The following Motions and Documents were considered by the GFC Programs Committee at its Thursday, March 17, 2022 meeting:

Agenda Title: **Course and Minor Program Changes**
- Business
- Kinesiology, Sport, and Recreation
- Native Studies
- Science

CARRIED MOTION:
THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the attached course and minor program change submissions from the Faculties of Business, Kinesiology, Sport, and Recreation, Native Studies, and Science.

FINAL Item 4

Agenda Title: **Items Deemed Minor/Editorial**
A. Program Regulations for Credit/No-Credit Courses, Faculty of Engineering
B. Advanced Standing/Laddering into the Master of Education Program, Faculty of Education

CARRIED MOTION:
THAT the GFC Programs Committee, with delegated authority from General Faculties Council, approve:
- the program regulations for credit/no-credit courses in the Faculty of Engineering as set forth in attachment A; and
- advanced standing/laddering into the Master of Education Program in the Faculty of Education as set forth in attachment B.

Final Item: 5

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

CARRIED MOTION:
THAT the GFC Programs Committee table the proposed changes to the Embedded Certificate in Interdisciplinary Leadership Studies until discussions are held about including the Indigenous Canada MOOC as a prerequisite for the program.

TABLED 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.

Item 8 (documents not included)

Agenda Title: **Proposed Bachelor of Biomedicine Dual Degree, Faculty of Medicine and Dentistry**

CARRIED MOTION:
THAT the GFC Programs Committee recommend that the Board of Governors approve the proposed Bachelor of Biomedicine Dual Degree as set forth in attachments 1, 2, and 3, and for implementation upon final approval.

FINAL Item 9

Agenda Title: **Proposed Termination of the Graduate Certificate in Teaching and Learning in Higher Education**

CARRIED MOTION:
THAT GFC Programs Committee recommend that General Faculties Council approve the termination of the Graduate Certificate in Teaching and Learning in Higher Education in the Faculty of Education.

FINAL Item 10

Agenda Title: **Proposed Changes to Course Requirements for Graduate Programs, FGSR**

CARRIED MOTION:
THAT the GFC Programs Committee recommend General Faculties Council approve the changes to the course requirements and exemptions policies for all graduate students, as noted in the included calendar change, for implementation upon final approval.

FINAL Item 11

Agenda Title: **Proposed Changes to Extra-to-Degree Regulations for Graduate Programs, FGSR**

CARRIED MOTION:
THAT the GFC Programs Committee recommend General Faculties Council approve the changes and clarification to the regulations on courses considered Extra-to-Degree, to take effect upon final approval.

FINAL Item 12

Agenda Title: **Proposed Changes to Transfer Credits and Requirements for Graduate Programs, FGSR**

CARRIED MOTION:
THAT the GFC Programs Committee recommend that General Faculties Council approve the changes to the transfer credit and exemptions policies for all graduate students, as noted in the included calendar change, for implementation upon final approval.

FINAL Item 13

FINAL Item No. 4

Governance Executive Summary
Action Item

Agenda Title	Course and Minor Program Changes – Business – Kinesiology, Sport, and Recreation – Native Studies – Science

Item

Action Requested	☒ Approval ☐ 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 (*please be specific*)	To approve course and minor program changes.
Executive Summary (*outline the specific item – and remember your audience*)	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. See individual item for Faculty Council approval information.
Supplementary Notes and context	*<This section is for use by University Governance only to outline governance process.>*

Engagement and Routing (Include meeting dates)

Consultation and Stakeholder Participation (parties who have seen the proposal and in what capacity) <For information on the protocol see the Governance Resources section Student Participation Protocol>	*Those who are actively **participating**:* • Vice-Provost (Programs) and Chair, GFC Programs Committee • Faculty Councils • Representatives of the Office of the Registrar
	*Those who have been **consulted**:* • Undergraduate Program Support Team • Graduate Program Support Team
	*Those who have been **informed**:* • 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 February 10, 2022

Strategic Alignment

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

Item No. 4

Attachments

1. Business
2. Kinesiology, Sport, and Recreation
3. Native Studies
4. Science

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

University of Alberta
Alberta School of Business

CALENDAR CHANGE REQUEST FORM

Department/Program Office: Undergraduate Office

Change: Program - Change (minor)

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

Calendar Copy:

Current: BCom (General)	**Proposed:** BCom (General)
Majors in Business Students in the Bachelor of Commerce Program must declare a major from the selection below and then follow the specific course requirements of the major. All degree requirements must be met within 120 units. Sequence of Courses – Year 1 Foundational Year For students admitted directly from High School. • ~~6 units in junior level English which includes any 100 level ENGL and a maximum of 3 units in WRS~~ • BUS 101 - Foundations of Business or equivalent (See Note 1) • ECON 101 - Introduction to Microeconomics • ECON 102 - Introduction to Macroeconomics • MATH 154 - Calculus for Business and Economics I or equivalent • STAT 161 - Introductory Statistics for Business and Economics or equivalent • 9 units in electives outside of Business Notes 1. Students admitted directly from High School will take BUS 101 in their first year in the Faculty of Business and will	**Majors in Business** Students in the Bachelor of Commerce Program must declare a major from the selection below and then follow the specific course requirements of the major. All degree requirements must be met within 120 units. Sequence of Courses – Year 1 Foundational Year For students admitted directly from High School. • 3 units in 100-level English (except ENGL 150) OR 3 units in 100-level WRS • BUS 101 - Foundations of Business or equivalent (See Note 1) • ECON 101 - Introduction to Microeconomics • ECON 102 - Introduction to Macroeconomics • INT D 101 – Inspired to Dream: Becoming a Leader • MATH 154 - Calculus for Business and Economics I or equivalent • STAT 161 - Introductory Statistics for Business and Economics or equivalent • 9 units in electives outside of Business Notes 1. Students admitted directly from High School will take BUS 101 in their first

replace BUS 201 in Year 2 of the major specific sequencing with 3 units in electives outside of Business.	year in the Faculty of Business and will replace BUS 201 in Year 2 of the major specific sequencing with 3 units in electives outside of Business.

Rationale: The changes highlighted here were already approved, but I missed revising this section of the Calendar, so this request is to ensure all the changes are consistent throughout the Calendar.

Current: Faculty of Business Admission Requirements	**Proposed:** Faculty of Business Admission Requirements
Postsecondary Transfer Applicants A postsecondary transfer applicant is any applicant who has ever registered at any postsecondary institution. **Academic Requirements** The minimum requirement for postsecondary transfer admission is the successful completion of 24 units of course weight University transferable including the following foundational courses or their equivalent: 1. ~~6 units of course weight in junior level English which includes any 100 level ENGL and a maximum of 3 units in WRS~~ 2. ECON 101 3. ECON 102 4. MATH 154 5. STAT 161 Students must present a minimum Grade Point Average (GPA) of 2.3 for consideration based on the most recent Fall/Winter period consisting of a minimum of 15 units of course weight University transferable. A GPA of 2.3 is not normally competitive.	**Postsecondary Transfer Applicants** A postsecondary transfer applicant is any applicant who has ever registered at any postsecondary institution. **Academic Requirements** The minimum requirement for postsecondary transfer admission is the successful completion of 24 units of course weight University transferable including the following foundational courses or their equivalent: 1. 3 units in 100-level English (except ENGL 150) OR 3 units in 100-level WRS 2. ECON 101 3. ECON 102 4. INT D 101 5. MATH 154 6. STAT 161 Students must present a minimum Grade Point Average (GPA) of 2.3 for consideration based on the most recent Fall/Winter period consisting of a minimum of 15 units of course weight University transferable. A GPA of 2.3 is not normally competitive.

Current: Faculty of Business Admission Requirements	**Proposed:** Faculty of Business Admission Requirements
After Degree Applicants An after degree applicant is any applicant with a recognized four-year undergraduate degree (see Note 4) from an approved postsecondary institution. **Academic Requirements** The minimum required for after degree admission is a degree (see Note 4) and the successful completion of the following foundational courses or their equivalent: ~~1. 6 units of course weight in junior level English which includes any 100 level ENGL and a maximum of 3 units in WRS~~ 2. ECON 101 3. ECON 102 4. MATH 154 5. STAT 161 Students must present a minimum Grade Point Average (GPA) of 2.3 for consideration based on the most recent Fall/Winter period consisting of a minimum of 15 units of course weight University transferable. A GPA of 2.3 is not normally competitive.	**After Degree Applicants** An after degree applicant is any applicant with a recognized four-year undergraduate degree (see Note 4) from an approved postsecondary institution. **Academic Requirements** The minimum required for after degree admission is a degree (see Note 4) and the successful completion of the following foundational courses or their equivalent: 1. 3 units in 100-level English (except ENGL 150) OR 3 units in 100-level WRS 2. ECON 101 3. ECON 102 4. INT D 101 5. MATH 154 6. STAT 161 Students must present a minimum Grade Point Average (GPA) of 2.3 for consideration based on the most recent Fall/Winter period consisting of a minimum of 15 units of course weight University transferable. A GPA of 2.3 is not normally competitive.

Rationale: The changes highlighted were already approved for high school students, but we missed making this applicable to post-secondary transfer students and after-degree students, as well. Feedback from PST suggested to remove INT D 101 as an admissions requirement due to its uniqueness at the U of A and the unlikelihood there would be equivalent courses at other post-secondary institutions. We have decided to leave it in as an admissions requirement since Note 5 (for the Post Secondary Transfer section) and Note 3 (for the After Degree section) provides a clear option for students who might be missing foundational courses.

The Note (5 and 3 are the same in both sections) says "Applicants who do not possess all of the required foundational courses, but are otherwise eligible for consideration, will be considered for admission if space exists. Such applicants will normally be required to present a higher admission GPA than those admitted under the standard selection process. Missing foundational courses must be made up in the first year of the program following admission."

Current: BCom (After Degree)	**Proposed:** BCom (After Degree)
Sequence of Courses—For students possessing all foundational courses for the BCom program Year One—Fall • ACCTG 311 - Introduction to Accounting for Financial Performance (See Note 1) • MARK 301 - Introduction to Marketing (See Note 1) • MGTSC 312 - Probability and Statistics for Business (See Note 1) • 6 units in Senior Business Electives (See Note 3) Year One—Winter • FIN 301 - Introduction to Finance (See Note 1) • SEM 310 - Introduction to Management, Organization and Entrepreneurship (See Note 1) • 9 units in required electives (See Note 3) Year Two • 15–30 units in Senior Business electives (See Note 3) Notes 1. Courses may be taken in the term indicated as part of a cohort with permission of the Faculty. 2. May be taken in either of Year One or Two, either term. This sequence is recommended. 3. The number of Senior Business courses allowed will depend in part on the amount of exemptions an After-Degree student may be given. Students possessing exemptions in any of the required Year One courses will have their Year One schedule adjusted to reflect this. Students should consult the Undergraduate Office with respect to their program requirements before commencing Year One. After-Degree students must declare a major, and must follow the	**Sequence of Courses—For students possessing all foundational courses for the BCom program** Year One—Fall • ACCTG 311 - Introduction to Accounting for Financial Performance (See Note 1) • MARK 301 - Introduction to Marketing (See Note 1) • MGTSC 312 - Probability and Statistics for Business (See Note 1) • 6 units in Senior Business Electives (See Note 3) Year One—Winter • FIN 301 - Introduction to Finance (See Note 1) • SEM 310 - Introduction to Management, Organization and Entrepreneurship (See Note 1) • 9 units in required electives (See Note 3) Year Two • 15–30 units in Senior Business electives (See Note 3) Notes 1. Courses may be taken in the term indicated as part of a cohort with permission of the Faculty. 2. May be taken in either of Year One or Two, either term. This sequence is recommended. 3. The number of Senior Business courses allowed will depend in part on the amount of exemptions an After-Degree student may be given. Students possessing exemptions in any of the required Year One courses will have their Year One schedule adjusted to reflect this. Students should consult the Undergraduate Office with respect to their program requirements before commencing Year One. After-Degree students must declare a major, and must follow the

requirements for that major. This choice may be made as early as Winter Term in Year One. After-Degree students take a minimum of 45 units and a maximum of 60 units at the University of Alberta while registered as a student in the Faculty of Business. The number of required electives and Senior Business courses permitted to an After-Degree Student will depend on the requirements of the major selected. 4. Completion of BUS 101 or equivalent is normally a prerequisite to entrance to the Cooperative Education program. After-Degree Students may apply to the program without completion of BUS 101 as they are exempt from taking BUS 101.	requirements for that major. This choice may be made as early as Winter Term in Year One. After-Degree students take a minimum of 45 units and a maximum of 60 units at the University of Alberta while registered as a student in the Faculty of Business. The number of required electives and Senior Business courses permitted to an After-Degree Student will depend on the requirements of the major selected. 4. Completion of BUS 101 or equivalent is normally a prerequisite to entrance to the Cooperative Education program. After-Degree Students may apply to the program without completion of BUS 101 as they are exempt from taking BUS 101. 5. If INT D 101 is the only missing foundational course, it can be taken as an elective in Year One (Fall or Winter).

Rationale: Note 5 was added because INT D 101 was removed as an admissions requirement for after degree students.

Current: Bachelor of Commerce Honors in Accounting [Business]	**Proposed:** Bachelor of Commerce Honors in Accounting [Business]
Program The BCom Honors in Accounting Program is designed for Accounting majors who want to have a deeper understanding in the history of accounting thought, professionalism, and finance, including the areas of pro forma modelling of financial statements and valuation. **Sequence of Courses** Year Two—Fall • ACCTG 311 - Introduction to Accounting for Financial Performance • BUS 201 - Foundations of Business • MARK 301 - Introduction to Marketing • MGTSC 312 - Probability and Statistics for Business • 3 units in electives outside Business (see Note ~~1~~) Notes 1. See Policy on Elective Courses 2. May be taken either in Year Two (Winter Term) or Year Three. 3. May be taken in either of Year Three or Year Four. 4. May be taken in any year except Year Two, Fall Term. Students planning to take advanced course work in Economics may wish to substitute ECON 281, which is accepted as a substitute for BUEC 311 in the Accounting Honors Program. 5. a. Accounting electives may be chosen from any course with the ACCTG designator or any other course with Departmental approval. b. Students planning to work toward professional accounting designations should, in addition to the requirements of the honors program, consider taking courses recommended by the Chartered	**Program** The BCom Honors in Accounting Program is designed for Accounting majors who want to have a deeper understanding in the history of accounting thought, professionalism, and finance, including the areas of pro forma modelling of financial statements and valuation. **Sequence of Courses** Year Two—Fall • ACCTG 311 - Introduction to Accounting for Financial Performance • BUS 201 - Foundations of Business (see Note 1) • MARK 301 - Introduction to Marketing • MGTSC 312 - Probability and Statistics for Business • 3 units in electives outside Business (see Note 2) Notes 1. Students admitted directly from High School will take BUS 101 in their first year in the Faculty of Business and will replace BUS 201 in Year 2 of the major specific sequencing with 3 units in electives outside of Business. 2. See Policy on Elective Courses 3. May be taken either in Year Two (Winter Term) or Year Three. 4. May be taken in either of Year Three or Year Four. 5. May be taken in any year except Year Two, Fall Term. Students planning to take advanced course work in Economics may wish to substitute ECON 281, which is accepted as a substitute for BUEC 311 in the Accounting Honors Program. 6. a. Accounting electives may be chosen from any course with the ACCTG designator or any other course with Departmental approval.

Professional Accountants of Alberta. See www.cpaalberta.ca. c. While students are advised to follow the sequencing of accounting courses determined by the course prerequisites, when necessary, after degree students or students with special scheduling problems may take an accounting course and its prerequisites concurrently with permission of the Department Chair. 6. FIN electives may be chosen from any course with the FIN designator. ACCTG 432 may be included as a FIN elective. 7. Students who are taking ACCTG 426 and do not have space in their program to complete the other required Honors courses may eliminate ACCTG 432 or 3 units in FIN electives with consent of the Department.	b. Students planning to work toward professional accounting designations should, in addition to the requirements of the honors program, consider taking courses recommended by the Chartered Professional Accountants of Alberta. See www.cpaalberta.ca. c. While students are advised to follow the sequencing of accounting courses determined by the course prerequisites, when necessary, after degree students or students with special scheduling problems may take an accounting course and its prerequisites concurrently with permission of the Department Chair. 7. FIN electives may be chosen from any course with the FIN designator. ACCTG 432 may be included as a FIN elective. 8. Students who are taking ACCTG 426 and do not have space in their program to complete the other required Honors courses may eliminate ACCTG 432 or 3 units in FIN electives with consent of the Department.

Rationale: Since BUS 101 and 201 are considered equivalent to each other, this revision just clarifies for Honors students that they do not have to take BUS 201 if they have already taken BUS 101. The numbering of the remaining notes will need to be revised, as a result of the new Note 1.

Current: Bachelor of Commerce Honors in Finance [Business]	**Proposed:** Bachelor of Commerce Honors in Finance [Business]
Program The BCom Honors in Finance helps students build expertise which delve deeper into finance than the general BCom program with a Major in Finance. As it is intended for those targeting positions that require higher-level business skills, the Honors Program demands ~~strong performance~~ and solid motivation. Students in the program can choose to follow one of two streams: Private Venture Markets (PVM) or the Trading, Risk Analytics, and Digital Finance (TRADF). **Sequence of Courses** **Year Two—Fall** • ACCTG 311 - Introduction to Accounting for Financial Performance • BUS 201 – Foundations of Business • MARK 301 - Introduction to Marketing • MGTSC 312 - Probability and Statistics for Business • 3 units in electives outside Business (See Note ~~1~~) **Notes** 1. See Policy on Elective Courses. 2. May be taken in any year. Students planning to take advanced coursework in Economics may wish to substitute ECON 281, which is accepted as a substitute for BUEC 311 in the Finance Honors Program. 3. In Year Four, students should choose the course they did not take in Year Three 4. List of Management Science and Operations Management courses: MGTSC 405 - Forecasting for Planners and Managers MGTSC 488 - Intro to Business Analytics OM 420 - Predictive Business Analytics OM 468 - Quantitative Management Consulting Project OM 471 - Decision Support Systems	**Program** The BCom Honors in Finance helps students build expertise which delve deeper into finance than the general BCom program with a Major in Finance. As it is intended for those targeting positions that require higher-level business skills, the Honors Program demands strong performance and solid motivation. Students in the program can choose to follow one of two streams: Private Venture Markets (PVM) or the Trading, Risk Analytics, and Digital Finance (TRADF). **Sequence of Courses** **Year Two—Fall** • ACCTG 311 - Introduction to Accounting for Financial Performance • BUS 201 – Foundations of Business (See Note 1) • MARK 301 - Introduction to Marketing • MGTSC 312 - Probability and Statistics for Business • 3 units in electives outside Business (See Note 2) **Notes** 1. Students admitted directly from High School will take BUS 101 in their first year in the Faculty of Business and will replace BUS 201 in Year 2 of the major specific sequencing with 3 units in electives outside of Business. 2. See Policy on Elective Courses. 3. May be taken in any year. Students planning to take advanced coursework in Economics may wish to substitute ECON 281, which is accepted as a substitute for BUEC 311 in the Finance Honors Program. 4. In Year Four, students should choose the course they did not take in Year Three 5. List of Management Science and Operations Management courses:

	MGTSC 405 - Forecasting for Planners and Managers MGTSC 488 - Intro to Business Analytics OM 420 - Predictive Business Analytics OM 468 - Quantitative Management Consulting Project OM 471 - Decision Support Systems

Rationale: Since BUS 101 and 201 are considered equivalent to each other, this revision just clarifies for Honors students that they do not have to take BUS 201 if they have already taken BUS 101. The numbering of the remaining notes will need to be revised, as a result of the new Note 1.

Current: Bachelor of Commerce Honors in Management Science [Business]	**Proposed:** Bachelor of Commerce Honors in Management Science [Business]
Program The BCom Honors in Management Science program follows the same general program of studies as the BCom Major in Operations Management. Additional required courses are ~~MATH 115~~, MATH 125, the MGTSC Honors Essay course and one 700-level MGTSC course, and STAT 265. Various streams such as Optimization, Statistics, Stochastic Modeling and Decision and Game Theory are possible. Please contact the Department for suggested streams. **Sequence of Courses** **Year Two—Fall** • ACCTG 311 - Introduction to Accounting for Financial Performance • BUS 201 – Foundations of Business • MARK 301 - Introduction to Marketing • MGTSC 312 - Probability and Statistics for Business • 3 units in electives outside Business (See Note ~~1~~) **Year Two—Winter** • FIN 301 - Introduction to Finance • ~~MATH 115 - Elementary Calculus II~~ (See Note ~~2~~) • OM 352 - Operations Management • SEM 310 - Introduction to Management, Organization and Entrepreneurship • 3 units in electives outside Business (See Note ~~1~~) **Notes** 1. See Policy on Elective Courses. 2. Generally, MATH ~~115~~ should be taken prior to entry to the Honors program. 3. Recommended to be taken in Fall Term. 4. Management Science Honors courses include all 400-level MGTSC courses,	**Program** The BCom Honors in Management Science program follows the same general program of studies as the BCom Major in Operations Management. Additional required courses are MATH 156, MATH 125, the MGTSC Honors Essay course and one 700-level MGTSC course, and STAT 265. Various streams such as Optimization, Statistics, Stochastic Modeling and Decision and Game Theory are possible. Please contact the Department for suggested streams. **Sequence of Courses** **Year Two—Fall** • ACCTG 311 - Introduction to Accounting for Financial Performance • BUS 201 – Foundations of Business (See Note 1) • MARK 301 - Introduction to Marketing • MGTSC 312 - Probability and Statistics for Business • 3 units in electives outside Business (See Note 2) **Year Two—Winter** • FIN 301 - Introduction to Finance • MATH 156 – Calculus for Business and Economics II (See Note 3) • OM 352 - Operations Management • SEM 310 - Introduction to Management, Organization and Entrepreneurship • 3 units in electives outside Business (See Note 2) **Notes** 1. Students admitted directly from High School will take BUS 101 in their first year in the Faculty of Business and will replace BUS 201 in Year 2 of the major specific sequencing with 3 units in electives outside of Business.

and other courses designated by the Department consistent with the Management Science stream chosen by the student. Consult the Department for appropriate courses. 5. ECON courses used to satisfy the requirements of this major may not also be used to satisfy the requirements for coursework outside the Faculty of Business.	2. See Policy on Elective Courses. 3. Generally, MATH 156 should be taken prior to entry to the Honors program. 4. Recommended to be taken in Fall Term. 5. Management Science Honors courses include all 400-level MGTSC courses, and other courses designated by the Department consistent with the Management Science stream chosen by the student. Consult the Department for appropriate courses. 6. ECON courses used to satisfy the requirements of this major may not also be used to satisfy the requirements for coursework outside the Faculty of Business.

Rationale: Since BUS 101 and 201 are considered equivalent to each other, this revision just clarifies for Honors students that they do not have to take BUS 201 if they have already taken BUS 101. We have also updated an old reference to the MATH course in Note 3, which is the version developed for Business and Economics students (MATH 156). The numbering of the remaining notes will need to be revised, as a result of the new Note 1.

Current: Bachelor of Commerce Honors in Operations Management [Business]	**Proposed:** Bachelor of Commerce Honors in Operations Management [Business]
Program The BCom Honors in Operations Management program follows the same general program of studies as the BCom Major in Operations Management. Additional required courses are ~~MATH 115~~, MATH 125, the OM Honors Essay course and one 700-level MGTSC or OM course, and STAT 265. Various streams such as Optimization, Statistics, Stochastic Modeling and Decision and Game Theory are possible. Please contact the Department for suggested streams. **Sequence of Courses** **Year Two—Fall** • ACCTG 311 - Introduction to Accounting for Financial Performance • BUS 201 – Foundations of Business • MARK 301 - Introduction to Marketing • MGTSC 312 - Probability and Statistics for Business • 3 units in electives outside Business (See Note ~~1~~) **Year Two—Winter** • FIN 301 - Introduction to Finance • ~~MATH 115 - Elementary Calculus II~~ (See Note ~~2~~) • OM 352 - Operations Management • SEM 310 - Introduction to Management, Organization and Entrepreneurship • 3 units in electives outside Business (See Note ~~1~~) **Notes** 1. See Policy on Elective Courses. 2. Generally, MATH ~~115~~ should be taken prior to entry to the Honors program. 3. Recommended to be taken in Fall Term. 4. ~~Operations~~ Management Honors courses may be chosen from any 400-	**Program** The BCom Honors in Operations Management program follows the same general program of studies as the BCom Major in Operations Management. Additional required courses are MATH 156, MATH 125, the OM Honors Essay course and one 700-level MGTSC or OM course, and STAT 265. Various streams such as Optimization, Statistics, Stochastic Modeling and Decision and Game Theory are possible. Please contact the Department for suggested streams. **Sequence of Courses** **Year Two—Fall** • ACCTG 311 - Introduction to Accounting for Financial Performance • BUS 201 – Foundations of Business (See Note 1) • MARK 301 - Introduction to Marketing • MGTSC 312 - Probability and Statistics for Business • 3 units in electives outside Business (See Note 2) **Year Two—Winter** • FIN 301 - Introduction to Finance • MATH 156 – Calculus for Business and Economics II (See Note 3) • OM 352 - Operations Management • SEM 310 - Introduction to Management, Organization and Entrepreneurship • 3 units in electives outside Business (See Note 2) **Notes** 1. Students admitted directly from High School will take BUS 101 in their first year in the Faculty of Business and will replace BUS 201 in Year 2 of the major specific sequencing with 3 units in electives outside of Business.

level OM courses and from a list of additional approved courses available from the Department of Accounting, Operations and Information Systems. At least six of the nine courses must be chosen from 400- level OM courses, MGTSC 405 and 455. 5. ~~ECON~~ courses used to satisfy the requirements of this major may not also be used to satisfy the requirements for coursework outside the Faculty of Business.	2. See Policy on Elective Courses. 3. Generally, MATH 156 should be taken prior to entry to the Honors program. 4. Recommended to be taken in Fall Term. 5. Operations Management Honors courses may be chosen from any 400-level OM courses and from a list of additional approved courses available from the Department of Accounting, Operations and Information Systems. At least six of the nine courses must be chosen from 400- level OM courses, MGTSC 405 and 455. 6. ECON courses used to satisfy the requirements of this major may not also be used to satisfy the requirements for coursework outside the Faculty of Business.

Rationale: Since BUS 101 and 201 are considered equivalent to each other, this revision just clarifies for Honors students that they do not have to take BUS 201 if they have already taken BUS 101. We have also updated an old reference to the MATH course in the program description, which is the version developed for Business and Economics students (MATH 156). The numbering of the remaining notes will need to be revised, as a result of the new Note 1.

Current: Faculty of Business Admission Requirements	**Proposed:** Faculty of Business Admission Requirements
BCom Honors Program Honors programs in Business are available in several areas (see BCom Honors Accounting, BCom Honors Finance, BCom Honors in Management Science and BCom Honors in Operations Management). Application to the Honors program is normally made immediately prior to or during Year Three of the BCom program. However, qualified students in any year are encouraged to apply. Acceptance may depend on whether the students have room in their programs to complete Honors requirements. Prospective students must be currently in the BCom program, or have been accepted for admission to the BCom program. Students must normally present a minimum GPA of 3.7. Admission decisions will be made jointly by the Undergraduate Office in Business and the Department responsible for administering the particular Honors program to which the student is applying. Specific requirements for each program are listed below: I. **Honors in Accounting** 1. Students must complete all requirements of Year Two of the BCom program. 2. Students must complete ACCTG 414. 3. Students must normally present a minimum cumulative GPA of 3.5 on all coursework taken since admission to the Bachelor of Commerce program. 4. Admission will be based on a combination of the student's academic record, performance in Accounting courses to date, a letter of intent and interview. II. **Honors in Finance** 1. Students must normally present a minimum GPA of 3.7. 2. Students will normally have received a grade of A- or higher	**BCom Honors Program** Honors programs in Business are available in several areas (see BCom Honors Accounting, BCom Honors Finance, BCom Honors in Management Science and BCom Honors in Operations Management). Application to the Honors program is normally made immediately prior to or during Year Three of the BCom program. However, qualified students in any year are encouraged to apply. Acceptance may depend on whether the students have room in their programs to complete Honors requirements. Prospective students must be currently in the BCom program, or have been accepted for admission to the BCom program. Students must normally present a minimum GPA of 3.7. Admission decisions will be made jointly by the Undergraduate Office in Business and the Department responsible for administering the particular Honors program to which the student is applying. Specific requirements for each program are listed below: I. **Honors in Accounting** 1. Students must complete all requirements of Year Two of the BCom program. 2. Students must complete ACCTG 414. 3. Students must normally present a minimum cumulative GPA of 3.5 on all coursework taken since admission to the Bachelor of Commerce program. 4. Admission will be based on a combination of the student's academic record, performance in Accounting courses to date, a letter of intent and interview. II. **Honors in Finance** 1. Students must normally present a minimum GPA of 3.7. 2. Students will normally have received a grade of A- or higher

in ECON 101, ECON 102, MATH ~~114~~ or equivalent and STAT 151, or have otherwise demonstrated excellence in their academic Program. III. **Honors in Management Science** • See requirements for Honors in Finance. IV. **Honors in Operations Management** 1. Students must normally present a minimum GPA of 3.7. 2. Students will normally have received a grade of A- or higher in ECON 101, ECON 102, MATH 113, MATH ~~114~~ or equivalent and STAT 151, or have otherwise demonstrated excellence in their academic Program.	in ECON 101, ECON 102, MATH 154 or equivalent and STAT 151, or have otherwise demonstrated excellence in their academic Program. II. **Honors in Management Science** • See requirements for Honors in Finance. V. **Honors in Operations Management** 1. Students must normally present a minimum GPA of 3.7. 2. Students will normally have received a grade of A- or higher in ECON 101, ECON 102, MATH 113, MATH 154 or equivalent and STAT 151, or have otherwise demonstrated excellence in their academic Program.

Rationale: We are updating an old reference to the MATH course in the program description, which is the version developed for Business and Economics students (MATH 154).

Submitted by:
Leo Wong, Associate Dean
Undergraduate Programs

Date: February 15th 2022

Approved by Business Council

Date: March 2nd 2022

University of Alberta
Alberta School of Business

CALENDAR CHANGE REQUEST FORM

Department/Program Office: Marketing, Business Economics & Law

Change: Course - Change 1 (all)

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

Current: ~~Strike through and highlight~~ deletions	**Proposed:** Underline and highlight additions
BUEC 311 – Business Economics, Organizations and Management ★ 3 *(fi 6)* (either term, 3-0-0) ~~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.	BUEC 311 – Business Economics, Organizations and Management ★ 3 *(fi 6)* (either term, 3-0-0) 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. Prerequisite: ECON 101, ECON 102, and MATH 154 or equivalent. Not open to students with previous credit in ECON 281.

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 Date: February 17, 2022
Title: Associate Professor

Approved by Business Council Date: March 2nd 2022

COURSE CHANGE PROPOSAL FORM
Faculty of Kinesiology, Sport, and Recreation

The following is a proposal for a change in calendar (for the 2022-2023 academic year):

The following is a proposal for a change in:

	Course Prefix or Number
	Course Title
X	Hours (weight, term, or hours of instruction)
	Course Description
	Prerequisite(s)
	Other Information or Notes

Full Course Description
as it appears in the current Calendar (including prefix, number, title, hours, description, prerequisites, etc.):

KRLS 105 - Introduction to the Management of Sport, Physical Activity and Recreation Programs
★ 3 (fi 6) (either term, 3-0-~~4~~) Provides students with an introduction to the management concepts required to successfully administer a sport, recreation or physical activity. Credit will be granted for only one of KRLS 105 or PERLS 105.

Highlight and ~~strikethrough~~ removed text on this side

Proposed Course Description
as it should appear in the Calendar (including prefix, number, title, hours, description, prerequisites, etc.):

KRLS 105 - Introduction to the Management of Sport, Physical Activity and Recreation Programs
★ 3 (fi 6) (either term, 3-0-0) Provides students with an introduction to the management concepts required to successfully administer a sport, recreation or physical activity. Credit will be granted for only one of KRLS 105 or PERLS 105.

Highlight and underline new text on this side

Rationale for the proposed change:
This course change removes the seminar component of KRLS 105 to more accurately reflect how this course is delivered. Removal of the seminar component will provide additional flexibility within the course schedule for students.

Approval
KSR UPC (Undergraduate Programs Committee): January 12, 2022
KSR Faculty Executive: n/a
KSR Faculty Council: n/a

Faculty of Native Studies
Academic Planning and Undergraduate Programs
Calendar Change Request Form
2022-2023

Implementation: NORMAL __X_____ EARLY _____

Type of Change: PROGRAM Change __X__

NEW COURSE _____ COURSE CHANGE _____

COURSE DELETION _____ EDITORIAL _____

OTHER CHANGE _____

Current	Proposed
https://calendar.ualberta.ca/preview_program.php?catoid=34&poid=38859	https://calendar.ualberta.ca/preview_program.php?catoid=34&poid=38859
The Certificate in Indigenous Governance and Partnership (With Degree)	**The Certificate in Indigenous Governance and Partnership (With Degree)**
Students may pursue the Certificate in Indigenous Governance and Partnership with degree by completing a minimum of six courses (★18) from the following list: **Indigenous Governance Core Credits – ★6:**	Students may pursue the Certificate in Indigenous Governance and Partnership with degree by completing a minimum of six courses (★18) from the following list: **Indigenous Governance Core Credits – ★6:**
• NS 320 - Indigenous Politics and Diplomacy • NS 430 - Indigenous Governance and Partnership Capstone **Elective Course Credits – ★12:**	• NS 320 - Indigenous Politics and Diplomacy • NS 430 - Indigenous Governance and Partnership Capstone **Elective Course Credits – ★12:**
★6 chosen from:	**★6 chosen from:**
• NS 330 - Indigenous Economies • NS 345 - Governance in Indigenous Nations • NS 420 - Partnership Strategies	• NS 330 - Indigenous Economies • NS 345 - Governance in Indigenous Nations • NS 420 - Partnership Strategies

★6 chosen from: • NS 240 - Introduction to Indigenous Legal Issues • NS 340 - Indigenous Legal Systems • NS 372 - Métis Politics • NS 403 - Selected Topics in Indigenous Studies (Governance Topics Only) • NS 435 - Management of Indigenous Natural Resources • NS 441 - Indigenous Land Claims and Agreements • NS 445 • NS 485 • and/or the elective not chosen from above (NS 330, NS 345, NS 420) **Total Certificate Requirements – ★18**	**★6 chosen from:** • NS 240 - Introduction to Indigenous Legal Issues • NS 340 - Indigenous Legal Systems • NS 362 - Indigenous Women • NS 370 - The Métis: The Emergence of a People • NS 372 - Métis Politics • NS 403 - Selected Topics in Indigenous Studies (Governance Topics Only) • NS 435 - Management of Indigenous Natural Resources • NS 440 - Indigenous Treaties and Agreements • NS 441 - Indigenous Land Claims and Agreements • NS 445 • NS 485 • POL S 329: Global Indigenous Politics • POL S 436: Topics in Indigenous Politics • and/or the elective not chosen from above (NS 330, NS 345, NS 420) **Total Certificate Requirements – ★18**

Rationale: The Certificate in Indigenous Governance and Partnership will be more accessible to students across campus with enhanced elective options.

As there is a strong relationship between the topics covered by the Certificate in Indigenous Governance and Partnership and topics with relevant curriculum offered by Political Science, POL S 329 and POL S 436 classes are proposed to be added.

As NS 362, NS 370, and NS 440 address key curriculum on the topics of Indigenous governance and partnership, adding these NS courses as electives will increase the accessibility of the Certificate and enhance the curriculum breadth.

Approved at the Faculty of Native Studies Academic Affairs on October 22, 2021.
Approved at the Faculty of Native Studies Faculty Council on November 05, 2021.

UNIVERSITY OF ALBERTA
FACULTY OF SCIENCE

CALENDAR CHANGE REQUEST FORM

Department: Physics

Highlight type of change request below:

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

CURRENT	PROPOSED
BIOPH 501 - Advanced Biophysics ★ 3 (fi 6) (second term, 3-0-0) Physical properties of biological macromolecules and macromolecular assemblies; biopolymer folding; ligand binding and allostery; lipid membranes; cellular electricity and nerve conduction; models of molecular motors; stochasticity in biology; numerical and experimental techniques in biophysics; synthetic biology. Prerequisites: ~~MATH 209/215/317, MATH 201/334/336, BIOPH 201, PHYS 234, PHYS 230/281, PHYS 310~~.	**BIOPH 501 - Advanced Biophysics** ★ 3 (fi 6) (second term, 3-0-0) Physical properties of biological macromolecules and macromolecular assemblies; biopolymer folding; ligand binding and allostery; lipid membranes; cellular electricity and nerve conduction; models of molecular motors; stochasticity in biology; numerical and experimental techniques in biophysics; synthetic biology. Prerequisites: Consent of Instructor

Rationale for change: (Not required for course deletion or editorial changes)
(Include documentation that other departments or Faculties offering similar courses support this proposal. In the case of substantial program changes you must also include evidence of consultation with students.)

This course is cross-listed with BIOPH 401, which has prerequisites suitable for a student who trained at U. Alberta. However, the BIOPH 501 course is intended for graduate students, who may not have the undergraduate prerequisites. Instead, these should be changed to the standard language used in the Department for entry-level graduate courses.

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Department Contact Name: Craig Heinke	**Department Chair or Designate** Name: Roger Moore	**Date approved by Dept Council:** Dec. 14, 2021
Email: heinke@ualberta.ca	Email: rwmoore@ualberta.ca	**Date submitted to FoS:** **Dec. 14, 2021**
		Date approved Faculty Council: **Feb 9, 2022**

Upload this form to the FoS Calendar Google Site.

UNIVERSITY OF ALBERTA
FACULTY OF SCIENCE

CALENDAR CHANGE REQUEST FORM

Department: Physics

Highlight type of change request below:

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

CURRENT	PROPOSED
	MA PH 251 – Differential Equations for Physics ★ 3 *(fi 6)* (first term, 3-0-1) Differential equations occur throughout undergraduate physics and being able to solve them is a critical mathematical skill for all physicists. The first part of the course emphasizes solution techniques to linear, second order ordinary differential equations, including series solutions and an introduction to trigonometric Fourier series via inhomogeneous equations. Nonlinear and systems of ordinary differential equations will also be discussed. The second part of the course introduces partial differential equations with a focus on the three classical linear second order partial differential equations of mathematical physics: the heat equation, the wave equation and Laplace's equation, and techniques for solving them including separation of variables, Fourier series and the d'Alembert solution of the wave equation. Examples from physics will be emphasized throughout. Prerequisite: MATH 146 or equivalent. Corequisite: MATH 214 or equivalent, and one of MATH 102 or 125 or 127. Note: Credit may be obtained for only one of MA PH 251, MATH 201, MATH 334 or MATH 336.
MA PH 343 - Classical Mechanics I ★ 3 *(fi 6)* (first term, 3-0-0) Principles of mechanics; non-inertial frames; Lagrange's equations and Hamilton's principle; dynamics of oscillating systems; rigid body kinematics and dynamics; Hamiltonian methods and canonical transformations. Prerequisite: PHYS 244, MATH 215 or 317.	**MA PH 343 - Classical Mechanics II** ★ 3 *(fi 6)* (first term, 3-0-0) Principles of mechanics; non-inertial frames; Lagrange's equations and Hamilton's principle; dynamics of oscillating systems; rigid body kinematics and dynamics; Hamiltonian methods and canonical transformations. Prerequisite: PHYS 244 and one of MA PH 351, MATH 215 or MATH 317.
	MA PH 351 – Mathematical Methods for Physics I

	★ 3 *(fi 6)* (second term, 3-0-1) This final core mathematics course for physics programs covers Fourier Analysis, Vector Calculus and Complex Analysis. The first part covers generalized Fourier series and orthogonal functions, and the Fourier integral. The second part covers the operators of vector differential calculus, line and surface integrals, and the three important vector integral theorems of Green, Gauss and Stokes, with a direct application to Gauss' and Ampere's laws of electromagnetism; spherical, cylindrical and planar symmetry. The final part of the course covers the basic calculus of functions of a complex variable: the Cauchy-Riemann equations, analytic functions, the Cauchy-Goursat theorem and Cauchy integral formula, Laurent series, poles and residues, contour integration. Examples from physics will be emphasized throughout. Prerequisite: MATH 214 and one of MATH 102 or 125 or 127 and one of MA PH 251 or MATH 201 or MATH 334 or MATH 336.
MA PH 451 - Mathematical Methods of Physics I ★ 3 *(fi 6)* (either term, 3-0-0) Application to problems in physics of method of steepest descent, Fourier and Laplace transforms; boundary-value problems, integral equations, and Green's functions. Prerequisites: MATH 311 or 411, and 337, or equivalents.	**MA PH 451 - Mathematical Methods for Physics II** ★ 3 *(fi 6)* (either term, 3-0-0) Application to problems in physics of method of steepest descent, Fourier and Laplace transforms; boundary-value problems, integral equations, and Green's functions. Prerequisites: either MA PH 351 or both of MATH 311 and MATH 337.

