHYSL 210, or 212 or 214. Offered in alternate years.</p>	<p>ZOOL 370 - Ethological Mechanisms ★3 (fi 6)(SECOND, 3-0-3)</p> <p>Faculty of Science</p> <p>Animal behavior from an ethological perspective, with emphasis on the mechanisms underlying a variety of behaviors. The material is intended to complement that of ZOOL 371. Prerequisite or corequisite: ZOOL 241 or 242 or PHYSL 210, or 212 or 214.</p>
<p>ZOOL 352 - Principles of Parasitism ★ 3 (fi 6)(FIRST, 3-3S-0)</p> <p>Faculty of Science</p> <p>An introduction to protozoan, helminth and arthropod parasites of animals; principles of host and parasite adaptations, host defense, pathology, epidemiology, and ecology, and control of parasitic infections. World-wide web-based laboratory tutorials emphasize morphology, life cycles, behavior, systematics and life history of parasites. Prerequisite: a 200-level Biological Sciences course (ZOOL 250 and IMIN 200 recommended).</p>	<p>ZOOL 352 - Principles of Parasitism ★ 3 (fi 6)(FIRST, 3-1.5S-0)</p> <p>Faculty of Science</p> <p>An introduction to protozoan, helminth and arthropod parasites of animals; principles of host and parasite adaptation, epidemiology, ecology, host defenses and immunology, and control of parasitic infections. The seminar will highlight the diversity of parasites in the major groups. Prerequisite: a 200-level Biological Sciences course (ZOOL 250 or IMIN 200 recommended).</p>

Curriculum Committee Recommendation form

This form is used by the SLIS Curriculum Committee to document and recommend course changes, additions and modifications to the SLIS Academic Council and SLIS School Council for approval.

Date: 23 October 2020

Type of Change: NEW COURSE* EXISTING COURSE COURSE DELETION

CALENDAR COPY

CURRENT Calendar Section Number §[231.166] <i>(Use strike out for all changes)</i>	PROPOSED Calendar Section Number §[231.166] <i>(Underline all additions)</i>
	<p><u>LIS 540: Indigenous Library and Information Studies in a Canadian Context</u></p> <p>3 (fi 6) (either term, 3-0-0). <u>An introduction to Indigenous Library and Information Studies within a Canadian context. This course will focus on Indigenous approaches to Storytelling, Traditional Knowledges, data sovereignty, social responsibility, collections and services, programming, research, and reference. This is a community-led course that encourages reciprocal relationships with local Indigenous communities.</u></p> <p><u>Pre/Co-requisite: LIS 501 or consent of instructor</u></p>

Course Title:

LIS 540: Indigenous Library and Information Studies in a Canadian Context

Rationale:

1. In 2015, the Truth and Reconciliation Commission of Canada released the “94 Calls to Action” where educational and memory institutions were called upon to address their current relationship with Indigenous Peoples who are currently living in what is now known as Canada. This course is one of many steps towards reconciling this past; it is the first 3-credit, graduate course within Canada about Indigenous librarianship that is taught from an Indigenous perspective by Indigenous instructors.
2. The proposed course adds to the existing MLIS curriculum by educating students of Indigenous approaches to social responsibility, research about Traditional Knowledges, storytelling, data sovereignty, information technology, and programming. These topics

were chosen based on community consultation and job expectations for those entering the field of librarianship.

3. The proposed course is community centered, which gives MLIS students the opportunity to interact with local Indigenous organizations. This course acts to bridge the gap between academia and Indigenous communities by giving students the cultural competency to interact with community members in a responsible manner particularly in the context of librarianship. A number of MLIS students are expected to work with Indigenous Peoples and a course like this will give students the tools, connections, and confidence necessary to move forward with Indigenous Peoples in their professional roles.
4. The proposed course has been piloted twice (Fall 2018 and Fall 2019) as the special topic course, 'LIS598: Indigenous Contexts for Library and Information Studies in Canada'. Both times it was piloted as an on-campus offering of the MLIS program. The course is also scheduled for the next two terms:
 - a. It was taught in the online offering of the MLIS program in the Spring 2020 term.
 - b. It is being taught in the on-campus offering of the MLIS program in the Fall 2020 term.
5. There is a demand for this course from both students and information professionals, and instructors have received requests from alumni to audit the course. Also, the course reached its maximum enrollment capacity (15 students) in both Fall 2018 and 2019 offerings. The course had a student wait list for the Fall 2019 term leading to over-enrollment in the course for that semester. Student(s) from the Faculty of Native Studies (FNS) have expressed interest in this course as well.
6. SLIS is committed to reconciliation with Indigenous communities and the inclusion of this course as a permanent course in the MLIS curriculum will be reflective of SLIS' efforts and commitments of Indigenous-focused initiatives.

Recommendation:

That a permanent course number be given to an existing LIS 598 course titled "Indigenous Library and Information Studies in a Canadian Context" with the title and calendar description as included above.

Approval:

This course change was approved at the SLIS' School Council meeting on October 23, 2020

Approved at GPST on March 28, 2022

Curriculum Committee Recommendation form

This form is used by the SLIS Curriculum Committee to document and recommend course changes, additions and modifications to the SLIS Academic Council and SLIS School Council for approval.

Date: 23 October 2020

Type of Change: NEW COURSE* EXISTING COURSE COURSE DELETION

CALENDAR COPY

CURRENT Calendar Section Number §[231.166] <i>(Use strike out for all changes)</i>	PROPOSED Calendar Section Number §[231.166] <i>(Underline all additions)</i>
<p><u>LIS 590: Practicum</u></p> <p>3 (fi 6) (either term, 3-0-0). The application of LIS theories and principles through experiential learning in a library, archives, records management and other services settings. Sections may be offered in a Cost Recovery format at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students.</p> <p>Prerequisites: LIS 501, 502, 504, 505, and an additional *6 in LIS electives, or consent of instructor.</p>	<p><u>LIS 590: Practicum</u></p> <p>3 (fi 6) (either term, 3-0-0). The application of LIS theories and principles through experiential learning in a library, archives, records management and other services settings. Sections may be offered in a Cost Recovery format at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students.</p> <p>Prerequisites: <u>LIS 501, 502, 503, 504, 505, and an additional *3 in an IT-designated LIS elective, or consent of instructor.</u></p>

Recommendation:

The prerequisites for LIS 590 Practicum eligibility be reduced officially from *6 to *3 in LIS electives, that is, from two 3-credit electives to one 3-credit IT-designated LIS elective.

Thus, the revised prerequisites for LIS 590 Practicum will be LIS 501, 502, 503, 504, 505, and an additional *3 in an IT-designated LIS elective, or consent of instructor.

Rationale:

The rationale for this revision issues from the overall MLIS credit reduction from 16 to 13 courses, approved in 2018, and the attendant advice to MLIS students to take 3 courses per term instead of the previous standard of 4 courses per term.

The result of the revised approach is that students typically will have completed only 6 courses instead of 7 courses by the end of their first year of full-time study.

This reduction in LIS 590 Practicum requirements will facilitate MLIS student eligibility for spring placements.

FINAL Item No. 5

**Governance Executive Summary
Action Item**

Agenda Title	Items Deemed Minor/Editorial A. Proposed Changes to Entrance Requirements for Programs in the Department of Communication Sciences & Disorders
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Item

Action Requested	<input checked="" type="checkbox"/> Approval <input type="checkbox"/> Recommendation
Proposed by	Tammy Hopper, Interim Dean, Faculty of Rehabilitation Medicine Brooke Milne, Vice-Provost and Dean, FGSR
Presenter(s)	Janice Causgrove Dunn, Vice-Provost (Programs) and Chair, GFC PC

Details

Office of Administrative Responsibility	Provost and Vice-President (Academic)
The Purpose of the Proposal is <i>(please be specific)</i>	See individual item for detail on proposed changes submitted by Faculties and the Office of the Registrar.
Executive Summary <i>(outline the specific item – and remember your audience)</i>	The Office of the Provost and Vice-President (Academic) has determined that the proposed changes are routine or editorial in nature. PC's Terms of Reference provide that "Routine and/or Editorial' - refers to proposals which do not involve or affect other Faculties or units and do not form part of a proposal for a new program. Editorial or routine changes include any and all changes to the wording of faculty or program specific admissions or academic standing regulations."
Supplementary Notes and context	<i><This section is for use by University Governance only to outline governance process.></i>

Engagement and Routing

<p>Consultation and Stakeholder Participation (parties who have seen the proposal and in what capacity)</p> <p><For information on the protocol see the Governance Resources section Student Participation Protocol></p>	<p><u>Those who are actively participating:</u></p> <ul style="list-style-type: none"> • Undergraduate or Graduate Program Support Team (PST) • Vice-Provost (Programs) and Chair, GFC Programs Committee • Faculty Councils • Representatives of the Office of the Registrar
Approval Route (Governance) (including meeting dates)	See individual item for Faculty approval information GFC PC April 14, 2022

Strategic Alignment

Alignment with <i>For the Public Good</i>	Objective 21
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Item No. 5

Alignment with Core Risk Area	Please note below the specific institutional risk(s) this proposal is addressing.	
	<input checked="" type="checkbox"/> Enrolment Management <input type="checkbox"/> Faculty and Staff <input type="checkbox"/> Funding and Resource Management <input type="checkbox"/> IT Services, Software and Hardware <input type="checkbox"/> Leadership and Change <input type="checkbox"/> Physical Infrastructure	<input type="checkbox"/> Relationship with Stakeholders <input type="checkbox"/> Reputation <input type="checkbox"/> Research Enterprise <input type="checkbox"/> Safety <input checked="" type="checkbox"/> Student Success
Legislative Compliance and jurisdiction	<i>Post-Secondary Learning Act (PSLA)</i> UAPPOL Admissions Policy GFC Programs Committee (PC) Terms of Reference	

Attachments

- A. CSD Entrance Requirements

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

Package Code: FRM120521PC

This package contains: [Graduate - Courses](#)
[Program Requirements](#)

Faculty approval path and dates:

Executive Committee: November 29, 2021 (via Electronic Vote)	Faculty Council: December 3, 2021 (via Electronic Vote)
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Page	Department or Unit	What is Changing
1-3	Communication Sciences	Program Regulations

Request for Early Implementation

CALENDAR CHANGE REQUEST FORM

Department: **Communication Sciences & Disorders [2022-2023]**

Highlight type of change request below:

1. Course Change 2. Editorial Change 3. Admission Requirement 4. **Program Regulation**

CURRENT	PROPOSED
<p>Entrance Requirements (main section) The Department's minimum admission requirements are an undergraduate degree with an admission GPA of at least 3.3 on the 4-point scale from the University of Alberta, or an equivalent qualification and standing from a recognized institution. The admission GPA will be calculated on the last 60 units of graded coursework completed, or on the equivalent of the last two years of full-time graded coursework. However, the minimum grade point average of accepted applicants is usually substantially higher than 3.3.</p> <p>[blue highlighting indicates same text but MOVED after Pre-Req Section]</p> <p>English Language Proficiency</p> <p>The Test of English as a Foreign Language (TOEFL) scores required for admission are as follows:</p> <ul style="list-style-type: none">Internet Test (iBT) (Maximum 120)CSD Minimum requirements:· Overall score: 102· Reading: 22· Listening: 26· Speaking: 26· Writing: 24 <p>The International English language testing system (IELTS) (Academic AC or General Training GT)</p> <ul style="list-style-type: none">· Total: 7.5· Reading: 7.5· Listening: 7.5· Speaking: 7.5· Writing: 7.5 <p>Applicants must submit three letters of recommendation, results of an online situational judgement test and a statement of career interests. Personal interviews may be used if deemed necessary in making final selections.</p> <p>The deadline for submitting applications is February 1. For more information see www.csd.ualberta.ca</p> <p>Applicants must have completed preparatory courses in areas fundamental to the program, as listed below:</p>	<p>Entrance Requirements (main section) The Department's minimum admission requirements are an undergraduate degree with an admission GPA of at least 3.3 on the 4-point scale from the University of Alberta, or an equivalent qualification and standing from a recognized institution. The admission GPA will be calculated on the last 60 units of graded coursework completed, or on the equivalent of the last two years of full-time graded coursework. However, the minimum grade point average of accepted applicants is usually substantially higher than 3.3.</p>

Pre-requisite Courses

Application to the MScSLP program requires the completion of eight prerequisite courses:

These courses are selected to provide speech-language pathology applicants with the background needed to succeed in the MScSLP program. The following courses and associated knowledge/skills are prerequisites to the MScSLP program. To see a detailed list of prerequisite courses that can be used for credit at various universities, please refer to the Department Website.

[NOTE: Some of the required courses are still the same, just reformatted, and listed above]

- Statistics: Introduction to statistical methods
- Child Development or Developmental Psychology
- Cognitive Psychology
- Neuroanatomy/Neuropsychology
- Introductory Linguistics
- Articulatory Phonetics
- Child Language Development, Child Language Acquisition or First Language Acquisition

Indigenous Canadian History:

All students admitted to the MSc SLP program are required to complete a course focused on Indigenous history in Canada. This is considered a program prerequisite. For students who have not met the requirement at the time of admission, a condition of their admission would be to complete the course by the start of the first term of registration. This requirement may be fulfilled through the certificate version of the University of Alberta Indigenous Canada MOOC.

Pre-requisite Courses:

The following are prerequisite courses that prospective applicants must complete in their undergraduate degree or previous studies:

- Statistics: Introduction to statistical methods (3 units)
- Child Development (3 units)
- Cognitive Psychology (3 units)
- Neuroanatomy/ Neuropsychology (3 units)
- Introductory Linguistics (3 units)
- Articulatory Phonetics (3 units)
- Child Language Acquisition (3 units)

These courses are selected to provide speech-language pathology applicants with the background needed to succeed in the MScSLP program. These courses and associated knowledge/skills are prerequisites to the MScSLP program. To see a detailed list of prerequisite courses that can be used for credit at various universities, please refer to our [Department Website](#).

Indigenous Perspectives in Canada: (NEW sub-section)

All students admitted to the MScSLP program are required to complete a course focused on Indigenous perspectives, histories and / or experiences in Canada.

- Students who have successfully completed an approved 3-unit (minimum) course in a prior degree program will be considered to have met this requirement at the time of admission. (Course information must be submitted for approval to the department, which maintains a list of approved courses from various institutions.)
- Students may also meet the requirement through the successful completion of the certificate version of the [University of Alberta Indigenous Canada MOOC](#). Students will need to provide this certificate as proof of completion to the department's Academic Advisor prior to program start.
- For students who have not met the requirement at the time of admission, and who choose to take a 3-unit approved course instead of the MOOC (see above), those 3 units are extra-to-degree and outside of the required credit load for the MScSLP program.

English Language Proficiency:

Applicants who do not possess a degree or its academic equivalent from an academic institution recognized by the University of Alberta, in which the language of instruction is English must take an English Language Proficiency test.

	<p>The Test of English as a Foreign Language (TOEFL) scores required for admission are as follows:</p> <p>Internet Test (iBT) (Maximum 120) CSD Minimum requirements:</p> <ul style="list-style-type: none"> • Overall score: 102 • Reading: 22 • Listening: 26 • Speaking: 26 • Writing: 24 <p>The International English language testing system (IELTS) (Academic AC or General Training GT)</p> <ul style="list-style-type: none"> • Total: 7.5 • Reading: 7.5 • Listening: 7.5 • Speaking: 7.5 • Writing: 7.5 <p>Other Requirements: Applicants must submit three letters of recommendation, a curriculum vitae, a statement of career interests, and complete an online situational judgment test (CASPer). Personal interviews may be used if deemed necessary in making final decisions.</p> <p>Application Deadline: The deadline for submitting applications for admission (including a listing of prerequisites completed and/or in progress) is January 15. For more information contact the Academic Advisor for Communication Sciences and Disorders.</p>
<p>Financial Assistance A limited number of teaching and research assistantships may be available within the Department. Successful candidates selected for the program are provided applications for department teaching and research assistantships. Students should review www.gradstudies.ualberta.ca for current information on available awards and other possible sources of funding.</p>	<p>Financial Assistance Scholarships and graduate assistantships may be obtained from various sources. More detailed information on these and other awards can be obtained on the Faculty of Graduate Studies and Research (Awards and Funding) webpage.</p>

Rationale for change: (Not required for course deletion or editorial changes)

We are making these changes to enhance the clarity of our entrance requirements in the calendar and bring them closer in alignment to the entrance requirement information currently listed on our website. In addition to re-organizing and added sub-sections for the relevant requirements, we have added information about the Indigenous Canadian History prerequisite and added the requirements of including a statement of interest and curriculum vitae, which was not previously listed in the calendar. Finally, we have changed our application deadline to January 15 from February 1 and modified the information about financial assistance to direct students to the FGSR webpage.

All names, signatures and dates are required:

<p>Department Contact Name: Priya Swamy</p>	<p>Department Chair or Designate Name: Esther Kim</p>	<p>Date approved by Dept Council: Oct 21, 2021</p>
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Email: pswamy@ualberta.ca	Signature: 	Date Submitted: October 29, 2021
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Email a signed PDF and an editable word version to pswamy@ualberta.ca

Approved:

Faculty Executive Committee Approval: November 29, 2021 (via Electronic Vote)

Faculty Council Approval: December 3, 2021 (Via Electronic Vote)

GPST - January 24, 2022

PRC - February 2, 2022

FGSR Council - February 23, 2022

FINAL Item No. 6
**Governance Executive Summary
Action Item**

Agenda Title	Proposed Termination of the Baccalauréat en sciences de l'environnement et de la conservation/BSc in Environmental and Conservation Sciences
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Motion

<p>THAT the GFC Programs Committee recommend that the Board of Governors approve the proposed termination of the Baccalauréat en sciences de l'environnement et de la conservation/BSc in Environmental and Conservation Sciences, as submitted by the Faculté Saint-Jean and Faculty of Agricultural, Life, and Environmental Sciences, to take effect upon final approval.</p>
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Item

Action Requested	<input type="checkbox"/> Approval <input checked="" type="checkbox"/> Recommendation
Proposed by	Faculté Saint-Jean and Faculty of Agricultural, Life and Environmental Sciences (ALES)
Presenter(s)	Donia Mounsef, Principal Vice-Dean, Faculté Saint-Jean

Details

Office of Administrative Responsibility	Provost and Vice-President (Academic)
The Purpose of the Proposal is <i>(please be specific)</i>	To seek approval of the proposed termination of the Baccalauréat en sciences de l'environnement et de la conservation/BSc in Environmental and Conservation Sciences
Executive Summary <i>(outline the specific item – and remember your audience)</i>	<p>Admission to the Baccalauréat en sciences de l'environnement et de la conservation/BSc in Environmental and Conservation Sciences was suspended in 2015 and there are currently no students enrolled in the program. The last students completed the program in approximately FALL 2019.</p> <p>Enrollment in the Baccalauréat en sciences de l'environnement et de la conservation/BSc in Environmental and Conservation Sciences has been consistently low since the program's inception in 2005-2006. Admissions and transfers to the Bachelor of Science (Bilingual BSc ENCS) have been suspended since the 2015-2016 academic year, so as to allow time for the Faculté Saint-Jean (FSJ) and the Faculty of Agricultural, Life, and Environmental Sciences (ALES) to assess and examine its future directions (e.g., revisit the curricular and administrative structure, resources, and enrollment issues).</p> <p>After a thorough review and consultation among the Faculty Deans, Associate Deans, Assistant Deans, and other stakeholders, it was determined that the program was not financially sustainable and viable.</p> <p>Now that the suspension period is over, FSJ and ALES are seeking to terminate the program.</p>
Supplementary Notes and context	<This section is for use by University Governance only to outline governance process.>

Engagement and Routing (Include meeting dates)

Item No. 6

Consultation and Stakeholder Participation (parties who have seen the proposal and in what capacity) <For information on the protocol see the Governance Resources section Student Participation Protocol >	<u><i>Those who are actively participating:</i></u> <ul style="list-style-type: none"> ● FSJ Dean, Associate Dean, Faculty members and staff
	<u><i>Those who have been consulted:</i></u> <ul style="list-style-type: none"> ● FSJ Dean, Associate Dean, Faculty members and staff ● Dr. Nataraj Kav (Professor & Associate Dean (Academic)), ALES ● Dr. Vic Adamowicz (Professor and Vice Dean), ALES
	<u><i>Those who have been informed:</i></u> <ul style="list-style-type: none"> ● FSJ Dean, Associate Dean, Faculty members and staff ● Dr. Nataraj Kav (Professor & Associate Dean (Academic)), ALES ● Dr. Vic Adamowicz (Professor and Vice Dean), ALES
Approval Route (Governance) (including meeting dates)	<ul style="list-style-type: none"> ● FSJ Executive Committee (Feb 4, 2022) ● FSJ Faculté Council (Feb 18, 2022) ● GFC PST (March 24, 2022) ● ALES Faculty Council (April 12, 2022) ● GFC PC (April 13, 2022) ● GFC Academic Planning Committee (May 4, 2022) ● General Faculties Council (June 6, 2022) ● BLRSEC and Board of Governors in the Fall

Strategic Alignment

Alignment with <i>For the Public Good</i>	GOAL: SUSTAIN our people, our work, and the environment by attracting and stewarding the resources we need to deliver excellence to the benefit of all. Objective 21: Encourage continuous improvement in administrative, governance, planning, and stewardship systems, procedures, and policies that enable students, faculty, staff, and the institution as a whole to achieve shared strategic goals.	
Alignment with Core Risk Area	Please note below the specific institutional risk(s) this proposal is addressing.	
	<input type="checkbox"/> Enrolment Management <input type="checkbox"/> Faculty and Staff <input type="checkbox"/> Funding and Resource Management <input type="checkbox"/> IT Services, Software and Hardware <input type="checkbox"/> Leadership and Change <input type="checkbox"/> Physical Infrastructure	<input type="checkbox"/> Relationship with Stakeholders <input type="checkbox"/> Reputation <input type="checkbox"/> Research Enterprise <input type="checkbox"/> Safety <input type="checkbox"/> Student Success
Legislative Compliance and jurisdiction	<i>Post-Secondary Learning Act</i> GFC Programs Committee GFC Academic Planning Committee	

1. Attachment 1 (page(s) 1 - 4) Proposal Template: Termination of the Baccalauréat en sciences de l'environnement et de la conservation/BSc in Environmental and Conservation Sciences
2. Attachment 2 (page 1): DM Approval Letter - 2015 BSc ENCS

Prepared by: Marie Simuong, FSJ Governance Coordinator, Faculté Saint-Jean, msimuong@ualberta.ca.

Proposal Template: Program Termination

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

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

SECTION A: PROPOSAL INFORMATION

Fill in the table below:

Institution	University of Alberta
Program Name	Baccalauréat en sciences de l'environnement et de la conservation/BSc in Environmental and Conservation Sciences
Specialization Name	
Credential Awarded	Baccalauréat en sciences de l'environnement et de la conservation/BSc in Environmental and Conservation Sciences
Proposed effective date of termination	July 1, 2022

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

SECTION B: RATIONALE

a. Identify reason(s) for termination with supporting evidence (e.g., low student demand, declining labour market demand, institutional capacity, provincial priorities, etc.).

- Enrollment in the Bachelor of Science (Bilingual BSc ENCS) has been consistently low since the program's inception in 2005-2006.
- The last students completed the program in approximately FALL 2019
Admissions and transfers to the Bachelor of Science (Bilingual BSc ENCS) have been suspended since the 2015-2022 academic year, so as to allow time for the Faculté Saint-Jean (FSJ) and the Faculty of Agricultural, Life, and Environmental Sciences (ALES) to assess and examine its future directions (e.g., revisit the curricular and administrative structure, resources, and enrollment issues).
- After a thorough review and consultation among the faculty deans, associate deans, assistant deans, and other stakeholders, it was determined that the program was not financially sustainable and viable.
- Now that the suspension period is over, FSJ and & ALES are seeking to terminate the program.

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

- FSJ Executive Committee (Feb 4, 2022)
- FSJ Faculté Council (Feb 18, 2022)
- GFC PST (March 24, 2022)
- GFC PC (April 13, 2022)
- General Faculties Council (June 6, 2022)
- BLRSEC and Board in the Fall

Reviewer's Comment:

SECTION C: ACCESS

a. Identify student access considerations and risks for the Alberta Adult Learning System (include information about related programs or other avenues available to students to prepare for careers/employment and/or further educational opportunities).

- Since no student has been admitted into the Bachelor of Science (Bilingual BSc ENCS) in Environmental and Conservation Sciences since 2015, there are no adverse impacts on current students or Alberta Adult Learning System.

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

- Not applicable

<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"> We contacted the Association des universitaires de la Faculté Saint-Jean (AUFSJ) to seek input and were advised that there were no concerns. Since the program has not been active since 2015, termination of the program should not have a negative impact on students. <p>The Governance process within the Faculté Saint-Jean also included student participation.</p>
<p>Reviewer's Comment:</p>

SECTION D: IMPACT

<p>a. Briefly describe the consultation process that occurred with other stakeholders (e.g., advisory committees, regulatory bodies, employers, etc.) affected by this programming change.</p> <ul style="list-style-type: none"> Since the program has not been offered for over 7 years, no impact on external stakeholders is anticipated by this programming change.
<p>b. Briefly describe plans for communicating the termination decision to stakeholders, particularly regulatory bodies (if applicable) and other institutions within the Alberta Adult Learning System.</p> <ul style="list-style-type: none"> We have removed information on the Bachelor of Science (Bilingual BSc ENCS) from our website and Calendar.
<p>c. Briefly describe plans for reallocation of resources previously used for this program/specialization and identify budget and staffing impacts.</p> <ul style="list-style-type: none"> There are no budget or staffing implications for this termination. Courses in these areas continue to be offered. <p>Consequently, classroom space, human resources and budget support are not affected.</p>
<p>Reviewer's Comment:</p>

SECTION E: OTHER CONSIDERATIONS

<p>Other considerations</p>
<p>a. Please indicate if there are additional factors you would like the ministry to consider when reviewing this proposal.</p> <ul style="list-style-type: none">
<p>Reviewer's Comment:</p>

RECOMMENDATION (FOR DEPARTMENT USE)

Recommendation(s):

Rationale for Recommendation:

Reviewer(s):

Date Completed:



Deputy Minister
6th Floor Commerce Place
10155 - 102 Street
Edmonton, Alberta T5J 4L5
Canada
Telephone 780-415-4744
Fax 780-422-1801
www.iae.alberta.ca

AR 47923

July 29, 2015

Dr. David Turpin
President and Vice-Chancellor
University of Alberta
2-24 South Academic Building
Edmonton, AB T6G 2G7

Dear Dr. Turpin:

Innovation and Advanced Education has reviewed the University of Alberta's proposal to suspend the Bachelor of Science (Bilingual BSc ENCS) in Environmental and Conservation Sciences program from July 1, 2015 to June 30, 2022.

The department approves the suspension on the understanding that the board of governors or institutional delegated authority proposes it due to low enrolment. I would ask that the institution advise the department six months prior to the suspension end date, through the Provider and Program Registry System, of its plan to either reactivate or terminate the program. Under the Programs of Study Regulation, proposed changes to the Bachelor of Science (Bilingual BSc ENCS) in Environmental and Conservation Sciences program require ministerial approval, including changes to the program name, load, or duration, as well as the suspension of admissions, termination, reactivation, or transfer.

I appreciate the University of Alberta's commitment to high-quality programming and its ongoing program review and renewal.

Sincerely,

for Rod Skura
Deputy Minister

c: Honourable Lori Sigurdson
Minister of Innovation and Advanced Education
Minister of Jobs, Skills, Training and Labour

Douglas O. Goss, QC, Chair, Board of Governors
University of Alberta

FINAL Item No. 7
**Governance Executive Summary
Action Item**

Agenda Title	Proposed Dental Assisting Certificate, Faculty of Medicine and Dentistry
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Motion

THAT the GFC Programs Committee recommend that the GFC Academic Planning Committee approve the Proposed Dental Assisting Certificate as submitted by the Faculty of Medicine and Dentistry, as amended, for implementation in fall 2023.

Item

Action Requested	<input type="checkbox"/> Approval <input checked="" type="checkbox"/> Recommendation
Proposed by	Dr. Paul Major, Chair, School of Dentistry Faculty of Medicine and Dentistry
Presenter(s)	Dr. Steve Patterson, Associate Chair Academic, School of Dentistry, Faculty of Medicine and Dentistry

Details

Office of Administrative Responsibility	Provost and Vice-President (Academic)
The Purpose of the Proposal is (<i>please be specific</i>)	The proposal is before the committee to seek a recommendation of the creation of the Dental Assisting Certificate program in the Faculty of Medicine and Dentistry to the Board of Governors.
Executive Summary (<i>outline the specific item – and remember your audience</i>)	<p>The School of Dentistry would like to implement a new Dental Assisting certificate. This proposal is for a model that will fulfill a clear need in the current labour market in Alberta for Dental Assistants, provide a Dental Assisting program with unique learning opportunities, and benefit the School of Dentistry current dental students and our delivery of patient care in our student clinics.</p> <p>The graduates of this certificate will have completed 5 sequential courses, over a 10-month timeframe for a total of 32 credits. The curriculum for this certificate will be delivered in a way that presents the material in a progression of sequential foundational knowledge and skills to work in a clinical environment. The curriculum will be aligned with the National Dental Assisting Examining Board as part of the initial program approval process and must be approved by the College of Dental Assistants of Alberta.</p> <p>Students who are admitted to the Dental Assisting Certificate program will be required to meet all of the program completion requirements in order to graduate including both workplace learning placements. The learning opportunities students will have access to at the School of Dentistry at the University of Alberta will be unique and like no other in Alberta.</p> <p>The Dental Assisting Certificate program will be funded through student tuition with no government funding or external funding.</p>

Item No. 7

Supplementary Notes and context	<This section is for use by University Governance only to outline governance process.>
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Engagement and Routing (Include meeting dates)

Consultation and Stakeholder Participation (parties who have seen the proposal and in what capacity) <For information on the protocol see the Governance Resources section Student Participation Protocol >	<u>Those who are actively participating:</u> <ul style="list-style-type: none"> ● Senior Associate Dean, Dental Affairs and Chair, Department of Dentistry, Faculty of Medicine and Dentistry ● Associate Chair (Academic), School of Dentistry, Faculty of Medicine and Dentistry
	<u>Those who have been consulted:</u> <ul style="list-style-type: none"> ● Faculty Council, Faculty of Medicine and Dentistry (March 15, 2022) Motion carried: Faculty Council supports the creation of a new Dental Assisting Certificate ● University of Alberta, Program Support Team - February 24, 2022 for discussion ● Faculty of Medicine and Dentistry, Indigenous Health Initiatives Program, February 11, 2022 ● Office of the Registrar, Indigenous Recruitment - January 31, 2022 ● School of Dentistry Department Council - January 27, 2022 ● Faculty Learning Committee - FoMD - January 25, 2022 ● Alberta Dental Association & College - August 16, 2021 ● Provost and Vice-President (Academic) ● Faculty approval of the Calendar language for program regulations and courses - April 8, 2022
	<u>Those who have been informed:</u> <ul style="list-style-type: none"> ● Psychometric Strategies and Research, Inc. - September 13, 2021 ● Commission on Dental Accreditation of Canada - August 30, 2021 ● National Dental Assisting Examination Board - August 20, 2021 ● Ministry of Advanced Education - August 9, 2021 ● University of Saskatchewan College of Dentistry - July 12, 2021 ● College of Alberta Dental Assistants - July 12, 2021, August 19, 2021
Approval Route (Governance) (including meeting dates)	The following approval route has been planned at this time: <ul style="list-style-type: none"> ● GFC Programs Committee - April 14, 2022 ● Registrar’s Advisory Committee on Program Budget and Fees - April 26, 2022 ● GFC Academic Planning Committee - May 4, 2022 ● Board Finance and Property Committee - May 31, 2022 ● Board of Governors - June 17, 2022

Strategic Alignment

Alignment with <i>For the Public Good</i>	Please note the Institutional Strategic Plan objective(s)/strategies the proposal supports.
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Item No. 7

	<p>GOAL: Build a diverse, inclusive community of exceptional students, faculty and staff from Alberta, Canada, and the world.</p> <ul style="list-style-type: none"> ● OBJECTIVE 4: Develop, in consultation and collaboration with internal and external community stakeholders, a thoughtful, respectful, meaningful, and sustainable response to the report of the Truth and Reconciliation Commission of Canada. <p>GOAL: Experience diverse and rewarding learning opportunities that inspire us, nurture our talents, expand our knowledge and skills, and enable our success.</p> <ul style="list-style-type: none"> ● OBJECTIVE: 7 Increase graduate and undergraduate students' access to and participation in a broad range of curricular experiential learning opportunities that are well-integrated with program goals and enrich their academic experience. <p>GOAL: Engage communities across our campuses, city and region, province, nation and the world to create reciprocal, mutually beneficial learning experiences, research projects, partnerships, and collaborations.</p> <ul style="list-style-type: none"> ● OBJECTIVE 16: Enhance, increase, and sustain reciprocal, mutually beneficial community relations, community engagement, and community-engaged research and scholarship that will extend the reach, effectiveness, benefit, and value of our university-community connections. <p>GOAL: Sustain our people, our work, and the environment by attracting and stewarding the resources we need to deliver excellence to the benefit of all Albertans.</p> <ul style="list-style-type: none"> ● OBJECTIVE 19: Prioritize and sustain student, faculty, and staff health, wellness, and safety by delivering proactive, relevant, responsive and accessible services and initiatives. 		
Alignment with Core Risk Area	<p>Please note below the specific institutional risk(s) this proposal is addressing.</p> <table border="1"> <tr> <td> <input type="checkbox"/> Enrolment Management <input type="checkbox"/> Faculty and Staff <input checked="" type="checkbox"/> Funding and Resource Management <input type="checkbox"/> IT Services, Software and Hardware <input type="checkbox"/> Leadership and Change <input type="checkbox"/> Physical Infrastructure </td> <td> <input type="checkbox"/> Relationship with Stakeholders <input type="checkbox"/> Reputation <input type="checkbox"/> Research Enterprise <input type="checkbox"/> Safety <input checked="" type="checkbox"/> Student Success </td> </tr> </table>	<input type="checkbox"/> Enrolment Management <input type="checkbox"/> Faculty and Staff <input checked="" type="checkbox"/> Funding and Resource Management <input type="checkbox"/> IT Services, Software and Hardware <input type="checkbox"/> Leadership and Change <input type="checkbox"/> Physical Infrastructure	<input type="checkbox"/> Relationship with Stakeholders <input type="checkbox"/> Reputation <input type="checkbox"/> Research Enterprise <input type="checkbox"/> Safety <input checked="" type="checkbox"/> Student Success
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Legislative Compliance and jurisdiction	<p><i>Post-Secondary Learning Act</i> GFC Programs Committee Terms of Reference GFC Academic Planning Committee Terms of Reference Board Finance and Property Committee Terms of Reference</p>		

Separate Attachments and Appendices:

1. Ministry Proposal Template: Dental Assisting Certificate (page(s) 1 - 67)



Appendices:

Appendix A - Program Description

Appendix B - Letter of Support - Dr. Depledge

Appendix C - Letters of Endorsement/Support

Appendix D - Avens Evaluation Group Ltd. - Labour Market Assessment

Appendix E - Library Impact Statement

2. Proposed Calendar Language-Program and Regulations (pages 1-7)
3. Proposed Calendar Language-Courses (pages 1-4)

Prepared by: Carla Clarke, cclarke1@ualberta.ca

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Appendix E - UAL Library Impact Statement - Dental Assisting Program _____	66

Proposal Template: New Certificate and Diploma Programs and Specializations and Non-Credential Programming

Complete this template for proposals for new certificate and diploma programs and non-credential programming or new specializations within existing programs.

Institutions should:

- ensure that submission content is concise. Any additional information may be appended;
- indicate “non applicable” when questions are not relevant to a 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	Dental Assisting
Specialization Name	
Credential Awarded	Certificate
Proposed Effective Date	July 1, 2023

1. Type of Initiative *(Answer the following questions)*

This is a proposal for (select one from the drop-down menu):

New Certificate

2. Nomenclature *(Answer the following questions)*

a. What program and/or specialization name will appear on parchments and transcripts? (Should be the same as the program or specialization name identified above. If different, please provide a rationale.)

- Dental Assisting

b. Provide a brief rationale for the program and/or specialization name selected.

The Dental Assisting Program will deliver the knowledge and specific training requirements to be a part of an integrated healthcare team providing oral health care to patients. This Dental Assisting Program will provide students with unique clinical experiences allowing them to apply their knowledge and skills facilitating a 4-handed dentistry setting enhancing the productivity of our Dentistry students and increase the quality of care to our patients.

Reviewer’s comment:

--

SECTION B: OVERVIEW OF PROPOSED PROGRAM OF STUDY

1. Program Description (Answer the following questions)

- a. Attach (as an appendix to this proposal) a concise program description document that includes:
- 3-4 sentence calendar description of the program;
 - a proposed program of study (including course names, descriptions, credits and prerequisites, by semester or year of study);
 - program location (i.e., campus locations and/or off-site locations), and delivery mode (i.e., face-to-face, online, or blended); and
 - program learning outcomes

See Appendix A

- b. Does the program align with characteristics (e.g., credits, learning outcomes, etc.) associated with this credential? (Consult with the Ministry as necessary).

Yes; No; or Not Applicable

- c. Please explain if response to (b) above is No or Not Applicable

Non Applicable

- d. Where applicable, identify any collaborations or potential collaborations with other post-secondary institutions or other organizations for this program.

The School of Dentistry has existing Memoranda of Understandings with the following organizations within the community:

- SHINE/Boyle McCauley Dental Clinic - volunteer opportunities
- University of Alberta Hospital Dental Clinic - possible rotation opportunities
- Glenrose Rehabilitation Hospital - possible rotation opportunities

The opportunities provided through these collaborations allow for students to give back to their communities as well as have authentic learning experiences.

Reviewer's comment:

2. Program Requirements (Answer the following questions)

a. List primary admission requirements for the proposed program.

- 65% in each of:
 - a. English Language Arts 30-1 or English Language Arts 30-2
 - b. Chemistry 30
 - c. Biology 30
 - d. One of the following: Math 30-1, Math 30-2, Pure Math 30 or Applied Math 30
 - e. English Language Proficiency
- Interview - A personal interview is required of all competitive applicants annually. Interview selection is based on academic record. Competitive applicants will be interviewed to determine if they have the personal qualities necessary for the profession. The interview evaluates an applicant's maturity, motivation, initiative, ability to communicate, personal qualities and interests

Additional Requirements and Considerations:

- Completion of University of Alberta's Indigenous Canada MOOC or Aboriginal Studies 30.
- First Aid - Prior to Entering the Program - CPR-C (Basic Life Support - BLS) - students must provide evidence of current BLS certification for entry into the program and remain current throughout clinical training.
- Required Immunization Records
- Police Check - Criminal Record Check
- Computer Literacy and Requirements

Indigenous Applicants

The School of Dentistry is committed to the recruitment, retention and graduation of Indigenous students. All Indigenous applicants who meet the Indigenous application requirements and are successful in the admissions process will be admitted to the Dental Assisting Program.

- Applicants who are of Aboriginal ancestry within the meaning of The Constitution Act, 1982, §35(2), or
- A person who is accepted by one of the Aboriginal Peoples of Canada as a member of their community.

Proof of ancestry must be provided when applying as an Aboriginal student. Accepted forms of documentation are outlined in the [Admission of Aboriginal Applicants](#) section of the University of Alberta Calendar.

Candidates will be subject to standard minimum admission requirements as will be outlined in the calendar and approval by the Dentistry Admissions Committee.

b. List program completion requirements.

- Complete all of the required program courses with the minimum passing grade outlined in each course syllabus
- Successfully complete all assessments and mandatory clinical hours as per each course syllabus
- Complete the required Practicum hours and submit Practicum Log and Evaluation

Reviewer's comment:

3. Work Integrated Learning Placements (If applicable, answer the following questions)

a. Identify the number of placements required in the proposed program (including type of work setting and duration/timing of activities).

The Dental Assisting program will include an internal practicum rotation within the Oral Health Clinic and one external practicum.

- The Internal Practicum rotation will begin early on in the program and will continue sequentially building on foundational knowledge as students' skill set increases throughout the program. The Dental Assisting students will be integrated into assisting DDS students in the School of Dentistry Oral Health Clinic- time allocation will increase to approximately 6-9 hours per week as students progress in the program. Approx. 90 - 135 hours of Internal Clinical experience in various Undergraduate and Graduate clinics (subject to level of skill at the time)
- There will be one 2 week off-site practicum in a Private Dental Practice, or Community Practice for each student - minimum of 70 hours (7 hours a day)

b. Summarize communications with employers (append applicable letters of support, minutes of program advisory committee meetings, etc.) showing that sufficient placements will be available when needed.

At this time, we have been provided with support from various employers within the Dental Community committed and willing to host Dental Assisting students to meet their program practicum requirements when needed.

We have the support of one of Canada's leading networks of dental practices, dentalcorp., having 62 practices in Alberta. Their willingness and commitment to host and support our students to meet their practicum requirements will assist in fulfilling practicum needs.

Dental Choice operates 20 dental clinics in Alberta and has offered their support in providing learning opportunities through hosting practicum sites for Dental Assisting students when needed. Dental Choice has employed a number of University of Alberta graduates on their team from both our Dentistry program and Dental Hygiene program.

We have the support of another dental corporation committed to hosting students within their existing 8 dental practices and are in the process of opening 4 more practice sites prior to our program start and will also offer these locations as host sites to our students.

The Dental Assisting program will work closely with the Dentistry program Course Coordinator for the 4th year Dentistry Electives course in seeking practicum host sites. They are currently recruiting registered dentists in Alberta to be a part of their program and are willing to share their roster of offices who may wish to host Dental Assisting students.

The FoMD Indigenous Health Initiatives Student Support and Services team are willing to work with our program to seek Indigenous practitioners willing to host students for practicum requirements.

See Appendices B and C - Included in Letters of Support

c. Comment on whether/how work integrated learning placements in other programs (at the institution and at other institutions within the Alberta Adult Learning System) may be impacted as a result of this program.

The DDS program and various graduate programs offered at the University of Alberta School of Dentistry will be impacted as they will have the Dental Assisting students integrated into their clinical sessions. This will allow the Dental Assisting students to have learning opportunities and clinical learning experiences while working with other students in a more authentic clinical setting. This type of experience will allow both Dental Assisting students and Dentistry students to learn how to work as a team and understand the roles, better preparing them for future practice. The DDS students and graduate students will have more clinical support with the Dental Assistant students working with them in their clinics providing a higher level of patient care.

Reviewer's comment:

4. Endorsement of and/or Support for Program

a. Indicate endorsement(s) from relevant professional organizations, regulatory bodies, advisory committees, employers, and/or industry, when applicable.

Please see the following endorsement letters provided in the Appendices:

- Dr. Brenda Hemmelgarn - Faculty of Medicine and Dentistry - Dean
- Dr. Blaine Aucoin - University of Alberta - School of Dentistry
- Dr. Doris Lunardon - University of Alberta - School of Dentistry
- Ana Khehra - University of Alberta Dental Students' Association - President 2021/2022
- Dr. Doug Brothwell - Dean - College of Dentistry - University of Saskatchewan
- Dr. Randall Croutze - Alberta Dental Association & College (ADA&C)

- Dr. Hans Herchan - Dental Choice
- Dr. Terry Ortens
- Nicola Deall - Dentcorp
- Edmonton & District Dental Society

See Appendix C

Reviewer's comment:

SECTION C: LABOUR MARKET DEMAND AND ENROLMENT PLANNING

1. Demand for Program *(Answer the following questions)*

Appendix D - Avens Evaluation Group Ltd. Report - third party assessor of the labour market demand in Alberta for a new Dental Assisting program at the University of Alberta - see full report for reference to support components of section C: Labour Market Demand and Enrollment Planning

- a. Describe anticipated employment outcomes (including entrepreneurial and/or self-employment paths) for program graduates.

The anticipated employment outcomes for program graduates suggest dental assistants will be employed mostly in private dental practices. Generally, dental assistants are primarily performing chairside dental assisting duties however often have secondary roles within the private practice in sterilization and administration tasks.

There are other opportunities for dental assistants in community dental health agencies, hospital dental clinics, dental insurance companies, administrative assistants, dental treatment coordinators, sterilization assistants, sales and dental education.

- b. Provide evidence of labour market demand for graduates, detailing how such demand was forecasted and substantiated regionally and provincially. (Append supporting documentation, as appropriate.)

The labor market demand was forecasted and substantiated through the reviewing of available data on education, labour market trends and engaging key stakeholders to gain their perspectives on labour market demand for RDA's in Alberta. This involved the collection of data from multiple sources including interviews, surveys described in detail in the Labour Market Evaluation report.

Interviews were conducted with employers, professional associations, regulating bodies, and RDA's. Surveys were also fielded to Dentists/Employers and Registered Dental Assistants in different demographics of Alberta.

The results from Avens Evaluation Group report indicated there is a shortage of RDA's in Alberta and the key indicators from the report suggest the labour market demand for RDA's comes from:

- Increased number of retirements - there will be a greater number of RDA's exiting the field than in previous years due to demographic and labour trends
- data also show a significant number of RDA's leave their profession within 10-20 years practice - with many moving into administrative roles, sales or treatment coordinator roles
- Predominantly females (99%) and ages (18-30) - maternity leaves, some returning to only part-time and some not returning at all
- RDA registration numbers do not reflect full time positions being worked and include part time, and casual employment, mixed job descriptions, and those working outside the province - this is indicative that the registration numbers are inadequate to meet the demands of the current labour market of the "ideal ratio of 2:1" RDA to Dentist
- In Alberta in 2020 the labour market would require a minimum of 6,301 full time RDA's where we currently have 6,102, resulting in a deficit of 200 to accommodate the suggested ideal ratio from regulatory bodies. If the number of part time RDA's working is considered the deficit increases to 546-726 full time RDA's.
- based on the employers preferred ratios 2:1 and RDA's reported work hours there is a deficit in Alberta of 746-925 full time RDA's to fulfill the needs of the labour market
- impact of COVID-19 - remains to be seen- fear of contracting COVID-19 RDA's being hired for COVID response, reduced immigration due to travel restrictions
- survey result demonstrated a volume of employers seeking RDAs
- survey result also showed employers found it difficult to recruit RDA's- receiving few applications and not qualified applicants
- survey respondents reporting they are understaffed for RDA
- employers would like to have more than 1 dental assistant hired in their practice
- career changes creating job openings
- working conditions and expectations

Labour market modeling data predicts a shortage of RDA's in Alberta, but the extent of this shortage appears to be even greater than forecasted based on the data collected and reviewed in this assessment report provided.

c. In cases where labour market demand is not the primary driver for creating the program, comment on social and/or community benefits.

Non Applicable

d. Identify which stakeholder groups were consulted regarding demand/need for this program:

- | | |
|---|---|
| ✓ Student/learners | ✓ Employers and professional associations |
| ✓ Faculty | ✓ Other post-secondary institutions |
| ✓ Regulator and/or accreditation bodies | |

✓ Other (please identify) New graduates, RDA's in LMA

e. Briefly discuss the results of the identified consultations and attach supporting documentation (e.g., minutes of meetings, letters of support, etc.), when available.

Results from Consultations with various stakeholders: the results from various stakeholders were positive and supportive of the University of Alberta School of Dentistry offering a Dental Assisting Program. See the results and key factors in points below and letters provided in Appendix C from stakeholders.

Consultations with Faculty:

- provide creative ways to mirror private practice
- four handed dentistry is essential during aerosol producing procedures
- learners in both programs will work closely together in the profession, it makes sense to have them clinically train together
- positive impacts on patient care, in learning environment but also in future private practice settings
- improve workflow of dental appointments
- team approach to delivering dental care

Consultation with Dental Students Association (DSA):

- positive impact on DDS students, will enhance learning opportunities to work with a Dental Assistant student
- provide 4-handed dentistry
- assist with patient care
- would want to include in DSA, be part of the team

Consultation with University of Saskatchewan - Dentistry and Dental Assisting programs:

- positive impact on patient care
- improves the educational experiences for students
- increase in productivity and workflow
- prepares both learners for future private practice settings, understanding roles and expectations, better trained team
- meets the needs of the workforce
- impacts reduction of required staff

Alberta Dental Association and College (ADA&C):

- this program will increase learning opportunities and enhance patient care
- shared educational experiences between roles of students to create a foundation of the working relationship and understanding of each others roles in the profession
- enhance the team approach to patient care

- 4-handed dentistry opportunities
- uniqueness of the program to provide exposure for students to the various specialty programs offered at U of A
- support the fact that there is a labour market demand for more trained dental assistants in Alberta

Consultations with Regulatory bodies, employers and RDA's - see Appendix D -Labour Market Assessment Report for further information

Employer Perception of the Labour Market for RDA's in Alberta:

- challenges recruiting RDA's for years
- retaining RDA's is a challenge
- very few applications for job opportunities
- very few fully qualified applicants for job postings
- no-shows for interviews
- must offer incentives
- poaching RDA's from other clinics
- difficult to attract RDA's to rural areas
- understaffed clinics impacting patient care
- unable to fill leave positions
- some employers would like to have more then the reported rate of 1:2 and would like to have 3 RDAs to support their work
- Employers felt the existing labour market modeling data does not fully reflect the experiences of the employers
- Registration numbers do not reflect the need

Registered Dental Assistants survey results:

- not working their preferred position
- Preferred hours worked vary, many not working full time
- not wanting to work weekends
- those choosing to leave the profession due to retirement, family planning, changing careers
- wages and work environment were discussed

Edmonton & District Dental Society (EDDS):

- EDDS is in support of the U of Alberta Dental Assisting Certificate.
- the program at U of A will produce skilled Dental Assistants
- allow the dental students to graduate with more aligned skills for what is needed in private practice
- more collaborative work between dental students and dental assisting students
- improve patient care and workflow

Appendix C - Letters of Support

f. Provide evidence of student demand for the program. (e.g., survey results, waitlists, demand in similar programs at other institutions etc.).

Based on accessible information, Dental assistant education programs in Alberta have maintained enrollment numbers above 95% prior to the COVID-19 pandemic even as existing programs expanded and new programs were approved.

Private dental assistant education programs offered throughout Alberta are required to show both graduation and employment outcomes above 70% to remain in operation in Alberta. Private programs have increased and expanded since 2017, demonstrating they are viable in Alberta.

Post-graduation employment data are not available for all dental assistant education programs as many are private institutions. Indicative of the employment outcomes for students, NAIT reported 100% graduate employment for its Dental Assisting Programs in 2017/18, 2018/19, and 2019/20 18.

g. Comment on the overall sustainability of learner demand for this program over the longer term.

Other Dental Assisting programs in Alberta have consistently had high numbers of applicants to their programs (a surplus each year). Given the current trends in the labour market assessment and being a highly reputable school it is predicted this program will be able to sustain itself over the long term.

Alberta's Occupational Outlook 2019-2028 anticipated a shortage of only 64 RDAs in the province for 2022, however the research and consultations done for this proposal lead us to believe the estimated number could currently be as high as 925 full time RDAs. Given the expected employment trend for dental assistants will increasingly be less than full-time, the proposed available seats in dental assistant education will be insufficient to address the demand. The current available seats in dental assistant education will be insufficient to address the current need.

Reviewer's comment:

2. Projected Student Enrolment *(Complete the table below as applicable).*

(NB: Proposals for non-credentials do not complete anticipated no. of graduates line or divide enrolments by year of study.)

Proposed Enrolment	1 st Year of Implementation	2 nd Year of Implementation	3 rd Year of Implementation	4 th Year of Implementation	Annual Ongoing
Total Headcount	52	52	52	52	52

● 1 st Year of Study	52	52	52	52	52
● 2 nd Year of Study	NA	NA	NA	NA	NA
● 3 rd Year of Study	NA	NA	NA	NA	NA
Anticipated No. of Graduates	52	52	52	52	52
Reviewer's Comment:					

a. Indicate the percentage of international students in the enrolment projections and provide a brief rationale regarding how the percentage was established.

The Dental Assisting program will be designed for Domestic (Canadian) students as defined by the University of Alberta. International students will not be considered. However, residents of Canada, who meet the admissions requirements (even if they are internationally trained) will be welcome to apply as domestic students. This provides a bridge or a pathway to work in a dental field in Canada for those who do not meet the criteria for licensure in Canada with their current credentials and international oral health training.

Reviewer's comment:

SECTION D: QUALITY CONSIDERATIONS

1. Quality Assurance Considerations *(If applicable, answer the following questions)*
(NB: non-credential programs complete (a) only.)

a. What strategies did your institution use to foster program quality for the proposed program (e.g., curriculum mapping, use of expert panels, industry panels, or advisory panels, etc.)?

- Curriculum mapping will be done through program requirements of the National Dental Assisting Examining Board (NDAEB) – required to have curriculum approved by third party Psychometric Strategies and Research (PSAR) prior to NDAEB approval
- Program Approval will be completed by Provincial Regulatory Body - College of Alberta Dental Assistants

b. Append a copy of independent academic expert review, when applicable.

-PSAR/NDAEB report will be included upon receipt

Attach once received

c. Append a copy of the institution's response to independent academic expert review, when applicable.

-Our response to the PSAR/NDAEB

Attach once received

d. Describe the institutional quality assurance process(es) that will be used to ensure the continuing high quality of the proposed program

The Dental Assisting program will work with Curriculum Quality Assurance Coordinator for the School of Dentistry (Jacqueline Green) on the assurance of learning processes, curriculum management system, servicing and supporting the faculty in learning and teaching quality assurance activities.

The proposed program will create a quality assurance program aligning with guidelines listed in the CDAC requirements for Dental Assisting Programs

- Institutional committees - faculty members be part of committees regarding decisions directly affecting the DA program (ongoing planning, evaluation and improvement of the quality of the program)
- develop a program outcome assessment process used to improve the program quality (ie., NDAEB exam results, program surveys)
- establish a program advisory committee - to provide information and advice to support both the program and Dental Assisting education
- curriculum management process /curriculum committee - input from faculty, students, administrators and practicum sites
- the use of student evaluations of course content and teaching effectiveness and their preparation to enter practice. Utilize the results of the NDAEB and other key performance indicators to assist in evaluating the program
- Health and safety quality assurance for the use of ionizing radiation (radiation protection officer), fire and safety procedures, infection control and medical emergency procedures.
- policies and protocols related to patient care, records, privacy of patient information
- patient treatment record audits
- patient feedback forms

- Focus groups- instructors and students - program feedback

Reviewer's comment:

SECTION E: FINANCIAL VIABILITY AND SUSTAINABILITY

1. Budget and Funding Sources *(Answer the following questions)*

- Describe how the institution plans to finance the program, including the sources of any funds beyond tuition and Alberta grant funding:
 - The program will be funded independently through fees to the students. There will be NO government funding.
- Discuss risk mitigation plans should full revenue(s) not be achieved or should costs exceed amounts budgeted.
 - this will be a 1 year program adjustments will be made accordingly if required

Reviewer's Comment:

2. Tuition and Student Cost Considerations *(Answer the following questions)*

- 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 etc.). Provide rationale where appropriate such as comparisons with similar programs. (Consult with the Ministry as needed.):

Proposed Tuition, Fees, Equipment Rental and Books for U of Alberta Dental Assistant Program in total : \$21,450

Tuition: \$17,250
 Non-Instructional Fees: \$1,000
 Equipment Rental: \$2,800
 Books:\$400

There currently is no other University in Alberta offering this Program or one of similarity. For comparison purposes the University of Saskatchewan offers a Dental Assisting Certificate:

Tuition \$14,934
 Fees \$988

Books \$1500 - \$2500 (may vary)

Approx. Total \$17,422-\$18,422

In Alberta there are schools offering Dental Assisting programs varying in tuition and total costs ranging from: \$9,000 - \$19,000.

a. Does the proposed program align with the Tuition and Fees Regulation? Yes; or No

Yes, upon approval

b. Please elaborate on the above answer, if necessary.