ASTRO 320 - Stellar Astrophysics I ★ 3 (fi 6) (either term, 3-0-0) Application of physics to stellar formation and stellar evolution; theoretical models and observational comparisons of main sequence stars, white dwarf stars, neutron stars, supernovae, black holes; binary star systems, stellar atmospheres and stellar spectra. Prerequisites: MATH 115, 118, 136, 146 or 156, and one of PHYS 124, PHYS 144, or EN PH 131, and one of PHYS 126, PHYS 146, or PHYS 130. ~~Pre or corequisite: any 200-level PHYS course. Some additional knowledge of astronomy (ASTRO 120 and/or 122) is advantageous.~~	**ASTRO 320 - Stellar Astrophysics I** ★ 3 (fi 6) (either term, 3-0-0) Application of physics to stellar formation and stellar evolution; theoretical models and observational comparisons of main sequence stars, white dwarf stars, neutron stars, supernovae, black holes; binary star systems, stellar atmospheres and stellar spectra. Prerequisites: MATH 115, 118, 136, 146 or 156, and one of PHYS 124, PHYS 144, or EN PH 131, and one of PHYS 126, PHYS 146, or PHYS 130 and PHYS 208 or 271. Previous knowledge of astronomy is advantageous.
ASTRO 430 - Physical Cosmology ★ 3 (fi 6) (either term, 3-0-0) Observational cosmology; geometry and matter content of the Universe; physical processes in the early stages of the Universe; inflation, Big Bang nucleosynthesis and the cosmic microwave background radiation; cosmological aspects of galaxy formation and the growth of large-scale structure. Prerequisites: PHYS 310, MATH 334. Pre- or corequisite: PHYS 458.	**ASTRO 430 - Physical Cosmology** ★ 3 (fi 6) (either term, 3-0-0) Observational cosmology; geometry and matter content of the Universe; physical processes in the early stages of the Universe; inflation, Big Bang nucleosynthesis and the cosmic microwave background radiation; cosmological aspects of galaxy formation and the growth of large-scale structure. Prerequisites: PHYS 310, MA PH 251 or MATH 334. Pre- or corequisite: PHYS 458.
ASTRO 465 - Stellar Astrophysics II ★ 3 (fi 6) (either term, 3-0-0) Stellar interiors and nuclear transformations; energy transport; model stars; variable stars; stellar evolution. Prerequisites: PHYS 310, 271, ASTRO 320, MATH 334. Note: Credit may be obtained for only one of ASTRO 465 or ASTRO 565.	**ASTRO 465 - Stellar Astrophysics II** ★ 3 (fi 6) (either term, 3-0-0) Stellar interiors and nuclear transformations; energy transport; model stars; variable stars; stellar evolution. Prerequisites: PHYS 310, 271, ASTRO 320, MA PH 251 or MATH 334. Note: Credit may be obtained for only one of ASTRO 465 or ASTRO 565.
BIOPH 401 - Advanced Biophysics ★ 3 (fi 6) (second term, 3-0-0) Physical properties of biological macromolecules and macromolecular assemblies; biopolymer folding; ligand binding and allostery; lipid membranes; cellular electricity and nerve conduction; models of molecular motors; stochasticity in biology; numerical and experimental techniques in biophysics; synthetic biology. Prerequisites: MATH 209/215/317, MATH 201/334/336, BIOPH 201, PHYS 234, PHYS 230/281, PHYS 310.	**BIOPH 401 - Advanced Biophysics** ★ 3 (fi 6) (second term, 3-0-0) Physical properties of biological macromolecules and macromolecular assemblies; biopolymer folding; ligand binding and allostery; lipid membranes; cellular electricity and nerve conduction; models of molecular motors; stochasticity in biology; numerical and experimental techniques in biophysics; synthetic biology. Prerequisites: MATH 209/215/317 or MA PH 351, MATH 201/334/336 or MA PH 251, BIOPH 201, PHYS 234, PHYS 230/281, PHYS 310.
GEOPH 325 - Gravity, Magnetic, and	**GEOPH 325 - Gravity, Magnetic, and Electrical Geophysics**

Electrical Geophysics ★ 3 (fi 6) (either term, 3-0-3/2) 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.	★ 3 (fi 6) (either term, 3-0-3/2) 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 or MA PH 351
GEOPH 326 - Seismic Imaging ★ 3 (fi 6) (either term, 3-0-3/2) 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 326 - Seismic Imaging** ★ 3 (fi 6) (either term, 3-0-3/2) 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 or MA PH 351
GEOPH 332 - Physical Properties of Geomaterials ★ 3 (fi 6) (either term, 3-0-0) 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 332 - Physical Properties of Geomaterials** ★ 3 (fi 6) (either term, 3-0-0) 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 or MA PH 351.
GEOPH 421 - Seismology and the Physical Structure of the Earth ★ 3 (fi 6) (either term, 3-0-0) 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 421 - Seismology and the Physical Structure of the Earth** ★ 3 (fi 6) (either term, 3-0-0) 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: MA PH 251 or MATH 334. Prerequisites: PHYS 281.

PHYS 244 - Mechanics ★ 3 *(fi 6)* (either term, 3-0-0) Particle dynamics; oscillating systems and normal modes; conservative forces and energy; introduction to Lagrangian and Hamiltonian dynamics; central forces; orbital motion and scattering. Prerequisite: one of PHYS 124, PHYS 144, or EN PH 131, and one of PHYS 126, PHYS 146, or PHYS 130. Corequisite: MATH 120 or 125 or 127 or 102 or equivalent, and ~~MATH 209 or 215 or 317~~ or equivalent.	**PHYS 244 – Classical Mechanics I** ★ 3 *(fi 6)* (either term, 3-0-0) Particle dynamics; oscillating systems and normal modes; conservative forces and energy; introduction to Lagrangian and Hamiltonian dynamics; central forces; orbital motion and scattering. Prerequisite: one of PHYS 124, PHYS 144, or EN PH 131, and one of PHYS 126, PHYS 146, or PHYS 130. Corequisite: MATH 120 or 125 or 127 or 102 or equivalent, and MA PH 251, MATH 201, MATH 334 or MATH 336 or equivalent.
PHYS 271 - Introduction to Modern Physics ★ 3 (fi 6) (either term, 3-0-0) Experimental evidence for limitations of classical physics; review of special relativity: quantization of charge, light, and energy; blackbody radiation, photoelectric effect, Compton effect; models of the atom; wavelike properties of particles; the uncertainty principle, the Schrodinger Equation, the infinite and finite square well, the harmonic oscillator, tunneling; the hydrogen atom, orbital angular momentum and electron spin; spin and statistics; selected topics. Prerequisite: one of PHYS 124, PHYS 144, or EN PH 131, and one of PHYS 126, PHYS 146, or PHYS 130. Pre- or Corequisite: MATH 209 or 215 or 317 or equivalent. Note: Credit may be obtained in only one of PHYS 208 or 271.	**PHYS 271 - Introduction to Modern Physics** ★ 3 (fi 6) (either term, 3-0-0) Experimental evidence for limitations of classical physics; review of special relativity: quantization of charge, light, and energy; blackbody radiation, photoelectric effect, Compton effect; models of the atom; wavelike properties of particles; the uncertainty principle, the Schrodinger Equation, the infinite and finite square well, the harmonic oscillator, tunneling; the hydrogen atom, orbital angular momentum and electron spin; spin and statistics; selected topics. Prerequisite: one of PHYS 124, PHYS 144, or EN PH 131, and one of PHYS 126, PHYS 146, or PHYS 130. Pre- or Corequisite: MATH 209 or 215 or 317 or MA PH 351 equivalent. Note: Credit may be obtained in only one of PHYS 208 or 271.
PHYS 310 - Thermodynamics and Kinetic Theory ★ 3 (fi 6) (either term, 3-0-0) Temperature: heat, work, and the first law of thermodynamics; entropy and the second law, enthalpy, Helmholtz and Gibbs free energy; thermodynamic equilibrium criteria; Maxwell's relations, phase transitions; elementary kinetic theory of gases. Prerequisites: one of PHYS 124, PHYS 144, or EN PH 131, and one of PHYS 126, PHYS 146, or PHYS 130. Pre- or corequisite: MATH 209 or 215 or 317 or equivalent.	**PHYS 310 - Thermodynamics and Kinetic Theory** ★ 3 (fi 6) (either term, 3-0-0) Temperature: heat, work, and the first law of thermodynamics; entropy and the second law, enthalpy, Helmholtz and Gibbs free energy; thermodynamic equilibrium criteria; Maxwell's relations, phase transitions; elementary kinetic theory of gases. Prerequisites: one of PHYS 124, PHYS 144, or EN PH 131, and one of PHYS 126, PHYS 146, or PHYS 130. Pre- or corequisite: MATH 209 or 215 or 317 or MA PH 351 equivalent.
PHYS 311 - Statistical Physics ★ 3 (fi 6) (either term, 3-0-0) Quantum states, probability distributions, temperature and entropy; canonical ensemble and the partition function; ideal gases, paramagnets; blackbody radiation. Debye model for phonons; quantum statistics; Fermi-Dirac distribution and electrons in metals; Bose-Einstein distribution. Prerequisites: PHYS 310 (or CH E 243	**PHYS 311 - Statistical Physics** ★ 3 (fi 6) (either term, 3-0-0) Quantum states, probability distributions, temperature and entropy; canonical ensemble and the partition function; ideal gases, paramagnets; blackbody radiation. Debye model for phonons; quantum statistics; Fermi-Dirac distribution and electrons in metals; Bose-Einstein distribution. Prerequisites: PHYS 310 (or CH E 243 for Engineering Physics Program students), PHYS

for Engineering Physics Program students), PHYS 271 and MATH 209 or 215 or 317 or equivalent.	271 and MATH 209 or 215 or 317 or MA PH 351 equivalent.
PHYS 362 - Optics and Lasers ★ 3 (fi 6) (either term, 3-0-0) Gaussian optics; optical instruments; matrix analysis of lens systems; aberrations; polarization; double- and multiple-beam interference; Fraunhofer and Fresnel diffraction; introduction to laser physics and applications; selected topics from contemporary optics. Prerequisite: PHYS 230 or 281, and MATH 209 or 215 or 317.	**PHYS 362 - Optics and Lasers** ★ 3 (fi 6) (either term, 3-0-0) Gaussian optics; optical instruments; matrix analysis of lens systems; aberrations; polarization; double- and multiple-beam interference; Fraunhofer and Fresnel diffraction; introduction to laser physics and applications; selected topics from contemporary optics. Prerequisite: PHYS 230 or 281, and MATH 209 or 215 or 317 or MA PH 351.
PHYS 372 - Quantum Mechanics A ★ 3 (fi 6) (either term, 3-0-0) Origins of quantum mechanics; wave functions; Schrodinger equation and its application to one dimensional systems, postulates and physical interpretation of quantum mechanics; orbital angular momentum, central potentials and three-dimensional systems. Prerequisites: PHYS 271, PHYS 230 or 281, MATH 225 or 227 (or 102), MATH 334 or 201.	**PHYS 372 - Quantum Mechanics A** ★ 3 (fi 6) (either term, 3-0-0) Origins of quantum mechanics; wave functions; Schrodinger equation and its application to one dimensional systems, postulates and physical interpretation of quantum mechanics; orbital angular momentum, central potentials and three-dimensional systems. Prerequisites: PHYS 271, PHYS 230 or 281, MATH 225 or 227 (or 102), MATH 334 or 201 or MA PH 251.
PHYS 381 - Electromagnetic Theory I ★ 3 (fi 6) (either term, 3-0-0) Review of scalar and vector fields; Gauss and Stokes theorems; curvilinear coordinates; Dirac delta function; electrostatic field and potential; electrostatic energy; conductors, capacitors; Laplace's equation; boundary value problems; methods of images; multipoles; electrostatic field in matter; polarization; displacement; linear dielectrics; magnetostatic field; Biot-Savart and Ampere's law; vector potential; magnetostatic field in matter; magnetization; linear and nonlinear magnetic media. Prerequisites: PHYS 230 or 281. Pre- or corequisite: MATH 334 or 201 or equivalent.	**PHYS 381 - Electromagnetic Theory I** ★ 3 (fi 6) (either term, 3-0-0) Review of scalar and vector fields; Gauss and Stokes theorems; curvilinear coordinates; Dirac delta function; electrostatic field and potential; electrostatic energy; conductors, capacitors; Laplace's equation; boundary value problems; methods of images; multipoles; electrostatic field in matter; polarization; displacement; linear dielectrics; magnetostatic field; Biot-Savart and Ampere's law; vector potential; magnetostatic field in matter; magnetization; linear and nonlinear magnetic media. Prerequisites: PHYS 230 or 281. Pre- or corequisite: MATH 334 or 201 or MA PH 251, and MA PH 351 or MATH 215 or MATH 317.
PHYS 472 - Quantum Mechanics B ★ 3 (fi 6) (either term, 3-0-0) Review of the postulates of quantum mechanics; quantization of angular momentum; matrix representations, spin and parity; approximation methods; perturbation theory; variational and other methods; applications; scattering theory; systems of identical particles. Prerequisites: PHYS 372, and MATH 337 or ECE 341 or equivalent, and MATH 311 or 411.	**PHYS 472 - Quantum Mechanics B** ★ 3 (fi 6) (either term, 3-0-0) Review of the postulates of quantum mechanics; quantization of angular momentum; matrix representations, spin and parity; approximation methods; perturbation theory; variational and other methods; applications; scattering theory; systems of identical particles. Prerequisites: PHYS 372, and MATH 337 or ECE 341 or equivalent, and MATH 311 or 411 or MA PH 351.

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.)

As part of BSc renewal, Physics is restructuring the mathematics training to be in the reverse order with respect to the standard math sequencing, focusing on Differential Equations (covering parts of MATH 334) first followed by a practical course covering vector differential operators, line and surface integrals, and the three core theorems of vector integral calculus and an introduction to Fourier series and complex analysis (covering MATH 215 and parts of MATH 311). This sequencing better parallels the development of topics in the Physics program and brings in some essential topics such as Fourier series without requiring an entire course to cover them.

Practically, the calendar implementation: (1) Establishes two new courses, MA PH 251 and MA PH 351, (2) establishes course exclusions of MA PH 251 with MATH 334 and MATH 201 and an exclusion of MA PH 351 with MATH 215 and MATH 317, (3) establishes MA PH 251 or MATH 334 as a corequisite for the core second year course PHYS 244, (4) establish MA PH 251 as an equivalent prerequisite for Physics courses where MATH 334 is required, (5) establish MA PH 351 as an equivalent prerequisite for Physics courses where MATH 217 or 317 is required, and (6) amends Physics programs to allow students to take the revised MA PH sequence or the original sequence.

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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.

Honors in Astrophysics [Science]

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Year 2
~~ASTRO 320 - Stellar Astrophysics I~~

MATH 214 - Intermediate Calculus I OR
MATH 217 - Honors Advanced Calculus I

MATH 215 - Intermediate Calculus II OR
MATH 317 - Honors Advanced Calculus II

PHYS 234 - Introductory Computational Physics
PHYS 244 - ~~Mechanics~~
PHYS 271 - Introduction to Modern Physics
PHYS 281 - Electricity and Magnetism
PHYS 295 - Experimental Physics I
PHYS 297 - Experimental Physics II
★3 in Arts options

Year 3
ASTRO 322 - Galactic and Extragalactic Astrophysics
MATH 311 - Theory of Functions of a Complex Variable
~~MATH 334 - Introduction to Differential Equations~~

MATH 337 - Introduction to Partial Differential Equations
PHYS 310 - Thermodynamics and Kinetic Theory
PHYS 311 - Statistical Physics
Print (opens a new window)
PHYS 311 - Statistical Physics
PHYS 362 - Optics and Lasers
PHYS 372 - Quantum Mechanics A
PHYS 381 - Electromagnetic Theory I
★ 3 Arts option

Notes
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6. Credit in SCI 151 will be considered equivalent to ★6 Science options.

Honors in Astrophysics [Science]

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Year 2

MATH 214 - Intermediate Calculus I OR
MATH 217 - Honors Advanced Calculus I

MA PH 251 - Differential Equations for Physics OR
MATH 334 - Introduction to Differential Equations

MA PH 351 - Mathematical Methods for Physics I OR
MATH 215 - Intermediate Calculus II OR
MATH 317 - Honors Advanced Calculus II (see Note 7)

PHYS 234 - Introductory Computational Physics
PHYS 244 - Classical Mechanics I
PHYS 271 - Introduction to Modern Physics
PHYS 281 - Electricity and Magnetism
PHYS 295 - Experimental Physics I
PHYS 297 - Experimental Physics II
★3 in Arts options

Year 3
ASTRO 320 - Stellar Astrophysics I
ASTRO 322 - Galactic and Extragalactic Astrophysics
MATH 311 - Theory of Functions of a Complex Variable

MATH 337 - Introduction to Partial Differential Equations
PHYS 310 - Thermodynamics and Kinetic Theory
PHYS 311 - Statistical Physics
Print (opens a new window)
PHYS 311 - Statistical Physics
PHYS 362 - Optics and Lasers
PHYS 372 - Quantum Mechanics A
PHYS 381 - Electromagnetic Theory I
★ 3 Arts option
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Notes
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6. Credit in SCI 151 will be considered equivalent to ★6 Science options.
7. Students should take one of MA PH 251 or MATH 334 and one of MA PH 351 or MATH 215 or MATH 317

Honors in Physics [Science]

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Year 2
MATH 214 - Intermediate Calculus I OR
MATH 217 - Honors Advanced Calculus I

MATH 215 - Intermediate Calculus II OR
MATH 317 - Honors Advanced Calculus II

Honors in Physics [Science]

…
Year 2
MATH 214 - Intermediate Calculus I OR
MATH 217 - Honors Advanced Calculus I

MA PH 251 - Differential Equations for Physics

PHYS 234 - Introductory Computational Physics PHYS 244 - ~~Mechanics~~ PHYS 271 - Introduction to Modern Physics PHYS 281 - Electricity and Magnetism PHYS 295 - Experimental Physics I PHYS 297 - Experimental Physics II ★~~6~~ in an Arts option (see Note 1)	MATH 215 - Intermediate Calculus II OR MATH 317 - Honors Advanced Calculus II OR MA PH 351 - Mathematical Methods for Physics I (see Note 7) PHYS 234 - Introductory Computational Physics PHYS 244 - Classical Mechanics I PHYS 271 - Introduction to Modern Physics PHYS 281 - Electricity and Magnetism PHYS 295 - Experimental Physics I PHYS 297 - Experimental Physics II ★3 in an Arts option (see Note 1)
<u>Year 3</u> MATH 311 - Theory of Functions of a Complex Variable OR MATH 411 - Honors Complex Variables ~~MATH 334 - Introduction to Differential Equations~~ MATH 337 - Introduction to Partial Differential Equations PHYS 310 - Thermodynamics and Kinetic Theory PHYS 311 - Statistical Physics PHYS 362 - Optics and Lasers PHYS 372 - Quantum Mechanics A PHYS 381 - Electromagnetic Theory I PHYS 397 - Projects in Experimental Physics ★~~3~~ in an Arts option (see Note 1)	<u>Year 3</u> MATH 311 - Theory of Functions of a Complex Variable OR MATH 411 - Honors Complex Variables MATH 337 - Introduction to Partial Differential Equations PHYS 310 - Thermodynamics and Kinetic Theory PHYS 311 - Statistical Physics PHYS 362 - Optics and Lasers PHYS 372 - Quantum Mechanics A PHYS 381 - Electromagnetic Theory I PHYS 397 - Projects in Experimental Physics ★6 in an Arts option (see Note 1)
<u>Notes</u> … 6. Credit in SCI 151 will be considered equivalent to ★6 Science options.	<u>Notes</u> … 6. Credit in SCI 151 will be considered equivalent to ★6 Science options. 7. Students should take one of MA PH 251 or MATH 334 and one of MA PH 351 or MATH 215 or MATH 317
Honors in Mathematical Physics [Science]	**Honors in Mathematical Physics [Science]**
<u>Year 2</u> MATH 217 - Honors Advanced Calculus I MATH 317 - Honors Advanced Calculus II MATH 334 - Introduction to Differential Equations PHYS 234 - Introductory Computational Physics PHYS 244 - Mechanics PHYS 271 - Introduction to Modern Physics PHYS 281 - Electricity and Magnetism PHYS 295 - Experimental Physics I ★6 in Arts option <u>Year 3</u> MATH 311 - Theory of Functions of a Complex Variable OR MATH 411 - Honors Complex Variables MATH 337 - Introduction to Partial Differential Equations MA PH 343 - Classical Mechanics I	<u>Year 2</u> MATH 217 - Honors Advanced Calculus I MATH 317 - Honors Advanced Calculus II MA PH 251 - Differential Equations for Physics OR MATH 334 - Introduction to Differential Equations PHYS 234 - Introductory Computational Physics PHYS 244 - Mechanics PHYS 271 - Introduction to Modern Physics PHYS 281 - Electricity and Magnetism PHYS 295 - Experimental Physics I ★6 in Arts option <u>Year 3</u> MATH 311 - Theory of Functions of a Complex Variable OR MATH 411 - Honors Complex Variables MATH 337 - Introduction to Partial Differential Equations MA PH 343 - Classical Mechanics I

MA PH 464 - Group Theory in Physics PHYS 310 - Thermodynamics and Kinetic Theory PHYS 311 - Statistical Physics PHYS 372 - Quantum Mechanics A PHYS 381 - Electromagnetic Theory I ★6 in Arts option	MA PH 464 - Group Theory in Physics PHYS 310 - Thermodynamics and Kinetic Theory PHYS 311 - Statistical Physics PHYS 372 - Quantum Mechanics A PHYS 381 - Electromagnetic Theory I ★6 in Arts option
Honors in Geophysics [Science] <u>Year 2</u> EAS 105 - The Dynamic Earth Through Time ~~EAS 233 - Geologic Structures~~ MATH 214 - Intermediate Calculus I OR MATH 217 - Honors Advanced Calculus I MATH 215 - Intermediate Calculus II OR MATH 317 - Honors Advanced Calculus II PHYS 234 - Introductory Computational Physics PHYS 244 - ~~Mechanics~~ PHYS 271 - Introduction to Modern Physics PHYS 281 - Electricity and Magnetism PHYS 295 - Experimental Physics I ★3 in an Arts or approved Science option (see Note 1). CMPUT 174 in Fall Term is recommended if a student has no computing background. <u>Year 3</u> EAS 222 - Stratigraphy and Sedimentation GEOPH 325 - Gravity, Magnetic, and Electrical Geophysics GEOPH 326 - Seismic Imaging MATH 311 - Theory of Functions of a Complex Variable (or equivalent) ~~MATH 334 - Introduction to Differential Equations~~ ~~OR~~ ~~MATH 201 - Differential Equations (or equivalent)~~ MATH 337 - Introduction to Partial Differential Equations OR MATH 300 - Advanced Boundary Value Problems I (or equivalent) PHYS 381 - Electromagnetic Theory I ★9 in approved Science or Arts options or Specialization Pools A or B courses (see Notes 1, 2 and 3) ... <u>Notes</u> ...	**Honors in Geophysics [Science]** <u>Year 2</u> EAS 105 - The Dynamic Earth Through Time MATH 214 - Intermediate Calculus I OR MATH 217 - Honors Advanced Calculus I MA PH 251 - Differential Equations for Physics OR MATH 201 - Differential Equations OR MATH 334 - Introduction to Differential Equations MA PH 351 - Mathematical Methods for Physics I MATH 215 - Intermediate Calculus II OR MATH 317 - Honors Advanced Calculus II (see Note 8) PHYS 234 - Introductory Computational Physics PHYS 244 - Classical Mechanics I PHYS 271 - Introduction to Modern Physics PHYS 281 - Electricity and Magnetism PHYS 295 - Experimental Physics I ★3 in an Arts or approved Science option (see Note 1). CMPUT 174 in Fall Term is recommended if a student has no computing background. <u>Year 3</u> EAS 222 - Stratigraphy and Sedimentation EAS 233 - Geologic Structures GEOPH 325 - Gravity, Magnetic, and Electrical Geophysics GEOPH 326 - Seismic Imaging MATH 311 - Theory of Functions of a Complex Variable (or equivalent) MATH 337 - Introduction to Partial Differential Equations OR MATH 300 - Advanced Boundary Value Problems I (or equivalent) PHYS 381 - Electromagnetic Theory I ★9 in approved Science or Arts options or Specialization Pools A or B courses (see Notes 1, 2 and 3) … <u>Notes</u> … 6. Credit in SCI 151 will be considered equivalent to ★6 Science options.

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Specialization in Astrophysics [Science] … Year 2 ~~ASTRO 320 - Stellar Astrophysics I~~ MATH 214 - Intermediate Calculus I OR MATH 217 - Honors Advanced Calculus I MATH 215 - Intermediate Calculus II OR MATH 317 - Honors Advanced Calculus II PHYS 234 - Introductory Computational Physics PHYS 244 - ~~Mechanics~~ PHYS 271 - Introduction to Modern Physics PHYS 281 - Electricity and Magnetism PHYS 295 - Experimental Physics I PHYS 297 - Experimental Physics II ★3 in Arts options Year 3 ASTRO 322 - Galactic and Extragalactic Astrophysics ~~MATH 334 - Introduction to Differential Equations~~ MATH 337 - Introduction to Partial Differential Equations PHYS 310 - Thermodynamics and Kinetic Theory PHYS 311 - Statistical Physics PHYS 372 - Quantum Mechanics A PHYS 381 - Electromagnetic Theory I ★3 in AS Senior Science option (see Note 2) ★3 in AS Pool option ★3 Arts option … Notes ... 5. Credit in SCI 151 will be considered equivalent to ★6 Science options.	**Specialization in Astrophysics [Science]** … Year 2 ASTRO 320 - Stellar Astrophysics I MATH 214 - Intermediate Calculus I OR MATH 217 - Honors Advanced Calculus I MA PH 251 - Differential Equations for Physics OR MATH 334 - Introduction to Differential Equations MA PH 351 - Mathematical Methods for Physics I OR MATH 215 - Intermediate Calculus II OR MATH 317 - Honors Advanced Calculus II (see Note 6) PHYS 234 - Introductory Computational Physics PHYS 244 - Classical Mechanics I PHYS 271 - Introduction to Modern Physics PHYS 281 - Electricity and Magnetism PHYS 295 - Experimental Physics I PHYS 297 - Experimental Physics II ★3 in Arts options Year 3 ASTRO 320 - Stellar Astrophysics I ASTRO 322 - Galactic and Extragalactic Astrophysics MATH 337 - Introduction to Partial Differential Equations PHYS 310 - Thermodynamics and Kinetic Theory PHYS 311 - Statistical Physics PHYS 372 - Quantum Mechanics A PHYS 381 - Electromagnetic Theory I ★3 in AS Senior Science option (see Note 2) ★3 in AS Pool option ★3 Arts option … Notes ... 5. Credit in SCI 151 will be considered equivalent to ★6 Science options. 6. Students should take one of MA PH 251 or MATH 334 and one of MA PH 351 or MATH 215 or MATH 317
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Year 2 EAS 105 - The Dynamic Earth Through Time ~~EAS 233 - Geologic Structures~~ MATH 214 - Intermediate Calculus I OR MATH 217 - Honors Advanced Calculus I MATH 215 - Intermediate Calculus II OR MATH 317 - Honors Advanced Calculus II PHYS 234 - Introductory Computational Physics PHYS 244 - ~~Mechanics~~ PHYS 271 - Introduction to Modern Physics PHYS 281 - Electricity and Magnetism PHYS 295 - Experimental Physics I ★3 in an Arts or approved Science option (see Note 1). CMPUT 174 in Fall Term is recommended if a student has no computing background. Year 3 EAS 222 - Stratigraphy and Sedimentation GEOPH 325 - Gravity, Magnetic, and Electrical Geophysics GEOPH 326 - Seismic Imaging MATH 311 - Theory of Functions of a Complex Variable (or equivalent) ~~MATH 334 - Introduction to Differential Equations OR~~ ~~MATH 201 - Differential Equations (or equivalent)~~ MATH 337 - Introduction to Partial Differential Equations OR MATH 300 - Advanced Boundary Value Problems I (or equivalent) PHYS 381 - Electromagnetic Theory I ★9 in approved Science or Arts options or Specialization Pools A or B courses (see Notes 1, 2 and 3) ... Notes ... 7. Credit in SCI 151 will be considered equivalent to ★6 Science options.	MATH 214 - Intermediate Calculus I OR MATH 217 - Honors Advanced Calculus I MA PH 251 - Differential Equations for Physics OR MATH 201 - Differential Equations OR MATH 334 - Introduction to Differential Equations MA PH 351 - Mathematical Methods for Physics I MATH 215 - Intermediate Calculus II OR MATH 317 - Honors Advanced Calculus II (see Note 8) PHYS 234 - Introductory Computational Physics PHYS 244 - Classical Mechanics I PHYS 271 - Introduction to Modern Physics PHYS 281 - Electricity and Magnetism PHYS 295 - Experimental Physics I ★3 in an Arts or approved Science option (see Note 1). CMPUT 174 in Fall Term is recommended if a student has no computing background. Year 3 EAS 222 - Stratigraphy and Sedimentation EAS 233 - Geologic Structures GEOPH 325 - Gravity, Magnetic, and Electrical Geophysics GEOPH 326 - Seismic Imaging MATH 311 - Theory of Functions of a Complex Variable (or equivalent) MATH 337 - Introduction to Partial Differential Equations OR MATH 300 - Advanced Boundary Value Problems I (or equivalent) PHYS 381 - Electromagnetic Theory I ★9 in approved Science or Arts options or Specialization Pools A or B courses (see Notes 1, 2 and 3) … Notes ... 7. Credit in SCI 151 will be considered equivalent to ★6 Science options. 8. Students should take one of MA PH 251 or MATH 334 and one of MA PH 351 or MATH 215 or MATH 317
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FINAL Item No. 5

Governance Executive Summary
Action Item

Agenda Title	**Items Deemed Minor/Editorial** A. Program Regulations for Credit/No-Credit Courses, Faculty of Engineering B. Advanced Standing/Laddering into the Master of Education Program, Faculty of Education

Item

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

Engagement and Routing

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>	*Those who are actively **participating**:* • 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 March 17, 2022

Strategic Alignment

Item No. 5

Alignment with *For the Public Good*	Objective 21	
Alignment with Core Risk Area	Please note below the specific institutional risk(s) this proposal is addressing.	
	☒ Enrolment Management ☐ Faculty and Staff ☐ Funding and Resource Management ☐ IT Services, Software and Hardware ☐ Leadership and Change ☐ Physical Infrastructure	☐ Relationship with Stakeholders ☐ Reputation ☐ Research Enterprise ☐ Safety ☒ Student Success
Legislative Compliance and jurisdiction	*Post-Secondary Learning Act* (PSLA) UAPPOL Admissions Policy GFC Programs Committee (PC) Terms of Reference	

Attachments

A. ENGG CR NC courses
B. Elem MEd Prog Info (2021-12-16)

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

Office of the Dean
Faculty of Engineering

9th floor Donadeo Innovation Centre for Engineering
Edmonton, Alberta, Canada T6G 1H9
www.engineering.ualberta.ca
info@engineering.ualberta.ca
Tel: 780.492.3320
Fax: 780.492.0500

CALENDAR CHANGE REQUEST FORM

Submission Deadlines:
Two weeks before APC or GPC, subject to faculty approval pathway. Program changes are subject to governance deadlines found here. Full Governance (not internal to ENGG) calendar changes process are here.

Department:	Faculty of Engineering
Change Request:	Program Regulation

Why is this change being proposed and who was consulted (include dates of faculty and PST reviews below)?
We are now offering new spring/summer versions of ENGG 160 and 400 for those who did not get credit. The main reason is that the class sizes in fall and winter are already very large and space may not be available for these students.

Specific details:

1. In both ENGG 160 and 400, students that are missing a few elements to complete are initially given an IN to allow them more time to complete the course requirements. If student still do not, they have been given every chance to meet the requirements. It is therefore reasonable to give the priority of Fall and Winter registration in these courses to students who have not previously received an NC in the courses.
2. With the change from ENGG 101 to ENGG 160, this section of the Calendar really applies to CR/NC courses offered at the Faculty level, not necessarily limited to Ethics, Practice and Professionalism.

Current Calendar URL:

https://calendar.ualberta.ca/content.php?catoid=34&navoid=10151#academic-regulations

Current

~~**17. Engineering Ethics, Practice and Profession:** Students will be afforded only one opportunity to pass ENGG 100, ENGG 160, or ENGG 400. Students failing any of ENGG 100, ENGG 160, or ENGG 400 will be required to complete alternative replacement courses (one replacement course for each instance of ENGG 100, ENGG 160, or ENGG 400 graded as F or No Credit, NC, as appropriate) and/or supplemental work, where appropriate, at the discretion of the Dean. Such alternative courses will only be approved by the Dean if a student has previously failed to achieve credit in scheduled courses.~~

~~Criteria for achieving credit in ENGG 160: Proven completion of required safety training through the Office of the Dean, plus successful completion of supplemental work and/or equivalent course(s) nominated solely at the discretion of the Dean.~~

~~Criteria for achieving credit in ENGG 400: Successful completion of an ethics course nominated solely at~~

~~the discretion of the Dean.~~
Proposed
17. **Faculty CR / NC courses:** Students will be afforded only one opportunity to pass ENGG 100. Students receiving an NC in ENGG 100 will be required to complete ENGG 200. Students receiving an NC in ENGG 160 and/or ENGG 400 will be required to retake the course. Priority in these courses for the Fall and Winter terms will be given to students who have not previously received an NC in the course. Spring/Summer term sections of ENGG 160 and ENGG 400 will be made available if necessary, and are only for students who have previously received an NC in Fall or Winter sections of these courses.
In which academic year is this change required? 2023-2024

Faculty Contact	Associate Dean (Programs & Planning)		
Name:	Tian Tang		
Email:	tian.tang@ualberta.ca		
Department Chair or Designate			
Name:	**Ying Tsui, Vice Dean**		
Date approved by Department Council:	Click or tap to enter a date.	**Date submitted:**	Click or tap to enter a date.

Consultation process and dates
- Faculty of Engineering Academic lead
- Program Support Team committee

Approval pathway and dates
- Department (APC, GPC, Council)
- Faculty GPC (if appropriate)
- Faculty APC: January 14, 2022
- Faculty ECC: January 25, 2022

Email an editable word version to adppengg@ualberta.ca and foedpp@ualberta.ca

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

2022-2023 University of Alberta Proposed Calendar Graduate Program Changes:

Current	Proposed
Graduate Programs **General Information** The Department of Elementary Education offers graduate programs leading to degrees of Master of Education, Doctor of Education (EdD) and Doctor of Philosophy (PhD). Please see the Department of Elementary Education website for more information about current faculty member's research interest(s) and teaching area(s). **Entrance Requirements** For master's programs, the Department's minimum admission requirements are an undergraduate degree equivalent to a BEd degree with an admission GPA of at least 3.0 on the 4-point scale, or an equivalent qualification and standing from a recognized institution. The admission GPA will be calculated on the last ★60 of graded coursework completed, or on the equivalent of the last two years of full-time graded coursework. Applicants to the MEd programs must also have a valid teaching certificate, and at least one year of successful teaching experience at the early childhood, elementary or middle classroom level (student teaching and substitute teaching do not qualify). For doctoral programs, the Department's minimum admission requirements are an MEd degree from the University of Alberta with an admission GPA of at least 3.3 on the 4-point scale, or an equivalent qualification and standing from a recognized institution. The admission GPA will be calculated on the last ★60 of graded coursework completed, or on the equivalent of the last two years of full-time graded coursework. Under certain circumstances it is possible to enter with the equivalent of the BEd degree, but in such instances potential candidates may be required to complete additional course requirements. Applicants to the doctoral programs also require at least one year of successful teaching experience at the early childhood, elementary or middle classroom level (student teaching and substitute teaching do not qualify.)	**Graduate Programs** **General Information** The Department of Elementary Education offers graduate programs leading to degrees of Master of Education, Doctor of Education (EdD) and Doctor of Philosophy (PhD). Please see the Department of Elementary Education website for more information about current faculty member's research interest(s) and teaching area(s). **Entrance Requirements** For master's programs, the Department's minimum admission requirements are an undergraduate degree equivalent to a BEd degree with an admission GPA of at least 3.0 on the 4-point scale, or an equivalent qualification and standing from a recognized institution. The admission GPA will be calculated on the last ★60 of graded coursework completed, or on the equivalent of the last two years of full-time graded coursework. Applicants to the MEd programs must also have a valid teaching certificate, and at least one year of successful teaching experience at the early childhood, elementary or middle classroom level (student teaching and substitute teaching do not qualify). For doctoral programs, the Department's minimum admission requirements are an MEd degree from the University of Alberta with an admission GPA of at least 3.3 on the 4-point scale, or an equivalent qualification and standing from a recognized institution. The admission GPA will be calculated on the last ★60 of graded coursework completed, or on the equivalent of the last two years of full-time graded coursework. Under certain circumstances it is possible to enter with the equivalent of the BEd degree, but in such instances potential candidates may be required to complete additional course requirements. Applicants to the doctoral programs also require at least one year of successful teaching experience at the early childhood, elementary or middle classroom level (student teaching and substitute teaching do not qualify.)

Where applicable, applicants must provide proof of English Language Proficiency (refer to English Language Requirement). Any one of the following is acceptable:
a minimum TOEFL score of 93 (Internet-based) with a minimum of 24 on the speaking and writing and 21 on reading and listening bands of the test, or equivalent;
IELTS with a minimum overall band score of 7.0, with at least 6.5 on each band;
CAEL with an overall minimum score of 70, with at least 60 on each subtest.

All applicants are also required to submit the following:

Current curriculum vitae (resumé) portraying scholarly studies and professional educational activities, such as teaching, curriculum development, consulting, etc.;
Statement of intent describing reasons for wanting to pursue advanced study in Elementary Education. Applicants to the EdD and PhD should also describe the area of scholarship that they intend to pursue. (500 words approximately);
Three letters of reference from persons qualified to comment on the applicant's academic work and potential for graduate study. It is highly recommended that one or more letters be from persons at the institution last attended;
Applicants to the EdD and PhD programs must submit a sample of written work.
Applicants to the MEd with a specialization in Curriculum and Pedagogy should indicate on their application if they wish to be part of a cohort. See the Department website for further information.

Application deadlines are March 1 for master's programs and December 1 for doctoral programs.

Financial Assistance

A limited number of graduate assistantships are available.

Graduate Program Requirements

The Degree of MEd (Elementary Education) [Graduate]

The Degree of MEd with a specialization in Curriculum and Pedagogy (Elementary Education) [Graduate]

The Degree of EdD (Elementary Education) [Graduate]

The Degree of PhD (Elementary Education) [Graduate]

Where applicable, applicants must provide proof of English Language Proficiency (refer to English Language Requirement). Any one of the following is acceptable:
a minimum TOEFL score of 93 (Internet-based) with a minimum of 24 on the speaking and writing and 21 on reading and listening bands of the test, or equivalent;
IELTS with a minimum overall band score of 7.0, with at least 6.5 on each band;
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Statement of intent describing reasons for wanting to pursue advanced study in Elementary Education. Applicants to the EdD and PhD should also describe the area of scholarship that they intend to pursue. (500 words approximately);
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Application deadlines are March 1 for master's programs and December 1 for doctoral programs.

Financial Assistance

A limited number of graduate assistantships are available.

Graduate Program Requirements

The Degree of MEd (Elementary Education) [Graduate]

The Degree of MEd with a specialization in Curriculum and Pedagogy (Elementary Education) [Graduate]

The Degree of EdD (Elementary Education) [Graduate]

The Degree of PhD (Elementary Education) [Graduate]

Laddering into the MEd (in Elementary Education) [Graduate] or the MEd with a specialization in Curriculum

Graduate Courses Graduate courses can be found in Course Listings, under the subject heading Elementary Education (EDEL and EDES).	**and Pedagogy (Elementary Education) [Graduate]** Students who complete the Graduate Certificate in Educational Studies or the Graduate Certificate in School Leadership from the Faculty of Education may be able to use the courses from one of the graduate certificates noted above to receive ★12 in advanced standing in this program. Completion of the certificate does not guarantee admission to a master's degree program. The certificate may be used for both the basis of admission and laddered into the course-based master degree. Details on laddering can be found in the Calendar under Regulations of the Faculty of Graduate Studies and Research. **Graduate Courses** Graduate courses can be found in Course Listings, under the subject heading Elementary Education (EDEL and EDES).

Justification:

- Intent of change is to make the Department's program more attractive to students who complete a graduate certificate by allowing them to ladder certificates into the Master of Education program.
- The current MEd program has 2 required courses and 8 elective courses. A Graduate Certificate is a 4-course program. Thus, there is space for a graduate certificate to fit into the existing program without any changes to the program structure. In terms of program administration, the acceptance of a Graduate Certificate has minimal impact as students would simply complete 2 required courses and 4 electives to finish the MEd program.

Approved:

December 13, 2021 by the Faculty of Education Graduate Academic Affairs Council (GAAC)

February 23, 2022 by FGSR Council

Governance Executive Summary
Action Item

Agenda Title	**Proposed Bachelor of Biomedicine Dual Degree, Faculty of Medicine and Dentistry and Wenzhou Medical University**

Motion

THAT the GFC Programs Committee recommend that the Board of Governors approve the proposed Bachelor of Biomedicine Dual Degree as set forth in attachments 1, 2, and 3, and for implementation upon final approval.