Reviewer's Comment:

SECTION F: INSTITUTIONAL IMPACT

1. Institutional Capacity *(Answer the following questions)*

a. Briefly describe how the proposed program aligns with the institution's mandate and government priorities.

The University of Alberta mandate emphasizes the availability of both on-site and distance learning options; integrated learning and research environments; intellectual and creative diversity; and industry-based partnerships that foster innovation. These are all influences that are at play within the School of Dentistry and that will enhance the experiences of Dental Assisting Program students.

The Dental Assisting Certificate will be designed in a hybrid manner that optimizes learning potential and maximizes learning flexibility through the combination of distance and on-campus programming.

The Dental Assisting Certificate will enhance pathways into the field of oral health through the School of Dentistry's programs, opening up learning options for individuals with less background education and with less time to invest in learning. It will complement the existing School of Dentistry Programming, introducing the final clinical member of the Dental Care Team into the School's practice environment, and enhancing the potential for integrated interprofessional and team-based learning across all programs.

The School of Dentistry actively engages with and contributes to the field of oral health, the Dentistry and Dental Hygiene Professions, and the oral health of Albertans through research, education, and through the services of the School's Oral Health Clinic. The Dental Assisting Program will be embedded within the School and students will gain experience within clinical

practice settings alongside students within Specialized Graduate Programs, the Doctoral of Dental Surgery Program, and the Dental Hygiene Program. Students within the Dental Assisting Program will gain from these integrative clinical experiences by gaining an authentic sense of the interprofessional nature of oral health care, developing a stronger sense of the diversity within the field, and reinforcing the significance of their role within the oral health team.

Additionally, Dental Assisting students will be learning within simulation laboratories and clinical environments where treatment practices, methods, materials, and equipment available for practice are all determined through evidence-based approaches and with a focus on alignment with current innovations and professional trends within the field.

Finally, the School's Oral Health Clinic, combined with a planned Experiential Practicum, will expose Dental Assisting students to oral health needs as they exist across diverse patient communities.

Currently the School provides opportunities for NAIT dental assisting students to participate in a practicum at the Oral Health Clinic during the winter term of the academic year. The establishment of a Dental Assisting Certificate Program at the School of Dentistry will not impact upon that existing collaboration with NAIT and it is anticipated that the NAIT practicum will continue.

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 Dental Assisting Certificate Program will help to optimize the influence of the School of Dentistry's commitment to evidence-based practice and widen the scope of the School of Dentistry's contributions to the field of oral health care and the Professions of Dentistry and Dental Hygiene in Alberta.

Appendix E - Library Impact Statement

Reviewer's Comment:

2. Internal Review and Approval

a. Indicate which internal governance body recommended approval and specify date of approval.

Programs Committee - April 14, 2022
 APC - May 4, 2022 - for recommendation on the tuition and approval of the certificate
 BFPC - May 31, 2022 - for recommendation of the tuition
 Board - June 17, 2022 - for approval of the tuition

Reviewer's Comment:

SECTION G: SYSTEM IMPACT

1. Program Duplication *(Answer the following questions)*

a. Does the proposed program potentially duplicate existing programming in the Alberta Adult Learning System?

Yes; or No

b. If yes, list these programs (including those offered by Private Career Colleges).

Accredited Programs are:

- CDI College
- Columbia College
- KDM
- NAIT
- SAIT

Provisionally Approved programs:

- Reeves College
- Risio institute for Digital Dental Assisting

c. If a proposed program potentially constitutes program duplication, explain why such duplication is appropriate and beneficial in this circumstance.

The University of Alberta Dental Assisting program will offer unique experiences and opportunities for Dental Assisting students to work alongside students/residents and staff in the Undergraduate Doctor of Dental Surgery program (DDS), Oral Medicine Graduate Program, Periodontology Graduate Program, Orthodontic Graduate Program and the General Practice Residency Program together increasing the quality of patient care and having opportunity for more authentic learning experiences.

The labour market demands offer evidence to support the need for more Dental Assistants in Alberta. The existing facilities, diverse learning opportunities and expertise of faculty and staff we have at the University of Alberta will offer an educational experience like no other program in Alberta, it will be beneficial to patients, employers, and the School of Dentistry as outlined in this proposal.

Reviewer's Comment:

2. Learner Pathways *(Answer the following questions)*

a. Which programs or learning activities in the Alberta adult learning system ladder/transfer into this proposed program?

Applicants for this program will be able to apply directly from high school meeting the admission requirements, without other program prerequisites. Additionally, applicants can apply as mature students, or from other learning programs, with the appropriate high school admission requirements.

b. Into which programs in the Alberta adult learning system does this proposed program ladder or transfer?

Graduates of this program could potentially lead to pursuing opportunities in office administration, office management diploma, health administration and other health or dental related programs

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?

The University of Alberta School of Dentistry continues to demonstrate how the services offered increase accessibility and care to those in our community. The addition of the Dental Assisting program will further enrich our existing programs and in return provide optimal treatment and care to our patients in our Oral Health Clinic.

Reviewer's Comment:

RECOMMENDATION (FOR DEPARTMENT USE)

Recommendation(s):

Rationale for Recommendation:

Reviewer(s):

Date Completed:

Proposed Dental Assisting Program Description

The proposed Dental Assisting Program will be a full time 10-month program starting in August 2023. The program will be delivered using a hybrid model of onsite and online classes. The onsite classes will be located at the U of Alberta North Campus including the Simulation Lab in the Edmonton Clinic Health Academy, and the Oral Health Clinic (OHC) in the Kaye Edmonton Clinic. The program will consist of 5 sequential courses including: didactic (both asynchronous and synchronous delivery), simulation labs, pre-clinical labs, clinical sessions, clinical rotation in the OHC and an external practicum. Dental Assisting students will have assisting opportunities within the Undergraduate Dentistry Program, General Practice Residency program, Periodontology, Orthodontics, Oral Medicine Graduate Clinics and Implant Clinics. Clinical rotations will be planned and assigned throughout the program.

Proposed Program of Study

Course 1: Foundations of Dental Assisting

Description: Foundations of Dental Assisting is the first course in a sequential structure of learning that introduces students to the dental profession and their role as a Dental Assistant. Foundational knowledge and skills will be developed in behavioral sciences, biomedical sciences, oral health sciences and dental assisting theory and practice streams. Students will be able to integrate learning from all four streams and understand the relevance of foundational learning to dental assisting. Students will be introduced to the Simulation Lab, Oral Health Clinic and have opportunities to apply their knowledge in both settings.

Interrelated topics to be covered in this course will include:

Behavioral Sciences: Roles of the dental team, Provincial legislation, Regulatory bodies, and Professionalism, Scope of practice

Biomedical Sciences: Infection Prevention Control, WHMIS, Microbiology, Medical Emergencies, Anatomy and Body systems

Oral Health Sciences: Head, Neck and Oral Anatomy, Tooth morphology and Embryology

Dental Assisting Theory and Practice: Infection Prevention Control, Dental operator, Equipment and ergonomics, Dental lab

Units: 5 (6 weeks)

Prerequisite(s): program entrance requirements

Course 2: Patient Assessment I

Description: Patient Assessment I is the second course in a sequential structure of learning. This course educates students on patient assessments, findings and related procedures. Students will be able to integrate learning from all four streams of foundational learning to dental assisting. Students will be able to apply their knowledge in various lab and pre-clinical settings to build on their foundational learning.

Interrelated topics to be covered in this course will include:

Behavioral Sciences: Communication with patients, Patient records and confidentiality, Data gathering, Compromised patients

Biomedical Sciences: Microbiology, Pharmacology and Dental materials

Oral Health Sciences: Radiography, Oral biology, Dental diseases and prevention, Oral pathology, Oral Anatomy

Dental Assisting Theory and Practice: AxiUm training-records and charting, Preventive skills, Dental armamentarium, Dental instruments, Operative procedures, Dental lab skills, Chairside assisting skills

Units: 7 (9 weeks)

Prerequisite(s): Course 1

Course 3: Patient Assessment II

Description: Patient Assessment II is the third course in the sequential structure of learning. This course continues to build on the foundational knowledge of course 2 with the emphasis on patient care and clinical procedures. Students will be able to integrate learning from all four streams and apply foundational concepts to dental assisting. Students will be able to apply their knowledge in a combination of lab, pre-clinical and clinical settings to build on their foundational learning.

Interrelated topics to be covered in this course will include:

Behavioral Sciences: Patient interactions and communication, communication with dental team members

Biomedical Sciences: Dental Materials, Nutrition and oral health

Oral Health Sciences: Radiography, Dental Specialties, Pain Management

Dental Assisting Theory and Practice: Dental lab skills, Operative procedures, Chairside assisting skills, Preventive skills, properties and manipulation of commonly used dental materials

Units: 7 (10 weeks)

Prerequisite(s): Course 2

Course 4: Clinical Practice I

Description: Clinical Practice I is the fourth course in the sequential courses of the Dental Assisting Program, the emphasis of this course is for the students to continue to build on integrating all four streams and have a greater understanding of the relevance of foundational learning through the ability to assess, plan, implement and evaluate dental assisting procedures and patient care procedures. Students will continue to apply foundational knowledge through actively participating in assisting within the Oral Health clinic with fellow students and patients and perform their skills on peers in a clinical setting.

Interrelated topics to be covered in this course will include:

Behavioral Sciences: Communication skills, documentation, assessment skills

Biomedical Sciences: Advances in technology and procedures related to oral health

Oral Health Sciences: Radiography, Dental Specialties

Dental Assisting Theory and Practice: Skills performed on student partners, Dental records, Data gathering, Intraoral skills, Administrative Procedures

Units: 7 (10 weeks)

Prerequisite(s): Course 3

Course 5: Clinical Practice II

Description: This is the final course in the sequential courses of the Dental Assisting Program, the emphasis of this course is for students to apply behavioral, biomedical, oral health sciences and dental assisting theory and practice into clinical practice. Students will apply their knowledge in office administration, assisting with patients in the Oral Health Clinic, treating patients in the Dental Assisting Patient Care Clinic and participating in an external practicum in a private dental practice.

All Streams Integrated into practice: Behavioral, Biomedical, Oral Health Sciences and Dental Assisting Theory and Practice

Units: 6 (8 weeks)

Prerequisite(s): Course 4

Dental Assisting Program Learning Outcomes

Explain the Regulations and Standards of Care for Dental Assistants

- Define the Alberta regulatory body for Dental Assistants
- Describe the Health Professions Act
- Describe the code of ethics
- Discuss policies
- Discuss the importance of continuing competence including the professional development through continuing education

Demonstrate Occupational Safety skills

- Apply current infection prevention and control protocols, including aseptic techniques and hazards management.
- Demonstrate current disinfection and sterilization of equipment and instruments
- Identify medical emergencies, assist with the management of dental and medical emergencies

Demonstrate general dental assisting chair-side skills and applicable intra oral skills

- Demonstrate correct tray/instrument set up for different procedures
- Identify the difference between preventive, restorative and esthetic procedures
- Perform chairside dental assisting procedures including, but not limited to, general dentistry, specialized procedures, and intra oral skills as per entry practice for dental assistants in Alberta
- Assist during pre-treatment, treatment, and post-treatment procedures
- Perform intra oral skills as per entry practice

Demonstrate radiographic competencies

- Explain radiographic safety techniques
- Explain the principle of ALARA
- Demonstrate correct instrument assembly
- Demonstrate proper receptor placement, equipment use for intra- and extra-oral images including expose, process, and mount radiographs of diagnostic quality

Demonstrate skills in patient data gathering and record keeping

- Comprehend dental terminology, record patient medical and dental history, and chart pertinent patient information as required
- Collect systematically and document accurately diagnostic and clinical data into patient chart as required

Demonstrate skills in patient management and education

- Provide oral health instruction to dental patients and community groups
- Provide comprehensive dental assisting care to individuals from diverse socioeconomic, educational, cultural/ethnic backgrounds and age groups.
- Provide oral health instruction and counseling, including recommended home-care strategies

- Recognize patient abilities to properly care for their teeth
- Advise patients on the impact of diet on oral health and other behaviours (e.g. Tobacco use)
- Identify normal and pathological abnormalities of the oral structures

Demonstrate Administrative Office skills

- Practice effective interpersonal and communication skills
- Model professional conduct and appearance, and demonstrate professional behaviors consistent to the dental workplace
- Identify and effectively manage time and resources
- Communicate effectively with the public and dental health team members
- Schedule patients for various treatments, maintain a recall system, order and maintain supplies, complete patient insurance forms, make financial arrangements, billing, and utilize basic dental software

Demonstrate Dental Laboratory skills

- Demonstrate understanding of dental materials, properties and uses
- Prepare and manipulate chairside and dental laboratory materials
- Fabricate dental models, trays and appliances.
- complete laboratory procedures, including pouring and trimming molds and study casts.



January 23, 2022

Re: Support for the School of Dentistry - Dental Assisting Program:

To whom it may concern:

My name is Dr. Suzanne Depledge and I am the course director for our Elective course for our fourth year DDS program. I am writing in support of the newly proposed RDA program at the University of Alberta.

The Elective course will begin for our fourth year students in the Fall 2022/Winter 2023 year. Many of the electives will send our students out to private practice for a week for private practice mentorship and private practice management experience. We are currently recruiting our registered dentists in Alberta to join our program.

As our program and student enrollment grows, we will be working with the ADA&C in partnership to ensure we provide our students a match with ethical dentists in our community who are committed to educating our dental students. In Fall 2023 each of our 52 DDS students will participate in a one week private practice elective.

As we begin to form relationships with private practitioners who enjoy mentoring our students, we can offer a good roster of dentists who may want to also mentor the RDA students. One benefit of having the students in a private practice is for our practitioners to see the excellent clinical skill level and patient management skills our DDS and RDA students have. This is very beneficial to both potential employees and our new graduates.

I am happy to work with Ms. Carla Clarke and support the Dental Assisting program to find suitable practice placements for the incoming students. Please let me know if you have any other questions.

Sincerely,

Suzanne Depledge

Dr. Suzanne Depledge
Comprehensive Care Director
University of Alberta, School of Dentistry

February 9, 2022

Office of the Department Chair, School of Dentistry
5-478, Edmonton Clinic Health Academy
University of Alberta
11405-87 Avenue, NW
Edmonton, AB T6G 1C9

Dear Dr. Major,

On behalf of the Faculty of Medicine and Dentistry please accept this letter of support for the proposed Dental Assisting Certificate program within the School of Dentistry. The Dental Assisting proposal clearly demonstrates the rationale, impact, demand and support required to implement this program at the University of Alberta.

The University of Saskatchewan has demonstrated how beneficial having a collaborative Doctor of Dental Medicine program and Dental Assisting program is for their students and patient care. This collaborative model is representative of the type of programming the School of Dentistry would like to implement within the Faculty of Medicine and Dentistry. The goal of this model is to improve educational experiences, allow for a more authentic team approach enhancing patient care and provide a common understanding of the roles and responsibilities of each profession. This type of program will be unique to the School of Dentistry and to all of Alberta.

The addition of the Dental Assisting program will complement the existing School of Dentistry programming. Introducing the Dental Assistant into the school's practice environment will facilitate 4-handed dentistry opportunities providing new clinical learning experiences reflective of private practice. This type of integrated learning will enhance the potential for interprofessional and team-based learning across all programs. Creating this type of learning environment will allow students to excel in their independent role and also learn how to work together to provide optimal care for their patient's.

The Labour Market Assessment conducted by Avens Evaluation Group Ltd. in October 2021 clearly identifies the demand for more qualified dental assistants in Alberta. The information substantiated through educational data, labour market trends, and the perspectives of key stakeholders verifies the need and support for this type program at the University of Alberta. The

labour market trends are indicative of the need of more graduates of dental assistants, the School of Dentistry offers incredible facilities, access to various graduate programs, faculty, and staff to support this type of program that will aid in offsetting this shortage in Alberta.

The School of Dentistry engages with and contributes to the field of oral health, the professions of Dentistry and Dental Hygiene, oral health through education and research, and through the services provided at the School's Oral Health Clinic. The Dental Assisting program will be established within the School and students will gain experience within clinical practice settings alongside students within Specialized Graduate Programs, the Doctoral of Dental Surgery Program, and the Dental Hygiene Program.

The Dental Assisting Certificate Program will help to optimize the influence of the School of Dentistry's commitment to evidence-based practice and widen the scope of the School of Dentistry's contributions to the field of oral health care and the Professions of Dentistry and Dental Hygiene in Alberta.

Kind Regards,



Brenda Hemmelgarn, MD, PhD
Dean



January 17, 2022

Letter of Support for a Dental Assisting (DA) Program:

I am writing this letter in support of the creation of an DA program within the Faculty of Medicine and Dentistry, School of Dentistry. In my position as a clinical educator and private practice dentist, I understand the valuable role a dental assistant plays in the delivery of safe and efficient dental care.

One of the many roles of the chairside dental assistant is helping create a safe working environment. This is achieved through preparation of the operatory, helping the patient feel comfortable, transferring instruments to the operator and aerosol reduction with high volume evacuation. In addition, the dental assistant will become certified in several intraoral duties. This improves the workflow of the dental appointment.

Having the students in our DDS program work with students training to become DAs will be an incredible benefit to both groups of students. The team approach to delivering dental care is the standard in private practice. The sooner we have our DDS students exposed to this dynamic the better clinicians they will become.

Another benefit to this partnership will be the increases in efficiency and increased volume of patient care provided within the Oral Health Clinic at the Kaye Edmonton Clinic.

I strongly support the development of the Dental Assisting program at the School of Dentistry.

Kind Regards,



Blaine AuCoin BSc DDS
Clinical Assistant Professor
Associate Chair Student Affairs
Comprehensive Care Director

School of Dentistry
College of Health Sciences
Faculty of Medicine and Dentistry
ECHA 5th Floor 11405-87 Ave. NW Edmonton, AB T6G 1C9

T 587.985.8388
baucoin@ualberta.ca



January 14, 2022

RE: Support for School of Dentistry, Dental Assisting Program

To whom it may concern,

Now, more than ever, the School of Dentistry needs to become creative in how it provides a clinical learning environment to its students that closely mirrors a dental private practice setting without incurring additional costs.

It is important to recognize that dental assistants are an integral part of the dental care team. I fully endorse the proposal for creating a Dental Assisting program that would most certainly be beneficial not only for the School of Dentistry, as an additional revenue stream, but for dental students and future dental assisting students as well.

Because dentists and dental assistants work very closely together in clinical practice, it makes good sense to have learners of both programs undergo clinical training together. Having dental assisting students working with dental students would foster growth of foundational working relationships and a common understanding of roles and responsibilities as they relate to each provider's educational program. As dental assisting students would receive practical hands-on training in a highly supervised clinical environment, they, in turn, would be providing dental students with much needed support that would maximize their clinical learning experiences and improve their overall clinical efficiency as operators. This would ultimately lead to positive impacts on patient care in not only the learning environment but in future private practice settings as well.

Most recently, the importance of four handed dentistry made its way to the forefront in the midst of the COVID-19 pandemic. Limiting the spread of aerosols by having a chairside assistant provide high volume evacuation during AGPs proved to be crucial in keeping our clinical environment safe. Unfortunately, the School of Dentistry is simply not in the financial position to bear the cost of providing additional clinical support in the form of a dedicated chairside assistant for each dental student during their course of clinical training.

Given the current economic climate, it is important to push beyond our limits and think strategically about how to not only sustain but improve our clinical operations during these most challenging times.

Kindest regards,

Dr. Doris A. Lunardon BSc, DDS
Associate Chair, Clinical Operations

School of Dentistry

College of Health Sciences

Faculty of Medicine & Dentistry

8B.105Y Kaye Edmonton Clinic, 11400 University Ave, Edmonton AB T6G 1Z1

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February 7, 2022

Letter of Support - Dental Assisting Program

Dear Dr. Paul Major,

As the President of the University of Alberta Dental Students' Association (DSA), I write to you on behalf of all the Dentistry and Dental Hygiene students that the DSA represents. We greatly appreciate the time and willingness from the University to hear the student body perspective with regards to the proposed Dental Assisting program. The implementation of a new program within the School of Dentistry will have an impact on the Doctor of Dental Surgery program and I would like to share the DSA's thoughts on it.

The DSA encourages and promotes professional collaboration between the Dentistry and Dental Hygiene students. We would positively benefit from the addition of a Dental Assisting program as it will allow for increased quality of patient care and facilitate opportunities to practice four-handed dentistry. As we train for life after graduation, it will prove beneficial to simulate the clinical experience as close as possible to that of private practice. Having the opportunity to work closely with Dental Assisting students will improve our education and set an example for building working relationships. We will grow alongside the Dental Assisting students while learning to understand each other's roles and responsibilities.

Furthermore, it proves beneficial to see a similar program being offered by the University of Saskatchewan. With consultation and advice from the University of Saskatchewan, the University of Alberta School of Dentistry can create a Dental Assisting program that will aim to achieve positive outcomes for all students. The School of Dentistry's Oral Health Clinic provides services in many disciplines, including Periodontology, Oral Medicine, Orthodontics, Oral Surgery, and more. The Dental Assisting students will have access to many exceptional learning opportunities. Additionally, the students will have the chance to

participate in off-campus activities involving community engagement. The School of Dentistry allows current students to participate in external rotations at Shine Dentistry, Boyle McCauley Dental Clinic, and Glenrose Rehabilitation Hospital. The Dental Assisting students can give back to their community through these rotations and enhance their clinical experience in different settings.

Another aspect of the School of Dentistry that will enhance the quality of the Dental Assisting program, is the unique hands-on experience in other support roles. The Oral Health Clinic houses over a hundred dental chairs and therefore, we have a large support staff team. The Dental Assisting students will have the chance to learn how they can be involved in Dispensary, Material Management, and Central Sterilization. The importance of a Dental Assistant can not be understated. Dental Assistants are a vital component to the dental team. The DSA supports the implementation of a Dental Assisting program at the University of Alberta. We also recognize how this program will assist in meeting the needs of the oral health workforce. The data and trends outlined in the Labour Market Assessment of October 2021 indicate there is a shortage of Dental Assistants in Alberta. We hope the Dental Assisting program at the University will help offset this shortage and have a positive impact on the delivery of oral health care in Alberta.

For over a century, the School of Dentistry has provided a much-needed service to Albertans. The DSA is eager and looking forward to the addition of a Dental Assisting program. We are also excited to expand our student body to include the Dental Assisting students and provide them with the resources and opportunities to participate in student activities. It is a top priority of ours to ensure our students are learning in the best academic environment possible. The Dental Assisting program will be a significant contribution to the delivery of excellent patient care at the School of Dentistry's Oral Health Clinic. Thank you again for considering the perspective of the DSA. The School of Dentistry has the support of the DSA in implementing the Dental Assisting program.

Ana Khehra

BMSc, DDS 2022 Candidate
President of the Dental Students' Association



January 18, 2022

Dr. Paul Major
Chair, School of Dentistry
University of Alberta

Dear Dr. Major,

Please accept this enthusiastic letter of support for the planned establishment of a Dental Assisting Program in the School of Dentistry, University of Alberta. As you know, the College of Dentistry, University of Saskatchewan implemented a new 30-seat Certificate in Dental Assisting (CDA) Program in September 2018. Since that time, we have graduated 3 cohorts of students, have expanded our CDA student numbers to 52 per year, and achieved Accredited Program status with no reporting requirements through the Commission on Dental Accreditation of Canada.

The addition of this CDA program to our college offerings has allowed us to better meet the oral health workforce needs in Saskatchewan, provided training opportunities for the province's young adults, and has improved the educational experience of our dentistry (DMD) students. The latter advantage stems from the fact that an in-house CDA program allows us to match DMD and CDA students into clinical pairs thereby eliminating the need for dental students to work alone in patient care. The result is a better trained team, more timely completion of patient appointments, and the improved patient safety that comes with the enhanced infection prevention and control inherent in a team approach.

The establishment of a new Dental Assisting program in the School of Dentistry, University of Alberta will also bring other advantages to the dental school. These include the following: the ability to reduce the number of staff dental assistants supporting your DMD program by assisting dental students; ability to reduce the number of staff supporting instrument reprocessing; and, in the future, add Continuing Education course opportunities by offering an accredited Orthodontic Assistant module within your graduate Orthodontic Program.

It is without any hesitation that I recommend establishing a new Dental Assisting program in the School of Dentistry, University of Alberta. I am confident that you will find it to be a great addition to the Dental School, and that within a short period of time, your dental students will tell you that they don't understand how they were ever able to work without a partner dental assisting student. Please feel free to contact me if you have any further questions.

Dr. Doug Brothwell

Dean, College of Dentistry



January 25, 2022

Dr. Paul Major
Chair, School of Dentistry
University of Alberta
5-478 Edmonton Clinic Health Academy
11405 - 87 Ave. NW
Edmonton, AB T6G 1C9

Dear Dr. Major,

The Alberta Dental Association and College (ADA&C) supports the University of Alberta's Faculty of Dentistry pursuing the creation of a Dental Assisting Program.

As illustrated by the University of Saskatchewan's successful collaborative DMD and Dental Assisting Programs, the addition of such a program in Alberta will increase learning opportunities for students, as well as enhance patient care.

Dentists and dental assistants work closely together in clinical practice; the potential for shared educational experience will offer students of each program a base foundation of the working relationship, and a common understanding of the roles and responsibilities of each profession.

Enhancing the team approach from the onset will lead to a better-trained team, positive time management of patient appointments, improved patient safety, and enhanced infection prevention and control. A dental assisting program will also allow for learning opportunities of four-handed dentistry.

This program could also provide unique learning opportunities in various clinical settings offered at the School of Dentistry's Oral Health Clinic (Periodontology, Oral Medicine, Orthodontics, General Practice Residency program, Undergraduate Implant Clinic, and the Undergraduate Oral Surgery clinic), and ultimately, increase the quality of care for Faculty of Dentistry patients.

The ADA&C can confirm that the need for qualified dental assistants is high. In October 2021, Avens Evaluation Group Ltd. completed a Labour Market Assessment that clearly indicated there are not enough trained Registered Dental Assistants (RDA) to meet the volume of employers seeking RDAs. A Dental Assisting Program through the School of Dentistry will aid the workforce in Alberta.

We strongly believe that the addition of a Dental Assisting Program at the University of Alberta's School of Dentistry will increase student learning opportunities, and patient care. This would be of great benefit to Albertans and to the profession of Dentistry.

The ADA&C is proud to support this initiative.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Croutze". The signature is stylized with a large initial "R" and a cursive "Croutze".

Dr. Randall Croutze
Chief Executive Officer



#210, 10335-178 Street • Edmonton, Alberta • T5S 1R5
Phone: (780)444-9555/ (780)720-6669 • Fax: (780)444-9411 • drh@dentalchoice.ca
www.dentalchoice.ca

February 2, 2022

To whom it may concern, University of Alberta:

Re: Proposed Dental Assisting School

Thank you for the opportunity to provide our perspective regarding the proposed Dental Assistant Program at the University of Alberta. Our dental group, Dental Choice, has been a significant provider of professional dental services in Alberta for over 30 years. On this basis, we feel well positioned to provide industry-based feedback on the need for dental assistants in Alberta. We operate 20 clinics and are involved in all facets of dental services, including management of dentists and all staff. We are also proudly Albertan and have a substantial number of U of A graduates on our team - this would include a significant number of dentists and dental hygienists, in our 200-employee sized company.

There are many reasons why we would strongly endorse a Dental Assisting program at the U of A. Let me encapsulate them for you here, and if you want more detail, certainly feel free to reach out to us.

1. The quality of U of A education in the dental discipline is elite. The dentists and hygienists we get from the programs are amongst the finest. We can readily and proudly hire them, and they have the professionalism needed to serve Alberta patients at a high level. We are confident that Dental Assistants would be in the same class. This is important because not all dental assistants are equal, as some schools have higher admission and graduation standards than others.
2. The opportunity for dental students to directly work with student assistants makes significant operational sense. There is a natural synergy that would effectively create strong graduates, if assisting students worked with dental students. In most assisting schools, the assistants actually work very little with real dentists or real students. A direct training relationship would help both the dental program and the assisting program to be more real world ready.
3. There is a significant supply shortage of dental assistants in Alberta. Our anecdotal experience is that most dental assistants only stay in their career a relatively short period of time. Not only is it a physically demanding job, but most of the assistants also must balance family obligations, which frequently leads to part time availability or even early exit from the career. Many dental offices in Alberta struggle to find dental assistants, especially in rural areas, or in evenings in the urban areas. This leads to either an inappropriate increase in wages, and hence costs to the patients, or simply higher use of untrained or under-trained staff.