Item

Action Requested	☐ Approval ☒ Recommendation
Proposed by	Dr Brenda Hemmelgarn, Dean, Faculty of Medicine and Dentistry
Presenter(s)	Dr Tracey Hillier, Director, Alberta Institute, Wenzhou Medical University, Faculty of Medicine and Dentistry - MED International

Details

Office of Administrative Responsibility	Provost and Vice-President (Academic)
The Purpose of the Proposal is (*please be specific*)	The proposal is before the committee to seek approval of the Bachelor of Biomedicine Dual Degree Program.
Executive Summary (*outline the specific item – and remember your audience*)	This dual degree program is a collaboration between Wenzhou Medical University (WMU) and the Alberta Institute within the Faculty of Medicine & Dentistry at the University of Alberta. The collaboration is part of the Alberta Institute Wenzhou Medical University (AIWMU) established in 2019. Students who complete all the required credits and meet the academic standards of both universities, will be granted the degrees from each institution. Students will be eligible for a Bachelor of Biomedicine from the University of Alberta after they complete the first four years of the program. They will be eligible for the Bachelor of Clinical Medicine degree from Wenzhou Medical University after all 5 years of the program have been completed. All 5 years of the program need to be successfully completed as a requirement for either degree to be issued. Students in this dual degree program will be taught by University of Alberta FoMD faculty during the first four years of the program, predominantly in years 3 and 4 for a total of 75 credits. They will be held to the same curricular expectations as undergraduate students in similar programs in the Faculty of Medicine and Dentistry including students in the MD Program. The curriculum will be delivered in a way that presents material in a progression from basic science to clinical application, building on foundational knowledge in a sequential way, which will nurture and support student inquiry as well as scholarly and creative

	activity. This program will emphasize lifelong learning, problem solving skills, teamwork, and collaboration. The initial contract with WMU for Alberta Institute is for 5 years, however, it is anticipated that the contract will extend beyond that as WMU has indicated that they anticipate long term demand and for the University of Alberta's ongoing involvement in teaching the program once a dual degree program is approved. If for an unforeseen reason learner demand for the program diminishes, the agreement between the University of Alberta and Wenzhou Medical University includes the following provision "if the recruitment number in the Program falls below mutually agreed targets, both parties agree to assess the situation together and determine appropriate responses."
Supplementary Notes and context	*<This section is for use by University Governance only to outline governance process.>*

Engagement and Routing (Include meeting dates)

Consultation and Stakeholder Participation (parties who have seen the proposal and in what capacity) <For information on the protocol see the Governance Resources section Student Participation Protocol>	*Those who are actively **participating**:* • Deans Executive Council, Faculty of Medicine and Dentistry • Vice-Dean Faculty Affairs, Faculty of Medicine and Dentistry • Director Alberta Institute, Faculty of Medicine and Dentistry • Associate Dean International, Faculty of Medicine and Dentistry
	*Those who have been **consulted**:* • MD Program Curriculum and Program Committee (June 20, 2019; July 25, 2019; Sept 16, 2021) for discussion • **Faculty Council, Faculty of Medicine and Dentistry (Sept 21, 2021) Motion Carried: Faculty Council supports the creation of a new Bachelor of Biomedicine degree program for students registered in the Alberta Institute at Wenzhou Medical University.** • University of Alberta, Program Support Team (Oct 28, 2021) for discussion
	*Those who have been **informed**:* • Department Chairs Committee, Faculty of Medicine and Dentistry (Jan 13, 2021; Sept 8, 2021)
Approval Route (Governance) (including meeting dates)	GFC Programs Committee - March 17, 2022 GFC Academic Planning Committee - March 23, 2022 General Faculties Council - May 2, 2022 Board Committees and Board of Governors - TBD

Strategic Alignment

Alignment with *For the Public Good*	Please note the Institutional Strategic Plan objective(s)/strategies the proposal supports.

<table>
<tr><td></td><td colspan="2">GOAL: Build a diverse, inclusive community of exceptional students, faculty and staff from Alberta, Canada, and the world.
OBJECTIVE 1: Build a diverse, inclusive community of exceptional undergraduate and graduate students from Edmonton, Alberta, Canada, and the world.
GOAL: Excel as individuals, and together, sustain a culture that fosters and champions distinction and distinctiveness in teaching, learning, research, and service.
OBJECTIVE 12: Build a portfolio of signature research and teaching areas where the University of Alberta is or will be recognized as a global leader.
OBJECTIVE 14: Inspire, model, and support excellence in teaching and learning.
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.
OBJECTIVE 18: Seek, build, strengthen and sustain partnerships with local, national or international research agencies, governments, government ministries and agencies, universities, Indigenous communities, libraries, not-for-profits, industry, business, and community organizations.
OBJECTIVE 22: Secure and steward financial resources to sustain, enhance, promote, and facilitate the university's core mission and strategic goals.</td></tr>
<tr><td rowspan="2">Alignment with Core Risk Area</td><td colspan="2">Please note below the specific institutional risk(s) this proposal is addressing.</td></tr>
<tr><td>☐ Enrolment Management
☐ Faculty and Staff
☒ Funding and Resource Management
☐ IT Services, Software and Hardware
☒ Leadership and Change
☐ Physical Infrastructure</td><td>☐ Relationship with Stakeholders
☒ Reputation
☐ Research Enterprise
☐ Safety
☐ Student Success</td></tr>
<tr><td>Legislative Compliance and jurisdiction</td><td colspan="2">Post-Secondary Learning Act
GFC Programs Committee Terms of Reference
GFC Academic Planning Committee Terms of Reference
Board Learning, Research and Student Experience Committee Terms of Reference</td></tr>
</table>

Attachments

1. Attachment 1 Undergraduate-degree-template-part-a Bachelor of Biomedicine Dual Degree Program (pages 1 -76)
2. Attachment 2 caqc-new-degree-proposal-template-part-b Bachelor of Biomedicine Dual Degree Program (pages 1 - 51)
3. Attachment 3 Bachelor of Biomedicine UAL Library Impact Statement (pages 1 - 2)
4. Attachment 4 External Review - Kong, Jiming (pages 1 - 2)

5. Attachment 5 External Review - Choy, Patrick (pages 1 - 2)
6. Attachment 6 Response to Reviews of the Proposal for a Bachelor of Biomedicine Dual Degree Program (pages 1 - 2)

Prepared by: Dr Tracey Hillier, Director Alberta Institute, Faculty of Medicine and Dentistry, thillier@ualberta.ca

Alberta Government

Proposal Template: New Bachelor's Degree Programs and Specializations (Part A: System Co-ordination Review)

Complete this template for proposals for new bachelor's degree 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 OVERVIEW

Basic Information *(Complete the table below)*

Institution	**University of Alberta**
Program Name	**Dual Degree Program in Biomedicine**
Specialization Name	**Biomedicine**
Credential Awarded	**Bachelor of Biomedicine**
Proposed Effective Date	**August 1, 2022**

Type of Initiative *(Answer the following questions)*
This is a proposal for (select one from the drop-down menu):

New program

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. Where applicable, identify planned collaborations with other post-secondary institutions, departments within the institution or other organizations that this program respectively facilitates or provides for.

This dual degree program is a collaboration between Wenzhou Medical University (WMU) and the Alberta Institute within the Faculty of Medicine & Dentistry at the University of Alberta. The collaboration is part of the Alberta Institute Wenzhou Medical University (AIWMU).

Alberta Government

Students who complete all of the required credits and meet the academic standards of both universities, will be granted the degrees from each institution. Students will be eligible for a Bachelor of Biomedicine from the University of Alberta after they complete the first four years of the program. They will be eligible for the Bachelor of Clinical Medicine degree from Wenzhou Medical University after all 5 years of the program have been completed. All 5 years of the program need to be successfully completed as a requirement for either degree to be issued.

Reviewer's Comment:

2. Work Integrated Learning *(If applicable, answer the following questions)*

a. Identify the number of placements required in the program (including type of work setting and duration/timing of activities).
- Work Integrated Learning (WIL) is a key component of this program. WIL in the form of an unpaid observership will be arranged through the Faculty of Medicine and Dentistry during the required on-site summer course between years 2 and 3 of the program. The clinical internship WIL that is required in the 5th year of the program will take place in China at Wenzhou Medical University clinical sites. 60 placements are required each year.

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.
- N/A

c. Comment on whether/how work integrated learning placements in other programs (at the institution or at other institutions within the Alberta Adult Learning System) may be impacted as a result of this program.
- As the 5th year Clinical Internship WIL occurs in China it will not impact WIL learning placements in other UAlberta programs.
- The WIL arranged through the Faculty of Medicine and Dentistry during the required summer course is timed when there is a nadir in the number of other clinical learners. New preceptors have been recruited to support this program. A benefit may occur if any of these preceptors later become available to support the learning of students in other programs.

Endorsement of and/or Support for Program *(If applicable)*

a. Describe endorsement(s) from relevant professional organizations, regulatory bodies, advisory committees, employers, and/or industry.
- N/A

Reviewer's Comment:

SECTION C: ENROLMENT PLANNING

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

Proposed Enrolment	1st Year of Implementation	2nd Year of Implementation	3rd Year of Implementation	4th Year of Implementation	Annual Ongoing
Total Headcount	60	120	180	240	240

• 1st Year of Study	60	60	60	60	60
• 2nd Year of Study	0	60	60	60	60
• 3rd Year of Study	0	0	60	60	60
• 4th Year of Study	0	0	0	60	60
• 5th Year of Study	0	0	0	0	60
Anticipated No. of Graduates	0	0	0	60	60
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.

100% of the students will all be international students. The percentage is derived from the nature of the program which only enrols students admitted to Wenzhou Medical University.

Reviewer's Comment:

2. **Learner and Labour Market Demand** *(Answer the following questions)*

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

Graduates of this program will not be proceeding to work within the province of Alberta. It is anticipated that after graduation they will proceed to graduate programs to pursue research or clinical medicine residency programs in China. Labour market demand has been determined by WMU in its aim to educate a cadre of physicians who have an international perspective on health care, leadership and medical education.

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

✔ Student/learners
✔ Faculty
✔ Program advisory committee
☐ Regulator and/or accreditation bodies
☐ Employers and professional associations
☐ Community organizations
☐ Other post-secondary institutions
✔ Other (please identify)

We have worked with the University of Alberta International office on this proposal and consulted with the Office of the Provost. As well, this proposal has been discussed by the Dean's Executive Committee of the FoMD, the MD Curriculum and Program Committee, Department Chairs Committee and Faculty Council. Students and Faculty at WMU have also been invited to provide feedback. The curriculum and program have been approved by WMU and its governing bodies.

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

The joint program was initiated by the Faculty of Medicine & Dentistry and the FoMD International Office. Discussions across the faculty have been ongoing. The program has been discussed at the MD Program and Curriculum and Program Committee (MDCPC) on June 20, 2019; July 25, 2019 and September 16, 2021. The MDCPC membership includes faculty members, staff, and students from the MD Program.

The program was discussed at an FoMD Department Chairs meeting January 13, 2021 and September 8, 2021 and discussed and approved at the Faculty Council meeting September 21, 2021.

See attached Appendix B

d. Provide evidence of learner demand for this program. How was this demand determined? (Append supporting evidence, as appropriate e.g., survey results, waitlists, demand in similar programs at other institutions etc.)

Learner demand for the Alberta Institute Program was initially determined by WMU. The Alberta Institute at WMU has been accepting students into a collaborative medical program for the past two years and there has been a significant increase in learner demand over the past year. The ranking and mean exam scores of students accepted into the program in 2021 have improved compared with those accepted in 2020. Including a degree from the University of Alberta as part of the Alberta Institute Program is expected to make the program even more attractive to applicants.

Students targeted for admission in this dual degree will be from China. While other programs at the University of Alberta are targeted at students from China, this is the only program targeted at medical students. Domestic students from Alberta and Canada will not be eligible for this program.

e. Identify and discuss any additional factors that may impact learner demand for this proposed program.

- N/A

f. Briefly describe how the enrolment plan aligns with the anticipated demand for this program, taking into account the identified labour market demand and other Alberta program providers.

- N/A

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

The initial contract with WMU for Alberta Institute is for 5 years, however, it is anticipated that the contract will extend beyond that as WMU has indicated that they anticipate long term demand and for the University of Alberta's ongoing involvement in teaching the program once a dual degree program is approved.

If for an unforeseen reason learner demand falls, the agreement between the University of Alberta and Wenzhou Medical University includes the following "if the recruitment

number in the Program falls below mutually agreed targets, both parties agree to assess the situation together and determine appropriate responses."

Reviewer's Comment:

SECTION D: GRADUATE OUTCOMES AND PATHWAYS

1. Employment Outcomes *(Answer the following questions)*

a. For what types of career paths (including entrepreneurial and/or self-employment paths) and employment opportunities does the proposed program/specialization prepare graduates?

None of the graduates of this program will directly enter the labour force in Alberta or in Canada after graduation. It is anticipated that following graduation students will proceed to graduate programs to pursue research or clinical medicine residency programs in China. Graduates of the program will have additional leadership skills, international experience and a broad perspective on health care and medical education.

b. In cases of regulated professions, how was the regulatory body consulted and what feedback did it provide in terms of labour market factors?

N/A Graduates of this program will not be regulated by regulatory bodies in Alberta or Canada.

c. Identify existing or planned program or institutional supports that enable transition from post-secondary institution to work for graduates.

N/A

Reviewer's Comment:

2. Learner Pathways

a. To what extent will learners be able to transfer credits to and from other post-secondary institutions?

WMU will accept transfer credits for all courses as part of the Dual Degree Program

b. What types of further studies, if not within the same field, would graduates be most likely to pursue?

It is anticipated that following graduation from this Program, students will proceed directly to clinical medicine residency programs in China. Alternatively the students would be well prepared to pursue graduate studies and research in health and medicine.

Reviewer's Comment:

3. Societal and Community Benefits *(if applicable)*

a. In cases where labor market demand is not the primary reason for this program, identify anticipated benefits from implementation of the proposed program to the wellbeing of communities in Alberta, particular those that your institutions serves:

Implementation of this program will strengthen the partnerships between University of Alberta and Wenzhou Medical University and connect to the University of Alberta's strategic plan which encourages members of the UofA community to engage communities around the world to create reciprocal, mutually beneficial learning experiences, research projects, partnerships, and collaborations.

The additional revenues received as a result of this program will be used to support social accountability initiatives, Global Health programming, International and Northern

electives support, bursaries for students from populations underrepresented in medicine and strategic recruitment outreach initiatives to attract move diverse students into medicine. This funding will specifically support the University and the Faculty response to the Truth and Reconciliation Report recommendation to increase the number of Aboriginal professionals working in the health-care field.

Reviewer's Comment:

SECTION E: FINANCIAL VIABILITY AND SUSTAINABILITY

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

a. Describe how the institution plans to finance the program, (e.g. tuition, grants etc.):
The program will be funded through a contractual agreement with Wenzhou Medical University

b. Discuss risk mitigation plans should full revenue(s) not be achieved or should costs exceed amounts budgeted.

The revenues will be achieved through a contractual agreement with WMU. No money will move from UAlberta to WMU. The costs to deliver the program have been determined based on known costs for delivery of the Preclerkship Curriculum of the University of Alberta Medical School Program. As per the agreement between the University of Alberta and Wenzhou Medical University, "if the recruitment number in the Program falls below mutually-agreed targets, both parties agree to assess the situation together and determine appropriate responses."

Reviewer's Comment:

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

a. Document tuition and fee projections for students (specify domestic student tuition fees, international student tuition fees, compulsory student fees, and other costs likely to be incurred by students (texts, equipment etc.). Provide rationale where appropriate such as comparisons with similar programs. (Consult with the Ministry as needed.):

There are no similar programs in the Campus Alberta system.

The program will be based on an exchange model for student tuition.

Wenzhou Medical University will transfer $1,000,000 in the first year and $2,000,000.00 annually for years 2-5, to the Faculty of Medicine and Dentistry to run the program.

Students will incur additional costs for books and computers.

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

c. Please elaborate on above answer, if necessary.

Ref:
https://www.ualberta.ca/international/international-relations/international-agreements/shared-credential-agreement-development-guidelines1.html

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 Alberta Institute joint initiative between WMU and UAlberta aligns with the University of Alberta's strategic plan in several ways. First, it will allow the medical program to build and support an integrated, cross-institutional strategy that demonstrates and enhances the UofA's story internationally, while building and strengthening collaborations and partnerships with an international university. This initiative also advances University of Alberta International's vision to connect the university to the rest of the world and ensure that the UofA is seen as one of the leading universities in the world. Finally, the proposed program fulfills one of the Faculty of Medicine & Dentistry goals to attract and maintain international and global partners by collaborating with a prestigious medical university in China to deliver high quality and innovative curriculum to their students.

This partnership is the first collaboratively designed international medical school program in China. Implementation of this program will strengthen the partnerships between University of Alberta and Wenzhou Medical University and connect to the University of Alberta's strategic plan which encourages members of the UofA community to engage communities around the world to create reciprocal, mutually beneficial learning experiences, research projects, partnerships, and collaborations.

b. To what extent does the program build on the institution's existing programs, infrastructure, resources and experience from offering programs in related fields?

Students in year 3 and 4 of the program will be in a parallel curriculum to the preclerkship curriculum for the medical students at the University of Alberta. Much of their program will be delivered (by UofA faculty) at a distance, with some faculty members teaching certain elements of courses in person at WMU. WMU will cover the cost for travel and accommodations for those faculty. In this way, the proposed Dual Degree Program builds upon the existing curricular materials developed for the pre-clerkship component of the MD Program. The program leadership will work with willing lecturers to adapt existing recorded lecture materials to be repurposed and leveraged in support of this proposed program. Students from WMU will participate in an in-person summer course in Edmonton between years 2 and 3 of their program to augment and enrich the online learning experience.

The existing curriculum delivery systems within the Faculty of Medicine and Dentistry are designed to run a parallel program such as this in a distributed fashion. Small group sessions are designed with materials that are available electronically. An extensive faculty development program has been developed to support this initiative. University of

Alberta facilitators will train faculty from WMU to deliver those sessions in person. We have assessment and evaluation systems that will allow us to assess student learning and evaluate the program at a distance. The Faculty of Medicine & Dentistry at the University of Alberta is well positioned and has the necessary experience to deliver the required courses to students in this program.

Reviewer's Comment:

2. Internal Review and Approval

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

Within the Faculty of Medicine this Program has been approved by:
Faculty Council September 21, 2021

Within the University:
GFC Programs Committee TBD
Academic Planning Committee TBD

For the new credential
The Board of Governors (The Board Learning, Research and Student Engagement Committee will need to recommend date TBD)

Reviewer's Comment:

SECTION G: SYSTEM IMPACT

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

a. Does the proposed program/specialization potentially duplicate existing programming in the Alberta Adult Learning System? ☐ Yes; or ✔ No

b. If yes, list these programs.
N/A

c. If proposed program/specialization potentially constitutes program duplication, explain why such duplication is appropriate and beneficial in this circumstance.
N/A. This proposed dual degree program does not duplicate an existing program.

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?

b. The Alberta Institute WMU was established as a joint medical education training program between WMU and the University of Alberta with the signing of Articles of Association in October, 2019. The first cohort of students began the program in September 2020. After a highly successful first year, learner demand has increased and the reputation of the

program is positive. The rigor of the proposed Dual Degree program meets the standard expected for a UAlberta Bachelor Degree. The creation of a Dual Degree Program will bring value and further interest to the Alberta Institute WMU Program enhancing desirability and sustainability. This initiative has the capacity to enhance the reputation of the Faculty of Medicine and Dentistry and the University of Alberta with international partners. It could possibly be scaled in the future to work at other universities and in other countries.
Reviewer's Comment:

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

Alberta Government

Appendix A Program Description

Provide a 3-4 sentence calendar description of the program.

This dual degree program is a collaboration between Wenzhou Medical University (WMU) and the Faculty of Medicine & Dentistry at the University of Alberta as part of the Alberta Institute Wenzhou Medical University (AIWMU). Students who complete all of the required credits and meet the academic standards of both universities, will be granted the degrees from each institution. Students from WMU will be eligible for a Bachelor of Biomedicine from the University of Alberta after they complete the first four years of the program. They will be eligible for the Bachelor of Clinical Medicine degree from Wenzhou Medical University after all 5 years of the program have been completed.

Proposed program of study including course names, credits and year of study (specific course descriptions and objectives follow)

Year in Program	Courses	Credits
Years 1 and 2	***Courses Taught by Wenzhou Medical University***	
	English Medical English	***9***
	Medical chemistry Molecular and cellular biology Normal structure and function of human body Biological basis of disease	***22***
	Modern Chinese History, Politics, Education & Fundamentals of Law	***12***
	Introduction to medicine Traditional Chinese Medicine Medical Ethics Social medicine and health service management Social Practice Policies Physical and Psychological Health Education Sanitary regulation Hygiene	***17***
	Courses Taught by University of Alberta	
	Health Systems Science 1	***3***
	Health Systems Science 2A	***3***
	Summer School: Health Systems Science 2B	***4***
Year 3	Courses Taught by University of Alberta	
	Foundations Medicine	***9***
	Endocrinology & Metabolism	***6***
	Cardiovascular Medicine	***5***
	Pulmonary Medicine	***3***
	Renal Medicine	***3***
	Health Systems Science 3	***4***

Year 4	Courses Taught by University of Alberta	
	Gastroenterology & Nutrition	***5***
	Reproductive Medicine & Urology	***6***
	Musculoskeletal System	***6***
	Neurosciences and Organs of Special Senses	***9***
	Psychiatry	***3***
	Oncology	***3***
	Health Systems Science	***3***
Year 5	Clinical Courses Taught by Wenzhou Medical University	
	Internal Medicine	***16***
****the courses from this year of the program are not required for the Bachelor of Biomedicine Degree***	Surgery	***16***
	Obstetrics and Gynecology	***6***
	Pediatrics	***6***
	Community Medicine	***2***
	Radiology and ECG	***2***

Overview UAlberta courses taught for Alberta Institute WMU dual degree program
*** There are no prerequisites for the courses for students admitted into the program

COURSE NAMES	Credits	COURSE NAMES	Credits
Year 1		**Year 2**	
Health Systems Science	3	Health Systems Science	3
Summer Program	4		
Year 3		**Year 4**	
Foundations Medicine	9	Gastroenterology & Nutrition	5
Endocrinology & Metabolism	6	Reproductive Medicine & Urology	6
Cardiovascular Medicine	5	Musculoskeletal System	6
Pulmonary Medicine	3	Neurosciences and Organs of Special Senses	9
Renal Medicine	3	Psychiatry	3
Health Systems Science	4	Oncology	3
		Health Systems Science	3

Summary Course Descriptions

COURSE NAME	COURSE DESCRIPTION	Year
Health Systems Science 1	Health systems science is a foundational platform and framework for the study and understanding of how care is delivered for patients and populations within systems of medical care, how health professionals work together to deliver that care, and how the health system can improve patient care and health care delivery. This	Year 1

	course introduces core domains including health care structures and processes; health care policy, economics, and management; clinical informatics and health information technology; population and public health; value-based care; health system improvement and systems thinking.	
Health Systems Science 2	Health systems science is a foundational platform and framework for the study and understanding of how care is delivered for patients and populations within systems of medical care, how health professionals work together to deliver that care, and how the health system can improve patient care and health care delivery. This course builds upon core domains introduced in Health Systems Science 1 including: health care structures and processes; health care policy, economics, and management; clinical informatics and health information technology; population and public health; value-based care; health system improvement and systems thinking.	Year 2
Foundations of Health and Medicine	The Foundations of Medicine course serves as a foundation for future learning and practice. This course will focus on integrating basic principles of medical and biological sciences as the foundation for the curriculum.	Year 3
Endocrinology & Metabolism	During the Endocrinology and Metabolism course, students will learn how the endocrine system integrates with the rest of the body. The course covers the different endocrine glands: how the hormones have profound effects on the cells and tissues of the body; and the feedback loops that are important in hormonal regulation. Students will have a chance to learn about basic endocrine anatomy, physiology, pathology and biochemistry, as well as clinical aspects of endocrine diseases. Discovery learning, team-based learning, in-class review sessions and self-study materials cover major endocrine topics.	Year 3
Cardiovascular Medicine	The Cardiology course will serve as a foundation for future learning and practice. The goal is to provide students with an introduction to the fundamentals of cardiology medicine. Topics to be covered include the ● basic structure and function of the cardiovascular system	Year 3

	• clinical picture of ventricular or valvular diseases, electrical diseases of the heart, including an approach to ECG reading • coronary and aortic / peripheral arterial diseases • congenital heart diseases • myocardial and pericardial disease	
Pulmonary Medicine	The Pulmonary serves as a foundation for future learning and practice. The goal is to provide students with an introduction to the fundamentals of pulmonary medicine.	Year 3
Renal Medicine	The Renal course will serve as a foundation for future learning and practice. The goal is to provide students with an introduction to the fundamentals of renal medicine. Topics to be covered include: • Basic anatomy, physiology, embryology and pathology of the renal system; • Acute and chronic renal failure; • Pharmacology of the kidney; • Diseases of the glomerulus; • Tubulointerstitial disease; • Renovascular disease; • Pediatric nephrology; and • Hereditary and cystic renal disease	Year 3
Health Systems Science 3	Health systems science is a foundational platform and framework for the study and understanding of how care is delivered for patients and populations within systems of medical care, how health professionals work together to deliver that care, and how the health system can improve patient care and health care delivery. This course builds upon core domains introduced in Health Systems Science 1 and 2 including: health care structures and processes; health care policy, economics, and management; clinical informatics and health information technology; population and public health; value-based care; health system improvement and systems thinking.	Year 3
Gastroenterology & Nutrition -	The Gastroenterology and Nutrition Course will serve as a foundation for future learning and practice. The goal is to provide students with an introduction to the fundamentals of gastroenterology. Topics to be covered include: • The structure and function of the gastrointestinal tract	Year 4

	• Gastrointestinal health and nutrition • Common diseases of the gastrointestinal tract • Fundamentals of gastrointestinal disease management • The impact of gastrointestinal disease on patients and society.	
Reproductive Medicine & Urology	The Reproductive Medicine and Urology Course that provides students with a strong knowledge base in the fundamentals of reproductive medicine, urology. Topics to be covered include: • An overview of the anatomy, pathophysiology, presentation, diagnosis and treatment of common gynecologic, obstetric (including genetic), urologic, and sexually transmitted illnesses.	Year 4
Musculoskeletal System	The Musculoskeletal System course provides students with a strong knowledge base in the fundamentals of musculoskeletal medicine. The anatomy, embryology, histology and physiology of the musculoskeletal system and skin are studied. An approach to common and important conditions and disorders of the musculoskeletal system and skin are covered from the perspectives of rheumatology, physical medicine and rehabilitation, orthopedics, dermatology, plastic surgery, pediatrics and family medicine.	Year 4
Neurosciences and Organs of Special Senses -	The Neurosciences and Organs of Special Senses course provides students with a foundation in the areas of Neurology, Neurosurgery, Ophthalmology, ENT and Developmental Pediatrics. Throughout the course, students will learn the approach to a patient with common symptoms or important problems; the elements of the neurological, eye, and head and neck exam, as well as perform a developmental assessment; to develop the ability to localize lesions, all while being able to recognize serious processes requiring urgent referral.	Year 4
Psychiatry	The Psychiatry course provides students with foundational knowledge regarding mental health and illness. Students will learn how to describe why mental health is important and the cost to society of mental illness. They will also learn to describe the stigma of mental illness and its impact on physician health.	Year 4

Oncology	The Oncology course is designed to help students to understand the principles of oncology and recognize the importance of a multidisciplinary approach to cancer care while caring for patients with cancer.	Year 4
Health Systems Science 4	Health systems science is a foundational platform and framework for the study and understanding of how care is delivered delivery for patients and populations within systems of medical care, how health professionals work together to deliver that care, and how the health system can improve patient care and health care delivery. This course builds upon core domains introduced in Health Systems Science 1, 2 and 3 including: health care structures and processes; health care policy, economics, and management; clinical informatics and health information technology; population and public health; value-based care; health system improvement and systems thinking.	Year 4

Course Objectives by course:

Foundations of Medicine

Course Objectives

Medical expert

● Explain fundamentals of key topics (anatomy, physiology, histology, genetics, pharmacology, immunology, embryology, microbiology)
● Describe a patient-centered approach to problem solving and clinical decision-making.
● Apply basic principles of hematology, pathology/laboratory medicine, medical genetics and infectious disease from basic science to clinical application.
● Demonstrate understanding of infectious diseases in the context of global health issues.

Communicator

● Demonstrate the ability to be facilitative in communication and interaction with others.
● Gather information about a patient's beliefs, concerns, expectations and illness experience.
● Explain the importance of effective patient-centered communication in the patient-physician relationship and its effect on patient outcomes.
● Deliver information in a professional manner and in such a way that is understandable, encourages discussion and participation in decision-making.
● Discuss patient encounters and the importance of treating patients with respect and maintaining patient confidentiality.
● Demonstrate awareness and sensitivity to human differences, including differences in age, gender, disability, sexual orientation, ethnicity, and cultural background, socioeconomic or psychosocial factors.
● Provide and be receptive to constructive and professional feedback to and from peers and preceptors about their communication practices and group work interactions.

Collaborator

● Describe the role and responsibilities of other healthcare professionals. ● Recognize one's own differences, biases, assumptions and limitations that may contribute to inter-professional tension.
● Work collaboratively with others.
● Explain how to work effectively in a team to achieve an appropriate outcome. ● Interact respectfully and professionally with small group and team members and describe the value of team members

Leader

● Make proficient use of technology assisted learning as it is deployed in this course. ● Explain the role of the physician with regards to helping patients navigate the healthcare system.
● Discuss the concept of resource allocation in the management of the individual patient's healthcare within the whole health system.

Scholar

● Facilitate the learning of self and others in various small-group and team-based settings.

● Demonstrate ability to engage in self-directed learning based on reflective practice and life-long learning principles.
● Understand how to formulate a clinical question and search the literature using the library website and other resources.
● Research the information required (including evidence-based resources and other resources) in order to prepare for presenting possible diagnostic and management options for discussion.
● Begin to critically appraise retrieved evidence and information and demonstrate integration of new learning.
● Apply the concepts of validity, importance and applicability to help clinicians answer clinical questions and patients' questions regarding therapy, harm, diagnosis, prognosis, and screening.
● Provide and receive effective feedback.
Health advocate
● Recognize different points of view regarding culture, religion, beliefs, illness, disease, medicine, and medical practices and discuss in an open and non-judgmental manner.
● Describe how different social determinants of health influence how the patient copes with an illness, influences health, disease and disability, influences access to health care services and how they may or may not receive support.
● Identify emerging and ongoing issues for populations who are vulnerable.
● Identify points of influence in the healthcare system and its structure.
● Explain the concept of social accountability, principles of community engagement in responding to the needs of the community.

Professional
● Adhere to the Wenzhou Medical University and University of Alberta, Faculty of Medicine and Dentistry Code of Conduct and to the Professional Standards for Students in the Faculty of Medicine and Dentistry.
● Define professionalism as the key values required in the profession, including honesty, integrity, maintaining appropriate patient boundaries, maintaining confidentiality, and a commitment to patient well-being.
● Define professionalism in the context of medical school, and within the medical profession, and to apply its principles to all activities, including during assignments, small group interactions, examinations, self-assessment, peer-assessment, faculty assessment, online in social media etc.
● Discuss the importance of context in the interpretation of professionalism.
● Describe how each physician has the obligation to actively maintain professional competence participate in peer/colleague assessment and self-assessment as applicable.
● Explain how self-reflection facilitates the student's professional identity formation, and shapes their approach to all patients.
● Discuss basic legal and ethical challenges that physicians face in practice, and begin to apply key concepts to navigate these challenges.
● Give constructive and professional feedback and assessment to their peers and colleagues about attitudes, behaviors, practices and group work interactions in a structured manner.
● Demonstrate a sense of responsibility: taking initiative, carrying out assigned duties exhibiting dependability and self-direction.

● Demonstrate punctuality.
● Recognize and appropriately respond to ethical issues encountered during the course. ● Recognize factors such as fatigue, stress, and competing demands/roles that impact on personal and professional performance. Seek assistance when professional or personal performance is compromised.
● Contribute to Team Based Learning (TBL) and Discovery Learning (DL) and small group discussion in a respectful manner.

Endocrinology & Metabolism

Course Objectives

Medical expert

● Obtain a history related to an endocrine case.
● Explain symptoms and signs encountered in common endocrine diseases:
    - polyuria and polydipsia
    - fatigue
    - weight loss
    - fractures and reduced bone density
    - hypertension/hypotension
    - weight gain/obesity
    - hirsutism
    - changes in growth and development
    - changes in pubertal onset or progression
    - erectile dysfunction, gynecomastia
    - nausea, headache, palpitations and sweating
    - vomiting
    - hypercalcemia/hypocalcemia
    - adrenal insufficiency
    - hypoglycemia/ hyperglycemia
    - hyperthyroidism/hypothyroidism
    - hypogonadism in males
    - panhypopituitarism
● Identify appropriate laboratory and imaging investigations used in the diagnosis and management of endocrine diseases.
● Explain the origin and biology of common endocrine disorders throughout the life span.
● Develop a reasonable systematic approach to the diagnosis and management of possible endocrine causes of common clinical presentations.
● Explain complications of diabetes.
● Describe nutritional principles as they apply to management of diabetes.

Communicator

● Demonstrate the ability to be facilitative with peers, patients, families, caregivers, community resources and interdisciplinary team members.
● Gather information about a patient's beliefs, concerns, expectations and illness experience.

● Explain the importance of effective patient-centered communication in the patient-physician relationship and its effect on patient outcomes.
● Recognize and demonstrate best practice on how the verbal and non-verbal cues affect the patient-physician relationship and patient outcomes.
● Deliver information in a professional, patient-centered manner and in such a way that is understandable and encourages discussion and participation in decision-making.
● Discuss patient encounters and the importance of treating patients with respect and maintaining patient confidentiality.
● Demonstrate awareness and sensitivity to human differences, including differences in age, gender, disability, sexual orientation, ethnicity, cultural background, socioeconomic or psychosocial factors.
● Provide and be receptive to constructive and professional feedback to and from peers and preceptors about their communication practices and group work interactions.

Collaborator
● Discuss the role of gastroenterologists, general surgeons, dieticians, and other health professionals in the management of gastrointestinal disease in adult and children
● Describe the roles and responsibilities of other healthcare professionals.
● Recognize one's own differences, biases, assumptions and limitations that may contribute to interprofessional tension.
● Work collaboratively with others.
● Explain how to work effectively in a team to achieve an appropriate outcome.
● Interact respectfully and professionally with small group and team members and describe the value of team members.

Leader
● Explain the leadership role of the physician with regards to helping patients navigate the healthcare system.
● Discuss the concept of resource allocation in the management of the individual patient's healthcare within the whole health system.
● Discuss and begin to incorporate cost perspectives into clinical decision-making.
● Make proficient use of technology assisted learning as it is deployed in this course.

Scholar
● Facilitate the learning of self and others in various small-group and team-based settings.
● Demonstrate the ability to engage in self-directed learning based on reflective practice and life-long learning principles.
● Understand how to formulate a clinical question and search the literature using the library website and other resources.
● Identify the history of medical research as it applies to the discovery of insulin.
● Research the information required (including evidence-based resources and other resources) in order to prepare for presenting possible diagnostic and management options for discussion.
● Critically appraise retrieved evidence and information and demonstrate integration of new learning.

● Apply the concepts of validity, importance and applicability to help clinicians answer clinical questions and patients' questions regarding therapy, harm, diagnosis, prognosis, and screening.
● Provide and receive effective feedback.

Health advocate
● Recognize different points of view regarding culture, religion, beliefs, illness, disease, medicine, and medical practices and discuss in an open and non-judgmental manner.
● Describe how different social determinants of health influence how the patient copes with an illness, disease and disability; and how they affect access to health care services.
● Identify emerging and ongoing issues for populations who are vulnerable.
● Identify points of influence in the healthcare system and its structure.
● Explain the concept of social accountability and principles of community engagement in responding to the needs of the community.
● Understand factors contributing to the obesity epidemic and describe prevention and treatment strategies for obesity.

Professional
● Adhere to the Wenzhou Medical University and University of Alberta Faculty of Medicine and Dentistry Code of Conduct and to the Professional Standards for Students in the Faculty of Medicine and Dentistry.
● Define professionalism as the key values required in the profession, including honesty, integrity, maintaining appropriate patient boundaries, maintaining confidentiality, and a commitment to patient well-being.
● Define professionalism in the context of medical school, and within the medical profession, and apply its principles to all activities, including during assignments, small group interactions, examinations, self-assessment, peer-assessment, faculty assessment, online in social media, etc.
● Discuss the importance of context in the interpretation of professionalism.
● Discuss how each physician has the obligation to actively maintain professional competence and participate in peer/colleague assessment and self-assessment as applicable.
● Explain how self-reflection facilitates the student's professional identity formation and shapes their approach to all patients.
● Discuss basic legal and ethical challenges that physicians face in practice and begin to apply key concepts to navigate these challenges.
● Give constructive and professional feedback and assessment to their peers and colleagues about attitudes, behaviors, practices and group work interactions in a structured manner.
● Demonstrate a sense of responsibility: taking initiative, carrying out assigned duties, and exhibiting dependability and self-direction.
● Demonstrate punctuality.
● Recognize and appropriately respond to ethical issues encountered during the course.
● Recognize factors such as fatigue, stress, and competing demands/roles that impact on personal and professional performance. Seek assistance when professional or personal performance is compromised.
● Contribute to Discovery Learning (DL) discussion in a respectful manner.

Cardiovascular System

Course Objectives

Medical expert

● Describe the characteristics of cardiac anatomy & physiology of the cardiovascular system, normal heart function, how cardiovascular system adapts to various loads, heart dysfunction / failure, valve dysfunction and coronary artery disease.

● Demonstrate an understanding of endocardial diseases including valve diseases and basic arrhythmias and their effect on heart function.

● List the causes and definition of syncope, including the history and physical findings to suggest cause, and to differentiate from other causes of loss of consciousness.

● Demonstrate a systematic approach to the interpretation of electrocardiography (ECG), including rhythm interpretation, arrhythmias including their causes and classifications and use of anti-arrhythmic drugs.

● Correlate the embryology of great vessels and heart with congenital heart diseases including cyanotic and acyanotic causes.

● List the different types of cardiomyopathies and their causes: dilated, hypertrophic and restrictive (+rarer types).

● Demonstrate an understanding of atherosclerosis, coronary disease (stable and unstable), venous diseases, aortic syndromes and peripheral vascular disease including pathophysiology, signs, symptoms, diagnosis and management.

● Describe the clinical features, pathophysiology, investigations and principles of treatment of pericardial diseases including pericarditis, tamponade and pericardial constriction

Communicator

● Ability to formulate / challenge learning issues and research presented in discovery learning sessions

Collaborator

● Ability to work well in group format in discovery learning to help work through weekly discovery learning cases, encouraging group interaction and learning

Leader

Scholar

● Demonstrating ability to research learning issues raised during discovery learning but also in various labs / whole class learning

Health advocate

● Discuss the physical and psychosocial effects of cardiac disease on children and adults.

Professional

● Adhere to the WMU and University of Alberta, Faculty of Medicine and Dentistry Code of Conduct and to the Professional Standards for Students in the Faculty of Medicine and Dentistry.

● Give constructive and professional feedback and assessment to their peers and colleagues about attitudes, behaviors, practices and group work interactions in a structured manner.

● Demonstrate a sense of responsibility: taking initiative, carrying out assigned duties, exhibiting dependability and self-direction.
● Demonstrate punctuality.
● Recognize and appropriately respond to ethical issues encountered during the course.
● Recognize factors such as fatigue, stress, and competing demands/roles that impact on personal and professional performance. Seek assistance when professional or personal performance is compromised.
● Contribute to Discovery Learning (DL) discussion in a respectful manner.

Pulmonary System

Course Objectives

Medical expert

● Recognize a patient with life-threatening respiratory disease
● Discuss the potential communicability of specific respiratory disorders (as well as methods to prevent their spread within health care facilities and the community)
● Discuss the basic concepts of respiratory resuscitation, including airway management, ventilation and oxygenation
● Perform a physical examination focusing on the respiratory system
● Explain the pathophysiology of common respiratory physical signs
● Use physical findings to diagnose common respiratory disorders such as pleural effusion, consolidation, pneumothorax and pulmonary fibrosis
● Use data from an arterial blood gas to identify abnormalities of gas exchange
● Use data from an arterial blood gas to identify common acid-base disorders
● Interpret a spirogram and a simple pulmonary function test
● Demonstrate a systematic approach to the interpretation of a chest radiograph
● Identify normal anatomic structures on a chest radiograph and chest CT
● Identify chest radiograph manifestations of common respiratory pathology including atelectasis, COPD, lung nodules/masses, pleural effusion, pneumonia, pneumothorax and pulmonary edema
● Discuss the following procedures: airway management using a bag and mask device, thoracocentesis and tube thoracostomy
● Describe the clinically relevant embryologic and fetal development of the respiratory system
● Explain how the respiratory system changes through the course of the human life cycle
● Describe the clinically relevant histology of the respiratory system
● Recognize clinically relevant anatomic components of the chest wall, pleural space, mediastinum, lung, neck and head
- Demonstrate an understanding of surface anatomy of the respiratory system
- Correlate anatomic knowledge with chest radiograph and chest CT images
- Discuss the pharmacology of common respiratory medications such as
- Short-Acting Beta-Agonists, Long-Acting Beta-Agonists, Short-Acting Anticholinergics, Long-Acting Muscarinic-Antagonists, Leukotriene-Receptor Antagonists and corticosteroids (Inhaled Corticosteroids, systemic steroids)

● Describe the etiology, pathophysiology, epidemiology, clinical manifestations, diagnosis, prevention and treatment of the following clinical conditions:

- Asthma
- COPD
- Common congenital disorders of the respiratory system
- Cystic Fibrosis

● Recognize and demonstrate an approach to the following symptoms/clinical presentations:
- Chest pain (cardiac and non-cardiac)
- Cough (acute and chronic)
- Dyspnea
- Hemoptysis
- Sputum
- Stridor
- Wheeze

● Recognize respiratory conditions common to pediatric, adult and geriatric patients and populations (describe the etiology, pathophysiology, epidemiology, clinical manifestations, diagnosis, prevention and treatment of the following clinical conditions (refer to session-specific objectives for details):
- Asthma
- COPD
- Common congenital disorders of the respiratory system
- Cystic Fibrosis
- Hyaline membrane disease (respiratory distress syndrome)
- Idiopathic Pulmonary Fibrosis (as the most common example of interstitial lung disease)
- Lung cancer
- Occupational/environmental lung disease (asbestosis, occupational asthma) o Otitis media
- Pleural effusion
- Pneumonia
- Pneumothorax
- Respiratory failure
- Sleep disordered breathing (snoring, obstructive sleep apnea, central sleep apnea, narcolepsy)
- Tobacco addiction
- Tuberculosis
- Upper respiratory tract infections
- Venous thromboembolic disease

Communicator

● Ability to formulate / challenge learning issues and research presented in discovery learning sessions

Collaborator

● Ability to work well in group format in discovery learning to help work through weekly discovery learning cases, encouraging group interaction and learning

Leader
● Managing time demands from course work
Scholar
● Demonstrating ability to research learning issues raised during discovery learning but also in various labs / whole class learning

Health advocate
● Consider the physical and psychosocial effects of cardiac disease on children and adults.