February 2, 2022

4. Dental assisting is an increasingly complex service. There are 9 different dental disciplines, and each have sub-components that need significant skill to assist and support. In the same way that nursing is not just a monolithic medical discipline, dental assisting has many components, and gets more complex as dentistry evolves. Strong dental assistants would be very suitable in a university environment, where there would be the appropriate mix and extensive range of training that a modern assistant needs.
5. The marketplace pays well for dental assistant training, and I am very confident that enrollment would be high. In fact, I believe the school would be well over-subscribed, which would allow you to take excellent candidates.
6. Further synergies exist between Dental Choice and the University of Alberta with respect to practicum opportunities for Dental Assisting students. We offer a diverse array of clinics in both Edmonton and Calgary, and a wide variety of dentists that we support. This creates an excellent learning environment for practicum students and creates a built-in opportunity to train in a non-school setting that has a strong administrative and operational structure.

In summary I see a very strong win/win/win here. The patients of Alberta would win by having support from very bright, well-trained assistants. The dental students would receive realistic training in what we call 4 handed dentistry. Dentists of Alberta would have access to more great staff. And, the University would have a highly subscribed program that fits perfectly into the current school model with hygienist and dental students. Adding assistants would round out the dental school very nicely.

As I said, this is my condensed answer, and myself, or my management team would be happy to discuss this further with you. We have approximately 60 dental assistants in our employment, and we train them, and manage their careers. We are well positioned to understand their needs and the industry, we welcome further communication as needed.

Sincerely,



Dr. Hans Herchen
CEO & President
Dental Choice
Cell #: 780.720.6669
E: drh@dentalchoice.ca

Terry K Orsten Professional Corp.

13510 127 St. N.W.

Edmonton, Ab T5L1B9

Paul Major DDS, Msc, FRCD(C)

Professor and Chair, School of Dentistry

Senior Associate Dean, Dental Affairs

Faculty of Medicine and Dentistry

University of Alberta

Dear Paul,

Thank you for showing me the information from your study of Dental Assistant availability for Alberta. It confirmed what I had long suspected from our experience. There is a real shortage of Dental Assistants in Alberta. I would like to take this opportunity to give my full support to your initiative to establish a Dental Assistant Program. Lack of qualified assistants has slowed our ability to grow and serve our patients in the past.

Included in our support would be our willingness to host your students during their practicum rotations. We presently have 8 locations in Edmonton with a further 4 under construction/contract. These will be open well in advance of your program. We could host at all our locations.

Yours truly,



Terry Orsten

Bsc DDS

Paul Major DDS, MSc, FRCD(C)
Professor and Chair, School of Dentistry
Faculty of Medicine & Dentistry
University of Alberta
8440 112 Street NW
Edmonton AB T6G 2R7

January 25, 2022

RE: University of Alberta, Dental Assistant Program

To Dr Major and Others To Whom It May Concern,

As Canada's largest and leading network of dental practices, dentalcorp seeks to partner with universities and colleges across Canada to ensure the supply and quality of dental industry talent for the future. With over 450 practices in our network and over 7,500 team members, this remains a critical imperative for our business.

The supply of Dental Assistants has been a challenge for many years and our industry continues to experience tight supply of candidates, including in Alberta where we have 62 practices.

On behalf of dentalcorp as the largest employer of dental industry talent in Alberta, it is my pleasure to formally support the establishment of a new Dental Assistant program through the University of Alberta. My thanks go to Dr Major and his team for this initiative.

To ensure success and increase employment prospects for graduates, as the largest employer of dental talent in Alberta, I can confirm that dentalcorp will be able to place students for practicum placements and will also be able to offer additional skills for the workforce including career strategies, interview skills, compliance in practice, patient experience or any other topic that would be valuable to share with students or graduates to bridge the program into successful employment.

We look forward to supporting and partnering in any way to ensure the success of the new Dental Assistant program and welcome opportunities to play a meaningful role.

Regards,

A handwritten signature in black ink, appearing to read "Nicola Deall", enclosed in a thin black rectangular border.

Nicola Deall
Chief People Officer

dentalcorp

181 Bay Street, Suite 2600, Toronto, Ontario M5J 2T3
C 416.419.3565
E nicola.deall@dentalcorp.ca



April 3rd, 2022

Dr. Paul Major
Professor and Chair, School of Dentistry
Senior Associate Dean, Dental Affairs
Faculty of Medicine and Dentistry
5-478 Edmonton Clinic Health Academy
11405 – 87 Ave NW
Edmonton, Alberta
T6G 1C9

To whom it may concern,

The Edmonton and District Dental Society (EDDS) fully supports the development of a dental assisting program at the University of Alberta, Faculty of Medicine & Dentistry.

The EDDS board of directors voted unanimously in favor March 10th, 2022 after a thorough presentation was given by Dr. Paul Major on the current state of the dental assisting profession in Alberta.


The EDDS board of directors is a group of practicing dentists that provide continuing education events and support for approximately 300 local dentists. We believe that a dental assisting program at the Faculty of Medicine & Dentistry will help produce skilled dental assistants for private practice. It will also allow dental students to graduate with a skill set more closely aligned to the ones needed for private practice. Such a program allows for the dental assisting students and the dental students to practise working together, allowing for better care of patients and speed of care. Not only will access to dental care at the University of Alberta be improved but having more skilled dental assistants in Alberta will be greatly appreciated by the dental community. We often hear from our colleagues of their difficulties trying to find dental assistants.

The University of Saskatchewan has already put such a program in place and has had huge success.

We appreciate the University of Alberta's initiative in helping the dental professionals.

Sincerely,

Dr. Brett Shkopich DMD
President Edmonton and District Dental Society
Edmonton, Alberta



Labour Market Assessment of Registered Dental Assistants in Alberta

October 29, 2021

Dr. Louise Bahry, MEd, PhD
Director
Avens Evaluation Group Ltd.
LBahry@avensevaluation.com
avensevaluation.com

In representative's absence, contact:

Dr. Dorothy Pinto, MSc, PhD
Director
Avens Evaluation Group Ltd.
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Executive Summary

Overview

The University of Alberta School of Dentistry is actively investigating the opportunity to establish a dental assistant training program. Avens Evaluation Group (Avens) was engaged as a third-party to assess the labour market demand for Registered Dental Assistants (RDAs) in Alberta. In addition to reviewing available data on education and labour market trends, Avens engaged key stakeholders to gain their perspectives on the labour market demand for RDAs in Alberta.

Methods

The labour market analysis of RDAs in Alberta required the collection and triangulation of data from multiple sources to gain a comprehensive understanding of the context and labour market trends. These sources included a document review of existing data sources regarding the labour market for RDAs in Alberta. Avens also completed interviews with employers, professional associations, regulating bodies, and RDAs. Finally, surveys of Dentists/Employers and RDAs were fielded.

Results

Anticipated Employment Outcomes. One in five dental assisting students in Alberta choose not to practice as RDAs in Alberta. A review of data from 2017-2019 shows that approximately 20% of students choose not to practice as dental assistants in Alberta. The majority of RDAs who do practice in Alberta perform dental assistant duties as their primary role; however, RDAs also perform other roles with 72% of Dental Assistant survey respondents report having a secondary job description that comprises less than 40% of their working hours. Both the Dental Assistant and Employer survey results indicate that RDAs have limited opportunity to advance in their careers; many do not intend to practice as RDAs long term with half of the respondents under 25 reporting they do not intend to practice as a RDAs in Alberta in 5 years.

Labour Market Demand. A shortage of RDAs has been a long-standing issue in Alberta despite growth in this labour market. Interviewees report the RDA shortage is present across the province but more pronounced in rural areas. This aligns with the Government of Canada's Job Bank assessment of "fair" job prospects for dental assistants across Alberta for the next year and "good" prospects in Wood Buffalo-Cold Lake Region in particular.¹ There is also an anticipated increase in the number of retirements which will impact the labour market. A higher proportion of the labour market being of retirement age will result in a greater number of RDAs exiting the field than in previous years. In addition to this, data shows that a significant number of RDAs exit

¹ <https://www.jobbank.gc.ca/marketreport/outlook-occupation/4475/AB>

the labour market within 10-20 years of practice, with a large proportion exiting the field within 5 years. Many moving into administrative, sales, or treatment coordinator roles – or to leave the dental field entirely.

RDAs are predominantly female (99%) and most entering the profession are between 18 and 30 years of age (72%). Many RDAs take maternity leaves during this period; some returning to practice choose not to work full-time and some choose not to return to practice at all. Key stakeholders propose reasons for not returning to practice following maternity leave include high childcare costs in Alberta and the challenge of finding employment with sufficient schedule flexibility. Those who do return are often seeking more flexible schedules due to childcare concerns.

Data and engagement results suggest that there will be further fallout for this group due to the inconsistent availability of education and childcare and required sick leaves due to isolation requirements throughout the last 18 months of the COVID-19 pandemic. While the full impact of the COVID-19 pandemic on the labour market for RDAs remain to be seen, there are strong indications they have been significant. Interviewees and respondents to the Employer Survey report there has been a reduction in the RDA labour market due to early retirements, fear of contracting COVID-19, dental assistants being hired for COVID response, and reduced immigration due to travel restrictions. We anticipate a larger loss to the labour market than normal will be reflected in the labour data in the year to come, leading to an even larger demand for new graduates.

In addition, there is evidence to suggest that the needs of the employer and the needs of the RDAs themselves are misaligned. Many RDAs are not working their preferred number of hours, position (full time, part time, or casual), or schedule (weekday, weekend, evening). While 57% of General Dentists reported in the Employer Survey that they work evenings, 75% of respondents to the Dental Assistant Survey reported that they would not work evenings. Similarly, while 42% of General Dentists work weekends, 88% of RDAs indicated they would not work weekends, leading to shortages of coverage in dental offices to accommodate the part time schedules of the RDAs.

Evidence of Student Demand. Data from the College of Alberta Dental Assistants shows that prior to the COVID-19 pandemic, available RDA programs in Alberta filled over 95% of their open seats. This was despite the fact that new programs were approved, and existing programs expanded the number of seats available. While employment data is not available for all programs due to the nature of private institutions, NAIT has shown 100% employment post-completion for several years. Private programs offered throughout Alberta are also required to show both graduation and employment outcomes above 70% to remain in operation in Alberta.

Conclusions

Existing labour market modelling data do not appear to fully reflect the experiences of employers consulted for this labour market assessment. Labour market modelling data predict a shortage of RDAs in Alberta, but the extent of this shortage appears to be greater than forecast based on data collected and reviewed for this assessment. The majority of Employer Survey respondents agree it is difficult to recruit RDAs (68%), and many respondents to the Employer Survey agree it is difficult to retain RDAs once they have been hired (20%). Interviewees and Employer Survey respondents report they receive few (if any) applications for open positions and that there is an even greater shortage of qualified candidates in the labour market. Data suggests that there is currently a high demand for RDAs in Alberta as many clinics are currently recruiting RDAs (53% of Employer Survey respondents) and 32% of respondents to the Dental Assistant Survey report that their clinics are currently understaffed in terms of RDAs.

RDA registration numbers do not reflect full-time employment and thereby obscure extent of current shortage. Registration numbers do not reflect full time equivalent positions (FTEs) being worked and include part time and casual employment, mixed job descriptions, and those working out of the province. In addition, existing RDA registration numbers are inadequate to meet current labour market demand. In our consultations with regulatory bodies and employers, the concept of an “ideal 1:2 ratio” of RDAs to dentists and dental specialists was raised repeatedly. However, in consultation with employers, the ideal ratio was not consistently reported.

Given these preferred ratios and the number of registered general dentists and dental specialists in Alberta in 2020, the labour market would require a minimum of 6,301 full-time RDAs where Alberta currently has a total of 6,102 RDAs, resulting in a deficit of 200 full time RDAs. When we consider the number of RDAs working part time, this deficit increases by 546 – 726 full time RDAs. Considering employer’s preferred ratios and RDA’s reported work hours, there is a current deficit in Alberta of 746- 925 full-time RDAs to fulfill the needs of the labour market. Note that this does not account for those general dentists and dental specialists working in excess of full-time hours and the additional RDA support required to facilitate these additional hours.

Given the above, we can only conclude that a significant shortage of RDAs has been building for some time in Alberta. The Alberta’s Occupational Outlook 2019-2028 anticipated a shortage of only 64 RDAs in the province for 2022, however our research and consultations with key stakeholders lead us to estimate this number could currently be as high as 925 full-time RDAs. It must be noted that existing labour market modelling data have yet to reflect the impacts of the COVID-19 pandemic and “The Great Resignation” on the RDA labour market. We also recognize that the current proposed increase in the number of available seats in dental assistant education programs in Alberta for 2022/23 will be insufficient to address the current need, and to meet the current labour shortage there is considerable room for more seats in Dental Assistant programs.

Overview

The University of Alberta School of Dentistry is actively investigating the opportunity to establish a dental assistant training program. Avens Evaluation Group (Avens) was engaged as a third-party to assess the labour market demand for Registered Dental Assistants (RDAs) in Alberta. In addition to reviewing available data on education and labour market trends, Avens engaged key stakeholders to gain their perspectives on the labour market demand for RDAs in Alberta.

Registered Dental Assistants in Alberta

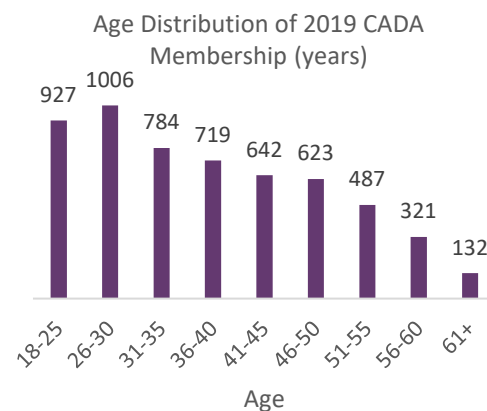
RDAs work with dental health professionals and related agencies as chair-side assistants, intra-oral assistants, administrative assistants, community dental health assistants, treatment co-ordinators, dental reception and insurance co-ordinators, sterilization assistants, or dental education and research assistants.

The College of Dental Assistants of Alberta (CADA) regulates the profession of dental assisting in Alberta and authorizes Registered and Provisional Dental Assistants to provide dental assisting services directly to the public in Alberta. Dental Assistants must have current registration in good standing and a practice permit. In 2021, there were 6,102 Registered and 136 Provisional Dental Assistants in Alberta.

Institutions that provide dental assisting education are accredited by the Commission on Dental Accreditation of Canada (CDAC). Currently, five institutions in Alberta hold accredited program status with CDAC and one holds provisionally approved program status with CADA.

Snapshot of RDAs in Alberta

2019 CADA Membership Statistics Report shows RDAs in Alberta are predominantly female (99%) and between 18 and 40 years of age (61%). Most entering the profession are between 18 and 30 years of age (72%). Most have a job description of Dental Assistant (93%); Other job descriptions include Administration, Educator, Treatment Coordinator, and Sterilization.



Note:
1% of Members practice outside Alberta.

Methods

The labour market analysis of RDAs in Alberta required the collection and triangulation of data from multiple sources to gain a comprehensive understanding of the context and labour market trends. These sources included document review as well as interviews and surveys with key stakeholders, as described in the following sections.

Document Review

The documents reviewed for this labour market analysis provided an understanding of the Alberta context, current labour market, and anticipated labour market trends. Key documents are described in the table below.

Document	Description
Alberta Dental Association and College (ADA&C)	Annual Reports (2018-2020)
Alberta's Occupational Outlook 2019-2028	The 10-year Alberta Occupational Outlook provides a long-term assessment of potential imbalances in the provincial labour market
College of Dental Assistants of Alberta (CADA)	Annual Reports (2017-2021)
Canadian Dental Assistants' Association (CDA)	Salary and Benefits Survey (2011, 2013 only available)
Government of Alberta	Alberta labour market information including average wage and salary (by industry, economic region), requirements, and outlook
2017, 2019 Alberta Wage and Salary Survey	Information on wages and salaries for full- and part-time employees by occupation, region, industry
Institution-specific data	Program graduation and employment rates, mean salaries (available only for NAIT, KDM Dental College, Columbia College)
Media	Articles on labour market trends in Alberta and internationally
Canada's Job Bank Trend Analysis for Dental Assistant in Alberta	Trend analysis results for job opportunities for Dental assistants the next 3 years. ²

² <https://www.jobbank.gc.ca/marketreport/outlook-occupation/4475/AB>

Interviews & Surveys

The School of Dentistry identified key stakeholders to be interviewed by Avens and provided contact information. A total of 9 key stakeholders were interviewed by Avens representing RDAs, employers in private practice and corporations, Dental Assistant associations, the College of Alberta Dental Assistants, and the Alberta Dental Association and College.

Findings from the interviews informed the development of two surveys: (1) a survey of Dental Assistants in Alberta and (2) a survey of all dentists and dental specialists registered in Alberta. These two surveys are described in the following sections.

Dental Assistant Survey

Purpose: To gain perspective on Dental Assistants' current and preferred work as well as their career plans.

Dissemination: Survey disseminated via dental assistant associations and social media. Data collected from September 27 – October 10, 2021

Responses: 209

Respondent Characteristics:

Geographical representation was centred in the Edmonton area for this survey. Only the Calgary Dental Assistant Association shared the survey with their membership; the other associations did not respond to our requests. We were also able to distribute the survey via the Facebook Group "Dental Assistants of Edmonton and Area." Sixty-five percent of respondents were from the Edmonton area, 12% Central Alberta, 11% Calgary area, 7% Northern Alberta, and 6% Southern Alberta. In addition, 69% reported working in urban areas (population over 100,000), 17% in semi-urban areas (population between 30,000 and 100,000), and 14% in rural areas (population below 30,000). Finally, 99% of respondents identify as female and 1% as male.

When asked to identify their primary job description (i.e., role in which they spend 60% or more of their working hours), 88% said they performed Dental Assistant duties as their primary role and 9% said they performed administrative duties as their primary role. When asked to identify a secondary role (i.e., role in which they spend 40% or fewer of their working hours), respondents who had a secondary role reported they perform Dental Assistant duties (26%), sterilization duties (23%), and administrative duties (12%).

Employer Survey

Purpose: To understand staffing needs, challenges, and opportunities of Alberta employers of Dental Assistants.

Dissemination: Questions were drafted by Avens and provided to ADA&C for inclusion in their membership survey.

Data collected from September 22 – October 8, 2021

Responses: 166 (93% General Dentists; 7% Specialists)

Respondent Characteristics:

There was representation from across Alberta among the survey respondents. Thirty-seven percent of respondents were from the Calgary area, 33% Edmonton area, 12% Central Alberta, 10% Northern Alberta, and 8% Southern Alberta. In addition, 64% reported working in urban areas (population over 100,000), 20% in semi-urban areas (population between 30,000 and 100,000), and 15% in rural areas (population below 30,000).

General Dentists reported they have practiced between 1 and 50 years (median 18 years). Twenty-five percent of General Dentists report they are solo practitioners, 58% work with one or two other dentists, and 17% work with four or more other dentists. The majority of General Dentists responding to the survey intend to practice in Alberta for the next three years (95%). Those who do not intend to practice in Alberta for the next three years ranged from early to late career and from across the province.

Results

Registered Dental Assistant Labour Market Trends in Alberta

The 2019-2028 Alberta Occupational Outlook³ (the Outlook) provides a long-term assessment of potential imbalances in the provincial labour market. Expected trends in job openings are compared to the potential pool of job seekers to calculate shortages or surpluses. The Outlook utilizes two models of Demand and Supply to provide its forecasts.

According to this report, by 2022, Alberta is expected to have a shortage of RDAs that will continue to grow until at least 2028. The number of expected job seekers is not expected to keep pace with the number of job openings (see Table 1). The overall outlook for RDAs in Alberta is currently rated as “above average.”⁴ This aligns with the Government of Canada’s Job Bank assessment of “fair” job prospects for dental assistants across Alberta for the next year and “good” prospects in Wood Buffalo-Cold Lake Region in particular.⁵

Table 1. Alberta Occupational Outlook for Dental Assistants

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Job Openings	311	309	369	463	465	446	452	438	450	449
Job Seekers	335	339	350	363	374	377	373	372	376	381
Cumulative Imbalance	-24	-54	-35	65	156	225	304	370	444	512

Shortages beginning in 2023 for the overall Alberta labour market are expected to be mainly driven by the need to replace workers due to retirement (65%) and to a lesser extent by expansion demand (35%). CADA’s 2019 Membership Statistics show that 453 of their 5641 members (8%) were over age 55. This group can be expected to retire within the next two to seven years.

The Outlook forecasts are produced using two models that carry assumptions that are subject to change in the future. One source of change is the emergence of the COVID-19 pandemic. The modeling for the 2019-2028 Outlook was completed prior to the COVID-19 pandemic, which has exacerbated shortages in many fields, including dentistry. Although labour market data for this period is not yet available, we have indications the labour market for RDAs has been impacted.

³<https://open.alberta.ca/dataset/8987e228-9ffa-4a2e-9f79-a9b869df2ccb/resource/502659ff-47fb-4ce3-94db-6a0c2f1f722c/download/lbr-albertas-occupational-outlook-2019-2028.pdf>

⁴ <https://alis.alberta.ca/occinfo/occupations-in-alberta/occupation-profiles/dental-assistant/>

⁵ <https://www.jobbank.gc.ca/marketreport/outlook-occupation/4475/AB>

The College of Alberta Dental Assistants (CADA) held an online workshop in May 2021 wherein 20% of RDAs reported that they have not returned to practice after the March 2020 shutdown.

Dental Assistant Education Trends

Education trends are an important consideration for the dental assistant labour market as the majority who complete their education in Alberta remain to practice in the province and comprise the majority of new RDAs in the province each year. In 2021, 81% of new registrants with CADA had completed their Dental Assistant education in Alberta⁶. Alberta-based dental assisting education programs are the key source of new labour in this market. Table 2 shows the total possible enrollment in Alberta Dental Assistant programs as well as confirmed enrollment in these programs from 2017 to 2020. Enrollment for 2021 is not yet complete, and the possible enrollment for 2022 is an estimate based on approval of a new program and an expanded program to begin in 2022/23. As shown in Table 2, Dental Assistant programs prior to the COVID-19 pandemic maintained registration numbers above 95%.

Table 2. Possible and Confirmed Enrollment in Dental Assistant Programs in Alberta 2017-2022⁷

	2017	2018	2019	2020 ¹	2021	2022 ²
Total Possible Enrollment	486	523	488	462	562	694 ³
Total Enrollment	487	517	464	366	473	

¹Some schools reduced seats due to COVID-19

²One school will add 36 seats for 2022/23; and newly approved school will add 96 seats 2022

³Estimated by CADA.

Dental Assistant Registration Trends

Annual reports of the College of Dental Assistants of Alberta (CADA) disclose the number of RDAs able to provide dental assisting services directly to the public in Alberta. Table 3 and Table 4 outline the registration trends for RDAs with CADA for new and ongoing members from 2017 to 2021. There have been small increases of registrants from Alberta each year. The proportions of other Canadian and International registrants have remained relatively stable over the five-year period except for a drop in international registrations in 2021 which is likely due to COVID-19 restrictions around travel.

⁶ 2020-21 Annual Report of the College of Alberta Dental Assistants.

⁷ Source: Interview with CADA representative.

A comparison of confirmed enrollment in dental assisting education programs in Alberta (Table 2) with new CADA registrants from Alberta programs from 2017-2019⁸ (Table 3) reveals approximately 20% of students choose not to practice as dental assistants in Alberta. CADA is aware of this discrepancy and is promoting its student membership status in order to better understand and monitor the issue.⁹

RDA registration trends demonstrate the labour market is experiencing consistent growth. Table 4 shows a trend of an increase in total CADA registrations in Alberta from 100-200 additional registrants per year. That is, in addition to replacing those who have allowed their CADA registrations expire due to leaving the field or retirement, there are an additional 100-200 new RDAs in Alberta each year.

Table 3. CADA – New Registrants 2017-2021¹⁰

New Registrants	2017	2018	2019	2020	2021
Alberta Programs	314	380	384	375	406
Other Canadian	60	86	83	66	63
International	49	49	45	54	34
TOTAL	423	515	512	495	503
Reinstatements	267	257	209	210	197
Not Approved	9	5	4	6	5
Received	699	777	725	711	705
Decision Reviews	-	-	-	-	-

⁸ Total enrollments from 2017-2019 were compared with total new CADA registrants from Alberta programs from 2018-2020 to account for differences in how these data were reported (enrollment reported by calendar year, CADA registrants reported by fiscal year) and for students registering after program completion.

⁹ Source: Interview with CADA representative.

¹⁰ Source: CADA Annual Reports <https://abrda.ca/about/annual-reports/>

Table 4. CADA – All Registrants 2017-2021¹¹

Members	2017	2018	2019	2020	2021
Registered DAs	5407	5667	5869	5953	6102
Provisional DAs	103	115	44	53	136
Courtesy RDAs	0	0	1	1	0
LOA	260	245	285	261	211
Students	123	108	79	200	195

Registered Dental Assistant Expectations and Career Plans

Table 5 through Table 8 provide results from the Dental Assistant survey around current and preferred work as well as career plans. Table 5 shows the average number of hours RDAs report working per week and the average number of hours they would prefer to work per week. Fifty-two respondents reported wanting to work more hours on average (an increase of 1 to 20 hours per week), and 56 reported wanting to work fewer hours on average (a reduction of 1 to 24 hours per week). Overall, 61% of respondents reported they do not work their preferred number of hours.

Table 5. RDAs Reported Work Hours/Week vs. Preferred Work Hours/Week

	Minimum	Maximum	Average
Actual Hours/Week	8	75	33.7
Preferred Hours/Week	0	80	33.1

Table 6 shows the proportion of respondents to the Dental Assistant survey who are currently working evenings and weekends, and those who would prefer to work evenings and weekends. Survey results showed that 88% of respondents are not willing to work weekends, and 75% are not willing to work evenings. There is again some misalignment in actual and preferred work schedules.

Table 6. RDAs Reported Work Schedule vs. Preferred Schedule

	Evenings	Weekends
Actual Schedule	33%	26%
Preferred Schedule	5%	5%

¹¹ Source: CADA Annual Reports <https://abrda.ca/about/annual-reports/>

Table 7 shows the results from the Dental Assistant survey around current and preferred full-time equivalency (FTE). Five percent of respondents who currently work full time would prefer a part-time schedule and 5% who work part time would prefer to move to a full-time schedule.

Table 7. RDAs Reported FTE vs Preferred FTE

	Full Time	Part Time	Casual
Actual FTE	77%	22%	1%
Preferred FTE	72%	27%	2%

Table 8 shows the overall results around respondents' plans to practice as a Dental Assistant in Alberta in one year, five years, and 10 years. Nearly half of respondents under the age of 25 do not expect to practice in Alberta as a Dental Assistant in 5 years. For those who do not plan on being a Dental Assistant in one year, age was not a factor as these respondents ranged in age from 20 to 57 years.

Table 8. Dental Assistants Career Plans

	Yes	No	Unsure
Do you plan on being a dental assistant in Alberta in 1 year?	89%	4%	8%
Do you plan on being a dental assistant in Alberta in 5 years?	58%	17%	25%
Do you plan on being a dental assistant in Alberta in 10 years?	33%	36%	31%

Of those who do not plan to be a Dental Assistant in the future, most provided reasons pertaining to retirement, family planning, and moving into a new career/education program. Those who reported they are unsure about their plans were asked what it would take for them to stay; many indicated wages and work environment were their factors for consideration.