Professional
● Adhere to the WMU and University of Alberta, Faculty of Medicine and Dentistry Code of Conduct and to the Professional Standards for Students in the Faculty of Medicine and Dentistry.
● Give constructive and professional feedback and assessment to their peers and colleagues about attitudes, behaviors, practices and group work interactions in a structured manner.
● Demonstrate a sense of responsibility: taking initiative, carrying out assigned duties, exhibiting dependability and self-direction.
● Demonstrate punctuality.
● Recognize and appropriately respond to ethical issues encountered during the course.
● Recognize factors such as fatigue, stress, and competing demands/roles that impact on personal and professional performance. Seek assistance when professional or personal performance is compromised.
● Contribute to Discovery Learning (DL) discussion in a respectful manner.

Renal System
Course Objectives
Medical expert
● Describe features of the history and physical exam that are indicative of renal disease.
● Define the following signs and symptoms of renal disease: gross hematuria, peripheral edema, pulmonary edema, hypertension, flank pain, nocturia, foamy urine/proteinuria, costovertebral angle tenderness, abdominal masses, features of uremia.
● Identify methods used to screen for and investigate renal disease, including urinalysis and methods to assess GFR, urine culture, serum electrolytes, renal biopsy, and renal imaging.
● Demonstrate an approach to the following clinical presentations:
    - Hematuria
    - Proteinuria
    - Edema/Volume overload
    - Dysnatremias (hyponatremia and hypernatremia)
    - Hypokalemia and hyperkalemia
    - Acidosis and alkalosis
● Describe the pathophysiology, presenting signs and symptoms, differential diagnoses, clinical manifestations, complications, investigations and management for the following clinical conditions:
    - Acute renal failure

- Chronic renal failure in adults
- Hypertension
- Glomerulonephritis – nephritic
- Glomerulonephritis – nephrotic
- Diabetic nephropathy
- Tubulointerstitial disorders
- Vesicoureteric reflux (VUR) in children
- Pediatric chronic kidney disease (CKD)
- Hereditary and cystic renal disease
- Renovascular disease (RVD)

● Apply knowledge of early referral for education and access planning for dialysis patients
● Recognize the risks and disease prevention strategies for patients with ESKF.
● Describe the embryologic development of the genitourinary tract and some developmental abnormalities that could lead to congenital malformations of the kidneys, ureters and urinary bladder.
● Explain the histology of the nephron and how its structure relates to kidney function.
● Discuss the anatomy of the kidney and ureter.
● Discuss the physiology of the renal system, including:

- GFR and tubular function
- Sodium and water handling
- Potassium handling
- Acid base management

● Recognize the pathology associated with common renal diseases
● Discuss the relationship between pharmacology and renal function:
● Mechanism of action, clinical use, and side effects of diuretics drugs.
● Clearance and accumulation of medications: the impact of chronic kidney disease on drug pharmacokinetics and drug dosing, and common drug nephrotoxicity.
● Describe the basic science behind dialysis.

Communicator

● Demonstrate the ability to be facilitative with peers, patients, families, caregivers, community resources and interdisciplinary team members.
● Gather information about a patient's beliefs, concerns, expectations and illness experience.
● Explain the importance of effective patient-centered communication in the patient-physician relationship and its effect on patient outcomes.
● Recognize and demonstrate best practice on how the verbal and non-verbal cues affect the patient-physician relationship and patient outcomes.
● Deliver information in a professional patient-centered manner and in such a way that is understandable, encourages discussion and participation in decision-making.
● Discuss patient encounters and the importance of treating patients with respect and maintaining patient confidentiality.
● Demonstrate awareness and sensitivity to human differences, including differences in age, gender, disability, sexual orientation, ethnicity, cultural background, socioeconomic or psychosocial factors.

● Provide and be receptive to constructive and professional feedback to and from peers and preceptors about their communication practices and group work interactions.

Collaborator
● Describe the role and responsibilities of other healthcare professionals.
● Recognize one's own differences, biases, assumptions and limitations that may contribute to interprofessional tension.
● Work collaboratively with others.
● Explain how to work effectively in a team to achieve an appropriate outcome.
● Interact respectfully and professionally with small group and team members and describe the value of team members.

Leader
● Make proficient use of technology assisted learning as it is deployed in this course.
● Explain the role of the physician with regards to helping patients navigate the healthcare system.
● Discuss the concept of resource allocation in the management of the individual patient's healthcare within the whole health system.
● Discuss and begin to incorporate the cost perspectives into clinical decision-making.
Scholar
● Facilitate the learning of self and others in various small-group and team-based settings.
● Demonstrate ability to engage in self-directed learning based on reflective practice and life-long learning principles.
● Understand how to formulate a clinical question and search the literature using the library website and other resources.
● Research the information required (including evidence-based resources and other resources) in order to prepare for presenting possible diagnostic and management options for discussion.
● Critically appraise retrieved evidence and information and demonstrate integration of new learning.
● Apply the concepts of validity, importance and applicability to help clinicians answer clinical questions and patients' questions regarding therapy, harm, diagnosis, prognosis, and screening.
● Provide and receive effective feedback.

Health advocate
● Recognize different points of view regarding culture, religion, beliefs, illness, disease, medicine, and medical practices and discuss in an open and non-judgmental manner. ● Describe how different social determinants of health influence how the patient copes with an illness, influences health, disease and disability, influences access to health care services and how they may or may not receive support.
● Identify emerging and ongoing issues for populations who are vulnerable.
● Identify points of influence in the healthcare system and its structure.
● Explain the concept of social accountability, principles of community engagement in responding to the needs of the community.

Professional

● Adhere to the WMU and University of Alberta, Faculty of Medicine and Dentistry Code of Conduct and to the Professional Standards for Students in the Faculty of Medicine and Dentistry.
● Define professionalism as the key values required in the profession, including honesty, integrity, maintaining appropriate patient boundaries, maintaining confidentiality, and a commitment to patient well-being.
● Define professionalism in the context of medical school, and within the medical profession, and to apply its principles to all activities, including during assignments, small group interactions, examinations, self-assessment, peer-assessment, faculty assessment, online in social media etc.
● Discuss the importance of context in the interpretation of professionalism.
● Discuss that self-regulation of the profession is a privilege and as such, each physician has the obligation to actively maintain professional competence participate in peer/colleague assessment and self-assessment as applicable.
● Explain how self-reflection facilitates the student's professional identity formation and shapes their approach to all patients.
● Discuss basic legal and ethical challenges that physicians face in practice and begin to apply key concepts to navigate these challenges.
● Give constructive and professional feedback and assessment to their peers and colleagues about attitudes, behaviors, practices and group work interactions in a structured manner.
● Demonstrate a sense of responsibility: taking initiative, carrying out assigned duties exhibiting dependability and self-direction.
● Demonstrate punctuality.
● Recognize and appropriately respond to ethical issues encountered during the course. ● Recognize factors such as fatigue, stress, and competing demands/roles that impact on personal and professional performance. Seek assistance when professional or personal performance is compromised.
● Contribute to Discovery Learning (DL) discussion in a respectful manner.

Gastroenterology & Nutrition

Course Objectives

Medical expert

● Describe the presentation, pathophysiology, clinical findings, diagnosis and management or treatment of the following disorders in adults:

- Gastroesophageal reflux disease
- Gastrointestinal bleeding
- Acute and chronic liver disease
- Viral hepatitis (A-E)
- Non-viral hepatitis (including alcoholic hepatitis, hemochromatosis, Wilson's disease, primary biliary cirrhosis, autoimmune hepatitis, primary sclerosing cholangitis, NASH) o Cirrhosis and hepatic failure
- Gallstone disease
- Acute and chronic diarrhea
- Acute and chronic pancreatitis

- Celiac disease
- Inflammatory bowel disease (Crohn's disease and ulcerative colitis)
- Diverticular disease
- Irritable bowel syndrome
- GI cancers (esophageal, gastric, pancreatic, colon)
- Rectal bleeding
- Acute abdominal pain
- Chronic lower abdominal pain
- Fecal incontinence
- Systemic disease that manifest in the oral cavity
- Adverse food reactions (food hypersensitivity/allergy and anaphylaxis, food intolerance)

● Describe the presentation, pathophysiology, clinical findings, diagnosis, and management or treatment of the following disorders in children:

- Gastroesophageal reflux disease
- Eosinophilic esophagitis
- Peptic ulcer disease
- Celiac disease
- Congenital malformations (tracheoesophageal fistula, pyloric stenosis, intussusception, Meckel's diverticulum)
- Neonatal jaundice and congenital liver abnormalities
- Inflammatory bowel disease
- Acute and chronic diarrhea
- Constipation
- Abdominal pain
- Rectal bleeding
- Adverse food reactions (food hypersensitivity/allergy and anaphylaxis, food intolerance)

Discuss principles of nutrition, and define and describe the following nutritional concepts:

- A normal diet
- Malnutrition measurement
- Indications for enteral or parenteral nutrition

● Describe principles of nutrition in the newborn, toddler and child, and discuss the following concepts:

- Benefits of breastfeeding in infants
- Nutrition monitoring, e.g., growth charts

● Describe the general guidelines for screening of colon cancer.
● List the immunizations available for viral hepatitis.
● Provide a comprehensive targeted GI-symptom medical history.
● Perform a physical examination for focusing on the GI system.
● Define and develop an approach to common presenting symptoms and signs of GI disease in adults and children, including:

- Heartburn
- dyspepsia
- dysphagia

- chest pain
- odynophagia
- hematemesis
- hematochezia
- jaundice
- ascites
- hepatic encephalopathy
- biliary colic
- fatigue
- nausea
- vomiting
- abdominal pain
- diarrhea
- constipation
- anorexia
- weight loss
- anemia
- tenesmus
- fecal incontinence

● List the investigations, along with their main indicators, that are commonly used in gastroenterology, including endoscopy, radiography (abdominal x-rays, fluoroscopy studies, abdominal ultrasound, CT or MR), blood work, stool cultures, fecal occult blood testing, urea breath test.
● Develop a systematic approach to the interpretation of abdominal x-rays.
● Analyze and interpret liver function tests.
● Describe the physiology of the gastrointestinal system, including:
The oral cavity (salivary secretion)
Esophagus (esophageal motility)
Stomach (gastric motility and gastric acid secretion)
Small intestine (absorption of nutrients)
Large intestine (intestinal transport of fluid and electrolytes)
Liver (role in drug metabolism and bilirubin metabolism)
Pancreas (macronutrient digestion)
● Describe the anatomy and identify key structures of the abdomen, including the anterior and posterior abdominal walls, inguinal region, abdominal cavity, peritoneum and abdominal viscera, and retroperitoneal structures.
● Describe the embryological development of the abdominal cavity and gastrointestinal system and apply this knowledge to various congenital anomalies of the GI system.
● Describe the histology of the gastrointestinal tract, in particular the oral cavity, esophagus, and gastroesophageal junction.
● Describe the pharmacologic principles and the types of the drugs used in gastric acid suspension, laxatives and anti-diarrheal agents.

Communicator

● Demonstrate the ability to be facilitative with peers during the Gastroenterology and Nutrition course
● Discuss patient encounters and the importance of treating patients with respect and maintaining patient confidentiality.
● Demonstrate awareness and sensitivity to human differences, including differences in age, gender, disability, sexual orientation, ethnicity, cultural background, socioeconomic or psychosocial factors.
● Provide and be receptive to constructive and professional feedback to and from peers and preceptors about their communication practices and group work interactions.

Collaborator
● Discuss the role of gastroenterologists, general surgeons, dieticians, and other health professionals in the management of gastrointestinal disease in adult and children
● Describe the roles and responsibilities of other healthcare professionals.
● Recognize one's own differences, biases, assumptions and limitations that may contribute to interprofessional tension.
● Work collaboratively with others.
● Explain how to work effectively in a team to achieve an appropriate outcome.
● Interact respectfully and professionally with small group and team members and describe the value of team members.

Leader
● Make proficient use of technology assisted learning as it is deployed in this course.
● Describe the role of physician as a steward of resources when selecting investigations.

Scholar
● Facilitate the learning of self and others in various small-group and team-based settings.
● Demonstrate ability to engage in self-directed learning based on reflective practice and life-long learning principles.
● Understand how to formulate a clinical question and search the literature using the library website and other resources.
● Research the information required (including evidence-based resources and other resources) in order to prepare for presenting possible diagnostic and management options for discussion.
● Provide and receive effective feedback.

Health advocate
● Recognize the impact of acute diarrhea due to poor sanitation as a global health problem.
● Recognize different points of view regarding culture, religion, beliefs, illness, disease, medicine, and medical practices and discuss in an open and non-judgmental manner.

Professional
● Adhere to the WMU and University of Alberta, Faculty of Medicine and Dentistry Code of Conduct and to the Professional Standards for Students in the Faculty of Medicine and Dentistry.

● Give constructive and professional feedback and assessment to their peers and colleagues about attitudes, behaviors, practices and group work interactions in a structured manner.
● Demonstrate a sense of responsibility: taking initiative, carrying out assigned duties, exhibiting dependability and self-direction.
● Demonstrate punctuality.
● Recognize and appropriately respond to ethical issues encountered during the course.
● Recognize factors such as fatigue, stress, and competing demands/roles that impact on personal and professional performance. Seek assistance when professional or personal performance is compromised.
● Contribute to Discovery Learning (DL) discussion in a respectful manner.

Reproductive Medicine & Urology

Course Objectives

Medical expert

- Outline and perform the basic elements of a reproductive history in patients of both sexes. · Describe the indications and basic technique of procedures unique to reproductive medicine (pelvic examination, Pap smear, digital rectal examination, uncomplicated labour and delivery).
- Identify the differences between common benign and malignant scrotal lesions.
- List the presenting symptoms of and basic treatment principles in diagnosing genitourinary trauma (kidney, bladder & urethra).
- Demonstrate a basic understanding of the treatment of benign prostatic hyperplasia (BPH), prostate cancer and other common inflammatory disorders of the prostate.
- Demonstrate basic understanding of the diagnosis and treatment of common urologic malignancies (renal cell carcinoma, transitional cell carcinoma of the bladder, and testis cancer).
- Explain the basic causes and general treatment options for urinary incontinence.
- Learn to classify, diagnose and develop an approach to treatment of urinary tract infections (bacterial cystitis, pyelonephritis, epididymitis, and prostatitis).
- Recognize and discuss the basic diagnosis and management of common pediatric urologic diseases (nocturnal enuresis, vesicoureteral reflux, cryptorchidism, testicular torsion and hypospadias).
- Diagnose and manage basic clinical concepts in urinary calculus disease. · Outline the surgical and non-surgical management of prolapse and urinary incontinence. · Explain the pathogenesis and associated sequelae of endometriosis and describe the signs and symptoms, surgical findings, diagnosis and the management of endometriosis.
- Define chronic pelvic pain and discuss the incidence, causes, pathophysiology, diagnostic procedures, and management of the heterogeneous group of disorders.
- Define primary and secondary dysmenorrhea and describe the causes, evaluation and management of each.
- Define abnormal uterine bleeding and dysfunctional uterine bleeding, and describe the causes, pathophysiology, diagnosis and management options for each.
- Describe the physiologic changes in the hypothalamic-pituitary-ovarian axis related to the climacteric and menopause and the associated physical, emotional, and sexual signs and symptoms.

- Define primary and secondary male and female infertility, describing for each the causes and approach to diagnosis and management.
- Describe the indications, contraindications, risks, and benefits of the treatments for menopause, including hormonal replacement, nutrition, exercise, and non-hormonal therapeutic options.
- Describe the rationale and methods of Pap smear screening for cervical dysplasia including colposcopy.
- Explain the typical management of cervical premalignant diseases.
- Explain the common course, diagnosis, and management of cervical cancer.
- Describe the symptoms, physical findings of uterine leiomyomas (fibroids) including methods of diagnosis and treatment.
- Outline the approach to the patient with postmenopausal vaginal bleeding.
- List the risk factors and symptoms/physical findings characteristic of endometrial carcinoma, the methods used in diagnosis and staging of the disease, and the typical disease course.
- List the differential diagnosis and management of the adnexal mass depending on age and mass characteristics.
- Describe the symptoms, physical findings, risk factors, diagnostic methods, histological classification of functional, benign and malignant ovarian tumors.
- Formulate an approach to investigation of medical complications [diseases] in pregnancy including the importance of appropriate testing for fetal health and well as monitoring of the maternal condition.
- Explain the initial and ongoing elements of antepartum care, including methods to diagnose pregnancy and establish gestational age; determination of obstetric risk status; techniques to assess fetal growth, maturity and well-being; appropriate diagnostic studies; antepartum patient education; antepartum nutritional needs; adverse effects of drugs.
- Outline the basic complications and management of early pregnancy including spontaneous abortion, ectopic pregnancy, and gestational trophoblastic disease.
- Describe how pregnancy affects or is affected by medical conditions such as diabetes mellitus, chronic hypertension, heart disease, recurrent pregnancy loss, previous genetic abnormalities, maternal age over 35, substance abuse, medications, nutrition and exercise, immunizations, and the workplace (including environmental hazards).
- Discuss the potential complications of late pregnancy including: Pregnancy induced hypertension, antepartum vaginal bleeding, intrauterine growth retardation (IUGR), SPROM, preterm labour, postdates pregnancy, small and large for dates gestations, multiple gestations, and isoimmunization.
- Develop a basic understanding of the principles and interpretation of antepartum and intrapartum fetal monitoring including ultrasound and fetal heart tracing.
- Outline a basic understanding of the mechanisms of labour and delivery and the common problems encountered including CPD, dystocia, breech presentation, shoulder dystocia, etc.
- Synthesize basic knowledge of the normal 3rd stage of labour and puerperium and lactation, and the types of problems that can develop including postpartum hemorrhage and postpartum fever.

- Apply basic knowledge of the diagnosis, prevention and treatment of specific infectious agents that are transmitted sexually including: N. gonorrhea, C. trachomatis, T. pallidum, H. simplex, HIV, T. vaginalis, and HPV.
- Elicit and interpret information from the history and physical examination to diagnose common syndromes associated with STI's.
- Diagram the mode of action, effectiveness, advantages, disadvantages, contraindications and complications of the reversible and non-reversible methods of birth control.
- Diagram the indications, alternatives, methods and complications of therapeutic abortion.
- Outline the basic assessment of newborn status and immediate postpartum care of the newborn, including situations requiring immediate intervention.
- Describe the basic embryology from fertilization to complete organ development (within the male & female urogenital systems).
- Apply this knowledge to various congenital abnormalities of the genitourinary tract.
- Identify & describe the anatomy and histological appearance of the male and female reproductive systems, external genitalia and bladder.
- Demonstrate an understanding of female physiology through the stages of reproductive life, with an emphasis on the menstrual cycle and its dysfunction.
- Describe the physiologic changes that occur in the pregnant woman from fertilization to puerperium.
- Outline male reproductive physiology beginning from puberty to adulthood. · Describe the physiology of bladder function (filling & emptying).
- Discuss the predisposing factors, anatomy and neuromuscular pathophysiology of female pelvic prolapse.
- Describe the basic anatomy, histology, and function of the placenta.
- Outline the changes in pharmacodynamics occurring in a pregnant woman and neonate
- Describe how disease frequency varies amongst ethnic groups and be able to identify ethnic groups at increased risk for fetal genetic disorders or maternal medical conditions that impact pregnancy outcome.

Communicator

- Describe the considerations during initial counseling and support in situations involving potential or acute emotional reactions related to pregnancy loss, genitourinary surgery, and death/illness due to genitourinary cancer, sexual dysfunction, and abuse. · Demonstrate the ability to be facilitative with peers, patients, families, caregivers, community resources and interdisciplinary team members.
- Deliver information in a professional patient-centered manner and in such a way that is understandable, encourages discussion and participation in decision-making. · Discuss patient encounters and the importance of treating patients with respect and maintaining patient confidentiality.
- Demonstrate awareness and sensitivity to human differences, including differences in age, gender, disability, sexual orientation, ethnicity, cultural background, socioeconomic or psychosocial factors.
- Provide and be receptive to constructive and professional feedback to and from peers and preceptors about their communication practices and group work interactions.

Collaborator

- Outline the role of physicians, nurses, psychologists, social workers, midwives and other health professionals in managing the spectrum of genitourinary illness and maintaining reproductive health
- Discuss the role of the physician, nurse, midwife and other health professionals in the care of the normal healthy pregnant woman and her newborn
- Recognize one's own differences, biases, assumptions and limitations that may contribute to interprofessional tension.
- Work collaboratively with others.
- Explain how to work effectively in a team to achieve an appropriate outcome. · Interact respectfully and professionally with small group and team members and describe the value of team members.

Leader

- Make proficient use of technology assisted learning as it is deployed in this course. · Explain the Leader role of the physician with regards to helping patients navigate the healthcare system.
- Discuss the concept of resource allocation in the management of the individual patient's healthcare within the whole health system.

Scholar

- Facilitate the learning of self and others in various small-group and team-based settings. · Demonstrate ability to engage in self-directed learning based on reflective practice and life-long learning principles.
- Understand how to formulate a clinical question and search the literature using the library website and other resources.
- Research the information required (including evidence-based resources and other resources) in order to prepare for presenting possible diagnostic and management options for discussion.
- Critically appraise retrieved evidence and information and demonstrate integration of new learning.
- Apply the concepts of validity, importance and applicability to help clinicians answer clinical questions and patients' questions regarding therapy, harm, diagnosis, prognosis, and screening.
- Provide and receive effective feedback

Health advocate

- Demonstrate knowledge of the critical population and global health issues related to sexually transmitted infections, maternal and neonatal mortality, and Identify points of influence.
- Integrate knowledge of obstetrical health into health promotion and advocacy and identify points of influence in the healthcare system and its structure that could result in a decrease in worldwide maternal and neonatal mortality.
- Describe several options for mobilizing resources for the patient in need when concerning matters of reproductive health.

- Recognize different points of view regarding culture, religion, beliefs, illness, disease, medicine, and medical practices and discuss in an open and non-judgmental manner.
- Identify emerging and ongoing issues for populations who are vulnerable.

Professional

- Explain and demonstrate with integrity and respect the physician's responsibility in caring for ethical matters in reproductive medicine (age of consent, therapeutic abortion, fetal rights, etc.).
- Demonstrate honesty and responsibility when caring for a patient with matters pertaining to reproductive health.
- Demonstrate respect and dignity when dealing with the psychosocial effects of genitourinary health and disease (such as puberty, pregnancy, contraception, malignancy or sexually transmitted illness).
- Be aware of his / her own attitude toward unique health problems involving reproductive health and disease.
- Discuss the principles of patient autonomy and decision making in reproductive medicine especially around the issues of contraception, abortion and intrapartum care.
- Apply key medical, ethical and legal principles to hypothetical clinical scenarios in reproductive medicine especially around the issues of contraception, abortion and intrapartum care.
- Respect patients' religious, moral, and ethical beliefs and biases, in regard to prenatal diagnostic tests and recognize the ethical, moral, and psychological implications of a positive prenatal screen.
- Explain and demonstrate with integrity and respect the physician's responsibility in caring for ethical matters in reproductive medicine (age of consent, therapeutic abortion, fetal rights, etc.)
- Demonstrate respect and dignity when dealing with the psychosocial effects of genitourinary health and disease (such as puberty, pregnancy, contraception, malignancy or sexually transmitted illness).
- Demonstrate punctuality.
- Give constructive and professional feedback and assessment to their peers and colleagues about attitudes, behaviors, practices and group work interactions in a structured manner.
- Demonstrate a sense of responsibility: taking initiative, carrying out assigned duties exhibiting dependability and self-direction.
- Recognize factors such as fatigue, stress, and competing demands/roles that impact on personal and professional performance. Seek assistance when professional or personal performance is compromised.
- Contribute to Discovery Learning (DL) discussion in a respectful manner.

Musculoskeletal System

Course Objectives

The over-arching objectives for this course include the following:

- Understand the structure and function of the musculoskeletal system (including bone, joint, muscle, peripheral nerves, and skin) in terms of the anatomy, embryology, physiology, and pathophysiology of common musculoskeletal conditions.
- Develop a general approach to the clinical diagnosis of musculoskeletal and dermatological conditions, including but not limited to describing classifications and underlying mechanisms of musculoskeletal pain, identifying pertinent symptoms and clinical courses of typical presentations, and correlating pertinent physical examination findings with the underlying anatomy and pathophysiology.
- Develop an evidence-based and general approach to the use of appropriate investigation modalities with an understanding of indications and contraindications for use of different tests (blood work, imaging, pathology, etc.)
- Describe appropriate management options including conservative treatment, medications, and surgical interventions for common musculoskeletal and dermatological conditions.

Medical Expert

Describe structure and function of the MSK system and skin particularly as they underlie normal processes and disease states

- Anatomy (including bones, joints, muscles and mechanics of movement, cutaneous and muscle nerve supply, vascular supply) of the musculoskeletal system:
    - Axilla and brachial plexus
    - Shoulder region
    - Arm, forearm and hand
    - Back
    - Gluteal region
    - Hip and thigh
    - Leg and foot
- Embryology:
- Outline the Embryological development of the limbs
- Physiology structure and organization of cartilage, bone, muscle and skin:
- Explain how the bone remodeling cycle occurs and apply this knowledge to relevant clinical scenarios (e.g., fracture healing stages, approximate fracture healing times, osteoporosis)
- Explain the skeletal muscle contractile cycle
- Describe the structure and function of the skin (including definition of the terms macule, papule, nodule, plaque, vesicle, cyst, ulcer)
- Describe a general approach to MSK pain including
- Describe the general classification of musculoskeletal diseases and compare and contrast the terms articular and non-articular MSK pain
- Compare and contrast inflammatory, mechanical, infectious, crystalline, traumatic, neoplastic and metabolic categories MSK pain
- Categorize joint pain using the terms non-articular pain, monoarthritis, oligoarthritis and polyarthritis; and acute arthritis, acute episodic arthritis and chronic arthritis
- Demonstrate an approach to broad musculoskeletal or skin presentations, including:
    - Joint pain

    - Limp
    - Neck/back pain
    - Soft tissue pain
    - Trauma
- Skin conditions and rash:
- Define and explain the relevance of common symptoms and signs encountered in MSK and rheumatologic histories and physical examinations including
- Constitutional and systemic symptoms (including weight loss, fever, fatigue)
- MSK symptoms (including morning stiffness, loss of function, loss of
- movement, arthralgia¸ proximal muscle weakness, limp and/or abnormal gait, joint crepitus, decreased range of motion, joint tenderness and effusions)
- Obtain a functional history (including definitions of impairment, disability and
- handicap, basic ADLs, instrumental ADLs)
- Perform common MSK examinations including:
    - Screening MSK Examination (including the Look, Move, Feel general approach and the GALS (gait arms legs spine) screening exam)
    - Orthopedic examination of the newborn
    - Knee Exam
    - Hip Exam
    - Shoulder Exam
    - Back exam
    - Neck exam
- Describe the clinical features, pathophysiology, investigations and principles of treatment of key MSK and skin diseases and
- Compare and contrast the clinical features of common and/or serious injuries and indications for referral to a specialist for:
- Rheumatologic Problems:
    - Osteoarthritis
    - Rheumatoid arthritis
    - Seronegative spondyloarthropathies (including ankylosing spondylitis,
    - psoriatic arthritis, reactive arthritis (Reiter's syndrome), arthritis of
    - inflammatory bowel disease)
    - Systemic Lupus Erythematosus (SLE)
    - Connective tissue diseases (including dermatomyositis and polymyositis, Sjogren's Syndrome, Scleroderma (systemic sclerosis))
    - Vasculitis (including temporal arteritis/giant cell arteritis)
    - Polymyalgia rheumatic
    - Fibromyalgia
    - Tendonitis, bursitis and overuse syndromes
    - Crystal-induced arthritis (including gout and pseudogout)
    - Septic arthritis
    - Axial disorders (including urgent back pain, mechanical back pain,
    - neurological back pain, red flag back pain, soft tissue neck pain and
    - whiplash disorder)

- Musculoskeletal presentations or complications of common endocrine, neurologic, hematologic and infectious diseases
- Orthopedic problems including: Fractures of the upper and lower extremities (including clavicle fracture, humerus, scaphoid fracture, radial fracture, femur fracture, Tibial/Fibular fracture)
- Describe fracture patterns, list the classification of fractures and list the potential complications of fractures, including those that are life-threatening (e.g, ARDS, shock, associated injuries), limb-threatening (e.g., arterial injury, compartment syndrome) and chronic (e.g., reflex sympathetic dystrophy, non-union, nerve injury)
- Dislocations, subluxations, sprains, ligament injuries
- Tendon injury or rupture
- Muscle trauma/injury, including muscle strain
- Specific shoulder problems (e.g., rotator cuff, frozen shoulder)
- Specific knee trauma and conditions (e.g., meniscal pathology, ligament injuries)
- Common orthopedic problems of the ankles and feet (e.g., hallux valgus, plantar fasciitis)
- Common and/or important bone tumors (including recognition of basic
- patterns of aggressive vs. non-aggressive lesions clinically and on standard radiographs)
- Pediatric problems
    - Scoliosis
    - Orthopedic problems of the newborn, infant and child (including
    - developmental dysplasia of the hip, Legg Calve Perthes disease, slipped capital femoral epiphysis, genu varum and genu valgus, club foot , in-toeing and out-toeing and osteomyelitis)
    - Pediatric fractures and growth plate injuries
    - Pediatric Inflammatory Joint and muscle diseases (including recognition of how pediatric joint and muscle diseases such as juvenile idiopathic
    - arthritis, juvenile ankylosing spondylitis and juvenile dermatomyositis differ in presentation and clinical course from disease in the adult)
    - Pediatric soft tissue and overuse syndromes (including apophysitis,
    - patellofemoral syndrome)

  Skin Conditions
    - Erythematous skin lesions (including flushing, urticaria, erythema
    - multiforme, vasculitis, chronic wounds, erythema nodosum)
    - Leg ulcers
    - Skin infections (including common bacterial, common viral, superficial
    - fungal, necrotizing fasciitis)
    - Benign skin tumors (including seborrheic keratosis, benign melanocytic tumors)
    - Common hair disorders
    - Skin cancers (including melanoma, basal cell carcinoma, actinic
    - keratosis, squamous cell carcinoma)
    - Psoriasis
    - Warts
    - Acne vulgaris
    - Atopic dermatitis /eczema

- Burn injuries
- Common skin manifestations of systemic diseases (including diabetes
- mellitus, hyper and hypo thyroidism, kidney and liver diseases, SLE,
- dermatomyositis, scleroderma)

Develop an approach to the interpretation of common and/or important investigations that are used in the evaluation of musculoskeletal or skin disease, along with their main indications, including:

- Blood work (including interpretation of ESR, CRP, rheumatoid factor, CK, ANA and synovial fluid analysis)
- Diagnostic imaging (including interpretation of simple plain radiographs and description of indications for CT, MRI, ultrasound, arthroscopy, arthrography and bone scans)
- Electromyelography (EMG), nerve conduction studies (NCS)
- Pathology (e.g., muscle biopsy, temporal artery biopsy, skin biopsy)
- KOH preparation
- Develop an approach to key principles of management of common MSK diseases
- Outline the mechanism of action, indications, common and serious side effects of medications used in the treatment of musculoskeletal disease (e.g.,
- non-steroidal anti-inflammatory medications (NSAIDs), acetaminophen, steroids and key disease modifying medications)
- Explain the importance of lifestyle modifications and physical therapies in the management of MSK disorders
- Discuss the role of physical activity in promoting a healthy lifestyle in musculoskeletal disorders
- List the steps involved in rehabilitation of musculoskeletal injuries and write an appropriate prescription for rehabilitation therapy
- Define the term orthosis and compare and contrast the functions of orthoses in MSK management plans
- Describe the use and potential impact of complementary and alternative practices in the treatment of musculoskeletal disease

Describe the characteristics of common bacteria, viruses, parasites and fungi that cause human infections.

- Correlate the structure and virulence factors of these organisms with their ability to cause infections.
- List the mechanism of action, spectrum of activity and side effects of commonly used antimicrobials and the basic means by which microorganisms may develop resistance to these agents.
- Describe the organization of the immune system and show understanding of its function in protection against infection including the consequences of immune deficiency and immune dysregulation (hypersensitivity and autoimmunity)
- Describe the basic events underlying the inflammatory response.
- Demonstrate understanding of infectious diseases in the context of global health issues
- Demonstrate a basic understanding of blood cells and transfusions.

Communicator

- Communicate effectively with patients expressing musculoskeletal system concerns · Demonstrate consideration for the patient's comfort during physical examination of musculoskeletal system
- Discuss the potential ways in which lives of patients with musculoskeletal problems are affected by their conditions.
- Demonstrate the ability to be facilitative with peers, patients, families, caregivers, community resources and interdisciplinary team members.
- Gather information about a patient's beliefs, concerns, expectations and illness experience.
- Explain the importance of effective patient-centered communication in the patient-physician relationship and its effect on patient outcomes.
- Recognize and demonstrate best practice on how the verbal and non-verbal cues affect the patient-physician relationship and patient outcomes.
- Deliver information in a professional patient-centered manner and in such a way that is understandable, encourages discussion and participation in decision-making. Discuss patient encounters and the importance of treating patients with respect and maintaining patient confidentiality.
- Demonstrate awareness and sensitivity to human differences, including differences in age, gender, disability, sexual orientation, ethnicity, cultural background, socioeconomic or psychosocial factors.
- Provide and be receptive to constructive and professional feedback to and from peers and preceptors about their communication practices and group work interactions.

Collaborator

- Describe and briefly outline the roles of health care professionals involved in the treatment of musculoskeletal and skin diseases, and the importance of interprofessional collaboration:
    - Family medicine physician
    - Rheumatologist (adult and pediatric)
    - Orthopedic surgeon (adult and pediatric)
    - Physical medicine and rehabilitation specialist (physiatrist)
    - Sport and Exercise Medicine Physician
    - Physical therapist
    - Occupational therapist
    - Dermatologist
    - Plastic surgeon
- Recognize one's own differences, biases, assumptions and limitations that may contribute to interprofessional tension.
- Work collaboratively with others.
- Explain how to work effectively in a team to achieve an appropriate outcome. · Interact respectfully and professionally with small group and team members and describe the value of team members.

Leader

- Make proficient use of technology assisted learning as it is deployed in this course. · Explain the Leader role of the physician with regards to helping patients navigate the healthcare system.
- Discuss the concept of resource allocation in the management of the individual patient's healthcare within the whole health system.
- Discuss and begin to incorporate the cost perspectives into clinical decision-making.

Scholar

- Facilitate the learning of self and others in various small-group and team-based settings. · Demonstrate ability to engage in self-directed learning based on reflective practice and life-long learning principles.
- Understand how to formulate a clinical question and search the literature using the library website and other resources.
- Research the information required (including evidence-based resources and other resources) in order to prepare for presenting possible diagnostic and management options for discussion.
- Critically appraise retrieved evidence and information and demonstrate integration of new learning.
- Apply the concepts of validity, importance and applicability to help clinicians answer clinical questions and patients' questions regarding therapy, harm, diagnosis, prognosis, and screening.
- Provide and receive effective feedback

Health advocate

- Recognize different points of view regarding culture, religion, beliefs, illness, disease, medicine, and medical practices and discuss in an open and non-judgmental manner.
- Describe how different social determinants of health influence how the patient copes with an illness, influences health, disease and disability, influences access to health care services and how they may or may not receive support.
- Identify emerging and ongoing issues for populations who are vulnerable.
- Identify points of influence in the healthcare system and its structure.
- Explain the concept of social accountability, principles of community engagement in responding to the needs of the community.

Professional

- Adhere to the WMU and University of Alberta, Faculty of Medicine and Dentistry Code of Conduct and to the Professional Standards for Students in the Faculty of Medicine and Dentistry.
- Define professionalism as the key values required in the profession, including honesty, integrity, maintaining appropriate patient boundaries, maintaining confidentiality, and a commitment to patient well-being.
- Define professionalism in the context of medical school, and within the medical profession, and to apply its principles to all activities, including during assignments,

small group interactions, examinations, self-assessment, peer-assessment, faculty assessment, online in social media etc.
- Discuss the importance of context in the interpretation of professionalism.
- Discuss that each physician has the obligation to actively maintain professional competence participate in peer/colleague assessment and self-assessment as applicable.
- Explain how self-reflection facilitates the student's professional identity formation and shapes their approach to all patients.
- Discuss basic legal and ethical challenges that physicians face in practice and begin to apply key concepts to navigate these challenges.
- Give constructive and professional feedback and assessment to their peers and colleagues about attitudes, behaviors, practices and group work interactions in a structured manner.
- Demonstrate a sense of responsibility: taking initiative, carrying out assigned duties exhibiting dependability and self-direction.
- Demonstrate punctuality.
- Recognize and appropriately respond to ethical issues encountered during the course.
- Recognize factors such as fatigue, stress, and competing demands/roles that impact on personal and professional performance
- Seek assistance when professional or personal performance is compromised.
- Contribute to Discovery Learning (DL) discussion in a respectful manner.

Psychiatry

Course Objectives

Medical expert

● List DSM-5 definition criteria and important symptoms for schizophrenia, bipolar 1 and 2 disorders, major depressive disorder, anxiety disorders (social phobia, panic disorder, agoraphobia, and generalized anxiety disorder), obsessive-compulsive disorder, post-traumatic stress disorder, and the eating disorders (anorexia nervosa, bulimia nervosa).

● Describe for each disorder the:
- Epidemiology
- Etiology
- Pathophysiology

● Describe investigations for a patient presenting with symptoms of each disorder.

● Discuss medication treatment for each disorder, emphasizing recent Canadian guidelines, and name the first-line treatments.

● Describe the serious and common side effects of medication treatments.

● Describe the monitoring and management of side effect common to the medication treatments.

● Discuss alternative & psychosocial treatments for each disorder.

● Discuss prognosis in each disorder.

● In terms of DSM-5 definition criteria and treatment, discuss disorders specific to:
- child psychiatry
- geriatric psychiatry
- personality

- sleep-wake
- sexual dysfunctions
- gender dysphoria
- substance-related
- somatic symptoms

● Discuss ADHD as it relates to adults in terms of diagnosis and treatment.
● Demonstrate awareness of how cultural diversity affects the diagnosis and treatment of mental illnesses.
● Prioritize the management of a patient presenting with a mental health concern as the chief complaint.
● Describe and perform a psychiatric interview, mental status examination, risk assessment, and formulation of a patient.
● Evaluate the literature and create a 10-minute presentation and exam question on a topic of interest.
● Describe how neuroanatomy relates to function and clinical problems.

Communicator
● Demonstrate the ability to be facilitative with peers, patients, families, caregivers, community resources and interdisciplinary team members.
● Gather information about a patient's beliefs, concerns, expectations and illness experience.
● Explain the importance of effective patient-centered communication in the patient-physician relationship and its effect on patient outcomes.
● Recognize and demonstrate best practice on how the verbal and non-verbal cues affect the patient-physician relationship and patient outcomes.
● Deliver information in a professional patient-centered manner and in such a way that is understandable, encourages discussion and participation in decision-making.
● Discuss patient encounters and the importance of treating patients with respect and maintaining patient confidentiality.
● Demonstrate awareness and sensitivity to human differences, including differences in age, gender, disability, sexual orientation, ethnicity, cultural background, socioeconomic or psychosocial factors.
● Provide and be receptive to constructive and professional feedback to and from peers and preceptors about their communication practices and group work interactions.

Collaborator
● Describe the role and responsibilities of other healthcare professionals.
● Recognize one's own differences, biases, assumptions and limitations that may contribute to interprofessional tension.
● Work collaboratively with others.
● Explain how to work effectively in a team to achieve an appropriate outcome.
● Interact respectfully and professionally with small group and team members and describe the value of team members.
● Make proficient use of technology assisted learning as it is deployed in this course.
● Explain the Leader role of the physician with regards to helping patients navigate the healthcare system.

● Discuss the concept of resource allocation in the management of the individual patient's healthcare within the whole health system.
● Discuss and begin to incorporate the cost perspectives into clinical decision-making.

Scholar
● Facilitate the learning of self and others in various small-group and team-based settings.
● Demonstrate ability to engage in self-directed learning based on reflective practice and life-long learning principles.
● Understand how to formulate a clinical question and search the literature using the library website and other resources.
● Research the information required (including evidence-based resources and other resources) in order to prepare for presenting possible diagnostic and management options for discussion.
● Critically appraise retrieved evidence and information and demonstrate integration of new learning.
● Apply the concepts of validity, importance and applicability to help clinicians answer clinical questions and patients' questions regarding therapy, harm, diagnosis, prognosis, and screening.
● Provide and receive effective feedback

Health advocate
● Recognize different points of view regarding culture, religion, beliefs, illness, disease, medicine, and medical practices and discuss in an open and non-judgmental manner.
● Describe how different social determinants of health influence how the patient copes with an illness, influences health, disease and disability, influences access to health care services and how they may or may not receive support.
● Identify emerging and ongoing issues for populations who are vulnerable.
● Identify points of influence in the healthcare system and its structure.
● Explain the concept of social accountability, principles of community engagement in responding to the needs of the community.

Professional
● Adhere to the WMU and University of Alberta, Faculty of Medicine and Dentistry Code of Conduct and to the Professional Standards for Students in the Faculty of Medicine and Dentistry.
● Define professionalism as the key values required in the profession, including honesty, integrity, maintaining appropriate patient boundaries, maintaining confidentiality, and a commitment to patient well-being.
● Define professionalism in the context of medical school, and within the medical profession, and to apply its principles to all activities, including during assignments, small group interactions, examinations, self-assessment, peer-assessment, faculty assessment, online in social media etc.
● Discuss the importance of context in the interpretation of professionalism.
● Discuss how each physician has the obligation to actively maintain professional competence participate in peer/colleague assessment and self-assessment as applicable.