Overall, the results of the Dental Assistant survey indicate a misalignment in current working conditions and expectations on the part of the RDAs. Many are not working their preferred position (full time, part time, or casual), number of hours, or schedule (weekday, weekend, evening). It should also be noted that when asked what was important to respondents when accepting a position with a clinic, work schedule was ranked third, after wage and office culture, respectively.

Employer Perceptions of Labour Market for RDAs in Alberta

The employer survey asked several questions around work schedule and hours for practicing General Dentists, as well as direct questions around their challenges in recruiting RDAs. Overall, General Dentists report working a median of 35.0 hours per week. However, hours worked per week varied by number of years of practice. General Dentists in the first 10 years of their careers generally work more hours per week than those later in their careers (Median = 40.0 hours; Range = 20-60). This trend was also observed with respect to extended hours (i.e., evenings and weekends). Survey results from the employer survey indicate that overall, 57% of General Dentist work evenings and 42% work weekends. However, General Dentists in the first 10 years of their careers are more likely to work at clinics with extended hours with 77% of respondents indicating they work evenings and 64% weekends. The proportion of respondents who work evenings and weekends drops to less than half among those who have been practicing over 10 years.

Employers reported they have experienced significant challenges in recruiting RDAs for years. The majority of employers who responded to our survey agree it is difficult to recruit to these positions (68%); few employers disagree recruitment is a challenge (4%). Retaining RDAs once they have been hired also poses a challenge to 20% of employers. In both the employer survey and interviews with employers, we heard there are generally very few (if any) applications for job postings, and even fewer qualified candidates to choose from. It was noted by several employers that there are often no-shows for interviews, and if the employer takes more than a couple of days post-interview to make an offer, the candidate has already moved on to another position.

To compete for the limited number of Dental Assistants, employers have had to offer incentives, which many note are not sustainable. Incentives offered include higher wages, benefits, health spending accounts, signing bonuses, paying for education, and paying annual licensing fees. Some employers have resorted to hiring unqualified Dental Assistants who cannot practice to full scope, offering to pay for Dental Assistants to move from out of province, and poaching Dental

“There are so many people who I have interviewed with experience, and they work very limited hours and cannot work any evenings and weekends. So multiple staff are required to fill even a full-time position.”

– Alberta Employer

“I have been trying to hire RDAs to replace maternity leaves or those who move away, and it averages me over 4 months to find one. [...] Even if [RDAs] are not providing good compassionate care to my patients, I cannot constructively criticize them to train them in fear that they quit and find another job because so many offices are also looking. So patients’ overall care is not optimal.”

– Alberta Employer

Assistants from other clinics. There also appear to be regional differences across Alberta; RDAs can be particularly difficult to attract to rural clinics.

Half of all respondents to our Employer Survey (53%) work at clinics currently recruiting for at least one RDA position. Half of all respondents anticipate recruiting RDAs in the next 6 months, a third anticipate they will be recruiting in the next 12 months (Table 9). In addition, 32% of employers indicated that their clinics are currently understaffed, impacting patient care.

Table 9. Recruitment Expectations

Type	n	Expect to Recruit in 6 months	% 6 months	Expect to Recruit in 12 months	% 12 months
General Dentist	154	79	51%	46	30%
Specialist	11	4	36%	4	36%
Total	165	83	50%	50	30%

Several interviewees reported they have struggled to fill RDA positions for several years, noting that existing labour market modelling data do not appear to fully reflect the experiences of employers consulted for this labour market assessment. One interviewee stated their corporation currently has 22 open RDA positions in Alberta and that it takes an average of 35 days to fill open positions. Employers indicated in the survey that they are unable to fill leaves or replace staff within a reasonable time, sometimes taking months to do so. When asked directly about the current Alberta labour market for RDAs, the majority of respondents reported there is a shortage of RDAs (83%). Half of all respondents qualified this as a “significant shortage” (54%).

“We have been looking for a couple years to fill RDA positions but are unable to. Therefore, we have been forced to hire uncertified staff [medical office assistants, sterilization techs]. On occasion, the dentist has to do all radiographs, rubber dams, temps, and impressions as there are no registered staff available. Previously, we had registered staff who would temp if our registered staff was away, but there are no extra certified staff that want extra hours. We were unable to fill a maternity leave for a registered staff member as no one wanted a temporary position [...]. There is an extreme shortage of qualified and certified RDAs in our area.” – *Alberta Employer*

Table 10. Employer Perception of Shortages of RDAs in Alberta

In your opinion, which statement best describes the current Alberta labour market for Registered Dental Assistants (RDAs)?	n	%
Alberta has a significant shortage of RDAs	84	54%
Alberta has somewhat of a shortage of RDAs	44	28%
Alberta has the right amount of RDAs	10	6%
Alberta is somewhat oversaturated with RDAs	9	6%
Alberta is significantly oversaturated with RDAs	8	5%
Total	155	

When asked how many RDAs Dentists and Dental Specialists would ideally like to have directly support their work, most survey respondents reported a ratio of 1:2 (58%). However, a third of respondents (31%) would ideally like to have three or more RDAs directly support their work. Applying the preferred ratios reported by our respondents to all regulated General Dentists and Dental Specialists in Alberta for 2020 (Table 11), a minimum of 6,301¹² full-time RDAs would be required to support the work of 2,864 full time General Dentists and Dental Specialists in Alberta. Note that this does not account for those Dentists working more than full-time hours and the additional support required to facilitate these additional hours.

Table 11. Number of Regulated Dentists in Alberta by Category 2018-2020

Regulated Dentists	2018	2019	2020
General Dentists	2194	2512	2525
Dental Specialists	293	327	339
Education & Research	60	57	58
Courtesy Registration	5	6	6
Volunteer Registration	5	2	2
Total	2552	2901	2930

¹² This includes a 2:1 ratio for 58% of Dentists and Dental Specialists, 3:1 ratio for 31% of Dentists and Dental Specialists, and 1:1 ratio for the remaining 11% of Dentists and Dental Specialists

Context Trends

Impacts of COVID-19 Pandemic on RDA Labour Market

Available government data on labour market supply and demand do not yet reflect the impacts of the COVID-19 pandemic. The shortage of RDAs, a reality for years prior to the pandemic, has become more acute, indicating these impacts have been significant for RDAs in Alberta. It remains to be seen if these will be transitory or long-term impacts on the labour market. Key stakeholders observed factors contributing to increased shortages in the short-term as well as to RDAs leaving the profession:

- Requirements for individuals to isolate when symptomatic increased vacancies that needed to be filled.
- Many clinics laid off RDAs early in the pandemic. Not all layoffs were handled well. The College of Alberta Dental Assistants (CADA) held an online workshop in May 2021 wherein 20% of RDAs reported that they have not returned to practice after the March 2020 shutdown.
- The work environment has become less desirable as RDA workloads have increased due to the need to follow COVID protocols.
- Many RDAs left the profession from fear of personal risk due to COVID transmission and many who are older may have chosen to retire early.
- RDAs with school age children may have lost consistent childcare or may have needed to support children at home with online schooling throughout the pandemic. The federal government also provided financial supports during the pandemic. Families needed to make decisions on how to best manage their individual situations.
- There was increased competition for RDAs with Alberta Health Services (AHS) hiring to fill COVID-Response positions, including positions to conduct COVID-19 testing.
- Dental Assisting programs reduced their enrollment numbers, leading to fewer RDAs entering the profession.

Generational Expectations of Work and Career Trajectories

The labour market is anticipated to shrink in many areas due to the retirement of the Baby Boomer generation, many of whom had put off retirement due to economic shifts, resulting in a larger than expected loss to the labour market.

Two other generations in particular should be considered when thinking about the labour market for RDAs in Alberta: Generation Y (Millennials) and Generation Z (Gen Z). Currently, those most likely to be entering the field of Dental Assisting would be categorized as younger Millennials and older Gen Z's. These two generations have different expectations of their work and careers than previous generations. Large-scale surveys conducted by Deloitte¹³ and PwC¹⁴ have outlined the expectations of these two generations. Of particular relevance is the rising importance in these two generations of flexibility in work, the clear presence of a career trajectory, and a shift in the balance of power between employer and employee. Those now entering the labour market are considered to be “loyalty-lite”, having the confidence to change employers when their needs are not being met, particularly around work flexibility and a pre-defined and attainable career trajectory.

Extent of Generational Shift

In 2019, Registered Dental Assistants in Alberta were:

- 8% Baby Boomers
- 31% Gen X
- 44% Millennials
- 16% Gen Z

In 10 years, we can expect all Baby Boomers to have retired and approximately 50% of RDAs in Alberta will be Gen Z.

Shrinkage of the labour market due to the retirement of the Baby Boomer generation, in addition to what is being termed “The Great Resignation¹⁵” - the result of the COVID-19 pandemic and changing attitudes and expectations of work - provide later generations with the confidence to find jobs and employers that best fit with their expectations, rather than take what is offered.

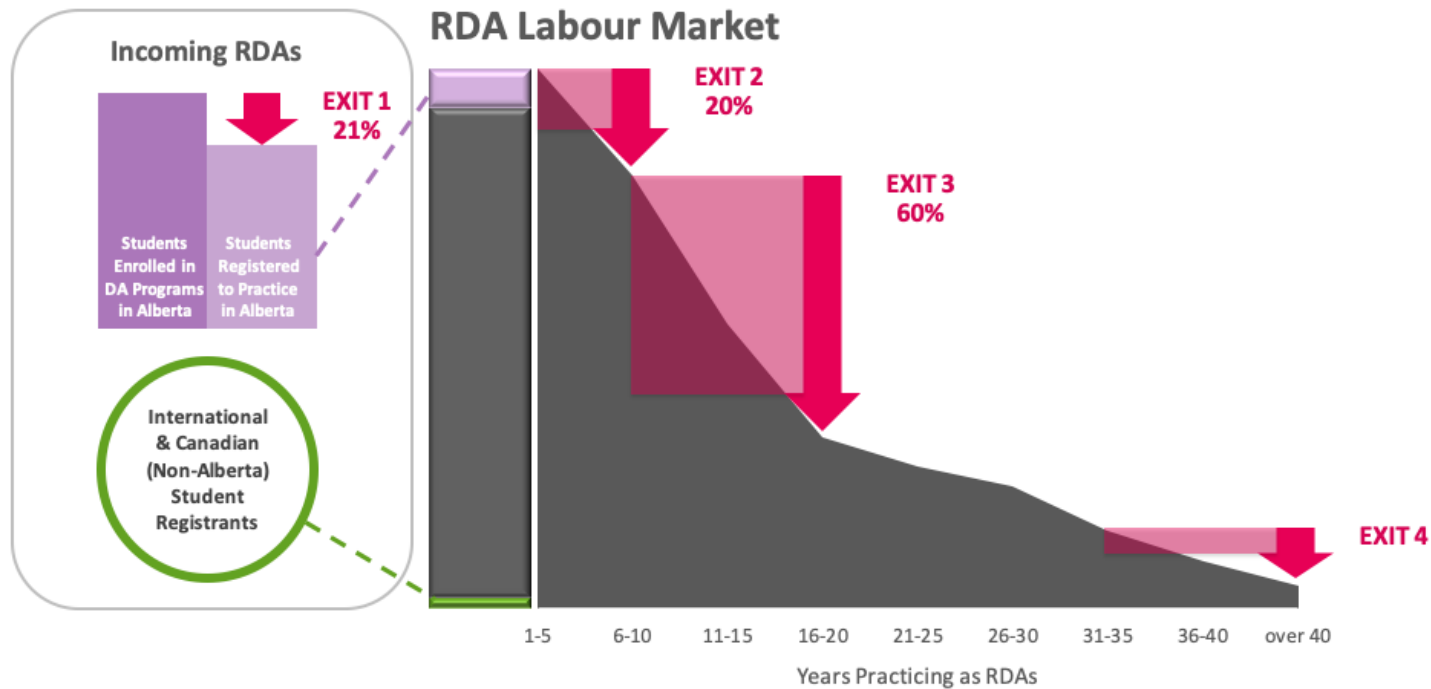
Key Exits Points from Registered Dental Assistant Labour Market

Four key exit points from the labour market were identified for RDAs based on results of interviews with key stakeholders, survey data from employers and dental assistants, and available data on RDAs practicing in Alberta. In particular, the 2019 CADA Membership Statistics Report was used to estimate proportions of RDAs exiting the labour market over time as this report provides age and number of membership years for all members.

¹³<https://www2.deloitte.com/us/en/pages/consumer-business/articles/understanding-generation-z-in-the-workplace.html>

¹⁴ <https://www.pwc.com/co/es/publicaciones/assets/millennials-at-work.pdf>

¹⁵ <https://hbr.org/2021/09/who-is-driving-the-great-resignation>



The figure above identifies the four key exit points with respect to number of years of practice as an RDA in Alberta. Each exit point is described below:

- Exit 1–** As noted earlier, a comparison of confirmed enrollment rates in Alberta Dental Assistant education programs with new CADA registrant rates for RDAs from Alberta programs from 2017-2020 shows approximately 21% of students chose not to register to practice in Alberta. Key stakeholders propose this may be due to a realization that the profession is not a good fit for the individual after completing the clinical component of their program.
- Exit 2 –** Within the first ten years of practice, approximately 20% of RDAs exit the labour market. Key stakeholders propose this may be due to an inability to find a good employment fit with a clinic or to a realization that the profession is not a good fit for the individual, and often these exits occur within 1-5 years of employment in the field.
- Exit 3 –** Between 10 and 20 years of practice, approximately 60% of RDAs exit the labour market. This constitutes the greatest reduction in the overall labour market. Key stakeholders highlighted demographic and career considerations for this reduction.

Demographic Considerations: Data demonstrate the RDA labour market is predominantly female and generally young. Many RDAs take maternity leaves during this period; some returning to practice choose not to work full-

time and some choose not to return to practice at all. Key stakeholders propose reasons for not returning to practice following maternity leave include high childcare costs in Alberta and the challenge of finding employment with sufficient schedule flexibility. A comparison of member Leaves of Absence from 2017-19 and Reinstatements from 2018-20¹⁶ reported in CADA Annual Reports indicate 14% of those who take Leaves of Absence do not return to practice.

Career Considerations: Key stakeholders propose RDAs may choose to move on to other careers including administration, management, and other dental fields. There is little career trajectory available to RDAs without leaving the profession.

Exit 4 –

From 31 years of practice onwards, we see rapid decline in the labour market due to retirement. Key stakeholders observed older RDAs may choose to move to other positions such as administration due to the high physical demands of an RDA. Further, historical demographic data provided in the 2019 CADA Membership Statistics Report demonstrate that the proportion of the overall RDA labour market approaching retirement age has increased from 12% to 17% from 2010 to 2019. We can therefore assume declines due to retirement could be greater in the next few years.

¹⁶ Assuming Leaves of Absence were 1 year in length.

Key Considerations of Registered Dental Assistant Labour Market in Alberta

The following outlines the key considerations for assessing the labour market demand for RDAs in Alberta and supporting rationale. Considerations are reported in four sections: anticipated RDA employment outcomes, student demand for dental assistant education programs, labour market demand for RDAs, and reflection on labour market demand for RDAs.

1. Anticipated RDA Employment Outcomes

One in five dental assisting students in Alberta choose not to practice as RDAs in Alberta.

- A comparison of confirmed enrollment in dental assisting education programs in Alberta (Table 2) with new CADA registrants from Alberta programs from 2017-2019¹⁷ (Table 3) reveals approximately 20% of students choose not to practice as dental assistants in Alberta. Data on their employment outcomes are not available.

The majority of RDAs perform dental assistant duties as their primary role; however, RDAs also perform other roles.

- 88% of the Dental Assistant Survey respondents report dental assistant as their primary role. Of these, 26% reported a secondary role of sterilization and 14% of administration.
- 12% of the Dental Assistant Survey respondents report dental assistant as their secondary role (i.e., comprising less than 40% of their working hours).
- 93% of CADA members in 2019 had 'Dental Assistant' as their job description. The other 7% reported job descriptions including administration, educator, treatment coordinator, and sterilization.

RDAs have limited opportunity to advance in their careers; Many do not intend to practice as RDAs long term.

- 17% of the Dental Assistant Survey respondents do not intend to practice as RDAs in 5 years; 36% do not intend to do so in 10 years.
- Nearly half of the Dental Assistant Survey respondents under the age of 25 do not intend to practice as a RDAs in Alberta in 5 years.
- In contrast, the majority of General Dentists responding to the Employer Survey intend to practice in Alberta for the next three years (95%).

¹⁷ Total enrollments from 2017-2018 were compared with total new registrants from Alberta programs from 2018-2019 to account for differences in how these data were reported (calendar vs. fiscal year) and for students registering after program completion. Data from 2020 and 2021 were not used as COVID-19 greatly impacted Alberta program enrollment.

2. Evidence of Student Demand

The demand from students for dental assistant education programs in Alberta appears to remain strong.

- Dental assistant education programs in Alberta maintained enrollment numbers above 95% prior to the COVID-19 pandemic even as existing programs expanded and new programs were approved (Table 2).
- Private dental assistant education programs offered throughout Alberta are required to show both graduation and employment outcomes above 70% to remain in operation in Alberta. Private programs have increased and expanded since 2017, demonstrating they are viable in Alberta.
- Post-graduation employment data are not available for all dental assistant education programs as many are private institutions. Indicative of the employment outcomes for students, NAIT reported 100% graduate employment for its Dental Assisting Programs in 2017/18, 2018/19, and 2019/20¹⁸.

3. Labour Market Demand for RDAs

A shortage of RDAs has been a long-standing issue in Alberta despite growth in this labour market.

- In interviews and in the Employer Survey, employers reported it has been a struggle to hire quality RDAs for at least five years in Alberta. Employers compete with one another for RDAs, sometimes resorting to poaching from other clinics. Because of the shortage of RDAs, employers are not able to consider qualifications or fit when hiring, leading to high turnover.
- Interviewees report the RDA shortage is present across the province but more pronounced in rural areas. This aligns with the Government of Canada's Job Bank assessment of "fair" job prospects for dental assistants across Alberta for the next year and "good" prospects in Wood Buffalo-Cold Lake Region in particular.¹⁹

Anticipated increase in number of retirements will impact the labour market.

- The proportion of the labour market approaching retirement age has increased from 12% to 17% from 2010 to 2019 as many in the Baby Boomer generation deferred retirement due to economic factors. A higher proportion of the labour market being of retirement age will result in a greater number of RDAs exiting the field than in previous years.

¹⁸ NAIT Graduate Employment Rates by Program Summary Cluster (April 2021)

¹⁹ <https://www.jobbank.gc.ca/marketreport/outlook-occupation/4475/AB>

A significant number of RDAs exit the labour market within 10-20 years of practice.

- Respondents to the Dental Assistant Survey reported they do not intend to practice as RDAs long-term. Many intend to move into administrative, sales, or treatment coordinator roles – or to leave the dental field entirely.
- Annual CADA Membership data show at least 3-5% of RDAs in Alberta are on a Leave of Absence at any time.
- A comparison of CADA Membership Leaves of Absence from 2017-19 and Reinstatements from 2018-2020 indicate 14% of those who take leaves do not return to practice.
- RDAs are predominantly female (99%) and most entering the profession are between 18 and 30 years of age (72%). Many RDAs take maternity leaves during this period; some returning to practice choose not to work full-time and some choose not to return to practice at all. Key stakeholders propose reasons for not returning to practice following maternity leave include high childcare costs in Alberta and the challenge of finding employment with sufficient schedule flexibility. Those who do return are often seeking more flexible schedules due to childcare concerns.
- With respect to the COVID-19 pandemic, we believe there will be further fallout for this group due to the inconsistent availability of education and childcare and required sick leaves due to isolation requirements throughout the last 18 months.
- In addition, significant numbers of young Albertans are leaving the province. For the first time in 40 years, Alberta no longer has the lowest median age in Canada²⁰, affecting the possible incoming labour market.

Impact of COVID-19 on RDA labour market

- The impacts of the COVID-19 pandemic on the labour market for RDAs remain to be seen; however, there are indications they have been significant. Interviewees and respondents to the Employer Survey report there has been a reduction in the RDA labour market due to early retirements, fear of contracting COVID-19, dental assistants being hired for COVID response, and reduced immigration due to travel restrictions. We anticipate a larger loss to the labour market than normal will be reflected in the labour data in the year to come.

²⁰<https://calgaryherald.com/opinion/columnists/varcoe-no-longer-the-youngest-albertas-brain-drain-sparks-concern>

There is a misalignment in RDAs current working conditions and expectations.

- Many RDAs are not working their preferred number of hours, position (full time, part time, or casual), or schedule (weekday, weekend, evening). See Tables 5-7.

There is a misalignment in the work expectations of RDAs and employers.

- While 57% of General Dentists reported in the Employer Survey that they work evenings, 75% of respondents to the Dental Assistant Survey reported that they would not work evenings. Similarly, while 42% of General Dentists work weekends, 88% of RDAs indicated they would not work weekends (Tables

There are differences in how generations view work impact the labour market.

- The generation now beginning to enter the labour market are considered to be “loyalty-lite” and have the confidence to find a job and employer that best fit their expectations around work flexibility and a pre-defined career trajectory.

4. Reflection on Labour Market Demand

Existing labour market modelling data do not appear to fully reflect the experiences of employers consulted for this labour market assessment. Labour market modelling data predict a shortage of RDAs in Alberta, but the extent of this shortage appears to be greater than forecast.

- Alberta’s Occupational Outlook 2019-2028 anticipated a shortage of only 64 RDAs in the province for 2022.
- The majority of Employer Survey respondents agree it is difficult to recruit RDAs (68%). Note: only 4% of respondents disagree recruitment is a challenge.
- Many respondents to the Employer Survey agree it is difficult to retain RDAs once they have been hired (20%).
- Interviewees and Employer Survey respondents report they receive few (if any) applications for open positions and that there is an even greater shortage of qualified candidates in the labour market.
- Most Employer Survey respondents agree there is a shortage of RDAs in the Alberta (83%); of these, 54% quality this as a “significant shortage.”

There is currently a high demand for RDAs in Alberta

- Many clinics are currently recruiting RDAs (53% of Employer Survey respondents) and 32% of respondents report that their clinics are currently understaffed in terms of RDAs.
- Interviewees and survey respondents report it is particularly difficult to hire RDAs to fill positions for a Leave of Absence in a reasonable timeframe.

RDA registration numbers do not reflect full-time employment and thereby obscure extent of current shortage

- Registration numbers do not reflect FTEs being worked and include:
 - **Part-time employment.** Dental Assistant survey respondents work part time (22%) or would prefer to work part time (27%). The 2019 CADA Membership Statistics Report also reports 46% of RDAs work fewer than 33 hours per week; 14% work 15 or fewer hours per week.
 - **Casual employment.** Interviewees observed some RDAs choose to work casually. This was the case for 1-2% of Dental Assistant survey respondents.
 - **Mixed job descriptions.** Many RDAs do not work primarily as dental assistants and fulfill other roles in clinics such as administration or sterilization. The 2019 CADA Membership Statistics Report found 7% of RDAs have a job description other than dental assistant (e.g., administration, educator, treatment coordinator, and sterilization). The Dental Assistant Survey asked about primary and secondary roles and found:
 - 45% of dental assistants have a secondary role in which they spend at least 40% of their time on a non-dental assistant role.
 - 12% of respondents work less than 40% of their time as a dental assistant.
 - **Out of province. According to the 2019 CADA Membership Statistics Report, 1% of registrants do not live in Alberta.**

Existing RDA registration numbers are inadequate to meet current labour market demand

- In our consultations with regulatory bodies and employers, the concept of an “ideal 1:2 ratio” of RDAs to dentists and dental specialists was raised repeatedly. Through interviews and the Employer Survey, it is evident that a 1:2 ratio is not necessarily “ideal”. Employer Survey respondents reported preferred ratios of 1:1 (11%), 1:2 (58%), 1:3 or more (31%).
 - Given these preferred ratios and the number of registered general dentists and dental specialists in Alberta in 2020 (Table 11: 2,864), the labour market would require a minimum of 6,301 full-time RDAs.
 - Given the most recent CADA registration numbers for 2021 (Table 4: 6,102), Alberta currently has a deficit of 200 full time RDAs.
- Taking into account available data on RDA work hours to estimate the required minimum number of RDAs results in an even greater deficit of RDAs.
 - Assuming the labour market requires a minimum of 6,301 full-time RDAs (based on the preferred ratios reported in the Employer Survey), given 46% of RDAs work

fewer than 33 hours per week (2019 CADA Membership Statistics Report), and assuming an FTE of 0.75²¹ for these dental assistants, an additional 725 full-time RDAs would be required to fill the labour market gap created by part-time employees.

- On the conservative side, if we assume 22% of RDAs work part-time (as reported by Dental Assistant Survey respondents), an additional 546 full-time RDAs would be required to fill the labour market gap created by part-time employees.
- Considering employer's preferred ratios and RDA's reported work hours, there is a current deficit in Alberta of 746- 925 full-time RDAs to fulfill the needs of the labour market. Note that this does not account for those general dentists and dental specialists working in excess of full-time hours and the additional RDA support required to facilitate these additional hours.

Given the above, we can only conclude that a significant shortage of RDAs has been building for some time in Alberta.

- The Alberta's Occupational Outlook 2019-2028 anticipated a shortage of only 64 RDAs in the province for 2022, however our research and consultations with key stakeholders lead us to estimate this number could currently be as high as 925 full-time RDAs. It must be noted that existing labour market modelling data have yet to reflect the impacts of the COVID-19 pandemic and "The Great Resignation" on the RDA labour market.
- The proposed increase in the number of available seats in dental assistant education programs in Alberta for 2022/23 (Table 2) will be insufficient to address the current need.

²¹ This is generous as 14% reported they work an FTE of 0.4 or less (2019 CADA Membership Statistics Report).

Library Impact Statement

As per [GFC Policy 37.3.7](#), 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: Lisa Tjosvold, Dagmara Chojecki	Date: February 8, 2022
Library Unit: Health Sciences	Email: tjosvold@ualberta.ca , chojecki@ualberta.ca

Program Proposal Contact:

Name: Carla Clarke	Dept./School: School of Dentistry
Faculty: Faculty of Medicine & Dentistry	E-mail: cclarke1@ualberta.ca

Proposed Program Changes:


Proposed Dental Assisting Program

The proposed Dental Assisting Program will be a full time 10-month program starting in August 2023. The program will be delivered using a hybrid model of onsite and online classes. The onsite classes will be located at the U of Alberta North Campus including the Simulation Lab in the Edmonton Clinic Health Academy, and the Oral Health Clinic (OHC) in the Kaye Edmonton Clinic. The program will consist of 5 sequential courses including: didactic (both asynchronous and synchronous delivery), simulation labs, pre-clinical labs, clinical sessions, clinical rotation in the OHC and an external practicum. Dental Assisting students will have assisting opportunities within the Undergraduate Dentistry Program, General Practice Residency program, Periodontology, Orthodontics, Oral Medicine Graduate Clinics and Implant Clinics. Clinical rotations will be planned and assigned throughout the program.

Library Service or Resource	Description of Library Impact
Instruction (e.g., classes with a librarian, tours, online resource guides, online tutorials, etc.)	<p>Instruction related to library orientation may be useful for students in the Proposed Dental Assisting 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. Course/assignment specific instruction is also available via subject librarians. Lisa Tjosvold and Dagmara Chojecki are the subject librarians for Dentistry and have the capacity to support this Program/Certificate.</p>

Reference assistance (e.g., ongoing one-on-one help)	<p>The subject librarian or other librarians in complementary subject areas 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>
Collections – course materials, print, electronic [note any impacts on simultaneous users, licensing considerations etc.]	<p>The Library's current subscriptions to print and electronic journals and books should adequately support this program. Any items that are not available and/or accessible through the Library can be requested through Interlibrary Loan.</p> <p>Journals and resources with particular relevance to this program include:</p> <ul style="list-style-type: none"> • The Dental Assistant <p>Other subject specific databases and resources may be required.</p> <p>The Library also supports course reading list and reserve requests online using the Talis platform.</p> <p>The Library's Dentistry & Dental Hygiene Subject Guide will be relevant to students taking specific courses in the Program/Certificate/Course etc.</p>
Physical facilities (e.g., sufficient room for group work; in-library work, etc.)	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.
Other (specify)	

- Proposal has an impact on the Library and can be supported.
 Proposal can be supported with additional resources; see attached details.
 Proposal has no impact on the Library.