● Explain how self-reflection facilitates the student's professional identity formation and shapes their approach to all patients.
● Discuss basic legal and ethical challenges that physicians face in practice and begin to apply key concepts to navigate these challenges.
● Give constructive and professional feedback and assessment to their peers and colleagues about attitudes, behaviors, practices and group work interactions in a structured manner.
● Demonstrate a sense of responsibility: taking initiative, carrying out assigned duties exhibiting dependability and self-direction.
● Demonstrate punctuality.
● Recognize and appropriately respond to ethical issues encountered during the course. ● Recognize factors such as fatigue, stress, and competing demands/roles that impact on personal and professional performance. Seek assistance when professional or personal performance is compromised.
● Contribute to Discovery Learning (DL) and Team based learning (TBL) discussion in a respectful manner.

Neurosciences & Organs of the Special Senses

Course Objectives

Medical expert

- List the elements of the Neurological, Eye, Otolaryngology (Ear, Nose and Throat (ENT) and developmental examination, and describe how to perform each element. · Localize lesions in patients who present with symptoms suggestive of a problem involving the nervous system or organs of special sense.
- List the most important causes of common neurological, or special sense symptoms or developmental disorders. Discuss the investigations required to make a specific diagnosis. · Develop an approach to the management of important neurological, ocular, ENT or developmental pediatric disorders, considering patient education, specific treatment, symptomatic treatment, psychological support, specialist referral and follow-up.
- Recognize serious neurological, ocular, or ENT presentations that are best handled by urgent referral to a specialist.

Communicator

- Demonstrate the ability to be facilitative with peers, patients, families, caregivers, community resources and interdisciplinary team members.
- Gather information about a patient's beliefs, concerns, expectations and illness experience.
- Explain the importance of effective patient-centered communication in the patient-physician relationship and its effect on patient outcomes.
- Recognize and demonstrate best practice on how verbal and non-verbal cues affect the patient-physician relationship and patient outcomes.
- Deliver information in a professional patient-centered manner and in such a way that is understandable, encourages discussion, as well as participation in decision-making. · Discuss patient encounters and the importance of treating patients with respect and maintaining patient confidentiality.

- Demonstrate awareness and sensitivity to human differences, including differences in age, gender, disability, sexual orientation, ethnicity, cultural background, socioeconomic or psychosocial factors.
- Provide and be receptive to constructive and professional feedback to and from peers and preceptors about their communication practices and group work interactions.

Collaborator

- Describe the role and responsibilities of other healthcare professionals. · Recognize one's own differences, biases, assumptions and limitations that may contribute to interprofessional tension. · Work collaboratively with others.
- Explain how to work effectively in a team to achieve an appropriate outcome. · Interact respectfully and professionally with small group and team members and describe the value of team members.

Leader

- Make proficient use of technology assisted learning as it is deployed in this course. · Explain the Leader role of the physician with regards to helping patients navigate the healthcare system.
- Discuss the concept of resource allocation in the management of the individual patient's healthcare within the whole health system.
- Discuss and begin to incorporate cost perspectives into clinical decision-making.

Scholar

- Facilitate the learning of self and others in various small-group and team-based settings.
- Demonstrate ability to engage in self-directed learning based on reflective practice and life-long learning principles.
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- Apply the concepts of validity, importance and applicability, to help clinicians answer clinical questions and patients' questions regarding therapy, harm, diagnosis, prognosis, and screening.
- Provide and receive effective feedback

Health advocate

- Recognize different points of view regarding culture, religion, beliefs, illness, disease, medicine, and medical practices and discuss in an open and non-judgmental manner.
- Describe how different social determinants of health influence how the patient copes with an illness, influences health, disease and disability, influences access to health care services and how they may or may not receive support.
- Identify emerging and ongoing issues for populations who are vulnerable.

- Identify points of influence in the healthcare system and its structure.

Professional

- Adhere to the WMU and University of Alberta, Faculty of Medicine and Dentistry Code of Conduct and to the Professional Standards for Students in the Faculty of Medicine and Dentistry.
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- Discuss the importance of context in the interpretation of professionalism.
- Discuss why each physician has the obligation to actively maintain professional competence, participate in peer/colleague assessment, and self-assessment as applicable.
- Explain how self-reflection facilitates the student's professional identity formation and shapes their approach to all patients.
- Discuss basic legal and ethical challenges that physicians face in practice and begin to apply key concepts to navigate these challenges.
- Give constructive and professional feedback and assessment to their peers and colleagues about attitudes, behaviors, practices and group work interactions in a structured manner.
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- Demonstrate punctuality.
- Recognize and appropriately respond to ethical issues encountered during the course. · ecognize factors such as fatigue, stress, and competing demands/roles that impact on personal and professional performance. Seek assistance when professional or personal performance is compromised.
- Contribute to Discovery Learning (DL) discussion in a respectful manner.

Oncology

Course Objectives

Medical Expert

- Discuss the pathogenesis of cancer, from initial transformation of the cancer cell to metastatic potential.
- Discuss the principles behind surgery, radiation, and systemic therapy and how they may be used to cure or palliate patients with cancer.
- Describe how comorbid medical conditions may impact on the ability of the clinician to successfully treat cancer.
- Describe differences in gender specific cancers, including gender predisposition to certain malignancies.
- Describe how pediatric and adult cancer patients differ in terms of risk factors, types of diseases that present, and treatment principles.

- Discuss the common toxicities of treatment for cancer and therapeutic strategies that can be used to minimize them.
- Recognize how patients present with cancer, including key clinical symptoms and signs -Discuss the clinical presentation, diagnostic work up, and treatment principles related to the following:
    - Breast neoplasms
    - Prostate neoplasms
    - Testicular neoplasms
    - Gastric neoplasm
    - Lung neoplasms
    - Colorectal neoplasms
    - Spinal cord compression
    - Malignant hypercalcemia
    - Kidney and bladder neoplasms
    - Hematologic conditions
    - Leukemia
    - Lymphoma
    - Multiple myeloma
    - Neutropenia
    - Anemia
    - Thrombocytopenia
    - Waldenstrom's Macroglobulinemia
    - Polycythemia
    - Stomatitis
- Demonstrate the ability to obtain a proper pain history and order analgesics appropriately
- Demonstrate the ability to perform a proper breast examination
- Explain the principles of screening for cancer and discuss the pros and cons of screening programs currently available for the most common cancers
- Demonstrate the ability to rationally order and interpret laboratory or other tests in managing the patient with cancer
- Interpret a complete blood count and describe an appropriate secondary work up for abnormalities discovered.
- Demonstrate the ability to break bad news in a simulated setting
- Recognize patients experiencing an oncology emergency and demonstrate appropriate management skills related to the problem at hand
- Demonstrate an understanding of the relationship between the following clinical presentations and oncology:
    - Nausea
    - Vomiting
    - Diarrhea
    - Hair loss (alopecia)
    - Mucositis
    - Xerostomia
    - Delirium
    - Dyspnea

- Infertility
- Dyspnea
- Altered bowel habit
- Constipation

- Demonstrate the ability to develop a differential diagnosis in determining the etiology behind symptom presentation in cancer patients
- Discuss the diagnostic work up and treatment principles related to the following common and/or important solid tumors:
    - Genitourinary cancers, with a particular emphasis on prostate and testicular cancers
    - Breast cancer
    - Gastrointestinal cancers, with a particular emphasis on colorectal cancer
    - Lung cancer (small and non-small cell)

Discuss the diagnostic work up and treatment principles related to the following common and/or important hematologic diseases:

- Acute myeloid leukemia
- Acute lymphoblastic leukemia
- Chronic lymphocytic leukemia
- Hodgkin's lymphoma
- Non-Hodgkin lymphoma
- Multiple myeloma
- Myeloproliferative disorders

Communicator

- Demonstrate the ability to recognize and diagnose delirium and discover its root cause, as well as manage the acute delirium situation.
- Demonstrate the ability to break bad news.
- Demonstrate the ability to be facilitative with peers, patients, families, caregivers, community resources and interdisciplinary team members.
- Gather information about a patient's beliefs, concerns, expectations and illness experience.
- Explain the importance of effective patient-centered communication in the patient-physician relationship and its effect on patient outcomes.
- Recognize and demonstrate best practice on how the verbal and non-verbal cues affect the patient-physician relationship and patient outcomes.
- Deliver information in a professional patient-centered manner and in such a way that is understandable, encourages discussion and participation in decision-making.
- Discuss patient encounters and the importance of treating patients with respect and maintaining patient confidentiality.
- Demonstrate awareness and sensitivity to human differences, including differences in age, gender, disability, sexual orientation, ethnicity, cultural background, socioeconomic or psychosocial factors.
- Provide and be receptive to constructive and professional feedback to and from peers and preceptors about their communication practices and group work interactions.

Collaborator

● Discuss the role that the physician and other members of the health care team play in the multi-disciplinary management of the cancer patient
● Understand the dual role of the clinician in managing individual patients as well as the cancer treatment system as a whole
● Demonstrate understanding of roles and responsibilities in a multidisciplinary health care team.

Leader
● Discuss the importance of continuity of care with other health care professionals and community organizations to provide coordinated care for patients.
● Discuss considerations when planning management and coordination of care, being aware of the community resources including home care and long-term care.
● Explain the role of the physician with regards to helping patients navigate the healthcare system.

Scholar
● Demonstrate the ability to use knowledge previously acquired in other courses in diagnosis and management of the cancer patient.
● Describe the role that clinical trials play in the development of new cancer treatments.
● Facilitate the learning of self and others in various small-group and team-based settings. ● Demonstrate ability to engage in self-directed learning based on reflective practice and life-long learning principles.
● Understand how to formulate a clinical question and search the literature using the library website and other resources.
● Research the information required (including evidence-based resources and other resources) in order to prepare for presenting possible diagnostic and management options for discussion.
● Critically appraise retrieved evidence and information and demonstrate integration of new learning.
● Apply the concepts of validity, importance and applicability to help clinicians answer clinical questions and patients' questions regarding therapy, harm, diagnosis, prognosis, and screening.
● Provide and receive effective feedback

Health Advocate
● Demonstrate an understanding of the impact of cancer on a global perspective, including differences in cancer rates and types between the developing and the developed world.
● Recognize the importance of public health promotion programs, such as tobacco cessation, in reducing the risk of cancer development.
● Identify community resources including home care and long-term care.
● Recognize the psychosocial aspects of cancer care delivery related to the ethical dilemmas and cancer treatment, including end-of-life decision making
● Recognize different points of view regarding culture, religion, beliefs, illness, disease, medicine, and medical practices and discuss in an open and non-judgmental manner.
● Identify points of influence in the healthcare system and its structure.
Professional

● Discuss key principles and dilemmas related to end-of-life care and decision making.
● Demonstrate respect, compassion, honesty, and caring in all activities related to the Oncology course.
● Adhere to the WMU and University of Alberta, Faculty of Medicine and Dentistry Code of Conduct, and to the Professional Standards for Students in the Faculty of Medicine and Dentistry.
● Give constructive and professional feedback and assessment to their peers and colleagues about attitudes, behaviors, practices and group work interactions in a structured manner.
● Demonstrate a sense of responsibility: taking initiative, carrying out assigned duties exhibiting dependability and self-direction.
● Demonstrate punctuality.
● Recognize and appropriately respond to ethical issues encountered during the course.
● Recognize factors such as fatigue, stress, and competing demands/roles that impact on personal and professional performance. Seek assistance when professional or personal performance is compromised.
● Contribute to Discovery Learning (DL) discussion in a respectful manner.

Health Systems Science 1, 2, 3 and 4

Course Objectives

Health systems science is a foundational platform and framework for the study and understanding of how care is delivered for patients and populations within systems of medical care, how health professionals work together to deliver that care, and how the health system can improve patient care and health care delivery. This course continues over 4 years and builds knowledge of core domains including health care structures and processes; interprofessional care; health care policy, economics, and management; clinical informatics and health information technology; global, population and public health; value-based care; health system improvement, design and systems thinking.

Medical expert

● Explain the fundamentals of how care is delivered to patients and populations within systems of medical care.
● Explain the fundamentals of how health professionals work together to deliver that care.
● Explain the fundamentals of how the health system can improve patient care and health care delivery.
● Explain the fundamentals of health care structures and processes; health care policy, economics, and management; clinical informatics and health information technology including the application of Artificial Intelligence and Big Data in medicine; population and public health; evidence-based medicine; value-based care; health system improvement, design and systems thinking.

Communicator

● Demonstrate the ability to be facilitative in communication and interaction with others.
● Deliver information in a professional manner and in such a way that is understandable, encourages discussion and participation in decision-making.

● Discuss patient encounters and the importance of treating patients with respect and maintaining patient confidentiality.
● Demonstrate awareness and sensitivity to human differences, including differences in age, gender, disability, ethnicity, and cultural background, socioeconomic or psychosocial factors.
● Provide and be receptive to constructive and professional feedback to and from peers and preceptors about communication practices and group work interactions.

Collaborator
● Describe the role and responsibilities of other healthcare professionals.
● Recognize one's own differences, biases, assumptions, and limitations that may contribute to inter-professional tension.
● Work collaboratively with others.
● Explain how to work effectively in a team to achieve an appropriate outcome.
● Interact respectfully and professionally with small group and team members and describe the value of team members

Leader
● Make proficient use of technology assisted learning as it is deployed in this course.
● Explain the role of the physician with regards to helping patients navigate the healthcare system.
● Discuss the concept of resource allocation in the management of the individual patient's healthcare within the whole health system.

Scholar
● Facilitate the learning of self and others in various small-group and team-based settings.
● Demonstrate ability to engage in self-directed learning based on reflective practice and life-long learning principles.
● Understand how to formulate a question and search the literature using the library website and other resources.
● Research the information required (including evidence-based resources and other resources) to prepare for discussions.
● Begin to critically appraise retrieved evidence and information and demonstrate integration of new learning.
● Apply the concepts of validity, importance, and applicability to help clinicians answer clinical questions and patients' questions regarding therapy, harm, diagnosis, prognosis, and screening.
● Provide and receive effective feedback.

Health advocate
● Recognize different points of view regarding culture, religion, beliefs, illness, disease, medicine, and medical practices and discuss in an open and non-judgmental manner.
● Describe how different social determinants of health influence how the patient copes with an illness, influences health, disease, and disability, influences access to health care services and how they may or may not receive support.
● Identify emerging and ongoing issues for populations who are vulnerable.

● Identify points of influence in the healthcare system and its structure.
● Explain the concept of social accountability, principles of community engagement in responding to the needs of the community.

Professional
● Adhere to the Wenzhou Medical University and University of Alberta, Faculty of Medicine and Dentistry Code of Conduct and to the Professional Standards for Students in the Faculty of Medicine and Dentistry.
● Define professionalism as the key values required in the profession, including honesty, integrity, maintaining appropriate patient boundaries, maintaining confidentiality, and a commitment to patient well-being.
● Define professionalism in the context of medical school, and within the medical profession, and to apply its principles to all activities, including during assignments, small group interactions, examinations, self-assessment, peer-assessment, faculty assessment, online in social media etc.
● Discuss the importance of context in the interpretation of professionalism.
● Describe how each physician has the obligation to actively maintain professional competence participate in peer/colleague assessment and self-assessment as applicable.
● Explain how self-reflection facilitates the student's professional identity formation and shapes their approach to all patients.
● Discuss basic legal and ethical challenges that physicians face in practice and begin to apply key concepts to navigate these challenges.
● Give constructive and professional feedback and assessment to their peers and colleagues about attitudes, behaviors, practices, and group work interactions in a structured manner.
● Demonstrate a sense of responsibility: taking initiative, carrying out assigned duties exhibiting dependability and self-direction.
● Demonstrate punctuality.
● Recognize and appropriately respond to ethical issues encountered during the course.
● Recognize factors such as fatigue, stress, and competing demands/roles that impact on personal and professional performance. Seek assistance when professional or personal performance is compromised.
● Contribute to Team Based Learning (TBL) and Discovery Learning (DL) and small group discussion in a respectful manner.

Program location

The students will complete most of the program at Wenzhou Medical University. The courses taught by UAlberta faculty will be in a blended format including both on campus in person and online synchronous and asynchronous sessions. Students will attend the UofA in person for a summer program between the second and third years of the program.

Program learning outcomes

Graduates of this degree program will be able to:

- Demonstrate clinical decision-making skills that integrate best evidence and acknowledge patient values.
- Apply basic knowledge of the etiology, pathogenesis, clinical features, complications, principles of prevention and management with emphasis on common and life- threatening illnesses across the age spectrum.
- Demonstrate knowledge on approaches to diagnosis and treatment with emphasis on common and urgent problems.
- Perform both complete and organ system-specific examinations appropriate to the age of the patient and nature of the clinical problem(s).
- Recognize and prioritize the urgency of a patient's clinical problems.
- List and prioritize a meaningful differential diagnosis with emphasis on common and urgent clinical presentations.
- Demonstrate the ability to select and interpret commonly employed investigations.
- Demonstrate appropriate use of selected procedural skills (diagnostic and therapeutic).
- Apply the principles of pharmacology and evaluate options for safe, rational, and appropriate drug therapy.
- Apply the scientific principles underlying evidence-based approaches to health maintenance, preventive screening, therapeutic, rehabilitative, and palliative interventions.
- Demonstrate a basic understanding of the psychological, interpersonal, family, cultural, societal, and environmental determinants of health and illness across a diverse population.
- Recognize and cope with uncertainty and ambiguity in clinical decision-making and care.
- Demonstrate critical reflection and inquiry to enable practices of life-long and self-directed learning.
- Assist in teaching others and facilitate learning where appropriate.
- Demonstrate knowledge of forms of rigorous inquiry in research methodologies and describe an appropriate methodology to a specific research question.
- Demonstrate an understanding of ethics as it relates to medical research.
- Demonstrate knowledge of the professional practices and scholarly activities required of the profession.
- Receive, incorporate, and provide feedback in an appropriate and timely manner in their daily learning and practice.

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APPENDIX B1

Meeting Minutes

Committee	**FoMD Faculty Council**		
Members:	**Dr. B Hemmelgarn (Chair)** **As per list attached** ***Quorum is represented by those faculty members member present.***	**Date :**	**September 21, 2021**
		Time:	**4:00pm**
Called to Order:	**4:01pm**	**Location:**	**Via Zoom**
Guests	**Elder Rick Lighting; Wendy Rodgers; Michael Ironside; Lise Warick; Tyler Kuhnert;**	**Scribe:**	**Erin Neil**
	Elder Rick Lighting – provided opening prayer		
Approval of agenda	**Approved by consensus with no additions.**		
Approval of previous meeting Minutes	**Date: May 18, 2021** **MOVED by K. Aitchison and SECONDED by G. Funk to approve the agenda as circulated. ALL IN FAVOUR. CARRIED.**		
Meeting Attachments:	**Provided via email -**		

Topic	Summary	Action by whom	Target Date	Status

1. Dean's Report	**Dr. B. Hemmelgarn provided updated:** · **Thanked everyone and Elder Rick Lighting for opening the meeting in a very special way.** · **Introductions of new faculty will be done at the November, 2021 meeting.** · **October 4, 2021 – Town Hall – College of Health Sciences – more information to follow.** · **Strategic Planning stage for College of Health Sciences.**	
2. Vice-Dean Faculty Affairs		
a. FAR Demo	**Dr. Kuninmoto provided updated:** · **Do not feel that in the future the Faculty will be able to have its own Annual Report Online system, as the supports will not be available.** · **The University of Alberta has developed the FAR system for annual reporting.** · **Comparison of the current ARO and the new FAR system were provide.** · **Dr. Wendy Rodgers, Deputy Provost and Michael Ironside presented a demo of the FAR system.** · **FAR would be used for the next reporting cycle.** **Motion - Faculty Council approves the Faculty of Medicine and Dentistry moving to the University's Faculty Annual Report (FAR) replacing the current Annual Report Online (ARO) starting with the July 1 2022 - June 30, 2023 academic year. MOVED BY: N. Kassam and SECONDED BY: V. Daniels. (139 Votes: Yes 124 No 4 Abstained 11) CARRIED.**	

b. FoMD Guiding Principles for International Engagement	**Dr. Hemmelgarn presented:** **Opened for discussion.** **International Engagement Principles changes to:** · **Add in wording about not engaging with countries with sanctions imposed by the Federal Government.** · **Work with NGO's and various countries.** · **Global Health – umbrella – International Engagement – purpose is to guide education – can be used to guide Global Health.** · **On principles statement that was shared – the statement from the office of International Engagement office is Incorporated.** · **Modifications will be made.** · **International Engagement Advisory Committee will be created.** **Motion: To approve the Faculty of Medicine & Dentistry Guiding Principles for International Engagement pending review by the International Engagement Advisory Committee and to be brought back to Faculty Council for further approval. Moved by: M. Lang. Seconded by: C. Fernandez-Patron (123 Votes: Yes 97 No 12 Abstained 13). CARRIED**	
c. Bachelor of Biomedicine Dual Degree	**Dr. Hemmelgarn presented:** **Opened for discussion.** **Motion: Faculty Council supports the creation of a new Bachelor of Biomedicine degree program for students registered in the Alberta Institute at Wenzhou Medical University. Moved by: T. Hillier. Seconded by: S. Persard. (110 Votes: Yes 57 No 22 Abstained 31). CARRIED.**	
d. Gender & salaries; Census Results for EDI – FoMD, U of A	**Postponed to be November 2021 meeting.**	
e. GFC Update	**Dr. J. White provided update:** · **GFC has been discussing COVID.** · **3 College Deans has been discussed.** · **Policies and procedures with respect to graduate student supervision have been established.**	
3. Vice Dean Education		

a.	Radiation Therapy Program – Class of 2021	**Dr. Schipper presented:** **Motion: That Faculty Council Approve the proposed Radiation Therapy Program Class of 2021 Fall Graduands list that appears in this presentation. Moved by: M. Lewis. Seconded by: A. Underhill. (100 Votes: Yes 96 No 0 Abstained 4). CARRIED.**		
b.	MD Curriculum Program Committee – Terms of Reference	**Dr. Schipper presented:** **Motion: That Faculty Council Approve the MD Curriculum and Program Committee (MDCPC) Terms of Reference as presented in the meeting attachments. Moved by: V. Daniels. Seconded by: L. Sonnenberg. (97 Votes: Yes 86 No 0 Abstained 11). Carried.**		
c.	MD Admissions Report	**Postponed to November 2021 meeting.**		
d.	Accreditation Update	**Dr. J. Rodgers and Dr. R. Kearney presented:**		
4.	Vice Dean Research	**Dr. R. Lenher provided update:** · **Masking and distancing required in all research spaces.** · **Research funding – the Faculty has been very successful in receiving close to $38Million in research funding for 412 projects.** · **Successful from the Canadian Research Institute of Health research competition Faculty has been successful with 14 projects.** · **Successful grants worth $11Million for early career investigators.**		
5.	Other Business	**None**		
6.	Announcements	**Adjourned at 5:53pm**		
Next Meeting		**November 16, 2021**		

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APPENDIX B2

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MD CURRICULUM AND PROGRAM COMMITTEE (MDCPC)

MINUTES

Date: 2021 September 16
Time: 1000 to 1200 hours
Location: Zoom

Voting members indicated with underline. Chair votes only in the event of a tie. (28 voting Members- 14 needed for Quorum)

Chair: Dr. Darryl Rolfson
Members: Dr. Lillian Au, Dr. Lana Bistritz, , Dr. Vijay Daniels, Dr. Brock Debenham, Dr. Cathy Flood, Ms. Angie Hill, Dr. Hollis Lai, Dr. Frances Plane, Dr Mark Prins, Dr Anna Rissanen, Dr. Joanne Rodger, Dr Eniola Salami, Dr. Jenny Souster, Ms. Sietske Speerstra, Dr Laura Stovel, Dr Jaime Yu

Recorder: Angie Hill
Call to Order: 10:05am
Adjourned: 12:08pm

Student Reps: Ms Fisayo Aruleba, Mr. Jesse Lafontaine, Ms. Auriele Volk

Regrets: Dr. Brenda Hemmelgarn, Dr. Shirley Schipper, Dr. Cheryl Goldstein, Dr Carol Hodgson Birkman, Dr Nicole Cardinal, Mr. Murray Diduck, Dr. Daniel Livy, Dr Rebecca Mitchell, Dr Steven Patterson, Ms Chiemerie Chris-Iwuru, Dr. Peggy Sagle

Guests: Dr Tracey Hillier

PURPOSE: Oversight of the MD Program & Curriculum

#	Agenda Item	Summary	Action	Assigned to	Deadline
1	Call to Order	11:02am			
2	Approval of Agenda	Added item f. Q&A new restrictions and move to online Motion to accept agenda as presented with the added item: Dr Joanne Rodger, seconded by Dr Lillian Au	All in favor, no opposed, no abstained Agenda Approved		
3	Approval of Minutes	Motion to accept meeting minutes as presented: Dr Hollis Lai, seconded by Dr Lillian Au	All in favor, no opposed, no abstained Minutes Approved		
4	Announcements				
5	Standing Items				
	a. Accreditation Update	Dr Joanne Rodger: • All of the subcommittees have met for their first meeting by next week meaning the cycle of work is picking up for all of us in terms of meetings. • There have been a few recommendations made already with the information being	Just a quick reminder to all that if there has been information requested to please respond in a timely manner, so that we are not holding up the subcommittees and the work that is needed to be done.		

		shared with the groups in which they pertain to. • The accreditation website has launched and the link is also on the main MD Program website.			
	b. Policy Review	**Electives Policy** : Dr Lana Bistritz (https://docs.google.com/document/d/1jUNIeA-D3vatV-K_QVF1PQHH_irgZpJf-cErI2FTdEo/edit?usp=sharing) • This policy exists to define everything about electives, the length, the application procedure. • It is the responsibility of the students to organize their own electives (we do not do that for them). • Every student has to complete a minimum of 10 weeks of electives before the end of clinical term of year four. A total of 10 weeks have to be completed at a CaCMS or LCME accredited medical school. The electives has to be at least 2 weeks of duration, none can be more than 4 weeks. • The Third year electives are a four week requirement and the fourth year requirement is a 10 week requirement. They can carry forward some of their credits from summer electives between year two and three to apply to their year three and four electives. • We have subscribed to the national policy to limit the number of clerkship electives in one CaRMS entry discipline to a maximum of 8 weeks. This is the Elective diversification policy. • Students have to submit the name of the preceptor who they worked with prior to the end of the elective through the UME office. You can cancel up to six weeks prior to the start of the elective.	Dr Brock Debenham moves to approve the revisions to the Electives policy as presented. Seconded by Dr Laura Stovel. All in favor, no opposed, no abstained. **Motion carried.**		

		• All students have to submit an evaluation within 21 days which has been changed from 14 days • Add- what happens when a student can't find an elective for their two week block, or if their elective gets cancelled last minute. What are the backup plans or what support does a student receive? - We know that Norma handles this is the background, but we should have the steps explicitly added. • Director, Electives- change to Coordinator for Electives and Selectives throughout the document to state current role name. **Quality Review of Electives Procedure:** Dr Lana Bistritz (https://docs.google.com/document/d/100bIdZ1y26Hwi-fukLkSHTO8tWG-u-ogaFuIr9QR3ns/edit?usp=sharing) • The quality review of electives procedure is to make sure that these are actually quality outcomes standard that it is trying to meet. • Update Director, Electives to Coordinator for Electives and Selectives throughout the document to state current role name. • New electives go to the Coordinator for Electives to review objectives, level of supervision, working conditions etc. The Coordinator for Electives can request additional information if needed. When the Coordinator of Electives is satisfied with it, it can be added to the electives catalog. • Then assessing the quality of current electives, the students have to complete an evaluation within 21 days and there is an automatic flag in MedSIS. If there is a	Dr Brock Debenham moves to approve the amended document as presented. Seconded by Dr Joanne Rodger. All in favor, no opposed, no abstained. **Motion Carried.**		

		poor rating for anything, the Coordinator of Electives would then follow up with the student or the elective site. • Electives that are not listed in the electives catalog, we assume they are satisfactory because they are provided at accredited schools in North America. Same evaluation process, same follow-up process, poor ratings would again go to the Coordinator for Electives following the same process. **Booking & Confirming Electives Procedure** (https://docs.google.com/document/d/1hM0bbjUCfFv80RBA318dcMuTr1Op1Xkm5N4X9s_-NM4/edit?usp=sharing) **Global Health International Electives Policy** (https://docs.google.com/document/d/1Wo5l6vI0bV3kOx57AiVaYipvuLIMDoUueCFvgxeZkrA/edit?usp=sharing)	Deferred to next meeting Deferred to next meeting		
6	Old Business				
	a. Technical Standards Policy	**Technical Standards Policy** : Dr Brock Debenham (https://docs.google.com/document/d/1Oi0A33p5CBBKMjaBTz_5U__xow1QtNJ-/edit?usp=sharing&ouid=102705638666900098181&rtpof=true&sd=true) • Feedback from the last meeting was to include explicitly our accommodations and process with individuals with disabilities. We have used what UBC has used and changed it to our local context and we have also as suggested, updated the definition of technical standards from the CaCMS website listed in the CaCMS accreditation. • Dr Jaime Yu notes that we should move away from the term disabilities per se and focus on maybe individuals with noted in comments or sometimes a	Dr Lana Bistritz motions to approve this amended policy as presented. Seconded by Dr Jaime Yu. All in favor, no opposed, no abstained. **Motion Carried.**		

		language if implied if its consistent enough for one reason.			
	b. Mandatory Vaccinations	We can confirm that all but one of our medical students in all four years are vaccinated. We were very happy to see the announcement last Monday that vaccinations have been made mandatory, not just at the UofA but in all major universities in the province.			
7	Reports				
	a. MSA, BMSA, IMDSA	MSA: There is a little uncertainty with preclerkship returning back to online learning, but know our programing is in a good place for that and we can easily adapt. MSA VP Educ: No current updates BMSA: No current updates IMDSA: No current updates			
	b. Curriculum	Item d. Hybrid delivery of curriculum, so will cover update there.			
	c. OAW	Dr Goldstein is not here today, but Dr Rolfson offered a quick update on the White coat ceremony. Unfortunately we had to cancel the student white coat ceremonies for both year one and year two class. This was a very difficult decision, but hope to offer this spring and will be very intentional about cancelling it early if we have any concerns that it might be cancelled.			
	d. Assessment	No update today as Dr Daniels is unavailable to attend today's meeting.			
	e. Admissions	Dr Stovel: There are a number of initiatives underway and will bring it back to the next meeting with more details. At the next Faculty Council meeting we will be giving a brief overview of the composition of the current class and a look at the numbers of applicants over the last cycle.			
	f. Program Evaluation	Ms Sietske Speerstra: A quick update is that Dr Livy has been updating the terms of reference, so he will be bringing that here soon. • We have also been working on improvements to our evaluation process			

		to make it more transparent and the performance process of evaluating courses, and our clerkship evaluation reports are coming out soon. • We are in the midst of some data collection; the diversity data on our students and we are also collecting alumni data and GQ data is underway as well.			
	g. Academic Affairs	Dr Brock Debenham: Showed the Professionalism terms of reference to vote on at the next meeting: • For background, there used to be an undergraduate medical education professionalism committee that was run by Dr Gourishankar. The work was transferred to the Assessment committee and Associate Dean. • After reviewing this process, we would like to bring it back, the reason being that if there is a concern regarding a student there are multiple voices at the table- not just the Assistant Dean as it stands right now. • We are proposing to bring this committee back with a varied membership of faculty, students and residence and it would be to review major concerns- higher consequence professionalism concerns.	Note from students: Please update the student governments to reflect the changes with the BMSA, IMDSA and MSA Share the updated professionalism policy prior to the next MDCPC meeting. Add to the next meeting agenda.	Dr Brock Debenham Ms Angie Hill	10/21/2021 10/21/2021
8	New Business				
	a. Communications	UME is currently working through communications planning and we've asked Jordan Carson to train on the ramping strategy that the university is using for the branding movement. • You might see websites that are changing, and we should be adjusting our email signatures, PowerPoint presentations should be updated and so on.			

	• The UME is working on sending out Weekly updates on Tuesdays where we are trying to capture all of the quick snap shots of information for students. • If you have anything that you would like us to include, to limit the number of emails being sent to the students. Please send any items to Angie by Friday each week, and we will add it to the communication to be sent on the following Tuesday.			
b. Strategic Planning Preparation	October 5th & 6th is the MD Program Strategic Planning for 2021. • Dr Darryl Rolfson has been meeting with Don Winn who is the consultant group assisting us over the last three months. • The technique is to start the design phase with a lot of the dialogue: the Mission, the vision, values and a five year strategic roadmap and we'll spend most of the time to look at the definitions for six strategic focus areas, and a five year headline that goes with each one. • We are focusing on the first three stages: October 5th & 6th with the purpose defined to think that the first half of the day is to define the vision, mission and values and then the remaining day and a half is working on what they call the roadmap. • The idea with the design is to create something for discussion, a living document that needs to be challenged and revised certain strategic focus areas may simply drop entirely	Dr Darryl Rolfson to share a word document that summarizes the slides that were shared. Please send any suggestions via email to Darryl.	Angie Hill	10/21/2021
c. Proposal for Omnibus Course	The Omnibus course was approved in October of 2020, and what it did was it took everything that we used to be of course in the MD program and we now call them course elements. Those course elements belong to one of four courses or omnibus courses that represent each of the four			

	years in the program that was presented to faculty council for approval last year. Based on the discussions, we were given temporary approval for two years and were to come back in one year and report on progress. • Feedback has been good. People want to continue with the omnibus course and recommend that for the coming year. • Dr Jaime Yu states: The delivery of the curriculum and instruction and flexibility, it's been a very strong positive for those reasons. The only thing that has come up is that at the end of last year, is on a student assessment side of things when we have a large omnibus course, and the fact that we are following primarily calendar policies. The issues about course elements and course components and what constitutes a pass versus a remediation. Those types of details need to be very clear and transparent and capable for coordinators as well as for students, because the danger of a big course is the majority of people are doing well and go through. It's our student who is having difficulties where we want to be able to adequately support them, but also need to have adequate policy in place to both provide that remediate or provide more feedback about your progress when needed. • Dr Brock Debenham states: It would be nice if there was a course outline for all four years that lays everything out and makes it easier to defend if there are any issues during ASC time. We do have year one and two omnibus course outlines currently. • Early in the new year we should be looking at whether this is going to be an ongoing, more permanent change and	Dr Bistritz and the curriculum team to work on the omnibus course outline for years three and four itemizing the elements that must be passed. To be brought back to a future MDCPC meeting.		

		then we'll have to get some discussions going with other stakeholders and across the preclerkship and clerkship courses.	Dr Hollis Lai motion regarding the continuing the omnibus course. Seconded by Dr Joanne Rodger. All in favor, no opposed. **Motion Carried**		
	d. Hybrid delivery of Curriculum	Deferred to next meeting			
	e. Alberta Institute proposal	This topic is being brought to Faculty Council and this does have implications for us, and although the decisions about approving this degree program that will be discussed is not our final decision. I would ask that people think about the following three things during the presentation from the MD perspective: 1. What are the potential benefits 2. What are the risks 3. Stewardship Dr Tracey Hillier Presenting the Alberta Institute which is an existing collaboration between our faculty and the Medical university in China. There are several initiatives: ● Faculty development program where department chairs and other senior leaders were matched up with senior leaders in our faculty and spent 3-6 months in partnership learning how leadership and management is done here. ● Graduate student part of the institute which is primarily involving dentistry and psychiatry for Masters and PhD students (still in the works) ● Medical school collaboration (which is of most interest to MDCPC). There has been elements of this relationship going on since 2017. In 2019, there was discussion of this at MDCPC. Essentially the faculty is leveraging the work, and the stored values of the curricular materials in the preclerkship curriculum, and using that building a	Link to information re: Alberta Institute proposal: Sept 2021 UAlberta WMU Dual Degree Program Template A.pdf		

		program together with partners at Wenzhou Medical University in China, also with being a source of revenue for the faculty. • We are submitting a proposal to develop a Dual Degree program • 60 students will enter the program each year. • We have one or two courses at a time that are being taught by our faculty, students are enhancing their English language abilities, lots of active learning. • Years 3 & 4 for them are our preclerkship curriculum. • We would offer them a degree to these students at that point. If the degree does not go through the institute doesn't go away. The proposal is then to offer them a degree and then they will do their fifth year as a clerkship. At that point they can get an MD degree from WMU. An important point is that we are not giving an MD degree. • The students go back and practice in China • The only time that the students would be here in person would be in the summer between their years 2 & 3 when they finish doing their preclerkship. To have a chance to come and really be embedded in our learning environment. This has been in the works with the University of Alberta advisory team since 2019, and was brought to MDCPC in 2019. Once this moves through the faculty council, if their support for it, it will go through the GFC committee, academic planning committee and ultimately the board of governors- so the same rigorous program any other degree would undergo • because the teaching will be after hours there will be a stipend offered. It is deliberately planned in a way that is not			

		taking away from medical student experience. • $5m-$6m costs but $8-10 million coming in. A large portion of the money will be going to social accountability initiatives and bursaries for students To wrap up, Dr Rolfson states the final note: Faculty Council provides the stewardship of our external relationships, including the disposition of the funding, the vetting of proposals and the criteria upon which decisions are made. This will be addressed in the upcoming Faculty Council meeting.			
	f. Q&A new restrictions and move to online	With the announcement made yesterday: • The pressure on surgery is the one that is being impacted the most by the current changes within the health system. Dr Jenny Souster updated that Surgery has approximately 150 students that are supposed to come through surgical electives and rotations in the next couple of months. The goal is to make sure that, specifically the year fours, do get their electives. If the year threes end up having to be rescheduled they would certainly get priority in the coming scheduling times. • There are some students that are cancelling electives, and there is some concern over the professionalism flag being put on students if they were dropping their electives before the six weeks of notifications- As already noted this will not be a concern. • The normal surgical caseload is 55% urgent emergent where right now we are down to 30% which includes the pediatric side as well. So everything is affected right now. Curriculum: Already has mostly hybrid learning in place, so there are zoom links for both large and			

		small classrooms. The curriculum team is finalizing the last details with the zoom links and making sure that the emails have been distributed to all of the DL preceptors, lecturers, and instructors. • Physical exams: we were already anticipating virtual delivery, we've already done live demos of all the appropriate physical exam.			
9	Adjournment	12:08pm			
10	Next Meeting	November 18, 2021			

Dr Darryl Rolfson, Chair

Ms Angie Hill, Recorder

Appendix B3

Minutes of MD Program Meeting discussing the collaboration with Wenzhou Medical University and the sharing of curriculum and assessments. This collaboration will go on to be known as the Alberta Institute: (relevant section highlighted in yellow)

Date: 2019 June 20
Time: 1100 to 1300 hours
Location: Katz 1-004

Chair: Dr Tracey Hillier

Lucia Popovici 1110 1200

Attending: Dr Lana Bistritz, Dr Ron Damant, Mr Martin Marshall, Dr Tammy McNab, Dr Joanne Rodger, Ms Jodi Hawthorne, Dr Hollis Lai, Dr Peggy Sagle, Ms Tibetha Kemble, Ms Brittany Lissinna, Dr Steven Patterson, Mr Andrew Volk, Dr Lillian Au, Dr Dan Livy
Regrets: Dr Curtiss Boyington, Dr Cheryl Goldstein, Mr Quinn McLellan, Mr Adam Mullan, Dr Helly Goez, Dr Sita Gourishankar, Dr Vijay Daniels, Dr Carol Hodgson, Mr Taylor Heinzlmeir, Dr Andrew Holt, Dr Karen Forbes, Ms Joanna Gye, Mr Murray Diduck
Calling In: Dr Jill Konkin
Delegate: Dr Melanie Lewis
Guest: Mr Kenton Boutillier

PURPOSE: Oversight of the MD Program & Curriculum

#	Agenda Item	Summary	Action	Assigned to
1	Call to Order	Dr Tracey Hillier called meeting to order at 1105		
2	Treaty Acknowledgement	The University of Alberta acknowledges that we are located on Treaty 6 territory, and respects the histories, languages, and cultures of First Nations, Metis, Inuit, and all First Peoples of Canada, whose presence continues to enrich our vibrant community		Dr. Tracey Hillier
3	Approval of Agenda		Approved	
4	Approval of Minutes		Approved	
5	Announcements			Dr. Tracey Hillier
6	Presentation			
7	Updates			Dr. Tracey Hillier
	a. Integration Update	Dr Tracey Hillier updated the committee that the pilot integration courses are foundations block, endocrine block and MSK block. We are coordinating the content that has previously been known as systems block and physicianship into one coherent course.		Dr. Tracey Hillier
	b. Working Group Update	Dr Tracey Hillier updated the committee that clerkship and preclerkship content (including objectives, assessments, etc.) is being		Dr. Tracey Hillier

		reviewed at a series of working groups that are being organized over the spring, summer, and into the fall. The working groups include subject specialists, generalists, students, and MD Program staff.		
	c. MD/PhD	Dr Tracey Hillier introduced the idea of a longitudinal MD/PhD program that will be piloted beginning in Fall 2019. This type of program has been the goal of the MD Program for a number of years and was previously discussed at Faculty Council in 2016. This longitudinal approach will align with the research learning community that we talked about last year. Some traction has been made in the last couple of months and there is a continuum of student involvement and interest in research. We may have students who want to pick up a project to help them with the CaRMS application. Then we have the students who are more committed who would like to do the MD/STIR program. We have a bit of a gap around MD/MSC which the faculty is exploring how that could go. Dr Underhill had talked about an MD post-Doctorate for students who have completed their PhD and would like to continue to do research. We will work with the CIP program for residents and what does that content look like. Dr Michelakis has a lecture series that he does. We are going to consolidate those and try using existing things that are happening and look at a timeline and have a 2 year cycle. For this upcoming academic year we have a cohort of students who are in progress with a PhD program and are near completion. We will pilot a longitudinal integration of their research and the MD program. This will be done in parallel. The PhD program runs year round. There might be elements of clinical skills and LCE which the students do off cycle from other students.		Dr. Tracey Hillier
	d. China	Dr Tracey Hillier shared that the Global Summer Medical Program (which is presented in collaboration with the FoMD's International Office and several universities in China, including Wenzhou University) will begin in mid-July with about 50 students who will be participating in 4 weeks of programming. We have students coming in mid-July. As well, in the fall there will be a cohort of graduate students and faculty coming from universities in China for faculty		Dr. Tracey Hillier

		development. There will be opportunities for our faculty to go do some teaching if there is interest. The Interim Dean has signed an agreement to share elements of our pre-clerkship curriculum that will include assessment and core content. There are more details to be worked out.		
	e. IHIP	Ms Tibetha Kemble informed the group that 11 Indigenous students have been admitted to the program this year.		Ms Tibetha Kemble
7	MSA Report	No update		Mr. Taylor Heinzlmeir Mr. Andrew Volk Mr. Quinn McLellan
8	Old Business			
	a. Professionalism Forms	Tabled		Dr. Vijay Daniels Dr. Daniel Livy
	b. Policy Compliance (8556) (Integration)	Tabled		Dr. Helly Goez
	c. Unmatched Medical Learner Policy & Student Category	Tabled		Dr. Tracey Hillier Mr. Murray Diduck
	d. 5th Year Students from other programs for electives	Tabled		Dr. Tracey Hillier
	e. Grande Prairie Update	The 4th year Grande Prairie program is being piloted next year. Dr Johan Bolton is the clerkship coordinator. 6 students have been confirmed. Dr Moran is supportive and that the geriatrics component and is available to help in whatever capacity.		Dr. Jill Konkin
9	New Business			
	a. Assessment Committee Update	Dr. Tammy NcNab discussed that students in year 1 and 2 of the program have up to and including the last business day prior to the next academic year to complete outstanding coursework. Dr. Tammy McNab discussed that students in all years of the MD program will have two	Motion by Dr Tammy McNab and seconded by Mr Andrew Volk. **MOTION PASSED**	Dr. Tammy McNab

		attempts to achieve a passing grade on each assessment or examination, throughout the program.	Motion by Dr Tammy McNab and seconded by Mr Andrew Volk. **MOTION PASSED**	
10	Adjournment	12:50		
11	Next Meeting	**Thursday, July 25, 2019, 12 am to 2 pm, Katz 1-004**		

Dr Tracey Hillier, Chair
Associate Dean, MD Program

Lucia Popovici, Recorder
Executive Assistant, MD Program

Part B: Campus Alberta Quality Council Review

As noted at the beginning of Part A, given a positive outcome from the System Coordination Review, the Minister may refer the proposed program to the Campus Alberta Quality Council for quality assessment, the second stage of review.

The onus is on the applicant institution to satisfy Council that the level of learning to be achieved is consistent with that which is expected at the proposed degree level, that the program has sufficient breadth and rigour to meet national and international standards as outlined in, for example, the Canadian Degree Qualifications Framework (CDQF), and that the program is comparable in quality to similar programs (if any) offered in Alberta and elsewhere. The program proposal should demonstrate how Council's program quality standards and any applicable guidelines have been addressed and describe any unique dimensions that set the program apart from similar programs thus providing new educational opportunities for students.

NOTE: Part A of the program proposal may undergo changes as a result of the System Coordination Review. It is important that Part A be up-to-date and complete before it is forwarded to Council. Building on the information provided in Part A, the program proposal that is sent to Council should contain the following additional information. When possible, links to existing policy documents and institutional policies should be provided, rather than recopying them in response to questions.

SECTION 5: PROGRAM SPECIFICS

5.1 Program Structure and Learning Outcomes

5.1.1 *Describe the program's learning outcomes and how they were established. How will the achievement of the learning outcomes be evaluated? Providing a mapping of the courses to the learning outcomes, particularly in professional programs, is helpful:*

Learning Outcomes

By the end of the program students will be able to:

- Demonstrate clinical decision-making skills that integrate best evidence and acknowledge patient values.
- Apply basic knowledge of the etiology, pathogenesis, clinical features, complications, principles of prevention and management with emphasis on common and life- threatening illnesses across the age spectrum.
- Demonstrate knowledge on approaches to diagnosis and treatment with emphasis on common and urgent problems.
- Perform both complete and organ system-specific examinations appropriate to the age of the patient and nature of the clinical problem(s).
- Recognize and prioritize the urgency of a patient's clinical problems.
- List and prioritize a meaningful differential diagnosis with emphasis on common and urgent clinical presentations.
- Demonstrate the ability to select and interpret commonly employed investigations.
- Demonstrate appropriate use of selected procedural skills (diagnostic and therapeutic).
- Apply the principles of pharmacology and evaluate options for safe, rational, and appropriate drug therapy.

- Understand the scientific principles underlying evidence-based approaches to health maintenance, preventive screening, therapeutic, rehabilitative, and palliative interventions.
- Demonstrate a basic understanding of the psychological, interpersonal, family, cultural, societal, and environmental determinants of health and illness across a diverse population.
- Recognize and cope with uncertainty and ambiguity in clinical decision-making and care.
- Demonstrate critical reflection and inquiry to enable practices of life-long and self-directed learning.
- Assist in teaching others and facilitate learning where appropriate.
- Demonstrate knowledge of forms of rigorous inquiry in research methodologies and describe an appropriate methodology to a specific research question.
- Demonstrate an understanding of ethics as it relates to medical research.
- Demonstrate knowledge of the professional practices and scholarly activities required of the profession.
- Receive, incorporate, and provide feedback in an appropriate and timely manner in their daily learning and practice.

How the learning outcomes were established:
The learning objectives of this program align with the objectives of the University of Alberta MD Program for the Preclerkship curriculum. The objectives were developed through an iterative Delphi process involving faculty, current and former students with input from allied health professionals. The resulting objectives were then shared with the Faculty for input and further refinement.

How the achievement of the learning outcomes be evaluated:

Achievement of learning outcomes will be evaluated through a process of continual education quality improvement which includes regular review of feedback from learners, review of student performance on objectives, linking of learning objectives to low and high stakes assessment items and annual course objective and faculty teaching performance review.

5.1.2 *Students are expected to demonstrate independent scholarly activity applicable to the degree level and expectations of its graduates (see the CDQF). Describe the academic culture that will nurture and support student scholarly and creative activity.*

Students in this dual degree program will be taught by University of Alberta FoMD faculty and held to the same curricular expectations as undergraduate students in similar programs in the Faculty of Medicine and Dentistry including students in the MD Program. The curriculum will be delivered in a way that presents material in a progression from basic science to clinical application, building on foundational knowledge in a sequential way, which will nurture and support student inquiry as well as scholarly and creative activity. This program will emphasize lifelong learning, problem solving skills, teamwork, and collaboration.

5.1.3 *For undergraduate degrees, demonstrate (in a table, if possible) how the program meets the relevant section of CAQC's Expectations for Design and Structure of Undergraduate Degrees.*

Standard	*How CAQC's Expectations for Design and Structure of Undergraduate Degrees will be met*
1. **Faculty and staff** – The program is supported by an appropriate number of suitably qualified academic faculty and instructional staff to develop and deliver the degree program. Faculty	

have an appropriate level of scholarly output and/or research or creative activity for the baccalaureate program.

2. **Academic policies** – The program has academic policies including dealing with admissions, promotion and graduation requirements, appeals, and academic dishonesty consistent with the level of the degree program.

3. **Resource capacity** – The program is supported by the physical resources, both start-up and development, needed to assure the quality of the degree program. These include, equipment, library and learning resources (physical and electronic), laboratories, computing facilities, specialized equipment, etc. There is an institutional commitment to maintaining and supplementing resources and equipment as needed to meet standards applicable to the field.

4. **Credential recognition** – The credential can be recognized and accepted by other post-secondary institutions, employers, and professional bodies, where applicable. There is an appropriate fit between the nomenclature of the credential and the content of the degree.

5. **Program delivery** – Learning methodologies are the methods of delivery that will be used to achieve the desired learning outcomes at an acceptable level of quality. The faculty has demonstrated that it has the expertise and resources to support the proposed methods of delivery and ensure their effectiveness. The faculty has experience attending to the learning needs of students in similar health sciences programs and supports their engaged and active learning.

6. **Program content** – The program offers education of sufficient breadth and rigour to meet relevant national and international standards. The content of the program, in both subject matter and outcome standards, is appropriate to the level of the degree program and the field of study. Its curriculum is current and reflects the state of knowledge in the field. There is an established program evaluation process to maintain the currency of the program and the quality of its learning outcomes.

7. **Program structure** – The structure of the degree is similar to the "2 + 2" design. The first 2 years are based on the curriculum of the medical school at Wenzhou Medical University, a robust curriculum well regarded in China. Graduates of the program have a pass rate among the top 10% in China, ranking 5th among colleges and universities nationwide in 2015. UAlberta is responsible for teaching a 3-credit course during the first year and 7 credits during the 2nd year of the program. The 3rd and 4th years are based on the curriculum of the first two academic years, the "Preclerkship" of the MD Program at the University of Alberta. The students complete a 5th year in clinical medicine. The credits from that 5th year of study are not included in the requirements for the UAlberta degree component of the proposed Dual Degree Program. However, students must complete all of the requirements of the 5 year program to receive either degree.

8. **Program evaluation** – The program is subject to a formal, approved policy and procedure requiring a periodic review and improvement process. The procedure includes assessment of the program against the institution's own learning outcome standards for the program, and assessment of individual student work in the terminal stage of the program against program outcomes.

The proposed program also meets the following standards for blended, distributed or distance learning.

Institutional commitment

Institutional commitment – The mandate of the University of Alberta is: "*Within a vibrant and supportive learning environment, the University of Alberta discovers, disseminates, and applies new knowledge for the benefit of society through teaching and learning, research and creative activity, community involvement, and partnerships. The University of Alberta gives a national and international voice to innovation in our province, taking a lead role in placing Canada at the global forefront".* The academic plan for the proposed Dual Degree Program and these goals of the institution and its policies are well matched. Both WMU and the Faculty of Medicine and Dentistry within the University of Alberta agree to create and sustain the program for a period sufficient to enable all admitted learners to complete a degree in the published time frame. That time frame is appropriate and relevant for the learners for whom the program is intended and for the specific area of study addressed by the program.

Institutional ownership of the program

Collaboration and joint delivery –The responsibility for program quality will be shared jointly, even though the onus for quality rests ultimately with the University of Alberta with negotiated permission to amend materials if changes are necessary to meet institutional standards of quality.

Risk management and mitigation – The Faculty has in place appropriate risk management provisions, including those that ensure that technological infrastructure is stable, reliable, well maintained and secure, that a disaster recovery plan is available in the event that servers or other technologies fail, and that learners will not be adversely affected should an agreement with a partner or contractor be abrogated. The program will be using a learning management and delivery technology developed by a team in the Faculty of Medicine and Dentistry which included the Program lead, that system has been robust in the synchronous, asynchronous and distance delivery of the MD Program Preclerkship curriculum for the past 8 years including extensive distance delivery during the past 1.5 academic years during the COVID pandemic. The new Dual Degree Program will hire dedicated staff to manage and mitigate risk to support this infrastructure and work collaboratively with that team on an ongoing basis to ensure stable delivery of the program.

Privacy, identity and confidentiality – Working with the Office of the Registrar, appropriate safeguards are in place to assure the authentication of learner identity. The Faculty has experience to assure the authentication and the integrity of learner work in blended, distributed and distance programs. Documented procedures and appropriate storage protocols are in place to assure that security of personal information is protected in conducting assessments and evaluations and in the dissemination of results with procedures and timelines by which personal data no longer needed for authentication purposes will be destroyed.

Accessibility – The program will follow institutional protocols and procedures to assure that the diverse needs of learners are appropriately addressed, and when necessary, accommodated.

Intellectual property – The institution has policies to deal with the requirements of copyright and intellectual property laws and to address issues pertaining to digital rights management and appropriate use of learning object repositories.

Technology and renewal – The technology used to administer and deliver the program, both pedagogically and administratively, is adequate to facilitate program delivery, and the Faculty is committed to appropriate updating of any technologies employed, and the identification and evaluation of emerging technologies. Sufficient resources will be available for development and sustainability with the hiring of dedicated staff. The support for the building and maintenance of the technology for learning activities is maintained and supported and is as fail safe and secure as possible.

Program planning and design

Appropriate planning – There is a clear, well-understood process by which the program evolves from conception to approval to implementation to institutional review to continuous improvement. The instructional methods, modes of delivery and assessments of learning and feedback used are aligned with articulated learning outcomes for the program.

Team/collaborative/networked learning – Due consideration has been given to the substantial amount of learning that comes from peers, and to the implications of cohort models and other team, collaborative and networked learning environments. The program curriculum includes extensive small group and team-based learning pedagogies. Near peer student teaching assistants will be hired to further support this.

Course development and evaluation – Instructional and course materials will be reviewed regularly to ensure that they continue to meet the requirements and standards for the program. The intended learning outcomes will be reviewed regularly to ensure clarity and appropriateness, and their effectiveness evaluated through appropriate methods.

Learners

Advice to learners – Learners are fully advised about the competencies, the self-discipline and the equipment they will need to have in order to participate in the program, and are provided with information about the programs, courses, required texts and/or materials and other requirements in a timely manner to enable them to acquire the materials for their course as it begins. Learners are also informed of the costs associated with the mode of delivery of their program.

Learner support – Learners are provided with training in how to use on-line tools,and are updated when changes are planned or implemented.

Hardware and software – Procedures are in place to ensure that learners are supported in their use of the hardware and software required and have access to advice on these matters. In particular, before starting the program, learners are advised of the technical and time requirements for synchronous, asynchronous and self-directed learning sessions).

Learner services – Learners are informed about what learner services (e.g., academic advising, counseling) are available to assist them, and to address any complaints they have.

Academic Staff

Oversight of program curricula – Program curricula, assessment and oversight are the responsibility of the Program Director who previously held the position of Associate Dean for the MD Program as well as supporting cross institutional committees with appropriate academic qualifications and experience delivering comparable programs. The presentation, management, assessment and evaluation of the program are the responsibility of these committees.

Technology training – All those involved in course design and delivery are adequately trained and assisted in the technology and pedagogy of on-line learning. Academic staff are assisted and supported in making the transition from classroom to online teaching and are assessed and mentored as they progress in their online teaching.

Technical support – Academic staff are provided with an orientation to, and sufficient ongoing training/technical support for any hardware and software resources required in the program and are also updated in a timely manner about any impending or actual changes that could affect their access to or involvement in their online programs.

5.1.4 *Provide an outline of the program structure and requirements (major, minor, cognates, core, general education, etc.) including credits in each category, and a summary description of the curriculum. Note any new courses. Course outlines must be available for reviewers but are NOT to be included with the proposal. (See sample table below - note that this is provided as a guideline only for a typical baccalaureate program, and will be different for other baccalaureate and graduate programs).*

Program structure – all courses are required

Proposed program of study including course names, credits and year of study (specific course descriptions and objectives follow)

Year in Program	*Courses*	*Credits*
Years 1 and 2	***Courses Taught by Wenzhou Medical University***	
	English Medical English	***9***
	Medical chemistry Molecular and cellular biology Normal structure and function of human body Biological basis of disease	***22***
	Modern Chinese History, Politics, Education & Fundamentals of Law	***12***
	Introduction to medicine Traditional Chinese Medicine Medical Ethics Social medicine and health service management Social Practice Policies Physical and Psychological Health Education Sanitary regulation Hygiene	***17***
	Courses Taught by University of Alberta	
	Health Systems Science 1	***3***
	Health Systems Science 2A	***3***
	Summer School: Health Systems Science 2B	***4***
Year 3	Courses Taught by University of Alberta	
	Foundations Medicine	***9***
	Endocrinology & Metabolism	***6***
	Cardiovascular Medicine	***5***
	Pulmonary Medicine	***3***
	Renal Medicine	***3***
	Health Systems Science 3	***4***
Year 4	Courses Taught by University of Alberta	
	Gastroenterology & Nutrition	***5***
	Reproductive Medicine & Urology	***6***
	Musculoskeletal System	***6***
	Neurosciences and Organs of Special Senses	***9***
	Psychiatry	***3***
	Oncology	***3***
	Health Systems Science	***3***
Year 5 ****the courses from this year of the***	Clinical Courses Taught by Wenzhou Medical University	
	Internal Medicine	***16***
	Surgery	***16***
	Obstetrics and Gynecology	***6***

program are not required for the Bachelor of Biomedicine Degree	Pediatrics	***6***
	Community Medicine	***2***
	Radiology and ECG	***2***

Summary Course Descriptions

COURSE NAME	COURSE DESCRIPTION	Year
Health Systems Science 1	Health systems science is a foundational platform and framework for the study and understanding of how care is delivered for patients and populations within systems of medical care, how health professionals work together to deliver that care, and how the health system can improve patient care and health care delivery. This course continues over 4 years and builds knowledge of core domains including health care structures and processes; interprofessional care; health care policy, economics, and management; clinical informatics and health information technology; global, population and public health; value-based care; health system improvement, design and systems thinking.	Year 1
Health Systems Science 2	Health systems science is a foundational platform and framework for the study and understanding of how care is delivered for patients and populations within systems of medical care, how health professionals work together to deliver that care, and how the health system can improve patient care and health care delivery. This course continues over 4 years and builds knowledge of core domains including health care structures and processes; interprofessional care; health care policy, economics, and management; clinical informatics and health information technology; global, population and public health; value-based care; health system improvement, design and systems thinking.	Year 2
Foundations of Health and Medicine	The Foundations of Medicine course serves as a foundation for future learning and practice. This course will focus on integrating basic principles of medical and biological sciences as the foundation for the curriculum.	Year 3
Endocrinology & Metabolism	During the Endocrinology and Metabolism course, students will learn how the endocrine system integrates with the rest of the body. The course covers the different endocrine glands: how the hormones have profound effects on the cells and tissues of the body; and the feedback loops that are important in hormonal	Year 3

	regulation. Students will have a chance to learn about basic endocrine anatomy, physiology, pathology and biochemistry, as well as clinical aspects of endocrine diseases. Discovery learning, team-based learning, in-class review sessions and self-study materials cover major endocrine topics.	
Cardiovascular Medicine	The Cardiology course will serve as a foundation for future learning and practice. The goal is to provide students with an introduction to the fundamentals of cardiology medicine. Topics to be covered include the ● basic structure and function of the cardiovascular system ● clinical picture of ventricular or valvular diseases, electrical diseases of the heart, including an approach to ECG reading ● coronary and aortic / peripheral arterial diseases ● congenital heart diseases ● myocardial and pericardial disease	Year 3
Pulmonary Medicine	The Pulmonary serves as a foundation for future learning and practice. The goal is to provide students with an introduction to the fundamentals of pulmonary medicine.	Year 3
Renal Medicine	The Renal course will serve as a foundation for future learning and practice. The goal is to provide students with an introduction to the fundamentals of renal medicine. Topics to be covered include: ● Basic anatomy, physiology, embryology and pathology of the renal system; ● Acute and chronic renal failure; ● Pharmacology of the kidney; ● Diseases of the glomerulus; ● Tubulointerstitial disease; ● Renovascular disease; ● Pediatric nephrology; and ● Hereditary and cystic renal disease	Year 3
Health Systems Science 3	Health systems science is a foundational platform and framework for the study and understanding of how care is delivered for patients and populations within systems of medical care, how health professionals work together to deliver that care, and how the health system can improve patient care and health care delivery. This course continues over 4 years and builds knowledge of core domains including health care structures and	Year 3

	processes; interprofessional care; health care policy, economics, and management; clinical informatics and health information technology; global, population and public health; value-based care; health system improvement, design and systems thinking.	
Gastroenterology & Nutrition -	The Gastroenterology and Nutrition Course will serve as a foundation for future learning and practice. The goal is to provide students with an introduction to the fundamentals of gastroenterology. Topics to be covered include: ● The structure and function of the gastrointestinal tract ● Gastrointestinal health and nutrition ● Common diseases of the gastrointestinal tract ● Fundamentals of gastrointestinal disease management ● The impact of gastrointestinal disease on patients and society.	Year 4
Reproductive Medicine & Urology	The Reproductive Medicine and Urology Course that provides students with a strong knowledge base in the fundamentals of reproductive medicine, urology. Topics to be covered include: ● An overview of the anatomy, pathophysiology, presentation, diagnosis and treatment of common gynecologic, obstetric (including genetic), urologic, and sexually transmitted illnesses.	Year 4
Musculoskeletal System	The Musculoskeletal System course provides students with a strong knowledge base in the fundamentals of musculoskeletal medicine. The anatomy, embryology, histology and physiology of the musculoskeletal system and skin are studied. An approach to common and important conditions and disorders of the musculoskeletal system and skin are covered from the perspectives of rheumatology, physical medicine and rehabilitation, orthopedics, dermatology, plastic surgery, pediatrics and family medicine.	Year 4
Neurosciences and Organs of Special Senses -	The Neurosciences and Organs of Special Senses course provides students with a foundation in the areas of Neurology, Neurosurgery, Ophthalmology, ENT and Developmental Pediatrics. Throughout the course, students will learn the approach to a patient with common	Year 4

	symptoms or important problems; the elements of the neurological, eye, and head and neck exam, as well as perform a developmental assessment; to develop the ability to localize lesions, all while being able to recognize serious processes requiring urgent referral.	
Psychiatry	The Psychiatry course provides students with foundational knowledge regarding mental health and illness. Students will learn how to describe why mental health is important and the cost to society of mental illness. They will also learn to describe the stigma of mental illness and its impact on physician health.	Year 4
Oncology	The Oncology course is designed to help students to understand the principles of oncology and recognize the importance of a multidisciplinary approach to cancer care while caring for patients with cancer.	Year 4
Health Systems Science 4	Health systems science is a foundational platform and framework for the study and understanding of how care is delivered for patients and populations within systems of medical care, how health professionals work together to deliver that care, and how the health system can improve patient care and health care delivery. This course continues over 4 years and builds knowledge of core domains including health care structures and processes; interprofessional care; health care policy, economics, and management; clinical informatics and health information technology; global, population and public health; value-based care; health system improvement, design and systems thinking.	Year 4

To assist in demonstrating that the program curriculum is clear and well integrated with the objectives and outcomes, provide one or more typical student programs by year of program (see sample table below).

Typical student program

Year in Program	Courses
Years 1 and 2	English Medical English Medical chemistry Molecular and cellular biology Normal structure and function of human body Biological basis of disease Modern Chinese History, Politics, Education & Fundamentals of Law Introduction to medicine Traditional Chinese Medicine Medical Ethics Social medicine and health service management Social Practice Policies Physical and Psychological Health Education Sanitary regulation Hygiene Health Systems Science 1 Health Systems Science 2A Summer School: Health Systems Science 2B
Year 3	Foundations Medicine Endocrinology & Metabolism Cardiovascular Medicine Pulmonary Medicine Renal Medicine Health Systems Science 3
Year 4	Gastroenterology & Nutrition Reproductive Medicine & Urology Musculoskeletal System Neurosciences and Organs of Special Senses Psychiatry Oncology Health Systems Science
Year 5 *****not required for students to get UAlberta Bachelor of Biomedicine Degree**	Internal Medicine Surgery Obstetrics and Gynecology Pediatrics Community Medicine Radiology and ECG

5.2 Criteria / Requirements for Admission and Academic Progression

State the admission criteria (including any provision for prior learning assessment), residency requirements, academic performance progression requirements, and graduation requirements applicable to the program, along with the grading scheme. Note any program specific regulations (e.g., for doctoral programs, note any candidacy or dissertation requirements, examination requirements, time to completion requirements, etc.).

Admissions requirements

Admissions requirements for students to be accepted into this dual degree program include:

- English Language IELTS of 6.5 with no band less than 6
- Successful completion of the first year of the WMU medical program

Residency requirements

There are no residency requirements for the program

Grading Scheme

The means of assessing a student's progress and determining a student's grades may vary from one course to another in accordance with the nature of the course. Factors other than examination results may be used to a variable extent by instructors in determining grades. Students are informed at the beginning of each course how grades are to be determined. Students are also advised of the procedures for appeal established within the Faculty and the University.

Academic performance progression requirements

Students may only proceed to a subsequent year of the medical program if they have passed all courses for the current academic year. The program lead may approve exceptions to this requirement when it is not possible to meet this requirement.

Students enrolled in the program are under the obligation to meet the expected competencies through achieving learning objectives as distributed throughout the courses in the program. The program is sequentially designed to provide students with the opportunity to ultimately demonstrate satisfactory completion of all necessary requirements and competencies to graduate.

Promotion from year to year and ultimately graduation requires full completion of all program requirements in that current year before being able to progress in the program.

Academic Probation

Academic Probation is assigned to a student who at the end of the year or term, fails to achieve a pass in all courses. A student on Academic Probation will have academic progress regularly reviewed and reported upon at the end of each term. A student on Academic Probation may be required by the program to participate in a structured learning program. Students with more than two failed courses in the academic year may be allowed to continue on Academic Probation at the discretion of the Program Lead

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A student who has been assigned Academic Probation may be either granted an opportunity to enroll in a repeat of the year, an opportunity to remediate failed coursework before advancing to the next year of the program or may be Required to Withdraw from the program.

To clear Academic Probation and to qualify for promotion or graduation, the student must achieve Satisfactory Standing in the probationary or repeat year at assessment checkpoints at the end of each term during that year.

Students who fail to perform satisfactorily at any of those assessment points will be Required to Withdraw immediately and subsequent registration will be cancelled.

Graduation requirements
Students will be eligible for graduation when they have successfully completed all of the program requirements.

5.3 Engaged and Active Learning / Delivery Methods

5.3.1 *Demonstrate the ways in which the institution identifies and attends to the learning of students in the program and what pedagogies will be used to encourage their engaged and active learning, as per Council's program quality assessment standard #5 (Program delivery).*

The program will support active student learning in a variety of ways. Problem-based learning (Discovery Learning) takes place in small groups, facilitated by faculty preceptors to encourage students to apply basic science and foundational knowledge to clinical cases. Team-based learning similarly encourages small groups of students to work together to apply their knowledge to cases that are relevant to their courses. A flipped classroom approach will be used to deliver lecture-based material online as a vodcast, and then live sessions (synchronous) will be used to apply and consolidate that material, engage in conversations and Q&A style sessions with faculty members, and to integrate the information in clinical-based scenarios. All of these approaches support a constructivist approach to learning and are common teaching and learning strategies in medical education.

5.3.2 *Include a description of the teaching/learning approaches to be used, a description of the rationale for using the approach and evidence of adequate support for the approach. Where applicable, demonstrate how CAQC's Additional Quality Assessment Standards for Programs Delivered in Blended, Distributed or Distance Modes will be met.*

The program will use a variety of teaching and learning approaches. As this program will primarily be delivered to students while they are on campus at Wenzhou Medical University, blended learning approaches and pedagogies will be used. Problem-based learning (Discovery Learning), case-based learning and team-based learning sessions will be done with students and WMU faculty on site in China, supported by faculty and academic staff from the University of Alberta online. A variety of platforms will be used, including Zoom, to ensure this facilitation can be done in real time (synchronous) from a distance. Vodcasts and other learning materials will be available to students through infrastructure developed and currently used within the Faculty of Medicine and Dentistry. This will encourage and support resource delivery, and online interactions with faculty and staff from both institutions. University of Alberta faculty members will travel to WMU to deliver some core content in person, and to augment the virtual delivery of curriculum. Students will also complete one summer course on campus at the University of Alberta, learning with and from faculty, staff, and students in Edmonton. All of these approaches support a constructivist approach to learning and are common teaching and learning strategies in medical education.

The technology used to administer and deliver the program, both pedagogically and administratively, is adequate to facilitate program delivery, and the Faculty is committed to appropriate updating of any technologies employed, and the identification and evaluation of emerging technologies. Sufficient resources will be available for development and sustainability with the hiring of dedicated staff. The support for the building and maintenance of the technology for learning activities is maintained and is as fail safe and secure as possible. Both students and faculty will receive ongoing support in the use of the system with appropriate on-boarding.

5.4 Program Comparison

5.4.1 *Provide a comparative analysis of the proposed program (curriculum, structure, admission requirements, etc.) with similar programs offered elsewhere (if any), especially in Alberta and Canada (see sample table below). What process was used to determine which programs were deemed to be the most comparable? Illustrate the similarities and differences.*

There are no similar/comparable dual degree programs in Alberta or Canada. The content of the curriculum of the third and fourth year of the proposed dual degree program is similar to the current Preclerkship curriculum for year 1 and 2 of the UAlberta MD Program. The Faculty has a proven track record for successful delivery of this curriculum in a blended fashion.

The programs are otherwise significantly different. The educational background of learners is different in that students entering the MD Program are experienced learners who have completed undergraduate degrees at a minimum. Students in the Dual Degree program will not have this same educational background. The other and most significant difference is regarding the delivery of clinical Work Integrated Learning (WIL) which constitutes more than 50% of the UAlberta MD Program. In the proposed Dual Degree program the WIL will occur during the summer course between years 2 and 3 and in the 5th year of the Program. The 5th year WIL will be delivered according to the requirements typical of WMU to prepare students for clinical practice in China.

Program component	Applicant institution	Institution A*	Institution B**
Name of credential	WMU	Bachelor of Biomedicine	Bachelor of Clinical Medicine
Entrance requirements	WMU	Additional English language requirements IELTS(Academic) (International English Language Testing System) At least 6.5 with no band less than 6.0	Applicants must meet the normal admission requirements for WMU degree program
Areas of study / Curriculum	WMU	Years 3 and 4	Years 1,2 and 5
Graduation requirements		Successful completion of the Year 1-4 curriculum	Successful completion of the additional 5th year of clinical studies
Total credits	183	135	+48

*Institution A is University of Alberta

**Institution B is Wenzhou Medical University (WMU)

5.4.2 *If a similar program is currently offered at the institution, compare the structure, admission requirements and learning outcomes to the proposed program. If this is a conversion of an existing program (e.g., conversion of an applied degree to a new degree program), provide a table similar to the sample shown below.*

The overall learning outcomes of this program are similar to those of the Preclerkship Curriculum of the UAlberta MD Program. However, there are significant differences between the programs. Students enter the UAlberta MD Program after completing an undergraduate degree (at a minimum). Students will join the proposed Dual Degree Program after completing their secondary education and meeting the English language requirements. The students will complete two years of foundational content primarily based on the WMU medical school curriculum prior to starting the UAlberta Preclerkship Courses. The students will not complete the same two year WIL clinical clerkship required of students in the MD Program prior to receiving an MD Degree from the University of Alberta.

Comparison by course – existing program to new program

N/A

5.5 Other elements affecting quality

Note any other relevant aspects of the proposed program that might affect quality (e.g., fast-tracking, individual study, parts of the program to be offered in cooperation with another institution, etc.).

The quality of the program may be affected by the following factors:

- The blended approach may affect that quality of the educational experience because students will be learning at a distance, with both asynchronous and synchronous sessions. This will require student self-motivation. We hope to mitigate this by scheduling regular 'live' synchronous sessions, as well as having UofA staff and faculty teach in person at WMU regularly. As well, extensive faculty development will be provided to WMU faculty to ensure they can facilitate and support students in the University of Alberta approaches to learning.
- The time differences between WMU and UofA could be challenging when planning and delivering live sessions to students at WMU.
- Internet connectivity may be unstable from time to time requiring the rescheduling of sessions if no other means of connectivity is available.

SECTION 6: IMPLEMENTATION AND RESOURCES

6.1 Program Implementation Plan

Provide a program implementation plan by academic year (start to maturity) that includes any elements to be phased in (e.g., new academic staff hires, courses, minors, co-op option). If introduction of this program is

dependent on a similar program being phased out, the implementation plan should include how both programs are being supported until the phase out and start up are completed.

Program Year	Implementation Plan
Year 1	-WMU begins recruitment of the first cohort of students -students work on year 1 of the AIWMU curriculum with one course being taught by UAlberta faculty. -hiring UofA staff for the joint institute, including a Director -establishment of the joint institute agreement -establishment of committee structures -building relationships within the joint institute
Year 2	-students work on year 2 of the AIWMU curriculum with one course being taught by UAlberta faculty. -recruitment continues with students being interviewed and selected to participate in the joint institute -planning for upcoming summer school to take place at the University of Alberta continues -all curricular materials will be reviewed for transcultural safety and geographic relevance - all staff hires occur for administrative, technical and program staff -curriculum delivery for the summer school program between years 2 and 3 of the program
Year 3	-blended curriculum delivery for the year three content of the program
Year 4	-blended curriculum delivery for the year four content of the program

Faculty Development to support the dual Degree Program

To support the Alberta Institute Wenzhou Medical University Program a dedicated and specific Faculty Development program called the "Teaching Scholars Program – Alberta Institute" has been developed. Over 144 hours will be spent on working with WMU faculty to develop a mutual understanding about the curriculum and to allow for opportunities for collaborative development and enhancement of the curriculum.

The following courses will be taught by faculty leaders from the University of Alberta to faculty from WMU who teach in the first, second and fifth year of the program. These faculty may help with small group facilitation of courses led by University of Alberta faculty in the third and fourth years to enhance continuity across all 5 years of the program.

Course	*Time Commitment*	*Type of Course*
***TSP-AI 01**: Introduction to Medical Education Theory & Practice**	*2 sessions/week, 2 hrs/session for 12 weeks online Fall 2021*	*Prerequisite for all other courses*

***TSP-AI 02**: Improving Classroom Teaching Skills*	*2 sessions/week, 2 hrs/session for 12 weeks online Winter 2022*	*Teaching*
***TSP-AI 03**: Introduction to Assessment*	*2 sessions/week, 2 hrs/session Hybrid: 5 weeks online 5 sessions (1 week) in Alberta Spring 2022*	*Teaching*
***TSP-AI 04**: Introduction to Medical Education Scholarship*	*2 sessions/week, 2 hrs/session for 12 weeks online Fall 2022*	*Scholarship*
***TSP-AI 05**: Introduction to Program Evaluation as Scholarship*	*2 sessions/week, 2 hrs/session for 12 weeks online Winter 2023*	*Scholarship*
TSP-AI 06**: Fostering a Humanistic Approach to Clinical Teaching* ***Elective Teaching Course	*1 session/week, 2 hrs/session* *1 session/week, 1 hr/session* *Hybrid: 5 weeks online* *5 sessions (1 week) in Alberta* *Spring 2023 (campus tour)*	*Teaching Elective*

18 WMU faculty members have successfully completed TSP-AI 01, Introduction to Medical Education Theory & Practice. These same faculty members are currently enrolled in the second TSP-AI course, TSP-AI 02 Improving Classroom Teaching Skills.

TSP-AI 01: Introduction to Medical Education Theory & Practice*				
	Beijing Time Small Groups	***Beijing Time***	***Content****	***Number of Hours***
1.		*09/23/21 9:00 - 11:00 Session 1*	***Course & Participant Introductions*** *Dr. Hodgson, Dr. Hillier, & Dr. Brett-MacLean* *Receive readings for 9/25/21*	***2***

2.	*09/25/21* *9:00-11:00 AM* *Session 2a*	*09/30/21* *9:00 - 11:00* *Session 2b*	***Curriculum Development*** *Dr. Carol Hodgson* *Receive readings for 10/2/21 small group prep session*	***4***
	10/02/21 *HOLIDAY*	*10/07/21* *HOLIDAY*	***NO CLASS: National Day Holiday***	***0***
3	*10/09/21* *9:00-11:00 AM* *Session 3a*	*10/14/21* *9:00 - 11:00* *Session 3b*	***Searching the Learning Management Database*** *Dr. Hollis Lai* *Receive readings for 10/16/21 small group prep*	***4***
4.	*10/16/21* *9:00-11:00 AM* *Session 4a*	*10/21/21* *9:00 - 11:00* *Session 4b*	***Curriculum Models*** *Dr. Carol Hodgson* *Receive readings for 10/23/21 small group prep*	***4***
5.	*10/23/21* *9:00-11:00 AM* *Session 5a*	*10/28/21* *9:00 - 11:00* *Session 5b*	***Learning Theories & Accreditation Standards*** *Dr. Carol Hodgson* *Receive readings for 10/30/21 small group prep session*	***4***
6.	*10/30/21* *9:00-11:00 AM* *Session 6a*	*11/04/21* *9:00 - 11:00*	***Case-based Learning*** *Dr. Carol Hodgson* *Receive readings for 10/30/21 small group prep*	***4***
7.	*11/06/21* *9:00-11:00 AM* *Session 7a*	*11/11/21* *9:00 - 11:00*	***Teaching with Technology*** *Dr. Hollis Lai & Mr. Patrick von Hauff* *Receive readings for 11/20/21 small group prep*	***4***
8.	*11/13/21* *9:00-11:00 AM* *Session 8a*	*11/18/21* *9:00-11:00 AM*	***Simulation in Teaching & Deliberate Practice*** *Dr. Carol Hodgson & Mr. Patrick von Hauff* *Receive readings for 11/13/21 small group prep*	***4***
9.	*11/20/21* *9:00-11:00 AM* *Session 9a*	*11/25/21* *9:00-11:00 AM*	***Curriculum Evaluation*** *Dr. Carol Hodgson* *Receive readings for 11/27/21 small group prep*	***4***
10.	*11/27/21* *9:00-11:00 AM* *Session 10a*	*12/02/21* *9:00-11:00 AM*	***Narrative Reflective Practice*** *Dr. Pamela Brett-MacLean*	***4***

11.	*12/04/21 9:00-11:00 AM Session 11a*	*12/09/21 9:00-11:00 AM*	***Making Your Everyday Work Scholarly*** *Dr. Carol Hodgson Small group prep session (12/4/22) for class presentations*	***4***
12.	*12/11/21 9:00-11:00 AM Session 12a*	***12/16/21*** *9:00-11:00 AM Session 12b*	***Project Preparation***	***4***
13.	*12/18/21 8:30 am - 12:00 pm*		***Project Presentations*** *Dr. Carol Hodgson* ***(Note longer class time)***	***4***
**Prerequisite for all other TSP-AI courses*			***TOTAL HOURS***	***50***

TSP-AI 02: Improving Classroom Teaching Skills

	Beijing Time Small Groups	***Beijing Time***	***Content***	***Number of Hours***
1		*01/13/22 9:00 - 11:00*	***Course Introduction & Overview*** *Dr. Carol Hodgson*	*2*
2		*01/20/22 9:00 - 11:00*	***The lecture and making it interactive*** *Dr. Carol Hodgson Receive readings for 1/22/22 small group prep*	*2*
3	*01/22/2022 9:00-11:00*	*01/27/22 9:00 - 11:00*	***Developing a Case*** *(e.g., PBL/DL, patient-based basic science case, simulation, etc.) Dr. Carol Hodgson*	*4*
4	*01/29/22 9:00-11:00*			*2*
	02/01/22-02/15/22	*02/01/22-02/015/22*	***NO CLASS: New Year and Spring Festival***	***0***

5		*02/17/22* *9:00 – 11:00*	***Being a Successful Small Group Facilitator*** *Dr. Carol Hodgson*	*4*
6	*02/19/22* *9:00 – 11:00 am*	*02/24/22* *9:00 – 11:00*	***Narrative Approaches to Reflection*** *Dr. Pamela Brett-MacLean*	*4*
7	*02/26/22* *9:00 – 11:00 am*	*03/03/22* *9:00 – 11:00*	***Visual Reflection - Learning to See*** *Dr. Pamela Brett-MacLean*	*4*
8	*03/05/22* *9:00 – 11:00 am*	*03/10/22* *9:00 – 11:00*	***Developing a TBL Session*** *Dr. Tracey Hillier & Dr. Hodgson*	*4*
	Change in Canada to daylight savings time – *Canada class time change from 6:00-8:00 pm to 7:00 to 9:00 pm*			
9	*03/12/22* *9:00 – 11:00 am*	*03/17/22* *9:00 – 11:00*	***Facilitating a TBL Session*** *Dr. Tracey Hillier*	*4*
1	*03/19/22* *9:00 – 11:00 am*	*03/24/22* *9:00 – 11:00*	***Developing a flipped classroom session*** *Dr. Carol Hodgson*	*4*
1	*03/26/22* *9:00 – 11:00 am*	*03/31/22* *9:00 – 11:00*	***Facilitating a flipped classroom session*** *Dr. Tracey Hillier*	*4*
1	*04/02/22* *9:00 – 11:00 am*	*04/07/22* *9:00 – 11:00*	***Teaching Effectively Online & Teaching with Technology*** *Mr. Patrick von Hauff*	*4*
1	***04/09/2022*** ***9:00 – 11:00 am***	***04/14/22*** ***9:00 – 11:00 am***	***Project Presentations – 2 groups present each day*** ***Note extra class session*** *(If possible in-person in the AI area at WMU and in-person at the UofA FoMD)*	***4***
			TOTAL HOURS	***46***

TSP-AI 03: Introduction to Assessment				
	Beijing Time Small Groups	***Beijing Time***	***Content***	***Number of Hours***
1		*05/12/22 9:00 - 11:00*	***Course Introduction and Overview*** *Dr. Hodgson* *Readings provided for 05/14/22*	*2*
2	*05/14/22 9:00 - 11:00*	*05/19/22 9:00 - 11:00*	***Assessment methods*** *Dr. Hodgson* *Readings provided for 05/21/22*	*4*
3	*05/21/22 9:00 - 11:00*	*05/26/22 9:00 - 11:00*	***Measurement issues: validity, reliability, and statistics of testing*** *Dr. Hollis Lai* *Readings provided for 05/28/22*	*4*
4	*05/28/22 9:00 - 11:00*	*06/02/22 9:00 - 11:00*	***Standard Setting*** *Dr. Hollis Lai* *Readings provided for 06/04/22*	*4*
5	*06/04/22 9:00 - 11:00*	*06/09/22 9:00 - 11:00*	***Written Exams*** *Dr. Carol Hodgson*	*4*
6	*06/11/22 9:00 - 11:00*		***Small Group Project Work***	*2*
	In-person Sessions ***Depending on Travel Restrictions***	*Edmonton Time*		
7		*06/14/22 09:00 am-12:00 pm*	***UAlberta Campus Campus/Faculty of Medicine & Dentistry Tour*** *Catered Lunch*	*2*
8	*In-person*	*06/14/22 12:30-2:30 pm*	***Simulation for assessment*** *(ECHA simulation centre) TBA*	*2*

9	*In-person*	*06/14/22 3:00-5:00 pm*	***Small Group Project Work***	*2*
1	*In-person*	*06/15/22 9:00 - 1:00 pm*	*Travel to Jasper & Talk on Jasper Park History*	*0*
1	*In-person*	*06/15/22 2:30 - 4:30 pm*	***Small Group Project Work***	*2*
1	*In-person*	*06/16/22 8:00 - 10:00 am*	***Observational assessment** TBA*	*2*
1	*In-person*	*06/16/22 10:15 am-12:15 pm*	***Performance Assessment** TBA*	*2*
1	*In-person*	*06/16/22 1:00-3:00 pm*	***Small Group Project Work***	*2*
			Optional Maligne Lake Tour	
1	*In-person*	*06/17/22 8:00 - 10:00 am*	***Peer assessment** Dr, Tracey Hillier*	*2*
1	*In-person*	*06/17/22 10:15 am-12:15 om*	***Performance Portfolios** Dr. Tracey Hillier*	*2*
1	*In-person*	*06/17/22 1:00-4:00 pm*	***Small Group Project Work***	*3*
1	*In-person*	*06/18/22* ***9:00 am - 2:00 pm***	***Project Presentations, Lunch, & Awarding of Certificates Note longer class time***	***5***
	In-person	*6/19/22*	*Return to Edmonton*	
			TOTAL HOURS	***46***

6.2 Staffing Plan

6.2.1 *Show how the number (head count and FTE), distribution and qualifications of teaching staff meet Council's requirements and the objectives of the program as a whole (as described in s. 1.6 above). Include the academic staff expertise to be recruited, if new staff are contemplated. Provide summary information of current academic staff and new hires who will be teaching in the proposed program in the following format (see sample table below).*

The UAlberta curricular component of the proposed Dual Degree Program will be delivered in a similar fashion to the MD program. The MD Program works with many clinical and academic faculty from across the Faculty of Medicine and Dentistry every year to deliver the program successfully. Every educator who is involved in the assessment of a student in the program will have a faculty appointment.