Unit Head Name	Unit Head Signature	Date
Connie Winther		8 February 2022

Associate University Name	Associate University Signature	Date
Sharon Murphy		8 February, 2022

Calendar Change Request Form for Program and Regulation Changes

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

Faculty (& Department or Academic Unit):	Faculty of Medicine & Dentistry
Contact Person:	Dr. Steven Patterson steven.patterson@ualberta.ca
Level of change (choose one only) [?]	<input checked="" type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate
Type of change request (check all that apply) [?]	<input checked="" type="checkbox"/> Program <input type="checkbox"/> Regulation
For which term is this intended to take effect?	Fall 2023
Does this proposal have corresponding course changes? (Should be submitted at the same time)	Yes <input checked="" type="checkbox"/> FoMD - UG Course Changes - Dental Assisting Cert

Rationale

Things to consider (maximum 500 words, delete these questions before entering your own text):

- *What brought about this idea for change*
- *How will it benefit students*
- *How will it benefit Department/Unit*
- *How is this change comparable to similar programs (internal or external)*
- *Include historical context*
- *Please describe how the changes/ proposal intends to facilitate program administration/ program structure.*

Calendar Copy

Undergraduate Programs>CHS>Faculty of Medicine and Dentistry>Programs>Undergraduate>Certificate https://calendar.ualberta.ca/content.php?catoid=36&navoid=11394#faculty-of-medicine-and-dentistry	
<p>Current</p> <p>Removed language</p> <p>Faculty of Medicine and Dentistry Go to information for this faculty.</p> <p>Programs</p> <p>Undergraduate</p> <ul style="list-style-type: none"> • Bachelor of Medical Science 	<p>Proposed</p> <p>New language</p> <p>Faculty of Medicine and Dentistry Go to information for this faculty.</p> <p>Programs</p> <p>Undergraduate</p> <ul style="list-style-type: none"> • Bachelor of Medical Science

- [Bachelor of Science Dental Hygiene](#)
- [Bachelor of Science in Medical Laboratory Science](#)
- [Bachelor of Science in Medical Laboratory Science Post-Professional Certification degree completion](#)
- [Bachelor of Science in Radiation Therapy](#)
- [Doctor of Dental Surgery](#)
- [Doctor of Dental Surgery Advanced Placement Program](#)
- [Doctor of Medicine](#)

Combined Degree

- [Doctor of Medicine and Doctor of Philosophy Combined Degrees Program](#)

Certificate

- [Certificate in Biomedical Research](#)

- [Bachelor of Science Dental Hygiene](#)
- [Bachelor of Science in Medical Laboratory Science](#)
- [Bachelor of Science in Medical Laboratory Science Post-Professional Certification degree completion](#)
- [Bachelor of Science in Radiation Therapy](#)
- [Doctor of Dental Surgery](#)
- [Doctor of Dental Surgery Advanced Placement Program](#)
- [Doctor of Medicine](#)

Combined Degree

- [Doctor of Medicine and Doctor of Philosophy Combined Degrees Program](#)

Certificate

- [Certificate in Biomedical Research](#)
- [Certificate in Dental Assisting](#)

Faculty of Medicine and Dentistry>Programs>Undergraduate>Certificate>Certificate in Dental Assisting

Certificate in Dental Assisting

General Information

...
The Department of Dentistry offers a 10-month program leading to the Certificate in Dental Assisting. The curriculum for this certificate program is presented in a sequential progressive format, building on foundational knowledge and skills, and including learning in simulation and clinical environments.

Orientation

It is mandatory that each student, after acceptance into the program, attend Orientation. This is scheduled immediately before the beginning of the first term of each year.

Program Requirements (10 Months, 32 units):

- Course 1: Foundations of Dental Assisting
- Course 2: Patient Assessment I
- Course 3: Patient Assessment II
- Course 4: Clinical Practice I
- Course 5: Clinical Practice II

Notes:

Practicum Requirements:

The Dental Assisting program will include an internal practicum rotation within the School of Dentistry Oral Health Clinic and one external practicum.

1. The Internal Practicum rotation will begin early on in the program and will continue sequentially building on foundational knowledge as students' skill set increases throughout the program. The Dental Assisting students will be integrated into assisting DDS students in the School of Dentistry Oral Health Clinic- time allocation will increase to approximately 6-9 hours per week as students progress in the program. Approx. 90 - 135 hours of Internal Clinical experience in various Undergraduate and Graduate clinics (subject to level of skill at the time)
2. There will be one 2 week off-site practicum in a Private Dental Practice, or Community Practice for each student - minimum of 70 hours (7 hours a day)

Program Completion Requirements:

1. Complete all of the required program courses with the minimum passing grade outlined in each course syllabus
2. Successfully complete all assessments and mandatory clinical hours as per each course syllabus
3. Complete the required Practicum hours and submit Practicum Log and Evaluation

Certificate in Dental Assisting

Application for Admission and Application for Readmission

Only electronic applications will be accepted. To access the online application for the University of Alberta go to www.admissions.ualberta.ca.

For detailed application and program information please visit www.dentistry.ualberta.ca.

Enrolment: Enrolment for the Dental Assisting Certificate Program has two enrolment cycles per year, in August and April. Each enrolment is limited to an annual quota of 26 students.

Indigenous Applicants:

The School of Dentistry is committed to the recruitment, retention and graduation of Indigenous students. All Indigenous applicants who meet the Indigenous application requirements and are successful in the admissions process will be admitted to the Dental Assisting Program.

- Applicants who are of Indigenous ancestry within the meaning of The Constitution Act, 1982, §35(2), or
- A person who is accepted by one of the Indigenous Peoples of Canada as a member of their community.

Proof of ancestry must be provided when applying as an Indigenous student. Accepted forms of documentation are outlined in the [Admission of Indigenous Applicants](#) section of the University of Alberta Calendar.

Candidates will be subject to standard minimum admission requirements as will be outlined in the calendar and approval by the Dentistry Admissions Committee.

Eligibility Criteria for Admission

Academic Requirements: The minimum requirement for admission to the Dental Assisting Certificate Program is:

- Minimum of 65% in each of:
 - a. English Language Arts 30-1 or English Language Arts 30-2
 - b. Chemistry 30
 - c. Biology 30

- d. One of the following: Math 30-1, Math 30-2, Pure Math 30 or Applied Math 30

Applicants who meet these eligibility criteria will be required to complete additional admission requirements (Admission Requirements and Other Requirements)

Admission Requirements:

- Interview - A personal interview is required of all competitive applicants annually. Interview selection is based on academic record. Competitive applicants will be interviewed to determine if they have the personal qualities necessary for the profession. The interview evaluates an applicant's maturity, motivation, initiative, ability to communicate, personal qualities and interests

Other Requirements:

1. **Language Proficiency Requirements:** All applicants must meet the English Language Proficiency and Spoken English requirements (see [Language Proficiency Requirements](#)).
2. **First Aid - Prior to Entering the Program:** - CPR-C (Basic Life Support - BLS) - students must provide evidence of current BLS certification for entry into the program and remain current throughout clinical training.
3. **Medical Testing and Immunization Requirements:** Immunization records are due at the time admission is confirmed. See [University Infectious Diseases Regulation](#).
4. **Police Information Checks:** Applicants should be aware that a clear Police Information Check (PIC) is required as a condition of admission and that any criminal charges pending must be declared. Under the Protection for Persons in Care Act, all students going to any clinical placement or rotation in Alberta are required to complete a Police Information Check (also known as a Criminal Record Check, Security Clearance Check, or Police Clearance), which must include a Vulnerable Sector Check. The clinical practice site will determine the criteria for acceptance/denial of a placement. Police Information Checks are due at the time admission is confirmed. Applicants should plan to have their PIC completed prior to an offer of admission. Students who have concerns related to their ability to provide a clear Police Information Check should consult with the Department of Dentistry. The

ultimate responsibility for ensuring that students meet the requirements of clinical agencies lies with the students. Other background checks may be required by a clinical agency, such as a child intervention record check. Students will be advised if any additional background checks are required by a clinical agency. See [Requirement for Police Information Checks](#) and [Protection for Persons in Care](#) for more information on the general requirements concerning Police Information Checks and the fees associated with them.

5. Completion of Indigenous Canada Massive Open Online Course (MOOC): Admitted applicants should be aware that as a condition of admission, and prior to Orientation, they must provide a certificate of completion of the University of Alberta Faculty of Native Studies Indigenous Canada MOOC*.

**Students who can provide proof of completing Aboriginal Studies 30, via a high school transcript, are considered to have satisfied this requirement.*

6. Computer Literacy and Requirements: Online learning is a critical component of course delivery in this program. To ensure all students have the tools they require in order to meet their academic goals all Dental Assisting students will require, at minimum: access to a computer with a webcam, and a high speed internet connection.

Selection Criteria: To be considered for admission, applicants need to:

- Have the required courses for their program;
- Meet the minimum requirements for their program;
- Fill out a complete application for admission with application fee.

Academic Average: Because the number of candidates who meet the minimum requirements for admission far exceeds the quota, it should be understood that eligibility does not guarantee admission. Admission is determined on a competitive basis. Applicants must meet the minimum requirements in all subjects, even after receiving an admission offer, in order to remain admissible

Interview Selection is based on interim transcripts, including other post-secondary academic records if applicable. Competitive applicants will be interviewed by a team to determine if they have the personal qualities necessary for the profession. The interview evaluates an

	applicant's maturity, motivation, initiative, ability to communicate, personal qualities and interests. Short listed applicants will be advised of the interview dates by email.
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Reviewed/Approved by:

Faculty Learning Committee (FLC), FoMD Faculty Council delegated approver - April 8, 2022
--

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

Calendar Change Request Form for Course Changes

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

Faculty (& Department or Academic Unit):	Faculty of Medicine & Dentistry
Contact Person:	Dr. Steven Patterson steven.patterson@ualberta.ca
Level of change (choose one only) [?]	<input checked="" type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate
For which term will this change take effect?	Fall 2023

Rationale

Things to consider (maximum 500 words, delete these questions before entering your own text):

- *What brought about this idea for change*
- *How will it benefit students*
- *How will it benefit Department/Unit*
- *How is this change comparable to similar programs (internal or external)*
- *Include historical context*
- *Please describe how the changes/ proposal intends to facilitate program administration/ program structure.*

Course Template

Current	Proposed
Removed language	New language
Subject & Number	Subject & Number (TBD)
Title	Foundations of Dental Assisting
Course Career	Course Career Undergraduate
Units	Units 6
Approved Hours	Approved Hours 6 WEEKS
Fee index	Fee index 12
Faculty	Faculty Medicine and Dentistry
Department	Department Dentistry
Typically Offered	Typically Offered either term
Description	<p>Description</p> <p>Foundations of Dental Assisting is the first course in a sequential structure of learning that introduces students to the dental profession and their role as a Dental Assistant. Foundational knowledge and skills will be developed in behavioral sciences, biomedical sciences, oral health sciences and dental assisting theory and practice streams. Students will be able to integrate learning from all four streams and understand the relevance of foundational learning to dental assisting. Students will be introduced to the Simulation Lab, Oral</p>

Health Clinic and have opportunities to apply their knowledge in both settings.
Prerequisite: Consent of the Department.

Subject & Number

Patient Assessment I

Course Career Undergraduate

Units 7

Approved Hours 9 WEEKS

Fee index 14

Faculty Medicine and Dentistry

Department Dentistry

Typically Offered either term

Description

Patient Assessment I is the second course in a sequential structure of learning. This course educates students on patient assessments, findings and related procedures. Students will be able to integrate learning from all four streams of foundational learning to dental assisting. Students will be able to apply their knowledge in various lab and pre-clinical settings to build on their foundational learning. Prerequisites: (Course Number for Foundations in Dental Assisting) and Consent of the Department.

Subject & Number

Patient Assessment II

Course Career Undergraduate

Units 7

Approved Hours 10 WEEKS

Fee index 14

Faculty Medicine and Dentistry

Department Dentistry

Typically Offered either term

Description

Patient Assessment II is the third course in the sequential structure of learning. This course continues to build on the foundational knowledge of course 2 with the emphasis on patient care and clinical procedures. Students will be able to integrate learning from all four streams and apply foundational concepts to dental assisting. Students will be able to apply their knowledge in a combination of lab, pre-clinical and clinical settings to build on their foundational learning. Prerequisites: (Course Number for Patient Assessment I) and Consent

of the Department.

Subject & Number

Clinical Practice I

Course Career Undergraduate

Units 7

Approved Hours 10 WEEKS

Fee index 14

Faculty Medicine and Dentistry

Department Dentistry

Typically Offered either term

Description

Clinical Practice I is the fourth course in the sequential courses of the Dental Assisting Program, the emphasis of this course is for the students to continue to build on integrating all four streams and have a greater understanding of the relevance of foundational learning through the ability to assess, plan, implement and evaluate dental assisting procedures and patient care procedures. Students will continue to apply foundational knowledge through actively participating in assisting within the Oral Health clinic with fellow students and patients and perform their skills on peers in a clinical setting. Prerequisites: (Course Number for Patient Assessment II) and Consent of the Department.

Subject & Number

Clinical Practice II

Course Career Undergraduate

Units 6

Approved Hours 8 WEEKS

Fee index 12

Faculty Medicine and Dentistry

Department Dentistry

Typically Offered either term

Description

This is the final course in the sequential courses of the Dental Assisting Program, the emphasis of this course is for students to apply behavioral, biomedical, oral health sciences and dental assisting theory and practice into clinical practice. Students will apply their knowledge in office administration, assisting with patients in the Oral Health Clinic, treating patients in the Dental Assisting Patient Care Clinic and participating in an external

	practicum in a private dental practice. Prerequisites: (Course Number for Clinical Practice I) and Consent of the Department.
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Reviewed/Approved by:

Faculty Learning Committee (FLC), FoMD Faculty Council delegated approver - April 8, 2022
--

Other consultation groups, departments, or internal faculty approving bodies and approval dates.
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FINAL Item No. 8

Governance Executive Summary
Action Item

Agenda Title	Proposed Changes to the Embedded Certificate in Interdisciplinary Leadership Studies
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Motion

<p>THAT the GFC Programs Committee, with delegated authority from General Faculties Council, approve the proposed changes to the Embedded Certificate in Interdisciplinary Leadership Studies as set forth in attachments 1 and 2 to take effect for fall 2022.</p>

Item

Action Requested	<input checked="" type="checkbox"/> Approval <input type="checkbox"/> Recommendation
Proposed by	Kyle Murray, Acting Dean, Faculty of Business
Presenter(s)	Leo Wong Associate Dean, Undergraduate Programs, Alberta School of Business Richard Field Interim Director of the Peter Lougheed Leadership College

Details

Office of Administrative Responsibility	Provost and Vice-President (Academic)
The Purpose of the Proposal is <i>(please be specific)</i>	The proposal is before the committee because we want to recognize and certify the knowledge about leadership that undergraduates receive in the course of their academic career.
Executive Summary <i>(outline the specific item – and remember your audience)</i>	<p>Leadership development is a key strategic focus for the University. This embedded undergraduate certificate in interdisciplinary leadership studies is supported by President Bill Flanagan, and it has been developed in consultation with the Peter Lougheed Leadership College (PLLC) including its Academic Advisory Committee which comprises of members from most faculties across the university. We have sought cooperation from each Faculty that has an undergraduate program, and we have consulted broadly with key stakeholders inside and outside the University community. Importantly, we have consulted with students to ensure there is demand for the certificate, and that it is designed to meet the needs of students.</p> <p>The PLLC will drive a reimagining of the Certificate in Interdisciplinary Leadership Studies (CILS), which is intended to provide an interdisciplinary approach to leadership education available to students across all faculties of the University.</p> <p>We have designed the certificate in a broad way to reach out to students across disciplines, and with University of Alberta's Strategic Plan for Equity, Diversity, and Inclusion at the forefront of our efforts. By focusing on interdisciplinarity, this certificate supports the efforts of the Colleges to develop bridges between faculties, and it will also facilitate interactions across the Colleges themselves.</p> <p>Students enrolled in the certificate will begin by enrolling in a gateway course: a newly developed interdisciplinary introductory leadership</p>

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course available to all students, from any faculty, which is intended to inspire students to dream of becoming a leader in any field or context they can imagine. As development of this course has involved consultation with faculties across campus, students will be encouraged by their faculties to enroll in the gateway course, either in place of previously offered faculty specific introductory leadership courses, as an elective, or as an extra to degree offering. Once students have completed the gateway course, they will have the opportunity, and will be encouraged, to continue with three additional interdisciplinary leadership courses also being developed by the PLLC. Respecting that many programs are quite rigid, however, there will also be a pre-approved list of faculty-delivered courses that students may substitute. The selection of pre-approved courses for the certificate is done with the intention to work with faculties, via the PLLC's Academic Advisory Committee, to identify the most appropriate offerings that are relevant to leadership education or contain related leadership content.

Students enrolled in the certificate will be encouraged to participate in leadership education inspired co-curricular activities, which will be supported, driven, and, in some cases directly offered, by the PLLC. These opportunities for enrichment in leadership education will range from existing lecture series events, interdisciplinary leadership mentoring, and other synchronous engagements with students and faculty from across campus.

Learning goals for the recipients of the certificate include:

- Develop a deeper understanding of yourself as a leader, and how others lead.
- Increase conceptual knowledge related to the environment in which leaders operate, the organizations and their culture, and how values, vision, mission, and strategy intersect with leaders.
- Gain awareness of leadership as a scholarly, practical, and personal pursuit.
- Practice skills for effective leadership including:
 - o Communication – written and public speaking
 - o Identifying vision and values
 - o Persuasion
 - o Culture Creation
 - o Listening/Caring
 - o Decision/Making

Additionally, the reimagining of the CILS aims to acknowledge the University's Indigenous Strategic Plan by further supporting the Indigenization of curriculum, recognizing the validity of Indigenous knowledge systems, remediating the knowledge gap on Indigenous historical and lived experiences and strengthening academic rigour across disciplines

Curriculum Content

Students will be required to complete all the requirements of the degree program in which they are enrolled. They must complete 12 units (in Leadership Education, including one core Interdisciplinary course of the CILS) as well as an Indigenous perspectives co-requisite.:

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- INT D 101 – Inspired to Dream: Becoming a Leader.

Two additional leadership education courses

- INT D 201 – Inspired to Dream: The Skills You’ll Need (planned to launch Fall 2023)

- INT D 301 – Inspired to Dream: Choose Your Canvas (planned to launch Fall 2023)

OR, two leadership education courses relevant to their field of study selected from a pre-approved list (See Appendix A below).

AND, fulfill an Indigenous Perspectives co-requisite:

-UofA Indigenous Canada MOOC (must provide certificate of completion)

OR NS 201 – Indigenous | Canada: Looking Forward/Looking Back.

Students who can provide proof of completing Aboriginal Studies 30, via a high school transcript, are considered to have satisfied this co-requisite.

Students are encouraged to fulfil the co-requisite requirement during year 1 or 2 of their program.

AND, a capstone leadership education course:

- INT D 407 – Inspired to Dream: Time to Practice (planned to launch Fall 2024)

OR, a capstone leadership course relevant to their field of study selected from a pre-approved list (See Appendix A below).

Target Student Group

Students from faculties across campus are invited to earn the certificate.

Target Employment

This certificate is meant to reflect a reimagining of leadership education, inspiring students with any academic background to see themselves as future leaders in their field. Students who graduate with the CILS will be entering the workforce prepped with the knowledge and skills to make a difference and drive change in their industry.

In reference to the recently released Government of Alberta’s 10-year strategy for post-secondary education (Alberta 2030: Building Skills for Jobs report), this certificate supports Goal number 3 of the six identified in the outset of the report: “Develop Skills for Jobs,” and would be an important step in meeting the “demand for leadership skills” also identified in the report, by providing the province cohorts of students from the University of Alberta ready to lead Alberta into the coming decades.

Other Notes

There are no resource implications regarding any new hires or new space required to offer this certificate, as this will be administered within the current supports in the School of Business.

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	All courses involved in the certificate are either existing courses, or are already being planned to be developed
Supplementary Notes and context	<This section is for use by University Governance only to outline governance process.>

Engagement and Routing (Include meeting dates)

<p>Consultation and Stakeholder Participation (parties who have seen the proposal and in what capacity)</p> <p><For information on the protocol see the Governance Resources section Student Participation Protocol></p>	<p><u>Those who are actively participating:</u></p> <ul style="list-style-type: none"> • Dr. Richard Field, interim director of the PLLC, has identified the CILS as a method of creating a sustainable leadership education certificate experience for all students and is the embodiment of his mission statement for the PLLC: that it “provides the context and structure for students to choose their learning journey of leadership courses, events, talks, mentoring, and experiences.” • Dr. Leo Wong, Associate Dean, Alberta School of Business, has championed a reimagining of the CILS, and firmly believes in an interdisciplinary approach to leadership education which includes (but is not limited to) consultation from all faculties on campus, and inspiring students to see themselves as a future leader.
	<p><u>Those who have been consulted:</u></p> <p>Consultation across Alberta School of Business</p> <ul style="list-style-type: none"> - Leo Wong (Associate Dean) has been leading the reimagining of the CILS project since its outset in 2021. Leo believes strongly in the Alberta School of Business supporting the reimagined certificate and has been working with his team to ensure its success. - Michelle Innes (Associate Professor – Department of Strategy, Entrepreneurship and Management) was consulted in late 2021 regarding the certificate and agrees the Alberta School of Business should support the reimagining of the CILS. Michelle has since agreed to join the development team for the new INT D 101 course. - The proposal was approved by Business Council on March 2nd, 2022. <p>Consultation across University of Alberta</p> <ul style="list-style-type: none"> - Wendy Rodgers (Deputy Provost, Provost & Vice-President Academic) was consulted in January 2022. Wendy provided feedback about how to best approach different faculties at the UofA to ensure the interdisciplinary goals of the reimagined certificate, in both content and enrollment. She feels the reimagining is a good idea for the CILS certificate. - The PLLC Academic Advisory Committee (AAC) containing members from across the UofA in multiple faculties have been consulted on multiple occasions leading up to this proposal. They have provided invaluable feedback which has been incorporated into the decision-making process for the reimagining of the CILS. It is expected that they will continue to support the PLLC and the reimagined CILS as it continues to develop over the coming years. - Arts – Matthew Wildcat (Political Science and Native Studies) was consulted as part of his involvement in the ACC on multiple occasions, but also in January, 2022, as a potential contributor to the INT D 101 course. Matthew sees the value in the reimagined

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	<p>CILS and has provided an indigenous perspective to its ongoing development. David Rast III (Psychology) was consulted in February, 2002. David has extensive knowledge of leadership education and feels the reimagining of the CILS is a good move for leadership education at the UofA. He has also provided a second review of appropriate leadership courses for the pre-approved list of course alternatives. Gordon Gow (Sociology) was consulted in February 2022, as a current professor of a course offered through the PLLC. Gordon provided his feedback and support for the CILS reimagining.</p> <ul style="list-style-type: none">- ALES – Rhonda Breitkreuz (Human Ecology Dept) Faculty Chair, and former instructor in the PLLC, has been a member of the AAC and was consulted in Jan 2022. Rhonda understands the need to reimagine the CILS to ensure the sustainability of the certificate and the PLLC itself. She has provided feedback for the CILS and has helped to find resources for INT D 101 development.- Kinesiology Sports and Recreation – Billy Streaun (KSR) was consulted in late 2021, and again in January and February 2022. Billy has been in support of the CILS reimagining since its inception and continues to play a role in its development as a member of the AAC and as a potential contributor to INT D 101.- Education – Noella Steinhauer (Educational Policy Studies) was consulted in late 2021 and again February 2022. Noella is in support of the CILS reimagining and will continue to provide an indigenous perspective of leadership to the certificate and to the development of INT D 101. Jennifer Branch-Mueller (Elementary Education) was consulted in January 2022. Jennifer provided her excited support of the reimagined CILS as a feeder certificate for the Librarian Leadership program in Education.- Nursing – Beverley Temple (Associate Dean) was consulted in January 2022 and has expressed strong support for the reimagined CILS as an opportunity for Nursing students to enroll in interdisciplinary leadership courses as part of their program which has a large leadership component that is currently limited to courses offered within their own faculty. Additionally, Manal Kleib (Nursing) has provided feedback as a member of the AAC, and Sherry Dahlke (Nursing) was consulted in February 2022, in which she expressed support of the reimagined CILS and was interested in supporting Nursing student’s enrollment.- Engineering – Lianne Lefsrud (Chemical and Materials Engineering) was consulted in February 2022. Lianne has provided feedback about how to make the CILS approachable for the rigid program in engineering and is generally in support of the reimagining of the certificate. She has provided information on how to ensure INT D 101 can be made applicable for the engineering program and helped to identify courses for the pre-approved elective list.- Faculty of Native Studies – <u>Nathalie Kermoal (Associate Dean) and Florence Glanfield (Vice-Provost – Indigenous Programing & Research) have provided advice on how to ensure the CILS meets the University’s goal of Indigenization of the curriculum. Their support and critique has been instrumental in developing the Indigenous Perspectives co-requisite for the reimagined CILS.</u>
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	<p><u>Additionally</u>, Shalene Jobin (Native Studies) was consulted in late 2021. Shalene expressed support of the reimagined CILS and a willingness to contribute to the indigenous perspective of leadership in the development of INT D 101. Shalene provided contact to the graduate student who produced an extensive document of curriculum recommendations for the PLLC, which will be adapted for the reimagined CILS and further course development.</p> <ul style="list-style-type: none"> - Science - Torah Kachur (Biological Sciences) was consulted in late 2021 regarding the certificate and has agreed to join the development team for the new INT D 101 course. <p><u>Those who have been informed:</u></p> <ul style="list-style-type: none"> • CSSH Council of Deans (September 29, 2021) • Deans Council (Oct 6, 2021)
Approval Route (Governance) (including meeting dates)	<p>Discussed at Program Support Team with feedback incorporated – January 20, 2022 Approved at the School of Business Undergraduate Studies Policy Committee – February 15, 2022 Approved at the School of Business Faculty Council – March 2, 2022 <u>Acting Dean Kyle Murray - April 13, 2022</u> <u>GFC Programs Committee - April 14, 2022</u></p>

Strategic Alignment

Alignment with <i>For the Public Good</i>	<p>The CILS certificate aligns with the University of Alberta’s strategic goals, in general, but specifically in the following ways. Objective 17, “Facilitate, build, and support interdisciplinary, cross-faculty, and cross-unit engagement and collaboration,” is supported by the CILS through the inherent interdisciplinary nature of the certificate, which is further supported by consultation from a variety of disciplines during embedded course development. Objective 8, “Create and facilitate co- and extra-curricular learning experiences for undergraduate and graduate students that enable their self-discovery and give them the skills to use their talents, creativity, and curiosity to contribute as future citizens and leaders” is supported by the CILS, as the certificate will drive opportunities for co-curricular activities in leadership across campus, which will be open not only to those enrolled in the CILS, but the entire population of campus, thus further enriching the educational experience for all students across campus.</p> <p>The University of Alberta's Strategic Plan for Equity, Diversity and Inclusion (EDI) has been of constant consideration during the reimagining of the CILS. In fact, one of the hallmarks of this reimagining is to ensure the CILS is much more accessible to students across campus, from all faculties, than previously experienced by expanding the enrollment to a level previously unimaginable for the certificate. The CILS is available to any student who wishes to be inspired to dream to become a leader; equitable access is a hallmark of the reimagined CILS experience. The CILS also aims to support the recognition of diversity in the field of leadership, which is supported by the interdisciplinary nature of the education, but also of the consultation and course content.</p>
Alignment with Core Risk Area	Please note below the specific institutional risk(s) this proposal is addressing.