Based on the MD Program we expect:

- Approximately 300 UAlberta faculty will teach in the Dual Degree Program. As a point of reference, as many as **1092** different faculty members teach (and facilitate, examine, and tutor) in the MD Program.
- **1009** whole class sessions will be delivered by 300 unique lecturers in years 3 and 4 of the program

Courses taught by academic staff by credential and specialization

- Faculty members teach across many courses to ensure a high level of continuity and integration across the curriculum therefore they are not assigned to a single course. The table below contains credentialing information from a subset of the teaching faculty who provided their information on request.

Name	University where the highest degree is obtained	Specialty for the highest Degree	Highest Degree	Academic staff status
Michael Houghton	King's College	Biochemistry	PhD	Professor
Xin-Min Lee	Norman Bethune China	Medicine Pharmacology	MD PhD	Professor
Dilini Vethanayagam	University of Alberta	Medicine	MD	Associate Professor
Rabin Persad	University of the West Indies	Medicine	MBBS	Associate Professor
Nirupan Vipulananthan	University of Saskatchewan	Medicine	MD	Clinical Lecturer and CME director
Pamela Brett-MacLean	University of British Columbia	Medical Humanities	PhD	Associate Professor
Clarence Wong	University of Alberta	Medicine	MD	Associate Professor
Daniel Livy	University of Alberta	Biological Sciences	PhD	Associate Professor

Karen Forbes	University of Calgary	Medicine (Pediatrics)	MD	Associate Professor
Elizabeth Rosolowsky	University of California, San Francisco	Medicine	MD	Associate Professor
Lillian Au	University of Alberta	Medicine	MD	Associate Professor
Andrew Holt	Queen's College, Cambridge	Pharmacology	PhD	Associate Professor
Helly Goez	Tel Aviv University	Medicine	MD	Associate Professor
Joanne Rodger	University of Alberta	Education	PhD	Curriculum Specialist
Tracey Hillier	McMaster University	Medicine	MD	Assistant Professor, Associate Dean
Hollis Lai	University of Alberta	Education Psychology	PhD	Associate Professor
Sukhvinder Dhillon	University of Liverpool	Medicine	MD	Associate Professor
Ann Lee	University of British Columbia	Medicine	MD	Assistant Professor
Carol Hodgson Birkman	University of California, Los Angeles (UCLA)	Biochemistry	PhD	Associate Professor, J Allan Gilbert Chair in Medical Education Research
Andrew Scarfe	University of Alberta	Medicine	MD	Associate Professor
Steven Caldwell	University of Edinburgh	Medicine	MBCHB (Hons)	Clinical Professor
Tim Winton	Queen's University	Medicine	MD	Associate Professor
Ronald W. Damant	University of Alberta	Medicine	MD	Professor
Zhixiang Wang	Simon Fraser University	Biochemistry	PhD	Professor

6.2.2 *Include brief explanations of academic staff categories (e.g., continuing, sessional, term) and workload expectations.*

Academic staff will be faculty members in the FoMD with 0.1to 0.3 FTE for their teaching load with this program, sessional teachers will also be used as is done for the delivery of the MD Program. This program will draw upon existing resources developed for the preclerkship component of the MD Program.

6.2.3 *Provide a proposed teaching rotation that outlines the academic staff at launch and to maturity of the program (see sample table below) and shows clearly the plan for any cycling of courses. List also any non-academic staff who will teach in the program.*

The UAlberta curricular component of the proposed Dual Degree will be delivered in a similar fashion to the MD program. The MD Program works with many clinical and academic faculty from across the Faculty of Medicine and Dentistry every year to make the program successful. Every educator who is involved in the assessment of a student in the program will have a faculty appointment. Faculty members teach across many courses to ensure a high level of continuity and both horizontal and vertical integration across the curriculum therefore they are not assigned to a single course.

6.2.4 *For graduate programs, provide a detailed plan to organize the academic advising, supervision and monitoring of graduate students, and state the credentials, graduate teaching experience, master's committee work/supervision and PhD supervision experience of academic staff. For doctoral programs, a summary table such as the following would be helpful.*

N/A

6.2.5 *Include CVs of core academic staff teaching in the program as well as key administrators (see CAQC's CV template). Be sure their permission has been given.*

As many as **300** different faculty members will teach (and facilitate, examine, and tutor) in years 3 and 4 of the Dual Degree Program with a demonstrated track record of being able to deliver the curriculum. The CV of the Director of the Dual Degree Program is attached as Appendix C.

6.3 Scholarly and Creative Activity

6.3.1 *Describe what constitutes scholarship and/or creative activity for academic staff teaching in this program, and summarize the institutional expectations of academic staff with respect to scholarship and professional development as well as how these are assessed. Describe plans for supporting scholarly activities and professional development of academic staff (see Council's expectations regarding scholarship, research and creative activity in s. 3.7.3 of Council's Handbook).*

All forms of scholarship currently recognized within the FoMD will be equally recognized for work done in support of this Dual Degree Program. Scholarship for faculty teaching in the Dual Degree Program will be recognized as a multi-faceted activity involving the creation, integration and dissemination of knowledge. Scholarship can take many forms including the following:

- Independent or collaborative research across the full spectrum (basic, applied, educational, policy, quantitative, qualitative, etc)
- Staying current and maintaining competency in the content and methodology in one's field and related fields
- Inquiry and reflective practice
- Innovation in pedagogy
- Knowledge translation and reformulation for new applications
- Composition and creative activity
- Publication
- Presentation at scholarly conferences or expert groups
- Applied scholarship through problem solving practices, innovation, product development (handbooks, manuals, software, etc)
- Technology development, patents, technology transfer and commercialization
- Developing standards, guidelines, and best practices

6.3.2 *For doctoral proposals, include a tabular summary of research grants held by key academic staff involved in the program, both (i) in aggregate form, and (ii) by academic staff member, years of tenure of each grant, and source and amount of the grant.*

N/A

6.4 Physical and Technical Infrastructure

Describe the facilities, laboratory and computer equipment (as applicable) available to meet the specialized demands of the program, as well as plans to address any deficiencies in what might be required.

The physical space and laboratories are at the WMU site.
Learning management systems have been developed within the Faculty of Medicine and Dentistry to deliver and manage the curriculum and assessment activities. The learning management systems have been developed and successfully used to deliver online synchronous and asynchronous learning activities. These specific systems will be licensed for use with this Dual Degree Program.

6.5 Information Services

Provide an inventory and analysis of information resources to support the program (using standard library reference guides) and plans to deal with any deficiencies, and a description of student access to other information services.

Students will have access to the University of Alberta Libraries and existing online resources and will also benefit from the information services of Wenzhou Medical University.

SECTION 7: CONSULTATION AND ASSESSMENT

7.1 Program Evaluation

Describe the criteria and methods which will be used to ensure the ongoing quality of the program. Include mechanisms for periodic review using external evaluation. Include the expected outcomes, key performance indicators and performance targets for the program.

A regular process of continuous quality improvement including annual course review will occur involving faculty and learners from both Wenzhou Medical University and UAlberta. This will be supported using existing curriculum management infrastructure. Student academic success on assessments will be measured against learning objectives. Student feedback regarding lectures and courses will be considered. Student portfolios will constitute a record of activity. At the end of the program, student achievement of program learning outcomes will be evaluated. Faculty development and curricular changes will be made where needed.

7.2 Consultation / Accreditation or Regulatory Approval

7.2.1 *Building on s. 2.3, outline the consultation that has occurred with other institutions, organizations or agencies, including advisory bodies formed by the applicant institution to assist in program design, implementation and evaluation. This should include, where appropriate, professional associations, regulatory agencies and/or accrediting bodies, and prospective employers.*

N/A

7.2.2 *If the program is subject to accreditation or approval of a regulatory body, provide a description of the review process, requirements of the body and timing of the review (if in process). If possible, a chart or table may be useful to outline accreditation or regulatory approval requirements.*

N/A

7.2.3 *If not already covered in 7.2.2., indicate how graduates will meet professional or regulatory expectations.*
N/A

7.3 Reports of Independent Academic Experts

CAQC views external peer review, which can be both formative and summative, as foundational to ensuring the quality of academic programs. In order to strengthen the proposal, before the proposal is finalized, the institution should consult with one or more independent academic experts it selects from outside the institution to provide advice regarding all aspects of the program. The report(s) of these external independent academic experts should be provided, along with the institution's response to the report(s). If an institution wishes a program proposal to be exempted from the normal requirement of an assessment by an external expert, it must provide a compelling case as part of its request for a Fully Expedited Review. Short résumés of the academic experts involved and a rationale as to why they were selected should be provided (see CAQC's guidelines with respect to the selection and use of Independent Academic Experts in Appendix I of the CAQC Handbook).

The curriculum of this program is based on the Preclerkship curriculum of years 1 and 2 of the MD Program. The MD Program curriculum has undergone three successful external reviews since 2014 and has had no substantive change since the last comprehensive external review in 2018.

- 2014 Comprehensive Accrediting Body Review by the Committee on Accreditation of Canadian Medical Schools (CaCMS) and the Liaison Committee on Medical Education (LCME) of the American Association of Medical Colleges (AAMC)
- 2018 Interim accreditation review by CaCMS Committee on Accreditation of Canadian Medical Schools
- 2018 Campus Alberta Quality Council Review

The curriculum of the Wenzhou Medical University Program has also had successful external review by an International Medical School Accrediting body.

Students from both medical programs are highly successful on national licencing exams with a pass rate of more than 99% reflecting the quality of the education provided by the medical program of each of the collaborating Universities.

The CV of the Director and Executive Dean of the Alberta Institute who is the Program Lead for the Dual Degree Program is attached as Appendix C.

SECTION 8: OTHER

8.1 Adverse Claims or Allegations

Disclose any adverse claims or allegations that might affect this application or be of concern to Council.

We are not aware of any adverse claims or allegations.

8.2 Statement of Institutional Integrity

Include a signed Statement of Institutional Integrity (see Council template on web site).

See attached as Appendix D.

8.3 Other documentation

Provide any other supporting documents such as the Graduate Program Handbook, Faculty Handbook, current calendar, cyclical review of programs policy, etc. that would add support to the applicant's case and would help reviewers (provide website links, if available).

N/A

Appendix C Template CV

NAME

Dr Tracey Hillier

COMPLETED ACADEMIC DEGREES

Degree Name	Subject Area	Where Completed	Date of Completion
Master of Education	Health Sciences Education	University of Alberta	November 2016
Doctor of Medicine (MD)	Medicine	McMaster University	June 1997
Bachelor of Science (Honours)	Nursing	St Francis Xavier University	May 1990
OTHER ADVANCED STUDIES			
Fellowship	Emergency Trauma and Cardiac Radiology	University of British Columbia	June 2011
Post Graduate Medical Residency	Diagnostic Imaging	University of Alberta	June 2007
Post Graduate Medical Residency	Family Medicine	McMaster University	December 1999

ACADEMIC APPOINTMENTS

Appointment Level	Institution	Dates	Subject Area
Associate Professor, with Tenure	University of Alberta	July 2019-Present	Diagnostic Imaging
Assistant Professor, Tenure Track	University of Alberta	July 2015-June 2019	Diagnostic Imaging
Assistant Professor, Special Continuing	University of Alberta	Jan 2012-July 2015	Diagnostic Imaging
Assistant Clinical Professor	University of Alberta	July 2011-2012	Diagnostic Imaging

Clinical Lecturer	University of Alberta	Jul 2009-Jun 2011	Diagnostic Imaging

ADMINISTRATIVE APPOINTMENTS

Appointment Level	Institution	Dates
Director and Executive Dean Alberta Institute	University of Alberta	July 2020-Present
Co-Director Situated Knowledges: Indigenous Peoples and Place (SKIPP) Signature Area	University of Alberta	July 2021-Present
Associate Dean MD Program	University of Alberta	July 2015-June 2020
Associate Dean Curriculum, MD Program	University of Alberta	July 2013-June 2015
Assistant Dean Curriculum, MD Program	University of Alberta	Jan 2012-Jun 2013

TEACHING EXPERIENCE

Institution	Dates	Courses Taught
University of Alberta	Feb 2021-Mar 2021	Course Preceptor: Discovery Learning MED 524 Psychiatry
University of Alberta-AIWMU	Sept 2020-Dec 2020	Course Coordinator and Lecturer: Global Health
University of Alberta	Oct 2020-Dec 2020	Course Preceptor: Discovery MED 512 Endocrinology
University of Alberta	Aug 2020-Oct 2020	Course Preceptor: Discovery Learning MED 511 Foundations of Medicine, Faculty of Medicine and Dentistry, University of Alberta
University of Alberta	Sept 2013-May 2017	Lecturer MD Program

University of Alberta	Oct 2013-Nov 2013	Course Planning Committee and Preceptor MED 522 Reproductive Medicine and Urology
University of Alberta	Nov 2014-Jan 2015 Nov 2013-Jan 2014 Nov 2012-Jan 2013 Nov 2011-Jan 2012 Nov 2010-Jan 2011 Nov 2009-Jan 2010	Course Planning Committee Member; Course Preceptor-Discovery Learning and Lecturer MED 523 Musculoskeletal Medicine
University of Alberta	Sept 2008-2009	Course Preceptor: Discovery Learning MED 522 Reproductive Medicine and Urology
University of Alberta	Sept 2009-Present	Clinical Teaching Preceptor

SCHOLARLY PARTICIPATION

Refereed Publications

Date	Activity
2021	Daniels V, Ortiz S, Sandhu G, Lai H, Yoon M, Bulut O, **Hillier, T.** Effect of Detailed OSCE Score Reporting on Learning and Anxiety in Medical School. Journal of Medical Education and Curriculum Development, (2021). DOI: 10.1177/2382120521992323
2021	Underschultz JG, Barber P, Richard D, **Hillier, T.** What drives resistance to Public Health measures in Canada's COVID-19 pandemic? An online survey of Canadians' knowledge, attitudes, and practices. UTMJ. 2021; 98(1):35-40. Available at SSRN: https://ssrn.com/abstract=3605193 or https://doi.org/10.2139/ssrn.3605193
2020	Wei L, Goez H, **Hillier T.,** & Brett-MacLean P. A Visiting Professorship in Undergraduate Medical Education at the University of Alberta: Reflections on possibilities for medical humanities in China, and elsewhere. MedEdPublish, 2020;9(1). DOI: https://doi.org/10.15694/mep.2020.000190.1
2020	Goez H, Lai H, Rodger J, Brett-MacLean P & **Hillier, T.** The DISCuSS model: creating connections between community and curriculum – a new lens for curricular development in support of social accountability. Medical Teacher 2020: DOI: 10.1080/0142159X.2020.779919
2020	**Hillier, T**., Lai, H., Sonnenberg, L., Lewis, M., Goez, H., Schipper, S. University of Alberta Faculty of Medicine and Dentistry. Academic Medicine: September 2020 - Volume 95 - Issue 9S - p S563-S565. DOI: 10.1097/ACM.0000000000003292

2019 Wang XR, **Hillier, T.,** Oswald A, & Lai H. Patterns of performance in students with frequent low stakes Team Based Learning assessments: do students change behavior? Medical Teacher 2019 DOI: 10.1080/0142159X.2019.1670339

2019 Daniels VJ, Strand AC, Lai H, & **Hillier, T.** Impact of tablet-scoring and immediate score sheet review on validity and educational impact in an internal medicine residency Objective Structured Clinical Exam (OSCE). Medical Teacher. 2019;41(9):1039-1044

2018 Tran UE, Kircher J, Jaggi P, Lai H, **Hillier, T**., Ali S. Medical students' perspectives of their clinical comfort and curriculum for acute pain management. Journal of Pain Research 2018;11:1479-1488

2018 Brett-MacLean P, Birkman C, Shapiro J, Rosenal T, Schafenacker N, & **Hillier, T.** Exploring the potential of online approaches to teaching the "human side of medicine": A scoping review. EDULEARN 2018: 18, 8688-8697. https://library.iated.org/view/BRETTMACLEAN2018EXP

2017 Tan A, Babenko O, England A, Humphries P, **Hillier, T**. A novel resident as teacher curriculum: the role of experiential learning and coaching. MedEd Publish, September 22, 2017

2017 Deutscher J, Miazga S, Goez H, **Hillier, T.,** Lai H. Human trafficking awareness, a learning module for improved recognition of victims in the emergency room. Can J Emerg Med 2017;19(S1):93

2013 Fatmi M, Hartling L, **Hillier T.,** Campbell S, Oswald A. The Effectiveness of Team Based Learning in Health Professions Education: BEME Guide No 30. Medical Teacher 2013;35(12)e1608-e1624

2012 Talbot M, Meunier B, Tottier V, Christian M, **Hillier, T.,** Berger C, McAlister V, Taylor S. 1 Canadian Field Hospital in Haiti: surgical experience in earthquake relief. Can J Surg 2012 Aug;55(4):271 DOI: 10.1503/cjs.039010

1999 Sheehan D, Bridle B, **Hillier, T.,** Feightner K, Hayward S, Leek S, Krueger P, Sword W, James B. Breastfeeding outcomes of women following uncomplicated birth in Hamilton-Wentworth. Canadian Journal of Public Health 1999; 90(6): 408-411

Refereed Abstracts and Presentations:

Activity
Kaiser, J., Khan, M., Rashid, M., 2, Konkin, J., **Hillier, T**., Goez, H. How Can Physicians Support Survivors of Intimate Partner Violence? Family Medicine Forum 2020.

Brett-MacLean, P., Lai, H., **Hillier, T**. & Goez, H. Health Humanities and Social Accountability in Action: Working Collaboratively across Disciplines and Communities. Canadian Medical Education Journal, 11(2). DOI: https://doi.org/10.36834/cmej.v11i2

Speerstra, S., Livy, D., Lai, H. & **Hillier, T.** A concerted approach to curriculum mapping by summer students. Canadian Medical Education Journal, 11(2). DOI: https://doi.org/10.36834/cmej.v11i2

Portnoy, D., Moran, M. & **Hillier, T.** Addressing Barriers to Learning Geriatric Medicine in Preclerkship. Canadian Medical Education Journal, 11(2). DOI: https://doi.org/10.36834/cmej.v11i2

Cox, A., Lai, H., **Hillier, T.,** Rodger, J. & Jeffery, T. Applying Appreciative Inquiry to Promote Medical Student Diversity. Canadian Medical Education Journal, 11(2). DOI: https://doi.org/10.36834/cmej.v11i2

Borle, S., **Hillier, T.**, Andrew, S., Surgin, C., Lai, H. A Quality Improvement Initiative to Improve Timeliness of Feedback. Canadian Medical Education Journal, 11(2). DOI: https://doi.org/10.36834/cmej.v11i2

Volk, A., Lai, H., **Hillier, T.** A theoretical model to determine how CaRMS variables impact medical student matching rates. Canadian Medical Education Journal, 11(2). DOI: https://doi.org/10.36834/cmej.v11i2

Barber, P., Mathura, P., Croden, J., Halasz, J., Truong, L., Raffael, K., Phan, C., , **Hillier, T.**, Kassam, N. Evaluation of a Summer Healthcare Improvement Program (SHIP) in Undergraduate Medical Education. Canadian Medical Education Journal, 11(2). DOI: https://doi.org/10.36834/cmej.v11i2

Hillier, T., Lunardon, D., Daniels, V., Oswald, A., Surgin, C., Lai, H. Three applications of learning sciences in medical education. Canadian Medical Education Journal, 11(2). DOI: https://doi.org/10.36834/cmej.v11i2

Brett-MacLean P, **Hillier, T.,** Goez H, Lai H (Feb 2020). "Illuminating Health Humanities in Undergraduate Medical Education through Curricular Mapping" Innovations in Medical Education Conference 2021: Transforming Health Professions Education through Innovation. Los Angeles, CA.

Anderson M., Fehr D., Goez H., Rodger J., Daniels L., Lai H., Daniels V., **Hillier, T.** (Apr 2019). A Human Library Intervention to Address Bias Towards LGBTQ Individuals. Canadian Conference on Medical Education, Niagara Falls, ON. Canadian Medical Education Journal, 10(2), e58-e59. https://doi.org/10.36834/cmej.v10i2

Simin I., Naidu D., **Hillier, T.** (Apr 2019). Implementing Exercise as Medicine into the Undergraduate Medical Curricula. Canadian Conference on Medical Education, Niagara Falls, ON.

Duggal A., Jeffrey T., Rodger J., Von Hauff P., **Hillier, T.** (Apr 2019). Using Think-Aloud Method to Evaluate & Re-Design the University of Alberta MD Program Website. Canadian Conference on Medical Education, Niagara Falls, ON.

Lai H., Daniels V., **Hillier, T.,** Forbes K. (Apr 2019). Adapting Comment Prompts to Improve Narrative Feedback for Learners. Canadian Conference on Medical Education, Niagara Falls, ON.

Goetz V., Do V., **Hillier, T.** (Apr 2019). Improving Undergraduate Instruction in Evidence Based Medicine (EBM): Mapping the University of Alberta Undergraduate EBM Curriculum to National Competencies as a Tool to Facilitate Curriculum Development. Canadian Conference on Medical Education, Niagara Falls, ON.

Daniels V., Lai H., Forbes K., **Hillier, T.** (Apr 2019). Evaluating the Impact of Reducing Clerkship Form Length and Nudging Face-to-Face Assessments on Validity. Canadian Conference on Medical Education, Niagara Falls, ON.

Ortiz S., Daniels V., Lai H., Yoon M., Bulut O., **Hillier, T.** (Apr 2019). Effect of Detailed OSCE Score Reporting on Student Learning. Canadian Conference on Medical Education, Niagara Falls, ON.

Lai H., **Hillier, T.,** Daniels V. (Apr 2019). Developing a framework for adapting narrative feedback prompts. Annual Meeting of the National Council on Measurement in Education (NCME) Toronto, ON.

May, Z., Lam, B., **Hillier, T.,** Goez, H., Brett-MacLean, P. (Nov 2018). Creation of a Curriculum Mapping Approach for Medical/Health Humanities in Undergraduate Medical Education. University of Alberta Faculty of Medicine and Dentistry 51st annual Summer Students' Research Day. FoMD, Edmonton, AB.

Fehr, D., Anderson, M., **Hillier, T.,** Daniels, L., Daniels, V., Lai, H., Rodger, J., Goez, H. (Nov 2018). A Human Library Intervention to Address Bias towards LGBTQ individuals. University of Alberta Faculty of Medicine and Dentistry 2018 Excellence in Medical Student Research. Edmonton, AB.

Lengkeek, C., Goez, H., **Hillier, T**., Brett-Maclean P. (Nov 2018). Patient Immersion Experience: Impact of a Mirrored Perspective in Medical Education. University of Alberta Faculty of Medicine and Dentistry 2018 Excellence in Medical Student Research. Edmonton, AB.

Brett-MacLean P., Birkman C., Shapiro J., Rosenal T., Schafenacker N., **Hillier, T.** (Jul 2018). Exploring the potential of online approaches to teaching the "Human side of medicine": A scoping review. EDULEARN18 - 10th Annual International Conference on Education and New Learning Technologies, Palma de Mallorca, Spain.

Fehr D., Goez H., **Hillier, T**., Daniels L., Daniels V., Lai H., Anderson M. (May 2018). A Human Library Intervention to Address Bias towards LGBTQ Individuals. LGBT Health Workforce Conference, New York City, NY.

Lam B., **Hillier, T**., Goez H., Rodger J., Brett-MacLean P. (Apr 2018). 'Mapping' health humanities in undergraduate medical education: Results of a preliminary exploration. Creating Space VIII Conference, Halifax, NS.

Fehr D, Lai H, **Hillier T.,** Daniels V, Daniels L, Goez H. (Feb 2018). A Human Library Intervention to Address Bias towards LGBTQ Individuals. AMA Advocacy Night, University of Alberta, AB.

Lam B, **Hillier T.,** Goez H, & Brett-MacLean P. (Nov 2017). Developing a Curriculum Mapping Approach for Health Humanities in Undergraduate Medical Education. Celebration of Teaching and Learning, University of Alberta, AB.

Lai H., Wang R., Oswald A., **Hillier, T.** (Aug 2017). Evaluation of student performance patterns in team-based learning. AMEE 2017, Helsinki, Finland.

Tan A., Kelly M., **Hillier, T.** (May 2017). "Please don't make me open up Pandora's Box!" Empowering learners by linking shared decision-making communication skills to advance care planning. Workshop presented to the Canadian Conference on Medical Education, Winnipeg, MB.

Hackett F., Burton McLeod S., **Hiller T.,** Goez, H. (May 2017). Indigenous health in undergraduate medical curricula: a student-led group-based learning curriculum innovation. Canadian Conference on Medical Education, Winnipeg, MB.

Kruhlak I., Davies M., Oswald R., Aulakh, A., **Hillier, T.,** Goez, H. (May 2017). Fentanyl crisis from the molecule to Public Health integrative team-based learning module. Poster presented at the Canadian Conference on Medical Education, Winnipeg, MB.

Christensen J., Deutscher J., Goez H., **Hillier, T.,** Lai, H., Laboucane-Benson, P. (May 2017) A Student led Curriculum Innovation to Raise Awareness of Indigenous Mental Health in Undergraduate Medical Education. Poster presented at the Canadian Conference on Medical Education, Winnipeg, MB. Medical Education 2017;51(Suppl.1)22-117. doi.org/10.1111/medu.13284.

Deutscher J., Fehr D., Christensen J., Hacket F., Goez H., **Hillier, T**., Lai H., Miazga, S. (May 2017) A Student led Curriculum Innovation to Implement Human Trafficking Awareness into Undergraduate Medical Education. Poster presented at the Canadian Conference on Medical Education, Winnipeg, MB.

Wang R., Lai H., Oswald A., **Hillier, T.** (May 2017). The Trajectory of Student Academic Performance in the Setting of Team-based Learning. Oral Presentation given at the Canadian

Conference on Medical Education, Winnipeg, MB. Medical Education 2017;51(Suppl.1)22-117. doi.org/10.1111/medu.13284

Gourishankar S., Hawthorne J., Surgin C., Lai H., **Hillier, T.** (May 2017). Professionalism Assessment and Remediation: Trials and Tribulations. Poster presented at the Canadian Conference on Medical Education, Winnipeg, MB.

Kruhlak I, Gargoum A, Goez H, **Hillier, T.,** Caine V, Abdulmalik A, Rashid M. (Feb 2017). Exploring Barriers in Accessing Care and Analyzing the Pre and Post Migration Health Status of Refugee Youth in Canada. AMA Advocacy Night. Edmonton, AB.

Uyen T., Kircher J., Jaggi P., Lai H., **Hillier, T**., Ali S. (Nov 2016). Acute pain management: The medical students' perspective. Abstract presented at the Women and Children's Health Research Institute Research Day, Edmonton, AB.

Hillier, T., Lai H. (Aug 2016). A purpose-built system to facilitate Team-Based Learning: Lessons learned. Oral Presentation accepted at the annual meeting of the Association on Medical Education in Europe, Barcelona, Spain.

Lai H., **Hillier, T**. (Jun 2016). Lessons learned from a development of an electronic OSCE scoring system. Poster presented at the Meeting of the Information Resource Group of the American Association of Medical Colleges, Toronto, ON.

Lai H., Daniels, V., Tan, A., **Hillier, T**. (May, 2016). Developing an electronic objective structured clinical examination system: progress and outcomes. Invited presentation at the Festival of Teaching, University of Alberta, Edmonton, AB.

Lai H., Gierl M., Tan A., Daniels V., **Hillier, T**. (Apr 2016). Framework for Feedback and Remediation with Electronic Objective Structured Clinical Examinations. Paper Presented at the annual meeting of the National Council on Measurement in Education. Washington, DC.

Tan A., Ahn, T., Webb A., **Hillier, T**., Lai, H. (Apr 2016). Evaluation of an Academic Service Learning Experience. Poster Presented at the Canadian Conference on Medical Education, Montreal, QC.

Hillier, T., Oswald A., Lai H. (Apr 2016). A Pilot Study to Investigate the Effectiveness of Team Based Learning for Improving Learning Outcomes. Oral Presentation at the Canadian Conference on Medical Education, Montreal, QC.

Ali S., Lai H., **Hillier, T.,** Gourishankar, S. Implementation of a Faculty Professionalism Assessment Process in Undergraduate Medical Education. Oral Presentation at the Canadian Conference on Medical Education, Montreal, QC.

Davila-Cervantes A., Surgin C., Lorencs M., Tan, A., **Hillier, T.,** Lai, H. (Apr 2016). Development of Electronic Attendance Tracking Process at the Faculty of Medicine and Dentistry. Poster Presented at the Canadian Conference on Medical Education, Montreal, QC.

Tan A., Lee J., **Hillier, T.,** Lai H., Forbes K., Au L. (Jan 2016). An innovative integrated patient-centered communications curriculum, and assessment and remediation framework for medical students. Presentation at the 42nd Annual STFM Conference on Medical Student Education. Phoenix, AR.

Tan A., Au L., Lee J., **Hillier, T.,** Lai H. (Aug 2015). An innovative integrated communications curriculum, and assessment and remediation framework for medical students. Oral presentation at the International Conference on Communication in Healthcare, New Orleans, LA.

Hillier, T., Lai H., & Davila-Cervantes, A. (Apr 2015). Evaluating Curriculum Planning Using a Topic Group Consensus Process. Oral presentation at the Annual meeting of the Canadian Conference on Medical Education. Vancouver, BC.

Davila-Cervantes A., **Hillier, T.,** Gye, J., Lai, H. (Apr 2015). Development, Implementation, and Outcomes from a Comprehensive Electronic Evaluation Process for an Undergraduate Program. Poster presented at the Annual meeting of the Canadian Conference on Medical Education. Vancouver, BC.

Tan A., **Hillier, T.,** & Lai, H. (Apr 2015). Challenges and Solutions in Developing an Assessment Process for a Longitudinal and Integrated Physicianship Course. Oral presentation presented at the Annual meeting of the Canadian Conference on Medical Education. Vancouver, BC.

Lai H., Forbes, K., Tan, A., Pinsk, M., **Hillier, T**., Davila-Cervantes, A., Gierl, M., Daniels, VJ. (Apr 2015). Converting from Single to Parallel Forms Examination: Applications of Modern Psychometric Techniques. Poster presented at the Annual meeting of the Canadian Conference on Medical Education. Vancouver, BC.

Lai H., **Hillier, T.** (May 2014). Curriculum Mapping Through Student Crowdsourcing. MedBiquitous Annual Conference. Baltimore, MD.

Lai H., **Hillier, T**., Gierl M., Tanygin V. (May 2014). Deploying TAO in Medical Education using a rapid development framework. National Council of Measurement in Education. Philadelphia, PA.

Lai H., **Hillier, T**., Gierl M. (May 2014). Processing evaluation comments using natural language processing in medical education. National Council of Measurement in Education. Philadelphia, PA.

Huie M., Ma L., **Hillier, T**., Lai H. Apr 2014). Student's perspective on patient advocacy training in an undergraduate medical curriculum. Ottawa Conference 2014 and Canadian Conference on Medical Education. Medical Education 2014;48(Suppl 1):2-130. https://doi.org/10.1111/medu.12485

Heydarimanesh H., Longowal N., **Hillier, T**. (Apr 2014). Health of Special Populations in a First Year Medical Curriculum. Ottawa Conference and Canadian Conference on Medical Education. Ottawa, ON.

Davila-Cervantes A., Lai H., **Hillier, T.** (Apr 2014). A modified Delphi approach to develop program level objectives for an Undergraduate Medical Education Program. Ottawa Conference and Canadian Conference on Medical Education. Ottawa, ON.

Tan A., **Hillier, T**., Koppula S., Seto A., Lee J., Daniels V.J., Humphries P., Hnatko G., Khera A.S. (Apr 2014). Development, Implementation, and Outcomes of a new Resident-as-Teacher collaboration initiative between the Family Medicine Residency Program and the Undergraduate Medical Education Program at the University of Alberta. Ottawa Conference and Canadian Conference on Medical Education. Ottawa, ON.

Hackett C., **Hillier, T.** (Apr 2014). Fostering Medical Leadership: A Student-Led Health Systems and Policy Curriculum. Ottawa Conference and Canadian Conference on Medical Education. Ottawa, ON.

Hillier, T., Tan A., Lai H., Daniels VJ, Brett-MacLean P., Davila-Cervantes A., Lee J., Ali S. (Apr 2014). Incorporating Professional Identity Formation into a Medical School Curriculum. Ottawa Conference and Canadian Conference on Medical Education. Ottawa, ON.

Wang, S., **Hillier, T.,** Lai, H. (Apr 2014). CanMEDS Professional Competencies: Coverage in a First Year Medical Curriculum. Ottawa Conference and Canadian Conference on Medical Education. Ottawa, ON.

Ostrowerka,B., Lai H., **Hillier, T.** (Apr 2014). Assessment item mapping to inform curricular evaluation of a neurosciences course. Ottawa Conference and Canadian Conference on Medical Education. Medical Education 2014;48(Suppl 1):2-130. https://doi.org/10.1111/medu.12485

Hillier, T., Lai H., Tan A., Davila A., Daniels VJ. (Apr 2014). Identity formation and competency: A longitudinal conjunctive approach to assessment. Ottawa Conference and Canadian Conference on Medical Education. Apr 2014 Medical Education 2014;48(Suppl 1):2-130. https://doi.org/10.1111/medu.12485

Sundaram A., **Hillier, T**., Campbell S. Student-led Development of Patient Safety and Quality Improvement Medical Curriculum. Medical Education 2014 48(Suppl 1)2-130. https://doi.org/10.1111/medu.12485

Sundaram A., Dennett E., Campbell S., **Hillier, T**. (Oct 2013). Student-led Development of Patient Safety and Quality Improvement Medical Curriculum. Celebration of Teaching and Learning, University of Alberta. Edmonton, AB.

Lee R., San Agustin P., Bhutani M., **Hillier, T.** (Aug 2013). Can 3rd year medical students write a 4th year OSCE? Making a summative exam formative. AMEE International Association for Medical Education Annual Meeting. Prague, Czech Republic.

Lai H., **Hillier, T.,** Vestemean R. (Aug 2013). Electronic crowdsourcing as a method for curriculum mapping. Short Communication. AMEE International Association for Medical Education Annual Meeting. Prague, Czech Republic.

Brett-MacLean P., Lai H., **Hillier, T**. (May 2013). The Medical Education Book Club at the University of Alberta; Promoting faculty development and community through a blended learning approach. Association of American Medical Colleges West WGEA, Irvine, CA.

Hillier, T., Brett-MacLean P. (Apr 2013). Introducing DocCom as an Online Communication Skills Curriculum Resource: Feedback from Students and Small Group Facilitators. Canadian Conference on Medical Education. Quebec City, QC.

Hillier, T., Oswald. A. & Hayward, R. (Aug 2012). A Novel and Extended Use of an Online Learning Community in Team Based Learning. Teaching Big: The Joy of Large Classes Event University of Alberta. Edmonton, AB.

Fatmi, M., **Hillier,T.,** Hartling, L., Campbell, S., & Oswald, A. (Aug 2012). Best Evidence in Medical Education (BEME) Systematic Review: The effectiveness of team-based learning (TBL) on learning outcomes in health professions education. AMEE International Lyon, France.

Fatmi, M., **Hillier, T**., Hartling, L., Campbell, S., & Oswald, A. (Apr 2012). A Best Evidence in Medial Education (BEME) Systematic Review: The effectiveness of team-based learning on learning outcomes in health professions education. Canadian Association of Medical Education Annual Meeting. Banff, AB.

Hillier, T., Oswald A. (Apr 2012). Developing and assessing professionalism in undergraduate medical education: A novel approach using a Peer Evaluation process. Canadian Association of Medical Education Annual Meeting. Abstract and Poster Presentation. Banff, AB.

Hillier, T., Oswald, A., & Hayward, R. (Mar 2012). Homer: A Novel and Extended Use Of An Online Learning Community In Team Based Learning. Abstract and Poster Presentation. Team Based Learning Collaborative Annual Meeting. St Petersburg, FL.

Lee, K., Roy, E., Inacio, J.R., **Hillier, T**., Nicolaou, S. (Nov 2009). An Evaluation of Conventional Imaging Modalities in the Triaging of Acute Chest Pain in the Emergency Department with Emphasis on the Impact of Low-Dose MDCT Protocol. Radiological Society of North America 2009 Scientific Assembly and Annual Meeting, Chicago, IL

Lee, K., Lee, A., Roy, E., **Hillier, T**., Nicolaou, S. (Nov 2009). Pictorial Review of the Spectrum of Pericardial Disease: Utility of MDCT, MRI, Echocardiography, and Radiography in the Management and Diagnosis of Pericardial Effusion/Tamponade, Pericardial Masses, and

Trauma to the Pericardium. Radiological Society of North America 2009 Scientific Assembly and Annual Meeting, Chicago, IL

Hillier, T., Wiebe E, Raymond G. (June 2004). Crisis management training in radiology: the use of a computerized patient simulator. Poster and Podium Presentation at the 23rd International Congress of Radiology (ISR), Montreal, QC.

Jadad AR, **Hillier, T.,** Fowler-Graham D, Enkin M. (October 1997). Manipulating the type, timing and amount of input from reviewers with different expertise to reduce bias in systematic reviews: a case report. 5th Annual Cochrane Colloquium, Amsterdam, The Netherlands.

Jadad AR, **Hillier, T.** (1996). Measuring Clinical Pain: do we need more tools? Abstracts of the 8th World Congress on Pain. 1996:289. IASP, Seattle, WA,

Hillier T., Jadad AR. (1996). The measurement of Clinical Pain: an appraisal of published reviews. Abstracts of the 8th World Congress on Pain. 1996:290. IASP, Seattle, WA,

Hillier T., Jadad AR. (June 1996). The development of a database on the measurement of pain. Supportive Care in Cancer 1996; 3:246. 8th International Symposium on Supportive Care in Cancer. Toronto, ON.

ACADEMIC AND PROFESSIONAL PRESENTATIONS

Invited International Presentations

Date	Presentations
Nov 2020	Invited Keynote Speaker, Wenzhou Medical University 2020 International Cultural Festival. Embracing the world, facilitating people-to-people exchanges and communications.
Sep 2020	Alberta Institute Wenzhou Medical University.
Dec 2019	A collaborative curriculum for undergraduate medical education between Wenzhou Medical University and University of Alberta, Beijing China
Oct 2019	International Faculty Development Program Academic Exchange, Active Learning: Team Based Learning, Problem Based and Discovery Learning.
Oct 2019	International Faculty Development Program Academic Exchange, Research in Medical Education.
Sept 2019	International Faculty Development Program Academic Exchange with Jilin University, MD Program Curriculum
Mar 2019	Undergraduate Medical Education in Canada. Symposium for Medical Education, China Medical University, Shenyang, China
Mar 2019	Undergraduate Medical Education in Canada. Sino-Canadian Forum on Medical Collaboration, Wenzhou, China

Mar 2019	Undergraduate Medical Education in Canada Shanghai Mental Health Center, Shanghai, China
Mar 2018	International Faculty Development Program Academic Exchange with Jilin University, MD Program Curriculum
Apr 2014	Redrawing the Line on Professionalism: Views on Professional & Ethical Behavior within Radiology. Association of University Radiologists, Baltimore MD
Oct 2013	Radiology in a Disaster Zone. Association of Emergency Radiologists Boston MA
Aug 1996	France USA Pain Association, Speaker and Co-Author of paper presented at invitation-only scientific consortium. Meynadier, J., Lee, M.Y., Thurel, C., Poulian, P., Johnson Jr, B.W., Parris, W.C.V., Altman, M., and Hillier, T., "Pain Education in the 21st Century: How to Establish a Pain Curriculum." Paris, France.