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	<input type="checkbox"/> Enrolment Management <input type="checkbox"/> Faculty and Staff <input type="checkbox"/> Funding and Resource Management <input type="checkbox"/> IT Services, Software and Hardware <input type="checkbox"/> Leadership and Change <input type="checkbox"/> Physical Infrastructure	<input checked="" type="checkbox"/> Relationship with Stakeholders <input checked="" type="checkbox"/> Reputation <input type="checkbox"/> Research Enterprise <input type="checkbox"/> Safety <input checked="" type="checkbox"/> Student Success
Legislative Compliance and jurisdiction	<i>Post-Secondary Learning Act</i> GFC Programs Committee Terms of Reference	

Attachments (each to be numbered 1 - <>)

1. Certificate in Interdisciplinary Leadership Studies Reimagining
2. Calendar Change-Certificate in Interdisciplinary Leadership Studies
3. Library Impact Statement

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**Program Approval Template
Embedded Credit Certificates**

This template is to be used for proposals calling for the establishment of new University of Alberta embedded credit certificates. Embedded credit certificates are taken concurrently with a degree program of the University of Alberta. (Certificate in Peace and Post-Conflict Studies offered by the Faculty of Arts; Graduate Certificate in Community-Based Research and Evaluation offered by Faculty of Graduate Studies and Research and Faculty of Extension.)

Development process: As early steps in the embedded certificate development process, proponents of new embedded certificates should first obtain the support of all Faculty Deans involved, after which consultation with the Vice-Provost (Indigenous Programming & Research) should follow. Following consultation with all involved Deans and the Vice-Provost (Indigenous Programming & Research), proponents should forward the draft proposal documents to the Vice-Provost (Programs).

Governance: Embedded credit certificates are approved by the following route: Faculty Council, GFC Programs Committee. In the event that the certificate proposal includes significant resource (space, budget) implications, the certificate will also be sent to GFC APC for approval.

Section A: Basics		
Program Name	Embedded Certificate in Interdisciplinary Leadership Studies	
Sponsoring Faculty/Faculties/Academic Unit	Peter Lougheed Leadership College Administered by Alberta School of Business. With development input and cooperation from faculties which include <ul style="list-style-type: none"> - ALES - Arts - Kinesiology, Sport, and Recreation - Education - Engineering - Nursing - Native Studies - Science 	
Contact information	Name and Title	Dr. Leo Wong Associate Dean Alberta School of Business
	Phone	780-492-9478
	Email	leo.wong@ualberta.ca
Institution(s) If multiple institutions are involved, specify the nature of the collaboration. Identify which institution(s) will award the credential.	n/a	
Units of Course Weight	12	
Program Synopsis Describe the program. Include curriculum content, target student group, target employment, further education options, etc.	The Peter Lougheed Leadership College (PLLC) will drive a <u>reimagining</u> of the Certificate in Interdisciplinary Leadership Studies (CILS), which is intended to provide an interdisciplinary approach to leadership education available to students across all faculties of the University.	

Students enrolled in the certificate will begin by enrolling in a gateway course: a newly developed interdisciplinary introductory leadership course available to all students, from any faculty, which is intended to inspire students to dream of becoming a leader in any field or context they can imagine. As development of this course has involved consultation with faculties across campus, students will be encouraged by their faculties to enroll in the gateway course, either in place of previously offered faculty specific introductory leadership courses, as an elective, or as an extra to degree offering. Once students have completed the gateway course, they will have the opportunity, and will be encouraged, to continue with three additional interdisciplinary leadership courses also being developed by the PLLC. Respecting that many programs are quite rigid, however, there will also be a pre-approved list of faculty-delivered courses that students may substitute. The selection of pre-approved courses for the certificate is done with the intention to work with faculties, via the PLLC's Academic Advisory Committee, to identify the most appropriate offerings that are relevant to leadership education or contain related leadership content.

Students enrolled in the certificate will be encouraged to participate in leadership education inspired co-curricular activities, which will be supported, driven, and, in some cases directly offered, by the PLLC. These opportunities for enrichment in leadership education will range from existing lecture series events, interdisciplinary leadership mentoring, and other synchronous engagements with students and faculty from across campus.

Learning goals for the recipients of the certificate include:

- Develop a deeper understanding of yourself as a leader, and how others lead.
- Increase conceptual knowledge related to the environment in which leaders operate, the organizations and their culture, and how values, vision, mission, and strategy intersect with leaders.
- Gain awareness of leadership as a scholarly, practical, and personal pursuit.
- Practice skills for effective leadership including:
 - o Communication – written and public speaking
 - o Identifying vision and values
 - o Persuasion
 - o Culture Creation
 - o Listening/Caring
 - o Decision/Making

Additionally, the reimagining of the CILS aims to acknowledge the University's Indigenous Strategic Plan by further supporting the Indigenization of curriculum, recognizing the validity of Indigenous knowledge systems, remediating the knowledge gap on Indigenous historical and lived experiences and strengthening academic rigour across disciplines

Curriculum Content

Students will be required to complete all the requirements of the degree program in which they are enrolled. They must complete 12 units in Leadership Education (including one core Interdisciplinary course of the CILS) as well as an Indigenous perspectives co-requisite:

-INT D 101 – Inspired to Dream: Becoming a Leader.

Two additional leadership education courses

-INT D 201 – Inspired to Dream: The Skills You’ll Need (planned to launch Fall 2023)

-INT D 301 – Inspired to Dream: Choose Your Canvas (planned to launch Fall 2023)

OR, two leadership education courses relevant to their field of study selected from a pre-approved (See Appendix A below).

AND, a capstone leadership education course:

-INT D 407 – Inspired to Dream: Time to Practice (planned to launch Fall 2024)

OR, a capstone leadership course relevant to their field of study selected from a pre-approved list (See Appendix A below).

AND, fulfill an Indigenous Perspectives co-requisite:

-UofA Indigenous Canada MOOC (must provide certificate of completion)

OR NS 201 – Indigenous | Canada: Looking Forward/Looking Back.

Students who can provide proof of completing Aboriginal Studies 30, via a high school transcript, are exempt from this co-requisite.

Students are encouraged to fulfil the co-requisite requirement during year 1 or 2 of their program.

Target Student Group

Students from faculties across campus are invited to earn the certificate, provided they will have the time to earn the certificate in a four year period.

Target Employment

This certificate is meant to reflect a reimagining of leadership education, inspiring students with any academic background to see themselves as future leaders in their field. Students who graduate with the CILS will be entering the workforce prepped with the knowledge and skills to make a difference and drive change in their industry. In reference to the recently released Government of Alberta’s 10-year strategy for post-secondary education (Alberta 2030: Building Skills for Jobs report), this certificate supports Goal number 3 of the six identified in the outset of the report: “Develop Skills for Jobs,” and would be an important step in meeting the “demand for leadership skills” also identified in the report, by providing the province cohorts of students from the University of Alberta ready to lead Alberta into the coming decades.

Section B: Rationale, Implications and Impact	
<p>Rationale for Introduction of Certificate Outline the rationale for the proposed embedded credit certificate and provide supporting data if applicable – eg. Results of student or economic demand analyses; consultation with wider community, etc.</p>	<p>This reimagining of the CILS reflects a vision of President Bill Flanagan for the University of Alberta, to grow as a hub for leadership education in the Province and the Country. The reimagining of the CILS is a direct response to feedback received by the PLLC to prioritize leadership as an interdisciplinary study, inspiring anyone to build their knowledge and skills and becoming a leader. After corresponding with faculties from across campus, the certificate will offer a much broader scope of leadership education and is intended to appeal to students of any discipline or study. Enrollment will reflect the goal of inspiring every student to become a leader and provide them the necessary knowledge and skills to do so.</p> <p>Dr. Richard Field, interim director of the PLLC, has identified the CILS as a method of creating a sustainable leadership education certificate experience for all students and is the embodiment of his mission statement for the PLLC: that it “provides the context and structure for students to choose their learning journey of leadership courses, events, talks, mentoring, and experiences.”</p> <p>Dr. Leo Wong, Associate Dean, Alberta School of Business, has championed a reimagining of the CILS, and firmly believes in an interdisciplinary approach to leadership education which includes (but is not limited to) consultation from all faculties on campus, and inspiring students to see themselves as a future leader.</p>
<p>Vision and Academic Plan How does the proposed program align with the strategic goals described in <i>For the Public Good and the University of Alberta’s Strategic Plan for Equity, Diversity, and Inclusion</i>? How does the program further the objectives or align with the other institutional, Faculty, and College strategies?</p>	<p>The CILS certificate aligns with the University of Alberta’s strategic goals, in general, but specifically in the following ways. Objective 17, “Facilitate, build, and support interdisciplinary, cross-faculty, and cross-unit engagement and collaboration,” is supported by the CILS through the inherent interdisciplinary nature of the certificate, which is further supported by consultation from a variety of disciplines during embedded course development. Objective 8, “Create and facilitate co- and extra-curricular learning experiences for undergraduate and graduate students that enable their self-discovery and give them the skills to use their talents, creativity, and curiosity to contribute as future citizens and leaders” is supported by the CILS, as the certificate will drive opportunities for co-curricular activities in leadership across campus, which will be open not only to those enrolled in the CILS, but the entire population of campus, thus further enriching the educational experience for all students across campus.</p> <p>The University of Alberta’s Strategic Plan for Equity, Diversity and Inclusion (EDI) has been of constant consideration during the reimagining of the CILS. In fact, one of the hallmarks of this reimagining is to ensure the CILS is much more accessible to students across campus, from all faculties, than previously experienced by expanding the enrollment to a level previously unimaginable for the certificate. The CILS is available to any student who wishes to be inspired to dream to become a leader; equitable access is a hallmark of the reimagined CILS experience. The CILS also aims to support the recognition of diversity in the field of leadership, which is supported by the interdisciplinary nature of the education, but also of the consultation and course content.</p>
<p>Resource Implications Identify the resource implications of the proposed embedded credit certificate. Identify if resources are being re-allocated to or from other areas, and outline the</p>	<p>The School of Business will administer the CILS, by reconfiguring current supports already in place.</p> <p>The PLLC will continue to drive development and provide opportunities for students to participate in co-curricular leadership education opportunities and enrichments, which are already being made accessible across campus.</p>

implications of this re-allocation.

There are four interdisciplinary courses being developed to support the CILS, the first of which, INT D 101 - Inspired to Dream: Becoming a Leader, is already under development and is intended to accept registration beginning in Fall 2022.

Enrolment
 Outline the expected enrolment for the embedded credit certificate and any potential impacts on course offerings.

We expect this certificate will be well received among students in all Faculties. We do not anticipate any negative impacts on existing course offerings, and believe that the interdisciplinary courses driven by the PLLC will complement leadership education opportunities that are currently offered by faculties across campus.

We estimate that in the first year of implementation (2022-23), we will have 1000 students enrolled in the gateway course, all of which will be encouraged to enroll in the certificate as well. Some students will progress quickly through the Certificate by taking faculty-specific options for their 200, 300 and 400 level courses. We estimate that most of the CILS students will start to complete the Certificate by 2024-25 when the INT D 407 is planned to launch.

We expect enrollment to increase as the certificate grows in popularity and notoriety. As students progress through the certificate, we estimate that 250 will meet all of the requirements by 2025-26 and grow steadily from there.

Proposed Enrolment	2022-23	2023-24	2024-25	2025-26	Annual Ongoing
• Total Full-Time head count	0	0	0	0	0
• Full-Time Year 1	1000	1100	1200	1300	
• Full-Time Year 2		400	450	500	
• Full-Time Year 3			300	325	
• Full-Time Year 4			50	250	
• Full-Time Year 5					
• Total Part-Time head count	0	0	0	0	0
• Part-Time Year 1					
• Part-Time Year 2					
• Part-Time Year 3					
• Part-Time Year 4					
• Part-Time Year 5					
• Total Work Experience hc	0	0	0	0	0
• Work Experience Year 1					
• Work Experience Year 2					
• Work Experience Year 3					
• Work Experience Year 4					
• Work Experience Year 5					
• Anticipated Number of Graduates			50	250	

Implications of Introduction of the Credit Certificate
 Identify the implications of the proposed embedded credit certificate for the system. For example, will

We do not anticipate any negative implications for any programs at the University of Alberta. The certificate is designed to work within the constraints of existing majors and programs.

The certificate is not meant to replace any aspect of the educational path, rather it is designed to enhance the experience and learning, inspiring them to become leaders in their chosen program of study.

<p>it affect other programs at the U of A, programs at other institutions, etc.?</p>	
<p>Consultation Describe any consultation and/or potential impacts on service units of the University, including the RO, Academic Information and Communication Technologies (AICT), Libraries, Facilities and Operations, Student Services, etc.</p>	<p>Consultation across Alberta School of Business</p> <ul style="list-style-type: none"> - Leo Wong (Associate Dean) has been leading the reimagining of the CILS project since its outset in 2021. Leo believes strongly in the Alberta School of Business supporting the reimagined certificate and has been working with his team to ensure its success. - Michelle Innes (Associate Professor – Department of Strategy, Entrepreneurship and Management) was consulted in late 2021 regarding the certificate and agrees the Alberta School of Business should support the reimagining of the CILS. Michelle has since agreed to join the development team for the new INT D 101 course. - The proposal was approved by Business Council on March 2nd, 2022. <p>Consultation across University of Alberta</p> <ul style="list-style-type: none"> - CSSH Council of Deans (September 29, 2021) and Deans Council (Oct 6, 2021) - Presentations made with helpful feedback collected from Faculty Deans - Wendy Rodgers (Deputy Provost, Provost & Vice-President Academic) was consulted in January 2022. Wendy provided feedback about how to best approach different faculties at the UofA to ensure the interdisciplinary goals of the reimagined certificate, in both content and enrollment. She feels the reimagining is a good idea for the CILS certificate. - The PLLC Academic Advisory Committee (AAC) containing members from across the UofA in multiple faculties have been consulted on multiple occasions leading up to this proposal. They have provided invaluable feedback which has been incorporated into the decision-making process for the reimagining of the CILS. It is expected that they will continue to support the PLLC and the reimagined CILS as it continues to develop over the coming years. - Arts – Matthew Wildcat (Political Science and Native Studies) was consulted as part of his involvement in the ACC on multiple occasions, but also in January, 2022, as a potential contributor to the INT D 101 course. Matthew sees the value in the reimagined CILS and has provided an indigenous perspective to its the ongoing development. David Rast III (Psychology) was consulted in February, 2002. David has extensive knowledge of leadership education feels the reimagining of the CILS is a good move for leadership education at the UofA. He has also provided a second review of appropriate leadership courses for the pre-approved list of course alternatives. Gordon Gow (Sociology) was consulted in February 2022, as a current professor of a course offered through the PLLC. Gordon provided his feedback and support for the CILS reimagining. - ALES – Rhonda Breikreuz (Human Ecology Dept) Faculty Chair, and former instructor in the PLLC, has been a member of the AAC and was consulted in Jan 2022. Rhonda understands the need to reimagine the CILS to ensure the sustainability of the certificate and the PLLC itself. She has provided feedback for the CILS and has helped to find resources for INT D 101 development. - Kinesiology Sports and Recreation – Billy Strean (KSR) was consulted in late 2021, and again in January and February 2022. Billy has been in support of the CILS reimagining since its inception and continues to play a role in its development as a member of the AAC and as a potential contributor to INT D 101. - Education – Noella Steinhauer (Educational Policy Studies) was consulted in late 2021 and again February 2022. Noella is in support of the CILS reimagining and will

	<p>continue to provide an indigenous perspective of leadership to the certificate and to the development of INT D 101. Jennifer Branch-Mueller (Elementary Education) was consulted in January 2022. Jennifer provided her excited support of the reimaged CILS as a feeder certificate for the Librarian Leadership program in Education.</p> <ul style="list-style-type: none"> - Nursing – Beverley Temple (Associate Dean) was consulted in January 2022 and has expressed strong support for the reimaged CILS as an opportunity for Nursing students to enroll in interdisciplinary leadership courses as part of their program which has a large leadership component that is currently limited to courses offered within their own faculty. Additionally, Manal Kleib (Nursing) has provided feedback as a member of the AAC, and Sherry Dahlke (Nursing) was consulted in February 2022, in which she expressed support of the reimaged CILS and was interested in supporting Nursing student’s enrollment. - Engineering – Lianne Lefsrud (Chemical and Materials Engineering) was consulted in February 2022. Lianne has provided feedback about how to make the CILS approachable for the extremely rigid program in engineering and is generally in support of the reimaging of the certificate. She has provided information on how to ensure INT D 101 can be made applicable for the engineering program and helped to identify courses for the pre-approved elective list. - Faculty of Native Studies – <u>Nathalie Kermoal (Associate Dean) and Florence Glanfield (Vice-Provost – Indigenous Programing & Research) have provided advice on how to ensure the CILS meets the University’s goal of Indigenization of the curriculum. Their support and critique has been instrumental in developing the Indigenous Perspectives co-requisite for the reimaged CILS. Additionally,</u> Shalene Jobin (Native Studies) was consulted in late 2021. Shalene expressed support of the reimaged CILS and a willingness to contribute to the indigenous perspective of leadership in the development of INT D 101. Shalene provided contact to the graduate student who produced and extensive document of curriculum recommendations for the PLLC, which will be adapted for the reimaged CILS and further course development. - Science - Torah Kachur (Biological Sciences) was consulted in late 2021 regarding the certificate and has agreed to join the development team for the new INT D 101 course.
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Appendices	
<p>Appendix A – curriculum and program structure List course names, numbers, and descriptions. Indicate if the courses are new or existing. Include draft content for the University Calendar.</p>	<p>Courses</p> <p>The PLLC will develop a required 100-level course, as well as a 200-level, 300-level, and 400-level course as electives for students to take in the CILS. The current plans are:</p> <p><i>Required</i></p> <ul style="list-style-type: none"> • INT D 101 – Inspired to Dream: Becoming a Leader <p><i>Electives</i></p> <ul style="list-style-type: none"> • INT D 201 – Inspired to Dream: The Skills You’ll Need (planned to launch Fall 2023) • INT D 301 – Inspired to Dream: Choose Your Canvas (planned to launch Fall 2023)

Capstone

- INT D 407 – Inspired to Dream: Time to Practice (planned to launch Fall 2024)

Pre-Approved List of Substitute Elective and Capstone Courses

Through a scan of the course catalogue, here are some existing courses that could be taken as part of the certificate, in addition to the INT D courses that will be developed as well.

Alberta School of Business

- SEM 301 - Behavior in Organizations
- SEM 322 - Theory of Organizational Behaviour
- SEM 330 – Introduction to Entrepreneurship
- SEM 402 - Management Skills for Supervisors and Leaders
- SEM 470 – Leadership Lecture Series

ALES

- ALES 204 - Communication Fundamentals
- HECOL 301 - Program Planning and Evaluation
- R SOC 375 - Public Participation and Conflict Resolution

Arts

- INT D 241 – Studies in Leadership

Augustana

- AUIDS 206/306 – Student Leadership: Theory and Practice
- AUPSY 240 - Social Psychology
- AUPED 286 - Outdoor Education and Leadership
- AUPED 290 - Studies in Leadership Theory
- AUSOC 393 - Political Sociology

Education

- EDU 211 - Aboriginal Education and Contexts for Professional and Personal Engagement
- EDPS 410 - Ethics and Law in Teaching

Engineering

- ENGG 200 - Special Topics in Success in Engineering
- ENGG 404 - Leadership in Risk Management

Kinesiology, Sport and Recreation

- RLS 122 – Leadership in Recreation and Leisure Activities
- KIN 205 - Introduction to Outdoor Environmental Education

Native Studies

- ~~NS 222 – Dene Chanie – Dene Leadership That Path That We Walk~~
- NS 345 - Governance in Indigenous Nations
- NS 420 - Partnership Strategies
- NS 445 - Community Development Process
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	<p>Nursing</p> <ul style="list-style-type: none"> • NURS 200 - Innovation, Systems Thinking and Leadership in Healthcare (also offered in French by Faculté St. Jean as SC INF 200) • NURS 300 - Health Policy, Health Care Organizations, Change Management (also offered in French by Faculté St. Jean as SC INF 300) • NURS 400 – Leadership in Nursing and Interprofessional Practice • NURS 409 – Leadership and Issues in Nursing (also offered in French by Faculté St. Jean as SC INF 409) <p>Pharmacy</p> <ul style="list-style-type: none"> • PHARM 213 - Behavioural, Administrative, Social and Evidence-based Pharmacy <p>Science</p> <ul style="list-style-type: none"> • INT D 241 – Studies in Leadership <p>Capstone Courses</p> <ul style="list-style-type: none"> • AUIDS 406 – Capstone Course in Leadership • INT D 440 – Learning to Lead in Teaching • INT D 441 - Individual Leadership Practicum • ENGG 490 – Engineering Leadership Lab • NURS 425 – Nursing Leadership in a Focus Area (also offered in French by Faculté St. Jean as SC INF 425) • PHARM 495 – Leadership in Healthcare Decision Making
<p>Appendix B – other Include any additional information in support of the proposal including the Library Impact Statement and letters of support.</p>	<p>Library Impact Statement is <u>attached</u>.</p>

Calendar Change Request Form for Program and Regulation Changes

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

Faculty (& Department or Academic Unit):	Business (Undergraduate)
Contact Person:	Leo Wong
Level of change (choose one only) [?]	<ul style="list-style-type: none"> • Undergraduate
Type of change request (check all that apply) [?]	<ul style="list-style-type: none"> • Program • Regulation
For which term is this intended to take effect?	Fall 2022
Does this proposal have corresponding course changes? (Should be submitted at the same time)	INT D 101 – Already approved INT D 201 – planned for revisions in Fall 2023 INT D 301 – planned for revisions in Fall 2023 INT D 407 – planned for revisions in Fall 2024

Rationale

This reimagining of the CILS reflects a vision for the University of Alberta to grow as a hub for leadership education in Alberta and Canada. The reimagining of the CILS is a direct response to feedback received by the PLLC to prioritize leadership as an interdisciplinary study, inspiring anyone to build their knowledge and skills and becoming a leader. After corresponding with faculties from across campus, the certificate will offer a much broader scope of leadership education and will appeal to many faculties. Enrollment will reflect the goal of inspiring every student to become a leader and provide them the necessary knowledge and skills to do so.

The CILS certificate aligns with the University of Alberta’s strategic goals, in general, but specifically in the following ways. Objective 17, “Facilitate, build, and support interdisciplinary, cross-faculty, and cross-unit engagement and collaboration,” is supported by the CILS through the inherent interdisciplinary nature of the certificate, which is further supported by consultation from a variety of disciplines during embedded course development. Objective 8, “Create and facilitate co- and extra-curricular learning experiences for undergraduate and graduate students that enable their self-discovery and give them the skills to use their talents, creativity, and curiosity to contribute as future citizens and leaders” is supported by the CILS, as the certificate encourages voluntary co-curricular activities.

The University of Alberta’s Strategic Plan for Equity, Diversity and Inclusion (EDI) has been of constant consideration during the reimagining of the CILS. In fact, one of the hallmarks of this reimagining is to ensure the CILS is much more accessible to students across campus, from all faculties. The CILS is available to any student who wishes to be inspired to dream to become a leader. The CILS will also reflect the diversity in the field of leadership, through an interdisciplinary approach in development of the content within each course.

We estimate that in the first year of implementation (2022-23), we will have 1,000 students enrolled in INT D 101, all of which will be encouraged to enroll in the certificate as well.

We expect enrollment to increase as the certificate grows in popularity and awareness. As students progress through the certificate, we estimate that 250 will meet all of the requirements and will be able to apply for graduation with the CILS.

In addition to INT D 101 (Inspired to Dream: Becoming a Leader), the PLLC will also develop a 200-level, 300-level and 400-level course, as electives for students to take in the CILS. The current plans are:

- INT D 201 – Inspired to Dream: The Skills You’ll Need (planned to launch Fall 2023)
- INT D 301 – Inspired to Dream: Choose Your Canvas (planned to launch Fall 2023)
- INT D 407 – Inspired to Dream: Time to Practice (planned to launch Fall 2024)

There will also be a pre-approved list of faculty-delivered courses, with the intention to work with faculties, via the PLLC’s Academic Advisory Committee, to identify the most appropriate offerings that are relevant to leadership education or contain related leadership content. Through a scan of the course catalogue, here are some courses that could be taken as part of the certificate, in addition to the INT D courses that will be developed as well.

Alberta School of Business

- SEM 301 - Behavior in Organizations
- SEM 322 - Theory of Organizational Behaviour
- SEM 330 – Introduction to Entrepreneurship
- SEM 402 - Management Skills for Supervisors and Leaders
- SEM 470 – Leadership Lecture Series

ALES

- ALES 204 - Communication Fundamentals
- HECOL 301 - Program Planning and Evaluation
- R SOC 375 - Public Participation and Conflict Resolution

Arts

- INT D 241 – Studies in Leadership

Augustana

- AUIDS 206/306 – Student Leadership: Theory and Practice
- AUPSY 240 - Social Psychology
- AUPED 286 - Outdoor Education and Leadership
- AUPED 290 - Studies in Leadership Theory
- AUSOC 393 - Political Sociology

Education

- EDU 211 - Aboriginal Education and Contexts for Professional and Personal Engagement
- EDPS 410 - Ethics and Law in Teaching

Engineering

- ENGG 200 - Special Topics in Success in Engineering
- ENGG 404 - Leadership in Risk Management

Kinesiology, Sport and Recreation

- RLS 122 - Leadership in Recreation and Leisure Activities
- KIN 205 - Introduction to Outdoor Environmental Education

Native Studies

- [NS 345 - Governance in Indigenous Nations](#)
- [NS 420 - Partnership Strategies](#)
- [NS 445 - Community Development Process](#)

Nursing

- NURS 200 - Innovation, Systems Thinking and Leadership in Healthcare (also offered in French by Faculte St. Jean as SC INF 200)
- NURS 300 - Health Policy, Health Care Organizations, Change Management (also offered in French by Faculte St. Jean as SC INF 300)
- NURS 400 – Leadership in Nursing and Interprofessional Practice

- NURS 409 – Leadership and Issues in Nursing (also offered in French by Faculte St. Jean as SC INF 409)

Pharmacy

- PHARM 213 - Behavioural, Administrative, Social and Evidence-based Pharmacy

Science

- INT D 241 – Studies in Leadership

Capstone Courses

- AUIDS 406 – Capstone Course in Leadership
- INT D 440 – Learning to Lead in Teaching
- INT D 441 - Individual Leadership Practicum
- ENGG 490 – Engineering Leadership Lab
- NURS 425 – Nursing Leadership in a Focus Area (also offered in French by Faculte St. Jean as SC INF 425)
- PHARM 495 – Leadership in Healthcare Decision Making
- SEM 471 – Leadership Seminar

The reimagining of the CLS aims to acknowledge the University’s Indigenous Strategic Plan by further supporting the Indigenization of curriculum, recognizing the validity of Indigenous knowledge systems, remediating the knowledge gap on Indigenous historical and lived experiences and strengthening academic rigour across disciplines

Students will be required to meet an indigenous perspectives co-requisite requirement by completing:

- UofA Indigenous Canada MOOC*
- NS 201 - Indigenous Canada: Looking Forward/Looking Back

*Students who can provide proof of completing Aboriginal Studies 30, via a high school transcript, are considered to have satisfied this co-requisite.

Calendar Copy

URL in current Calendar (or leave blank if it is a new page):

https://calendar.ualberta.ca/preview_program.php?catoid=34&poid=38926

Current

Certificate in Interdisciplinary Leadership Studies

The Certificate in Interdisciplinary Leadership Studies will provide undergraduate students with opportunities for learning that will forge leadership skills and competences through academic courses and co-curricular programming which engages experiential learning, a diverse range of leadership styles, and commitment to ethical behavior and social responsibility. Undergraduates will also have access to excellence in mentorship by individuals with proven leadership qualities in the local, national and international communities. The certificate will be available to all undergraduate students.

Eligibility Requirements

Undergraduate students may apply to pursue the Certificate in Interdisciplinary Leadership Studies by meeting the following requirements:

1. Submitting the application form and all supporting documents by the application deadline.

Proposed

Certificate in Interdisciplinary Leadership Studies

The Certificate in Interdisciplinary Leadership Studies will provide undergraduate students with opportunities for learning that will forge leadership skills and competences through academic courses and co-curricular programming which engages experiential learning, a diverse range of leadership styles, and commitment to ethical behavior and social responsibility. Undergraduates will also have access to excellence in mentorship by individuals with proven leadership qualities in the local, national and international communities. The certificate will be available to all undergraduate students.

While completing the undergraduate program in their respective Faculties, students will complete a minimum of 12 units from the list of designated courses that have a leadership focus or contain significant leadership content. In addition, students will be encouraged to participate in leadership-related co-curricular activities. Voluntary participation in co-curricular activities may include a

2. Students must normally have completed a minimum of ★30 and a maximum of ★84 towards their degree including courses in progress during the term in which they apply;
3. After-Degree students will be considered on a case-by-case basis depending on the room they have in their programs to accommodate the Certificate;
4. Students must be in satisfactory academic standing in their degree program at the time of application;
5. Students must be current University of Alberta undergraduate students, or transfer students who have been accepted to an undergraduate degree program at the University of Alberta;
6. Students who do not meet one or more of the above eligibility requirements, but are interested in applying, are encouraged to enroll in INT D 301 and contact the Peter Lougheed Leadership College to discuss a potential application.

Acceptance

The Peter Lougheed Leadership College Admissions Committee is created by the Peter Lougheed Leadership College with the advice and consent of the Faculty of Business. Limited space exists in the Certificate in Interdisciplinary Leadership Studies. Priority will be given to applicants who meet the above eligibility requirements. At the discretion of the Peter Lougheed Leadership College Admissions Committee, other applicants will be considered.

1. Applications of all eligible students will be evaluated and students will be shortlisted for interviews based on the criteria in Eligibility Requirements above.
2. Recommendations for acceptance will be made by Peter Lougheed Leadership College Admissions Committee on the basis of the capacity of the student to succeed academically,
 - a. the capacity of the student to work in an interdisciplinary and team focused setting, and
 - b. the student's commitment to the values of the Peter Lougheed Leadership College as demonstrated in their application and interview.
 - c. The Peter Lougheed Leadership College Admissions Committee will also be concerned to ensure a broad diversity of students in the Certificate to reflect the diversity of the University community overall, including diverse disciplines and fields of study.
3. The Peter Lougheed Leadership College Admissions Committee will recommend to the Faculty of Business the names of students to be admitted to the Certificate.

Stretch Experience, mentoring from community and industry leaders, attending Lougheed College Lectures, Lougheed Leadership Forums, or Leader Communication Training.

Certificate Requirements

Students may pursue the Certificate in Interdisciplinary Leadership Studies by fulfilling existing requirements for completion in their respective disciplines, and by completing the following:

1. INT D 101 (3 units)
2. Indigenous Perspectives co-requisite*
3. 6 units in elective courses from the preapproved list of academic courses endorsed by the Peter Lougheed Leadership College (PLLC) at the 100-300 level
4. INT D 407 (3 units) or 3 units in an alternate 400 level course from the pre-approved list of academic capstone courses endorsed by the PLLC

**UofA Indigenous Canada MOOC (provide certificate of completion), or NS 201 (3 Credits).
Students are encouraged to complete the co-requisite by year two of their program.
Students who can provide proof of completing Aboriginal Studies 30, via a high school transcript, are considered to have satisfied this co-requisite.*

Completion

1. Students will register for the Certificate by completing an "intention to complete the certificate" form available on the Peter Lougheed Leadership College website.
2. Students will apply to graduate with the certificate by submitting an application to the Faculty of Business Undergraduate Office by February 1 for Spring Convocation and September 1 for Fall Convocation.
3. No more than half of the course requirements for this certificate may overlap with the requirements of another certificate.
4. Students will receive the Certificate in Interdisciplinary Leadership Studies upon completion of all program requirements for their primary degree program and the successful completion of all courses in the certificate program.

This is an embedded certificate; the certificate will only be awarded when the degree is awarded.

Coursework

Students are required to complete all of the requirements for their degree program. In addition to those requirements, students will successfully complete the following courses:

- INT D 301 – Foundations of Leadership
- INT D 306 – Leadership for Social Innovation
- INT D 406 – Leadership to Innovation Science and Leadership
- INT D 407 – Workshop in Leadership

Note:

INT D 301 is a pre-requisite for all remaining certificate courses, although students may take INT D 301 and INT D 306 simultaneously.

Other Program Requirements

Students will also complete a stretch experience. This consists of a minimum of 200 hours of leadership-related activities. Stretch experiences will be approved by the Faculty of Business.

Once accepted to the Certificate, students will be guaranteed the ability to complete the certificate requirements within their original program provided they remain in good standing.

Continuation, Academic Standing and Completion

1. Students must maintain satisfactory academic standing in their home Faculty, and successfully fulfill all the academic requirements of their primary program including conditions or limitations placed upon them because of participation in the Certificate.
2. Normally, a failure to maintain satisfactory academic standing, or a failure to fulfill the conditions or limitations of their home Faculty, or a failure to successfully complete any of the required courses, and approved stretch experience, in the Certificate will mean the student will be required to withdraw from the Certificate. Such decisions will be made by the Faculty of Business in consultation with the Peter Lougheed Leadership College, the Academic Oversight Committee and the home Faculty of the student.
 1. Students who have failed any of the required courses may appeal that failure in accordance with the appeal regulations of the Faculty hosting the course. Decisions

~~made by Faculties in grade appeals are final.~~

- ~~2. Students who have failed to maintain satisfactory academic standing in their primary program may appeal according to the appeal regulations of their home Faculty.~~
- ~~3. Students who have failed to successfully complete the stretch experience or who are being required to withdraw from the Certificate for reasons other than (b) above, may appeal that decision to the Business Faculty Appeals Committee in accordance with its appeal regulations.~~
- ~~4. A student may have a further right of appeal to the GFC Academic Appeals Committee in the event of an appeal involving continuation in the Certificate. The GFC Academic Appeals Committee may only entertain and uphold an appeal if a miscarriage of justice has occurred.~~

3. Students will receive the Certificate in Interdisciplinary Leadership Studies upon completion of all program requirements for their primary degree program and the successful completion of all courses, ~~and approved stretch experience,~~ in the certificate program.

This is an embedded certificate; the certificate will only be awarded when the degree is awarded.

Reviewed/Approved by:

Business Council – March 2, 2022

Undergraduate Studies Policy Committee – February 15, 2022



Library Impact Statement

As per [GFC Policy 37.3.7](#), 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 and Patti Sherbaniuk	Date: March 10th 2022
Library Unit: Faculty Engagement (Sciences, Engineering, and Business)	Email: crg@ualberta.ca and psherban@ualberta.ca

Program Proposal Contact:

Name: Dr. Leo Wong	Dept./School: Alberta School of Business
Faculty: Alberta School of Business	E-mail: ltwong@ualberta.ca

Proposed Program Changes:

Embedded Certificate in Interdisciplinary Leadership Studies:

The Peter Lougheed Leadership College (PLLC) will drive a reimagining of the Certificate in Interdisciplinary Leadership Studies (CILS), which is intended to provide an interdisciplinary approach to leadership education available to students across all faculties of the University. Students enrolled in the certificate will begin by enrolling in a gateway course: a newly developed interdisciplinary introductory leadership course available to all students, from any faculty, which is intended to inspire students to dream of becoming a leader in any field or context they can imagine.

This program will be administered by Alberta School of Business, with development input and cooperation from faculties which include (ALES, Arts, Kinesiology, Sport, and Recreation, Education, Engineering, Nursing, Native Studies, and Science). Students from faculties across campus are invited to earn the certificate, provided they will have the time to earn the certificate in a four-year period.

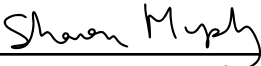
Library Service or Resource	Description of Library Impact
Instruction (e.g., classes with a librarian, tours, online resource guides, online tutorials, etc.)	Due to the interdisciplinary nature of this certificate, instruction can vary depending on the specific class assignment and content. Patti Sherbaniuk is the subject librarian for PLLC and has the capacity to support this Program/Certificate. She will be a first contact for students in the CILS and may refer to colleagues if necessary.

	<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. Course/assignment specific instruction is also available via subject librarians.</p>
<p>Reference assistance (e.g., ongoing one-on-one help)</p>	<p>The subject librarian or other librarians in complementary subject areas 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 impacts on simultaneous users, licensing considerations etc.]</p>	<p>The Library's current subscriptions to print and electronic journals and books should adequately support this program. Any items that are not available and/or accessible through the Library can be requested through Interlibrary Loan.</p> <p>Examples of journals and resources with particular relevance to this program include:</p> <ul style="list-style-type: none"> ● Various Leadership journals that can be found using the library catalogue ● Various Industry and Market Databases News and Article Databases ● Academic Search Complete ● Proquest Business One ● Business Source Complete ● Canadian Business & Current Affairs Database ● Canadian Newsstream ● EconLit ● Factiva ● PressReader ● PsycINFO ● US Major Daily Newspapers <p>Depending on the home faculty of the student in question, other subject specific databases and resources may be used.</p> <p>The Library also supports course reading list and reserve requests online using the Talis platform.</p> <p>The Library's various Subject Guides will be relevant to students taking specific courses in the Program/Certificate/Course etc.</p>
<p>Collaboration with other UAL library units, if interdisciplinary program (consult with the other UAL units affected and include their comments with yours)</p>	<p>Given the interdisciplinary nature of this program, the Faculty Engagement unit heads as well as the head of the Digital Scholarship Centre have been consulted in the preparation of this impact statement.</p> <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 research project. The Library's 3D printing service may also be of use.</p>

Physical facilities (e.g., sufficient room for group work; in-library work, etc.)	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.
Other (specify)	Since this certificate already exists the impact on the Library would be minimal.

- Proposal has an impact on the Library and can be supported.**
- Proposal can be supported with additional resources; see attached details.
- Proposal has no impact on the Library.

Unit Head Name	Unit Head Signature	Date
Debbie Feisst		March 11, 2022

Associate University Librarian Name	Associate University Librarian Signature	Date
Sharon Murphy		March 11, 2022

FINAL Item No. 9

**Governance Executive Summary
Action Item**

Agenda Title	Proposed Changes to Academic Standing Regulations for Graduate Students, Faculty of Graduate Studies and Research
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Motion

<p>THAT GFC Programs Committee recommend that General Faculties Council approve the changes to the Academic Standing, Academic Probation and related portions of the Calendar for Graduate Regulations, as set forth in attachment 1, for implementation upon approval.</p>

Item

Action Requested	<input type="checkbox"/> Approval <input checked="" type="checkbox"/> Recommendation
Proposed by	Brooke Milne, Vice-Provost and Dean, FGSR
Presenter(s)	Brooke Milne, Vice-Provost and Dean, FGSR

Details

Office of Administrative Responsibility	Provost and Vice-President (Academic)
The Purpose of the Proposal is (please be specific)	<p>The proposal is before the committee to discuss changes to areas of the calendar related to graduate student Academic Standing and Academic Probation, including:</p> <ul style="list-style-type: none"> ● Academic Standing <ul style="list-style-type: none"> ○ Failure in or Failure to Complete a Course or Research Work ○ Repeating Courses ○ Minimum Academic Requirements ● Convocation
Executive Summary (<i>outline the specific item – and remember your audience</i>)	<p>A review of the policies on the following topics will provide updates, clarity, and transparency to these and other related items:</p> <ul style="list-style-type: none"> ● Failed grades and GPA calculation ● Replacing courses with the same course (if core/required) or approved alternate ● Number of times a student may attempt to repeat or replace a failed grade ● Maximum allowable credits of failed coursework in a graduate program <p>The proposed changes will facilitate administrative decisions related to failed grades/academic standing and program progression for graduate students. They will also ensure students are not negatively impacted by a single failed grade once it has been successfully replaced/remediated. In those instances where a student is not able to successfully meet their program’s requirements, clearer and more consistent thresholds are set out (e.g. maximum allowable failed credits).</p>

Item No. 9

	<p>In all instances, a supervisor/academic unit can request exceptions be considered to allow a student to continue in their program with a clear plan in place so as to regain satisfactory academic standing.</p> <p>The changes will be easier to manage/monitor, more inclusive of student support/success, and allow for earlier intervention and remediation where necessary.</p>
Supplementary Notes and context	<This section is for use by University Governance only to outline governance process.>

Engagement and Routing (Include proposed plan)

Consultation and Stakeholder Participation	<p>Early Discussions at GPST, PRC and GEFAC - Fall 2021 GEFAC - December 2, 2021 GPST - January 24, 2022 PRC - February 2, 2022 (Approved to move forward) GEFAC - February 3, 2022 GFC Programs Committee - February 10, 2022 (Discussion) FGSR Council (Distributed; introduced) - February 22, 2022 FGSR Council - March 30, 2022 (Approved to move forward) GFC Programs Committee - April 14, 2022 General Faculties Council - June 6, 2022</p>
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Strategic Alignment

Alignment with <i>For the Public Good</i>	21. OBJECTIVE Encourage continuous improvement in administrative, governance, planning, and stewardship systems, procedures, and policies that enable students, faculty, staff, and the institution as a whole to achieve shared strategic goals.	
Alignment with Core Risk Area	Please note below the specific institutional risk(s) this proposal is addressing.	
	<input type="checkbox"/> Enrolment Management <input type="checkbox"/> Faculty and Staff <input type="checkbox"/> Funding and Resource Management <input type="checkbox"/> IT Services, Software and Hardware <input type="checkbox"/> Leadership and Change <input type="checkbox"/> Physical Infrastructure	<input type="checkbox"/> Relationship with Stakeholders <input type="checkbox"/> Reputation <input type="checkbox"/> Research Enterprise <input type="checkbox"/> Safety <input checked="" type="checkbox"/> Student Success
Legislative Compliance and jurisdiction	<i>Post-Secondary Learning Act</i> UofA Calendar Faculty of Graduate Studies & Research GFC Programs Committee	

1. Calendar Language Change: Academic Standing, Academic Probation and Related Changes

Prepared by: Brooke Milne, Vice-Provost and Dean, FGSR [graddean@ualberta.ca]

**Item: Academic Standing, Academic Probation and
Related Changes**

Date: April 5, 2022

2022-2023 University of Alberta Proposed Calendar Graduate Program Changes:

CURRENT	PROPOSED
<p>Regulations of the Faculty of Graduate Studies and Research</p> <p>[...]</p> <p>Academic Standing</p> <p>[...]</p> <p><i>[Re-ordered from below]</i></p> <p>Minimum Faculty Academic Requirements</p> <p>Regardless of the student's category, the pass mark in any course taken while registered in the Faculty of Graduate Studies and Research is a grade of C+.</p> <p>All students in degree programs (including time spent as a qualifying graduate student) or diploma or certificate programs must maintain a minimum cumulative grade point average of 2.7 throughout the course for the duration of their program. (In cases where the cumulative grade point average falls between 2.3 and 2.7, departments may recommend the student be required to withdraw, or continuation in the program for a specified probationary period; in any case, convocation shall not take place with a cumulative grade point average of less than 2.7.)</p> <p>Notwithstanding the above, a student whose cumulative grade point average falls below 2.7 may be required to withdraw.</p> <p>The above are minimum grades and grade point averages acceptable to the Faculty of Graduate Studies and Research. Individual departments may require higher grades than these.</p> <p>Students in thesis-based programs must ensure they complete, with their supervisor and/or supervisory committee, a Progress Report <link to new section> and submit it to FGSR at least once annually.</p> <p>[...]</p>	<p>Regulations of the Faculty of Graduate Studies and Research</p> <p>[...]</p> <p>Academic Standing</p> <p>[...]</p> <p>Minimum Academic Requirements</p> <p>The FGSR minimum cumulative grade point average required to remain in satisfactory academic standing is 2.7 on a scale of 4.0. Students must achieve, at minimum, a passing grade of C+ in any course taken in their degree program.</p> <p>Note: Some graduate programs may have higher approved academic standing requirements than those specified by FGSR (both GPA and passing course grades), and students should consult their academic units for further information (see Graduate Programs). Where a program has higher approved minimum academic standing requirements, the student must adhere to those specified by the graduate program and cannot default/downgrade to the FGSR minimums.</p> <p>Students who fail to maintain these minimum academic standing requirements as outlined by FGSR and/or their graduate program will normally be required to withdraw unless the academic unit recommends a plan of remediation for the student to complete within a specified time period. Any such plan must be approved by the Dean of FGSR.</p> <p>Students may also choose to voluntarily withdraw. However, there may be academic record and fee implications for withdrawing from a program and from courses. Students should discuss this option with their supervisor/advisor, academic unit, and FGSR, and should consult Changes to Registration, Registration, and Tuition and Fees.</p>

<p>Failure in or Failure to Complete a Course or Research Work</p> <p>Satisfactory performance in the coursework component of a graduate program entails completion of all courses taken as part of the student's program requirements (i.e., courses designated as extra to the student's program requirements are excluded). Normally, the minimum acceptable passing grade in individual courses is C+ (see Minimum Faculty Requirements below); however, some departments may require higher grades.</p> <p>Graduate students are not permitted to take reexaminations. Regardless of their category, students who do not obtain an acceptable grade, or fail to complete a course that is required as part of their graduate program, must have the approval of the department and the Faculty of Graduate Studies and Research to retake the course and must obtain a passing grade. Alternatively, students may take an alternate course recommended by the department and approved by the Faculty of Graduate Studies and Research, but they must also obtain a passing grade.</p> <p>In calculating a student's CGPA, the original failing grade will be included. The failing grade and the grade achieved for the repeated or substitute course will appear on the student's transcript. A Grade of IN5 is counted as a numeric grade of 0.0 in the computation of the CGPA.</p> <p>A student whose course and/or research work is unsatisfactory may at any time be required to withdraw.</p> <p>[...]</p>	<p>Students in thesis-based programs must ensure they complete, with their supervisor and/or supervisory committee, a Progress Report <link to new section> and submit it to FGSR at least once annually.</p> <p>[...]</p> <p>Failure in or Failure to Complete a Course or Research Work</p> <p>Satisfactory performance in the coursework component of a graduate program entails completion of all courses taken as part of the student's program requirements (courses declared extra-to-degree are excluded). The FGSR minimum acceptable passing grade is C+ per course; however, individual programs may set higher standards that students are required to meet (see Minimum Faculty Requirements).</p> <p>Students who do not obtain an acceptable passing grade, or fail to complete a course that is required as part of their graduate program, must seek approval from their academic unit and the Faculty of Graduate Studies and Research to retake the course. Once approved to retake the course, the student must minimally obtain a passing grade of C+, or the minimum noted by their graduate program, if it is higher.</p> <p>A failed course that is required and/or core must be replaced with the same course. If the failed course is not a required and/or core course, an alternate course may be taken to remediate the failure as recommended by the academic unit and approved by FGSR. The alternate course must be at the same level or higher as the failed course and it must be successfully completed with at least a passing grade of C+, or the minimum noted by the graduate program, if it is higher.</p> <p>When the failed course has been successfully remediated/replaced, the new grade will be included in the calculation of the student's CGPA. While the original failed course grade will no longer be included in the CGPA, it will remain on the student's transcript.</p> <p>A student may attempt to repeat or replace a failed course only once. Students who earn a grade of C or lower in more than six credit hours of coursework are normally required to withdraw from their graduate program. Some graduate programs may have approved thresholds for allowable failed course credits that exceed those set by FGSR and students are advised to consult with their academic units accordingly. Note: In exceptional circumstances, the academic unit can submit a request to the Dean of FGSR to consider and approve remedial recommendations that fall outside of those noted above.</p> <p>Thesis-based students may also be required to withdraw when they fail to meet satisfactory progress in their research work. Should a student find themselves in such a situation, the supervisor and/or academic unit will develop a plan that sets out attainable milestones and timelines to ensure the student understands what is required to successfully progress. Such a plan should be set out using the Progress Report [add LINK], which can be completed once every 12-months or once every academic</p>
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Repeating Courses

- Students may not repeat any successfully completed university course or course for which transfer credit has been awarded ~~, except with the written approval of the Dean, FGSR.~~
- ~~Only one re-registration for credit or audit will be permitted in any failed university course, except with the written approval of the Dean, FGSR.~~
- ~~Only one re-registration for credit or audit will be permitted in any university course in which a student has received a final grade of W, except with the written approval of the Dean, FGSR.~~
- ~~If a student contravenes regulations listed above, the Dean of FGSR may withhold credit or indicate the course as extra to the degree on the registration that contravenes the regulation.~~
- ~~Students may repeat a first-term course in the second term, if it is offered, as long as the student complies with regulations listed above.~~
- ~~Students may re-register in the 900-level capstone courses and in thesis (THES) as often as is required~~

~~Students are responsible for monitoring the number of times they have repeated a course. Withdrawals (W) from courses will be considered together with failing grades when a faculty is restricting the number of multiple registrations in a course.~~

~~*[Minimum Academic Requirements section reordered to above]*~~

Academic Probation

~~Academic probation is used to address deficiencies in program or performance standards relevant to a student's particular program of studies such as CGPA, or progress in research. The conditions attached to a period of academic probation are designed to meet the specific needs of a student's academic situation.~~

~~When a student's term or cumulative grade point average falls between 2.3 and 2.7 or the minimum required by the program (See Graduate Programs), departments may recommend to the Faculty of Graduate Studies and Research continuation in a graduate program on academic probation for a specified period.~~

~~For students in thesis-based programs, a student rating of 'In Need of Improvement' on a Progress Report will normally result in a recommendation for Academic Probation as determined by the~~

~~term. Should a student require more attentive support, regular check-ins are encouraged to assess progression towards meeting the milestones and timelines set out in the plan. (See: Required to Withdraw) [...]~~

Repeating Courses

- Students may not repeat any successfully completed university course or course for which transfer credit has been awarded.
- **A student may attempt to repeat or replace a failed course only once.**
- Students may re-register in capstone courses, **capping exercises, or practicums**, and in thesis (THES) **for the length of time required to complete the requirement provided it does not exceed the time limits approved for program completion.**

[Minimum Academic Requirements section reordered to above]

[...]

~~supervisor and/or supervisory committee in consultation with the student.~~

[...]

Require to Withdraw

Departments may recommend to FGSR that students be required to withdraw on academic grounds. Reasons for the recommendation include:

- Failure to maintain the adequate academic standing; failure to meet requirements set out in a conditional admission; candidacy or final oral examination failure; or expiry of program time limit. Requests to require to withdraw for these reasons must be documented in the academic record or student's file: ~~for example~~, grades, exam reports, ~~etc~~;
- Failure to make satisfactory academic progress in other aspects of the program, such as adequate progress in research. Requests to require to withdraw for these reasons ~~should~~ be supported by evidence that the process of feedback, assessments and warnings has been followed;
- Failure to complete the practicum component of a graduate program, if that practicum component is an integral part of the program;
- Failure of the department to secure alternate supervision for a thesis-based student following dissolution of a supervisory relationship (see Resolving Conflicts in Supervisor-Student Relationships) as it is an academic requirement that thesis-based students have a supervisor (see Appointment of the Supervisor(s)).
- For students in thesis-based programs, two consecutive student ratings of 'In Need of Improvement' or one rating of 'Unsatisfactory' on their Progress Report will normally result in a recommendation to withdraw from their program.

The following considerations apply:

- ~~Cannot require to withdraw except for~~ just cause;
- Students shall be given adequate warning, feedback and timelines related to what is the nature of the inadequate progress, what special performance would be required to rectify the inadequacy, and what is the timeline for demonstration of the required improved performance;
- Student should be given an opportunity to respond in writing to any warning given;
- Meetings with appropriate advisors (members of supervisory committee; Chair's designate, etc.) may assist the process of providing adequate warning and advice.

Require to Withdraw

Departments may recommend to FGSR that students be required to withdraw **from their graduate program** on academic grounds. Reasons for the recommendation **may** include:

- Failure to maintain the adequate academic standing; failure to meet requirements set out in a conditional admission; candidacy or final oral examination failure; or expiry of program time limit. Requests to require to withdraw for these reasons must be documented in the academic record or student's file (e.g. grades, exam reports);
- Failure to make satisfactory academic progress in other aspects of the program, such as adequate progress in research. Requests to require a student to withdraw for these reasons **must** be supported by evidence that the process of feedback, assessments, and warnings has been followed. **This evidence should be recorded in the student Progress Report;**
- Failure to complete the practicum component of a graduate program, if that practicum component is an integral part of the program; **and/or,**
- Failure of the department to secure alternate supervision for a thesis-based student following dissolution of a supervisory relationship (see Resolving Conflicts in Supervisor-Student Relationships) as it is an academic requirement that thesis-based students have a supervisor (see Appointment of the Supervisor(s)).
- For students in thesis-based programs, two consecutive student ratings of 'In Need of Improvement' or one rating of 'Unsatisfactory' on their Progress Report will normally result in a recommendation to withdraw from their program.

The following considerations apply:

- **Students cannot be withdrawn from their program without** just cause;
- Students shall be given adequate warning, feedback and timelines related to what is the nature of the inadequate progress, what special performance would be required to rectify the inadequacy, and what is the timeline for demonstration of the required improved performance;
- Student should be given an opportunity to respond in writing to any warning given;
- Meetings with appropriate advisors (members of supervisory committee; Chair's designate, etc.) may assist the process of providing adequate warning and advice.

The decision to require a student to withdraw rests with the **Dean, FGSR or designate**. Students may appeal **a decision to withdraw** to the FGSR Academic Appeals Committee. (For details, see **Appeals and Grievances**.)

The decision to require a student to withdraw rests with the **Associate Deans, FGSR**. Students may appeal to the FGSR Academic Appeals Committee. For details, see [Appeals and Grievances](#).

[...]

Convocation

There are two convocations each year, normally held in June and November. Students must apply for graduation on Bear Tracks (<https://www.beartracks.ualberta.ca>) in accordance with the deadlines published in [Academic Schedule, Dates, and Deadlines](#).

~~In order to convocate~~, students in thesis programs must complete all coursework and submit their thesis to the Faculty of Graduate Studies and Research by the deadline dates specified in the Academic Schedule.

Departments that require a thesis-equivalent may have **special** submission procedures. See [Graduate Programs](#). For further details on thesis submission refer to the [Thesis Requirements and Preparation page](#) on the FGSR website.

Students in course-based programs must complete all **program** requirements prior to the deadlines set out in the Academic Schedule.

It is the responsibility of the **department** to forward a completed *Report of Completion for Course-based Master's Degree* form to the Faculty of Graduate Studies and Research by the deadline dates specified in the Academic Schedule, to ensure that the student's name will be included in the convocation list.

[...]

Convocation

There are two convocations each year, normally held in June and November. Students must apply for graduation on Bear Tracks (<https://www.beartracks.ualberta.ca>) in accordance with the deadlines published in [Academic Schedule, Dates, and Deadlines](#).

Thesis-based programs:

To be eligible for convocation, students in thesis programs must **successfully** complete all coursework, **(including remediating/replacing all failed grades) as required by their program, all other approved requirements including FGSR's Ethics and Academic Citizenship requirement**, and submit their thesis to the Faculty of Graduate Studies and Research by the deadline dates specified in the Academic Schedule.

Students must also be in good academic standing to be eligible to apply for convocation including having at minimum a 2.7 CGPA in their degree program, or the minimum required by the graduate program, if it is higher.

Departments that require a thesis-equivalent may have **discipline-specific** submission procedures. See [Graduate Programs](#). For further details on thesis submission, refer to the [Thesis Requirements and Preparation page](#) on the FGSR website.

Course-based programs:

To be eligible for convocation, students in course-based programs must **successfully** complete all coursework, **(including remediating/replacing all failed grades) as required by their program, and all other approved requirements including FGSR's Ethics and Academic Citizenship requirement**.

Students must also be in good academic standing to be eligible to apply for convocation including having at minimum a 2.7 CGPA in their degree program, or the minimum required by the graduate program, if it is higher.

Students in course-based programs must complete all requirements **as approved by their program** prior to the deadlines set out in the Academic Schedule.

It is the responsibility of the **academic unit** to forward a completed *Report of Completion for Course-based Master's Degree* form to the Faculty of Graduate Studies and Research by the deadline dates specified in the Academic Schedule, to ensure that the student's name will be included in the convocation list.

[...]

[...]	
Justification: Approved by:	