Invited National Presentations

Date	Presentations
Oct 2021	Equity, Diversity and Inclusion: Checking Your Privilege. University of British Columbia, Post-Graduate Radiology Speaker Panel on EDI, Vancouver BC
Aug 2020	Virtualizing the Medical School Interview in Response to the COVID-19 Pandemic - McGill University, Post Graduate Medical Education Meeting, Virtual with McGill University
Dec 2017	Comprehensive Review of Medical School Admissions – Perspectives from Another University. University of Calgary MD Admissions Review Committee Retreat, Calgary AB
Sept 2011	Overview of Current Undergraduate Medical Education Programs in Afghanistan. International Medical Mentorship Training Program, Petawawa, ON
Apr 2011	Radiology Not Just Nine to Five. Canadian Association of Radiologists Annual Meeting, Montreal QC
Mar 2011	Advanced Military Trauma Resuscitation Course, McGill Simulation Center, Montreal, QC
Oct 2010	Place of Birth. Presentation and Panel Discussion. Canadian Association of Midwives Conference, Edmonton AB

Invited Regional and Continuing Medical Education Presentations

Date	Presentations

Mar 2021	Mental Health Awareness for Medical Students, Edmonton AB
Feb 2021	Indigenous Women in Health Care, University of Alberta Women in Science and Engineering (UA-WiSE), Edmonton AB
Jul 2020	Connecting with Indigenous Engaged Research and Scholarship in Health. Colloquium on Indigenous Engaged Research, Situated Knowledges: Indigenous Peoples and Place (SKIPP), Edmonton AB
May 2019	MD AIDE, Undergraduate Medical Education, Edmonton AB
Sep 2018	Breast Imaging – The Other Side. Alberta College of Medical Diagnostic and Therapeutic Technologists Annual Meeting, Edmonton AB
Oct 2014	Alberta College of Medical Diagnostic and Therapeutic Technologists Annual Meeting, Edmonton AB
Jun 2012	Insight Medical Imaging Clinical Rounds, Radiology and Medicine in Developing Countries, Edmonton, AB
Jan 2012	Grey Nun's Hospital Psychiatry Grand Rounds Medical Care in a Disaster Zone: The Haiti Experience, Edmonton, AB
Nov 2011	Medical Care in a Disaster Zone: The Haiti Experience. Keynote speaker, Gordon Reid MacDonald Memorial Lecture. Misericordia Medical Staff Association, Edmonton, AB
Oct 2011	Department of Diagnostic Imaging Misericordia Hospital Grand Rounds, Trauma Radiology, Edmonton, AB
Mar 2010	Haiti Disaster Relief: A Radiologists Perspective. Departmental Grand Rounds, Diagnostic Imaging Misericordia Hospital, Edmonton, AB
Apr 1999	Epidural Analgesia – benefits, risks and issues. Day in Primary Care Obstetrics. Rebirthing Low Risk Obstetrics in a High-Risk World. Royal Botanical Gardens, Burlington, ON
May 1996	Identification of methods to measure pain. Supportive Care in Cancer Research Unit Working Group Meeting. Hamilton Regional Cancer Center, Hamilton, ON
Mar 1996	Searching for tools to measure pain: panning for gold or for gravel? Continuing Education Sessions Department of Clinical Epidemiology and Biostatistics. McMaster University, Hamilton, ON

Faculty Development

Date	Presentation
2021	Lecturer, Teaching Scholar's Program- AI "Introduction to the Alberta Institute Faculty Development Program" Target Group: Faculty Development, Multidisciplinary Learner Group
2021	Lecturer, Teaching Scholar's Program "From Novice to Expert"

	Target Group: Faculty Development, Multidisciplinary Learner Group
2020	Lecturer, Teaching Scholar's Program "From Novice to Expert" Target Group: Faculty Development, Multidisciplinary Learner Group
2020	Lecturer, Teaching Scholar's Program "Including Diversity, Inclusion, and Equity in your Teaching" Target Group: Faculty Development, Multidisciplinary Learner Group
2019	Retreat Coordinator and Presenter, Western Undergraduate Medical Education Deans Retreat, Faculty of Medicine and Dentistry, University of Alberta
	Target Group: Faculty Development, Multidisciplinary Learner Group
2019	Retreat Coordinator and Presenter, Undergraduate Medical Education Curriculum Spring Retreat, Faculty of Medicine and Dentistry, University of Alberta
	Target Group: Faculty Development, Multidisciplinary Learner Group
2019	Peer and Self-Assessment using Multi-Source Feedback. Session for Teaching Scholars Program 003, Introduction to Assessment Course, Edmonton AB
	Target Group: Faculty Development, Multidisciplinary Learner Group
2018	Presenter: Faculty of Medicine and Dentistry International Faculty Development Program Academic Exchange with Jilin University, Undergraduate Medical Education Curriculum University of Alberta MD Program
	Target Group: Faculty Development, Multidisciplinary Learner Group
2018	Panelist: Discussion "Do No Harm" What's killing our Doctors? Screening, Edmonton Alberta.
	Target Group: Faculty Development, Multidisciplinary Learner Group
2018	Workshop Coordinator and Presenter, Undergraduate Medical Education Semi-Annual MD Program Curriculum Retreat, Faculty of Medicine and Dentistry, University of Alberta
	Target Group: Faculty Development, Multidisciplinary Learner Group
2017	Workshop Coordinator and Presenter, Undergraduate Medical Education Semi-Annual MD Program Curriculum Retreat, Faculty of Medicine and Dentistry, University of Alberta
	Target Group: Faculty Development, Multidisciplinary Learner Group
2016	Workshop Coordinator and Presenter, Undergraduate Medical Education Semi-Annual MD Program Curriculum Retreat, Faculty of Medicine and Dentistry, University of Alberta

	Target Group: Faculty Development, Multidisciplinary Learner Group
2015	Workshop Coordinator and Presenter, Undergraduate Medical Education Semi-Annual MD Program Curriculum Retreat, Faculty of Medicine and Dentistry, University of Alberta
	Target Group: Faculty Development, Multidisciplinary Learner Group
2014	Workshop Coordinator and Presenter, Undergraduate Medical Education Semi-Annual MD Program Curriculum Retreat, Faculty of Medicine and Dentistry, University of Alberta
	Target Group: Faculty Development, Multidisciplinary Learner Group
2013	Lecturer: Gold Humanism Program, Conflict Resolution Lecture, Faculty of Medicine and Dentistry, University of Alberta
	Target Group: Faculty Development
2013	Workshop Coordinator and Presenter, Undergraduate Medical Education Semi-Annual MD Program Curriculum Retreat, Faculty of Medicine and Dentistry, University of Alberta
	Target Group: Faculty Development, Multidisciplinary Learner Group
2013	Lecturer: Gold Humanism Program, Conflict Resolution Lecture, Faculty of Medicine and Dentistry, University of Alberta
	Target Group: Faculty Development
2013	Workshop Coordinator and Presenter, Undergraduate Medical Education Curriculum Retreat, Faculty of Medicine and Dentistry, University of Alberta
	Target Group: Faculty Development, Multidisciplinary Learner Group
2013	Co-Chair, Medical Education Book Club

Clinical Teaching

Date	Activity
2009- Present	Clinical Preceptor, Radiology and Diagnostic Imaging, Community Clinic Sites Edmonton, Alberta
	Target Group: Radiology Residents, Medical Students, Medical Sonography Students
2009-2018	Clinical Preceptor, Radiology and Diagnostic Imaging, Misericordia Hospital Edmonton, Alberta, Canada
	Target Group: Radiology Residents, Medical Students, Medical Radiation Technology Students, Medical Sonography Students

2011-2014	Clinical Preceptor, Radiology and Diagnostic Imaging, Vancouver General Hospital Vancouver, British Columbia
	Target Group: Radiology Residents, Medical Students
2008-2009	Radiology Resident Rounds: 14 sessions, Faculty of Medicine and Dentistry, University of Alberta
	Target Group: Radiology Residents
2001	Preceptor: Clinical Clerkship, Faculty of Medicine and Dentistry, UAlberta
	Target Group: Medical Students
2000-2002	Preceptor: Nurse Practitioner Program
	Target Group: Nurse Practitioner Students
1990-2002	Preceptor: Canadian Forces Physician Assistant Program
	Target Group: Physician Assistant Students
2013	Workshop Coordinator and Presenter, Undergraduate Medical Education Curriculum Retreat, Faculty of Medicine and Dentistry, University of Alberta
	Target Group: Faculty Development, Multidisciplinary Learner Group
2013	Co-Chair, Medical Education Book Club

PROFESSIONAL MEMBERSHIPS, QUALIFICATIONS and EXPERIENCE

Professional Memberships

Canadian Emergency Trauma and Acute Radiology Society

Canadian Association Radiologists

American Society of Emergency Radiologists

Indigenous Physicians Association of Canada

Leaders in Indigenous Medical Education

Association of University Radiologists

Canadian Society of Breast Imaging

Military Sexual Trauma, Community of Practice

Assessment Continuum for Canada

National Undergraduate Medical Education Committee

Medical Council of Canada, Legislative Committee

Alliance of Medical Student Educators in Radiology Assessment Subcommittee

Alliance of Medical Student Educators in Radiology Subcommittee

Association of Medical Education in Europe

Canadian Association of Medical Education

Royal College of Physicians of Canada

Radiology Society of North America

Association of Women Radiologists

Professional Qualifications

Fellow, Royal College of Physicians of Canada (Diagnostic Imaging)

Certificant Board for Cardiovascular Computed Tomography

Certificant College of Family Physicians of Canada

Licentiate of the Medical Council of Canada

University of Alberta, Gold Academic Leadership Program

Teaching Scholars Program (TSP), Faculty Development 15-month Certificate Program

Professional Experience

Grant Review, Advisory Committees, Scientific Societies

2021-Present	Vice Chair, Equity, Diversity and Inclusion Working Group for the Canadian Association of Radiologists
2021-Present	Chair Review Committee, Department of Radiology and Diagnostic Imaging, University of Alberta
2020-Present	Indigenous Engaged Research Grant Adjudication Committee, University of Alberta
2020- Present	Alberta Institute, Wenzhou Medical University, Joint Management Committee
2020- Present	Board of Directors, Canadian Emergency, Trauma and Acute Care Radiology Society
2020	Committee on Accreditation of Canadian Medical Schools, McMaster University DeGroot School of Medicine, Interim Accreditation Review Co-lead.
2020	Medical Council of Canada, Accommodations Committee
2019-2020	Transition Advisory Committee, AFMC, Canadian Medical Schools Respond to the Opiate Crisis
2020	Search & Selection Committee, Endowed Chair in Health Ethics and Director of John Dossetor Health Ethics Centre, FOMD
2019- Present	Indigenous Advisory Council, Office of the Vice Provost Indigenous Programming and Research, University of Alberta
2019	Search and Selection Committee, Zone Clinical Director Diagnostic Imaging
2019	Search and Selection Committee, Department Chair Internal Medicine, FOMD

2019	Search and Selection Committee, Director Indigenous Health Initiatives
2016 - 2019	Medical Education Assessment Continuum for Canada Group
2016	Search and Selection Committee, Department Chair Diagnostic Imaging
2016	Chair Review Committee, Department Chair Pediatrics
2015 - 2020	Medical Council of Canada, Council Member
2015 - 2020	Medical Council of Canada, Legislation Committee Member
2013 - 2017	Canadian Association of Radiologists Directors of Undergraduate Education Committee
2013 - 2016	Alliance of Medical Student Educators in Radiology Education Assessment Committee
2013 - 2016	American Society of Emergency Radiologists Scientific Committee
2013 - 2016	Association of University Radiologists Education Committee
2013	Search and Selection Committee, Director Indigenous Health Initiatives, FOMD
2013	American Society of Emergency Radiologists Education Committee

Institutional Administrative and Leadership Contributions:

2021 - Present	Indigenous Research Strategy Task Force, University of Alberta
2020 - Present	Director and Executive Vice-Dean, Alberta Institute, UAlberta
2020 - Present	Learning Environment Subcommittee, Department of Psychiatry
2020 - Present	Indigenous Research Strategy Task Force, University of Alberta
2020 - Present	Black Applicant Admissions Working Group, Faculty of Medicine and Dentistry, University of Alberta
2020 - Present	University of Alberta, Vice-Provost Indigenous Programming and Research Advisory Council
2020	Indigenous Applicant MD Admissions Selection Committee, UAlberta
2019- Present	Situated Knowledges: Indigenous Peoples & Place (SKIPP) Indigenous Scholars' Circle
2019- Present	Member Innovation Discover Education and Scholarship Office Advisory Board
2017-2020	Chair, MD Curriculum and Program Committee
2015-2020	Chair, MD Program Operations Committee
2015-2020	Member, Faculty of Medicine and Dentistry Executive Chairs Committee
2015-2020	Member, Faculty of Medicine and Dentistry MD PhD Committee

2015-2020	Member, Faculty of Medicine and Dentistry Professionalism Committee
2015-2019	Member, Deans Strategic Planning Committee
2015-2016	Chair MD Program Committee
2013-2020	Member, Education Quality Improvement Team
2013-2020	Member, Faculty Learning Committee
2013-2016	Co-Chair, Interfaculty Inter-Professional Health Team Development Refresh
2012- Present	Affiliate Faculty, Arts and Humanities in Health and Medicine
2012-2020	Collaborative Health Education and Practice Group Meeting
2012-2017	Chair, MD Program Curriculum Committee
2012- 2015	Chair, Clerkship Committee
2012-2015	Chair, Pre-clerkship Committee
2012-2015	Chair, Assessment and Evaluation Committees
2012-2014	Member, Faculty of Medicine and Dentistry Accreditation Advisory Committee
2012-2014	Clinical Advisor, Teaching Scholars Program
2012-2014	Member, Faculty of Medicine and Dentistry Accreditation Education Standards Committee A and Committee B
2011-2014	Member, Dentistry Program Curriculum Committee
2009-2013	Member, Block Planning Committee, MED523/DDS523 Musculoskeletal, Rheumatology, Rehabilitation and Dermatology course

Clinical Experience

2009-Present Physician Staff Member, Department of Diagnostic Imaging, Misericordia Hospital, Edmonton, Alberta

2009-2015 Physician Staff Member, Department of Diagnostic Imaging, Base Health Services Clinic, CFB Edmonton, Alberta

2012-2014 Associate Medical Staff, Combined Sub-Specialty Imaging, Vancouver General Hospital, Vancouver, British Columbia

1999-2003 Family Physician Staff Admitting Privileges Sturgeon Community Hospital, St Alberta, AB

2002 Acting Base Surgeon, Canadian Forces Health Services Clinic, CFB Edmonton

1999-2002 Deputy Base Surgeon, Canadian Forces Health Services Clinic, CFB Edmonton

1992-94 Nurse, 2 Field Ambulance, Canadian Forces Medical Center, CFB Petawawa

1990-1992 Nurse/Nursing Supervisor, Canadian Forces Hospital, CFB Halifax

Review and Editorial Activities:

Journal of Medical Education and Curricular Development

Emergency Radiology

Advances in Health Sciences Education

Canadian Pharmacists Journal

Canadian Conference on Medical Education

Appendix D

Statement of Institutional Integrity

In the institutional integrity section of the Campus Alberta Quality Council's Academic Freedom and Scholarship Policy, the following statements are made:

The institution must present itself accurately and truthfully in all of its written documents. This includes the manner in which it describes its qualities and programs and compares them with other institutions.

Full compliance with legal matters such as copyright law is expected.

On behalf of (name of applicant institution) I/we attest that, to the best of my/our knowledge, the information presented in this application is complete and accurate and reflects the highest standards of institutional integrity.

Signed by:

_____ *President of institution*

_____ *Board Chair of institution*
(for applications from institutions not authorized to offer a government-approved degree program)

OR

_____ *Senior academic officer*

(for subsequent program proposals from institutions authorized to offer at least one government-approved degree program)

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: Sandy Campbell	Date: 4 February 2022
Library Unit: Health Sciences	Email: sandy.campbell@ualberta.ca

Program Proposal Contact:

Name: Tracey Hillier	Dept./School: Alberta Institute Faculty of Medicine & Dentistry
Faculty: FOMD	E-mail: thillier@ualberta.ca

Proposed Program Changes:

Proposed new program Bachelor of Biomedicine Dual Degree Program

This dual degree program is a collaboration between Wenzhou Medical University (WMU) and the Alberta Institute within the Faculty of Medicine & Dentistry at the University of Alberta. The collaboration is part of the Alberta Institute Wenzhou Medical University (AIWMU).

Students who complete all of the required credits and meet the academic standards of both universities will be granted the degrees from each institution. Students will be eligible for a Bachelor of Biomedicine from the University of Alberta after they complete the first four years of the program. They will be eligible for the Bachelor of Clinical Medicine degree from Wenzhou Medical University after all 5 years of the program have been completed. All 5 years of the program need to be successfully completed as a requirement for either degree to be issued.

All students in the program are located in China. The program will be based on a Fee-Paying model. Students in years 1-2 of the program will maintain minimal registration at the University of Alberta. Students in years 3 and 4 will be assessed University of Alberta Full-Time Student tuition. Students in year 5 will maintain minimal registration at the University of Alberta. There will be 60 students in each year of the program, with a total of 240 students during the first 4 years of the program (the 5th year is taught entirely at Wenzhou Medical University).

Library Service or Resource	Description of Library Impact
Instruction (e.g., classes with a librarian, tours, online resource guides, online tutorials, etc.)	Instruction related to finding evidence based medicine sources will be useful for students in the Bachelor of Biomedicine program.

	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. Sandy Campbell is the subject librarian for the Faculty of Medicine & Dentistry and has the capacity to support this Program.
Reference assistance (e.g., ongoing one-on-one help)	The subject librarian or other librarians in complementary subject areas will be able to accommodate requests for assistance via email, phone, or online. General reference assistance is available at all University of Alberta Library service desks and online via Ask us services.
Collections – course materials, print, electronic [note any impacts on simultaneous users, licensing considerations etc.]	The Library's current subscriptions to print and electronic journals and books should adequately support this program. We have a full suite of resources to support an MD program, including primary databases (Medline, EMBASE, CINAHL, SCOPUS, TRIP Pro) journal packages from the major medical journal publishers (eg: Elsevier, Thieme, Springer, Oxford), e-book products including Access Medicine and Clinical Key, point of care tools (eg: Dynamed and Lexicomp)Any items that are not available and/or accessible through the Library can be requested through Interlibrary Loan. Other subject specific databases and resources may be required. The Library also supports course reading list and reserve requests online using the Talis platform. The Library's Medicine Subject Guide will be relevant to students taking specific courses in the Bachelor of Biomedicine course.
Physical facilities (e.g., sufficient room for group work; in-library work, etc.)	Physical facilities are in place to support student research needs during their summer school on site at the University of Alberta. There are bookable group study spaces, as well as collaborative and individual study spaces in all library locations.

X 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		9 February 2022

Associate University Name	**Associate University Signature**	**Date**
Sharon Murphy		9 February, 2022

Jiming Kong, PhD
Professor

Phone (204)977-5601
Mobile (204)890-5601
Jiming.Kong@umanitoba.ca

Department of Human Anatomy
and Cell Science
Max Rady College of Medicine
745 Bannatyne Avenue
Winnipeg, Manitoba
Canada R3E 0J9
Fax (204)789-3920

UNIVERSITY OF MANITOBA
Rady Faculty of Health Sciences

January 3, 2021

Dr. Janice Causgrove-Dunn
Vice-Provost (Programs)
University of Alberta

Dear Dr. Causgrove-Dunn:

Re: Dual Degree Program in Biomedicine

Thanks for the opportunity to review the Dual Degree Program of the Alberta Institute at Wenzhou Medical University (AIWMU). I am a professor at the College of Medicine, University of Manitoba. Over the past 14 years I have initiated and served as coordinator for 4 academic exchange programs between the University of Manitoba and Chinese Universities. I have no conflict of interest in providing this letter of assessment.

The proposed program is to be jointly sponsored by the Wenzhou Medical University (WMU) and the Faculty of Medicine & Dentistry at the University of Alberta. It will be developed in the Alberta Institute at WMU that has an ongoing collaborative medical program in the past two years. Students in the program will spend their first two years in Wenzhou Medical University, and the third and fourth years in University of Alberta. Clinical internship of the program will be arranged in the fifth year at Wenzhou Medical University. Students will receive a Bachelor of Biomedicine from the University of Alberta and a Bachelor of Clinical Medicine degree from Wenzhou Medical University after successful completion of the program. The program plans to enroll 60 students each year. Students targeted for admission in this dual degree will be exclusively from China.

In recent years we have seen a number of collaborative medical education programs established between Canadian and Chinese universities. Many of these programs focus on some aspect of medical education such as elective courses, resident exposure, family medicine, and training of clinicians. The collaborative medical program the University of Alberta and Wenzhou Medical University have established a few years ago appears to be one of the most comprehensive programs in this category. It has been taking students for the past two years. The proposed Dual Degree Program in Biomedicine is obviously an expansion of the collaborative program that has already demonstrated a high learner demand in the past few years. I agree that including a degree from the University of Alberta to officially recognize the training experience in Alberta is necessary and appropriate, and will make the program even more attractive to applicants.

Both Wenzhou Medical University and the University of Alberta have a strong undergraduate medical education program. The proposed program comes with a comprehensive curriculum that entails strengths of both universities. I am reasonably convinced that the program is feasible and has the potential to meet international quality standards for degree programs.

Personally I consider the proposed program is new and very interesting. It will provide the students with an exceptional learning experience and will establish the University of Alberta as a leader in international medical education. Assessment of demands that will be created by the proposed program is realistic. I would therefore endorse the proposal without conditions.

Sincerely,

Jiming Kong, PhD

Patrick.choy@umanitoba.ca

UNIVERSITY OF MANITOBA | Faculty of Medicine

January 2, 2022

Ms Carley Roth
Portfolio Initiative Manager
Office of the Provost and Vice –President Academic
University of Alberta

Dear Ms Roth:

Thank you for the opportunity to review the new bachelor's degree program in Biomedicine proposed jointly by the University of Alberta and the Wenzhou Medical University. It is a dual degree program through the collaboration between the Wenzhou Medical University and the Alberta Institute within the Faculty of Medicine and Dentistry at the University of Alberta. Upon the completion of required credits in the four years of the joint program, students will become eligible for a Bachelor of Biomedicine from the University of Alberta. They must continue to complete the fifth year of the clinical (clerkship) program at their home institution to become eligible for a Bachelor of Clinical Medicine from the Wenzhou Medical University. As an additional condition, all five years of the program must be successfully completed in sequence as a requirement for either degree to be issued.

The Joint Program will have an intake of 60 students every year. The student will be based throughout the five years at Wenzhou Medical University, and the University of Alberta will send professors to Wenzhou to teach the third and fourth year courses. Students may spend some time at the Alberta campus to take short courses and/or gain some "Canadian" exposure during the summer. The Proposal states that there is a labor market demand for physicians in China who have an international perspective on health care, leadership and medical education.

In general, the academic content of the joint program bears similarities with many ongoing five year medicine program in countries outside North America. One outstanding feature to include the Bachelor in Biomedicine program into this medical program is that the student will receive a strong background in basic and clinical sciences through the first four years of study. This background will not only help medical students to develop better clinical skills and thinking during their clerkship training, but the strong science background also provide them with a clearer path (if they wish) to go into clinical research and related studies in the future.

The first two years of the Bachelor in Biomedicine will be given by professors at the Wenzhou Medical University. Since the incoming students are usually high school graduate, this training will give students adequate basic knowledge in biomedical sciences and the opportunity to learn English as prerequisites to take the more advanced subjects in the third and fourth year. The clinical (preclerkship) sciences in third

and fourth year are taught by professors from the University of Alberta, who will travel to Wenzhou to do the teaching. These courses include Endocrinology & Metabolism, Cardiovascular Medicine, Pulmonary Medicine and Renal Medicine. The course contents provided in the Proposal appear to be at par with selected physiology or biochemistry courses at the BSc Honours level in Canada. Hence, I have no doubt that they will meet the requirements and/or national and international quality standards for a bachelor degree program.

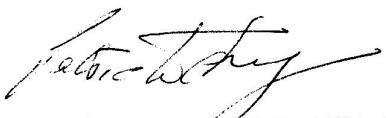
The inclusion of Health System Science courses into the program is an excellent choice. It is clear that health care delivery in China is very different from Canada. The knowledge on how health systems work together to deliver care, both in Canada and the rest of the world, would provide students with a wider perspective to evaluate the pros and cons of their current system. The inclusion of health care policy, economics and management; clinical informatics and health information technology and value-based care are subjects which are very important and timely. Chinese medical students, however, have only limited exposure to these important subjects.

One area which can be strengthened in the Health System Science course is to include the role of family physician in course. There has been a hiatus in the training of family physician in China, and the government has recently encouraged universities to expedite the process.

It is gratifying to see that institutional administrators and faculty have made a realistic assessment of the need for the program. Since graduates of this program will not proceed to work in Canada, there is no impact on the job market in Alberta. In general, the financing of the program will be the onus of the students who want to enroll in this program. A tuition guarantee will be established for each student at the start of the program. Given the preparation work outlined in the proposal, it appears that University of Alberta has adequately assessed the demand for this program, both in financial aspects and human resources.

As a former Associate Dean of Medicine at the University of Manitoba who had initiated a Joint Degree Program in the Bachelor of Science (med) with the Shantou University in China, I certainly support this Proposal. There are many obvious benefits to both partnering institutions in developing a Joint Degree program, but one unexpected benefit in our Joint Degree program with the Shantou University was the attraction of a substantial donation from a third party due to the success of the program.

Sincerely,



Patrick Choy, OM, PhD, MD, FAHA, FIACS
Professor Emeritus
Max Rady College of Medicine
University of Manitoba

UNIVERSITY OF ALBERTA

ALBERTA INSTITUTE
COLLEGE OF HEALTH SCIENCES
FACULTY OF MEDICINE & DENTISTRY

5-309 Edmonton Clinic Health Academy
11405 87 Ave, University of Alberta
Edmonton, Alberta, Canada T6G 1C9
Tel:780.492.9320
thillier@ualberta.ca

January 10, 2022

Response to Desk Reviews of the Proposal for a Bachelor of Biomedicine Dual Degree Program

Feedback on the Proposal for a Bachelor of Biomedicine Dual Degree Program has been received from Professors Jiming Kong and Patrick Choy, as required by the Campus Alberta Quality Council. Both reviewers are overwhelmingly supportive of the proposal.

Dr Kong has recognized that while other joint programs exist, many focus on some aspect of medical education such as elective courses, resident exposure, family medicine, and training of clinicians. The collaborative medical program between the University of Alberta and Wenzhou Medical University is indeed one of the most comprehensive programs in this category and combines the strengths of both universities. The proposed Dual Degree Program in Biomedicine is recognized by Dr Kong as obvious an expansion of the collaborative program that has already demonstrated a high learner demand in the past few years and that including a degree from the University of Alberta to officially recognize the training experience in Alberta is necessary and appropriate and will make the program even more attractive to applicants.

Dr Patrick Choy recognizes that an outstanding feature of the program is that students will receive a strong background in basic and clinical sciences through the first four years of study. We agree that this background will not only help medical students to develop better clinical skills and thinking during their clerkship training, but the strong science background also provides them with a strong foundation for clinical research and related studies in the future. Dr Choy recognized that the course contents provided in the proposed dual degree program are on par with selected physiology or biochemistry courses at the BSc Honours level in Canada and has no doubt that they will meet the requirements and/or national and international quality standards for a Bachelor degree program.

It is gratifying to read Dr Choy's comments that the inclusion of Health System Science courses into the program is an "excellent choice", recognizing that health care delivery in China is very different from Canada. We wholeheartedly agree that the inclusion of health care policy, economics, and management; clinical informatics and health information technology and value-based care are subjects is very important and timely and that knowledge on how health systems work together to deliver care, both in Canada and the rest of the world, will provide students with a wider perspective to evaluate their current system.

Dr Choy notes “One area which can be strengthened in the Health System Science course is to include the role of family physician in course”. Again, we wholeheartedly agree. We have woven content about the role and importance of Family Physicians and “Generalists” through the dual Degree curriculum.

Finally, we are delighted to read the comment that “the program will provide the students with an exceptional learning experience and will establish the University of Alberta as a leader in international medical education”. The University of Alberta is appreciative and encouraged by the overwhelming and enthusiastically supportive reviews provided by two internationally renowned scholars.

Warm regards,

Tracey Hillier, MD, BScN, CCFP, FRCPC, MEd

Director and Executive Dean, Alberta Institute
College of Health Sciences
Faulty of Medicine and Dentistry

FINAL Item No. 10

Governance Executive Summary
Action Item

Agenda Title	**Proposed Termination of the Graduate Certificate in Teaching and Learning in Higher Education**

Motion

THAT GFC Programs Committee recommend that General Faculties Council approve the termination of the Graduate Certificate in Teaching and Learning in Higher Education in the Faculty of Education.

Item

Action Requested	☒Approval ☐ Recommendation
Proposed by	Douglas Gleddie, Associate Dean, Faculty of Education
Presenter(s)	Douglas Gleddie, Associate Dean, Faculty of Education 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*)	To seek approval for the termination of the Teaching and Learning in Higher Education Graduate Certificate.
Executive Summary (*outline the specific item – and remember your audience*)	The Graduate Certificate in Teaching and Learning in Higher Education (GCTLHE) has never been launched and therefore has no active students. The certificate does not meet the current needs of the field (post-secondary instructors), namely, a focus on educational development. In order for the certificate to meet these needs we would need to do a major change/ restructuring which would need to go through university governance and be approved by the ministry. Given that we are uncertain about the demand for such a restructured certificate, we would prefer to utilize the new Graduate Certificate in Educational Studies to pilot a revised program if we feel there is a need. Therefore, the GCTLHE is redundant.
Supplementary Notes and context	*<This section is for use by University Governance only to outline governance process.>*

Engagement and Routing (Include meeting dates)

Consultation and Stakeholder Participation (parties who have seen the proposal and in what capacity)	*Those who are actively **participating**:* ● Faculty members from the higher education area

<For information on the protocol see the Governance Resources section Student Participation Protocol>	*Those who have been **consulted**:* ● As the program has never launched, the termination has been approved by the faculty members in the area, the Director of the Professional Learning Unit, the Associate Dean, Graduate Studies and the Dean (October 21, 2021).
Approval Route (Governance) (including meeting dates)	GPST - January 24, 2022 PRC - February 2, 2022 FGSR Council - February 23, 2022 GFC Programs Committee - March 17, 2022 GFC Academic Planning Committee - April 13, 2022 General Faculties Council - May 2, 2022

Strategic Alignment

Alignment with *For the Public Good*	Build: Objective 1, Strategy 1-3; Objective 4, Strategy 1 Experience: Objective 7, Strategy 1&3; Objective 10, Strategy 1&2 Excel: Objective 12, Strategy 1; Objective 14, Strategy 1-4 Engage: Objective 16, Strategy 1; Objective 17, Strategy 2 Sustain: Objective 20, Strategy 1	
Alignment with Core Risk Area	Please note below the specific institutional risk(s) this proposal is addressing.	
	☒Enrolment Management ☒Faculty and Staff ☐Funding and Resource Management ☐IT Services, Software and Hardware ☐Leadership and Change ☐Physical Infrastructure	☒Relationship with Stakeholders ☒Reputation ☐Research Enterprise ☐Safety X Student Success
Legislative Compliance and jurisdiction	General Faculties Council Graduate Academic Affairs Council (Education) Faculty of Graduate Studies & Research GFC Programs Committee	

Attachments

1. GCTLHE program-termination
2. Original Formal letter of Approval 2009 (For Background)
3. CONDENSED Ed Policy Std PBC to GC 11.22.2018 (For Background)

Prepared by: Douglas Gleddie, Associate Dean (dgleddie@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	**Graduate Certificate**
Specialization Name	Teaching and Learning in Higher Education.
Credential Awarded	**Graduate Certificate**
Proposed effective date of termination	**July 1, 2022**

a. Confirm whether (check applicable box(es)):	☐This termination proposal was preceded by a ministry-approved suspension period. ☐ This termination proposal was not preceded by a ministry-approved suspension period. ✔No active students remain in the program. ☐Active program students remain in the program
b. If this proposal was preceded by a suspension, attach approval letter. ●	
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. ● The certificate has never been launched.	
d. If not preceded by suspension, indicate when students were last admitted into the program/specialization. ● There have never been any students in the certificate program.	
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.).

The rationale is that the certificate does not meet the current needs of the field (post secondary instructors), namely, a focus on educational development. In order for the certificate to meet these needs we would need to do a major change/restructuring of the certificate which would need to go through university governance and be approved by the ministry. Given we are uncertain about the demand for such a restructured certificate, we would prefer to utilize the new Graduate Certificate in Educational Studies to pilot a revised program if we feel there is a need. Therefore, the GCTLHE is redundant.

b. Provide specific information about which internal governance body approved the termination, and provide date of approval.
   - The Governance approval pathway is:
     - PRC
     - Programs Committee
     - APC
     - GFC
     - BLRSEC

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).
   - None anticipated.

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.
   - The faculty members responsible for the program (Drs. Wimmer and Kanuka) were consulted and agreed with the decision to terminate the program. As well, consultations were held with the Director of the Professional Learning Unit (Dr. Key, who would have administered the program), the Associate Dean, Graduate (Dr. Gleddie) and the Dean (Dr. Tupper). Since the program had never been launched, no student consultations were possible or necessary.

c. Briefly describe the consultation process that occurred with students at your institution regarding this programming change.
   - There are no students in the program.

Reviewer's Comment:

SECTION D: IMPACT

a. Briefly describe the consultation process that occurred with other stakeholders (e.g., advisory committees, regulatory bodies, employers, etc.) affected by this programming change.

● Consultation was done with program faculty who have knowledge of the field and relevant needs. As the program was never launched there are limited stakeholders.
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. ● We will ensure that notice of termination is on our Faculty website and will take appropriate measure to remove it from the calendar.
c. Briefly describe plans for reallocation of resources previously used for this program/specialization and identify budget and staffing impacts. ● We will look at revising curriculum and meeting the needs of the field through the Graduate Certificate in Educational Studies.
Reviewer's Comment:

SECTION E: OTHER CONSIDERATIONS

Other considerations
a. Please indicate if there are additional factors you would like the ministry to consider when reviewing this proposal. ● None.
Reviewer's Comment:

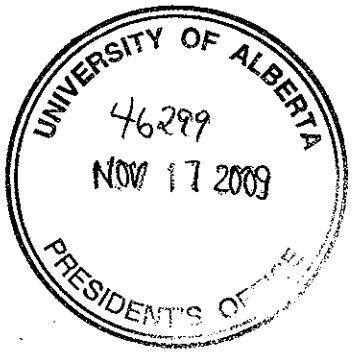
RECOMMENDATION (FOR DEPARTMENT USE)
Recommendation(s):
Rationale for Recommendation:
Reviewer(s):
Date Completed:

Alberta Advanced Education and Technology

Office of the Deputy Minister

500 Phipps - McKinnon Building
10020 - 101A Avenue
Edmonton, Alberta, Canada T5J 3G2
Telephone (780) 415 4744 Fax (780) 422 1801

AR 25689



November 13, 2009

Dr. Indira V. Samarasekera, O.C.
President and Vice-Chancellor
University of Alberta
3 - 1 University Hall
Edmonton, Alberta T6G 2J9

Dear Dr. Samarasekera:

Advanced Education and Technology has completed its review of the University of Alberta's (U of A) proposal for a new Post-Baccalaureate Certificate program with a specialization in Teaching and Learning in Higher Education, which reflects the priorities identified in the U of A's recent Institutional Access Plan. I am pleased to provide approval for this program effective July 1, 2009.

The Post-Baccalaureate Certificate program is subject to the department's Key Performance Indicators and Learner and Enrolment Reporting System practices. The program also falls under the Tuition Fee Regulation and is eligible for designation for student financial support. Consistent with your proposal, the department will not provide additional funds in support of the program's implementation. Funding for the proposed program will be reallocated from existing budgets within University Teaching Services for the University Teaching Program and the New Professor Teaching Program. In approving this proposal, I also wish to advise that each student who completes the program will generate a total program FLE of 0.500.

I appreciate the U of A's commitment to providing Albertans with programs that will enhance their educational and career opportunities. If you have any questions regarding this approval, please contact Dr. Dean Wood, Director, Post-secondary Programs/EPE, at (780) 427-5631 or by e-mail at dean.wood@gov.ab.ca.

Please accept my best wishes for the successful implementation of the Post-Baccalaureate Certificate program with a specialization in Teaching and Learning in Higher Education.

Yours truly,

Annette Trimbee
Deputy Minister

cc: Mr. Brian Heidecker
Chair, Board of Governors

Killam Centre for Advanced Studies
2-29 Triffo Hall Edmonton AB Canada T6G 2E1
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www.gradstudies.ualberta.ca

2019-2020 University of Alberta Proposed Calendar Graduate Program Changes: Name change for Post-Baccalaureate Certificates to Graduate Certificate to conform with the 2018 Alberta Credential Framework.

Current	Proposed
Graduate Programs **Educational Policy Studies [Graduate]** **General Information** The Department of Educational Policy Studies offers master's and doctoral programs in the following specialized areas of study: Adult, Community and Higher Education; Educational Administration and Leadership; Indigenous Peoples Education; and Social Justice and International Studies in Education as well as a ~~post-baccalaureate~~ certificate in Teaching and Learning in Higher Education. [...] **Graduate Program Requirements** **Certificates (Educational Policy Studies) [Graduate]** **Free-Standing ~~Post-Baccalaureate~~ Certificates** **Entrance Requirements** Applicants to ~~Post-Baccalaureate~~ Certificates must meet the general admission requirements of the Faculty of Graduate Studies and Research (see Admission) and are subject to regulations for certificates specified in Regulations of the Faculty of Graduate Studies and Research. **Program Requirements** The ~~Post-Baccalaureate~~ Certificates normally require ★9 in graduate courses. [...] **Length of Program** There is no residence requirement for the ~~Post-Baccalaureate~~ Certificates program. Normally, the ~~Post-Baccalaureate~~ Certificates must be completed within four years.	**Graduate Programs** **Educational Policy Studies [Graduate]** **General Information** The Department of Educational Policy Studies offers master's and doctoral programs in the following specialized areas of study: Adult, Community and Higher Education; Educational Administration and Leadership; Indigenous Peoples Education; and Social Justice and International Studies in Education as well as a graduate certificate in Teaching and Learning in Higher Education. [...] **Graduate Program Requirements** **Certificates (Educational Policy Studies) [Graduate]** **Free-Standing Graduate Certificates** **Entrance Requirements** Applicants to Graduate Certificates must meet the general admission requirements of the Faculty of Graduate Studies and Research (see Admission) and are subject to regulations for certificates specified in Regulations of the Faculty of Graduate Studies and Research. **Program Requirements** The Graduate Certificates normally require ★9 in graduate courses. [...] **Length of Program** There is no residence requirement for the Graduate Certificates program. Normally, the Graduate Certificates must be completed within four years.

~~Post-Baccalaureate~~ Certificate in Teaching and Learning in Higher Education (★9) This ~~Post-Baccalaureate~~ Certificate in Teaching and Learning in Higher Education is to provide academic staff, graduate students and postdoctoral fellows with the opportunity to complete a formal and externally recognizable program in the theories, practice (design, development and delivery) and assessment of teaching and learning in higher education. […]	**Graduate Certificate in Teaching and Learning in Higher Education (★9)** This Graduate Certificate in Teaching and Learning in Higher Education is to provide academic staff, graduate students and postdoctoral fellows with the opportunity to complete a formal and externally recognizable program in the theories, practice (design, development and delivery) and assessment of teaching and learning in higher education. […]
Justification: In the new Alberta Credential Framework 2018, the credential of Post-Baccalaureate Certificate is now an undergraduate level certificate. At the graduate level, what was formerly called Post-Baccalaureate Certificate is now Graduate Certificate.	

FINAL Item No. 11

Governance Executive Summary
Action Item

Agenda Title	**Proposed Changes to Course Requirements for Graduate Programs, FGSR**

Motion

THAT the GFC Programs Committee recommend General Faculties Council approve the changes to the course requirements and exemptions policies for all graduate students, as noted in the included calendar change, for implementation upon final approval.

Item

Action Requested	☐ Approval X 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*)	FGSR is proposing changes to the requirements outlined under the credential of Doctorate, Thesis-Based Masters, and Course-based Masters (editorial, and around course requirements).
Executive Summary (*outline the specific item – and remember your audience*)	The proposed changes will establish: ● Clear expectations on what can be counted for coursework credit Doctorate and Master's-thesis programs These changes will provide clarity and direction for supervisors, graduate students, and administrators on coursework requirements, and expected levels of coursework taken for credit to meet requirements of graduate programs. The changes will also add structure to coursework requirements to ensure students are consistently completing the same requirements, as they are approved, for their degree program year over year, that program standards are maintained, and to ensure students understand expectations related to required courses and those that would be considered auxiliary to their program.
Supplementary Notes and context	*<This section is for use by University Governance only to outline governance process.>*

Engagement and Routing (Include meeting dates)

Consultation and Stakeholder Participation (parties who have seen the proposal and in what capacity)	*Those who have been **consulted**:* ● GEFAC - September 2, 2021 ● PRC - September 29, 2021 ● FGSR Council - October 13, 2021 (Early) ● GPST - January 24, 2022

<For information on the protocol see the Governance Resources section Student Participation Protocol>	• GEFAC - February 3, 2022 • FGSR Council - February 23, 2022
Approval Route (Governance) (including meeting dates)	PRC - February 2, 2022 (Approved) FGSR Council - February 23, 2022 (Approved) GFC Programs Committee - March 17, 2022 General Faculties Council - May 2, 2022

Strategic Alignment

Alignment with *For the Public Good*	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. iv. Facilitate easy access to and use of university services and systems, reduce duplication and complexity, and encourage cross-institutional administrative and operational collaboration. 19. OBJECTIVE 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	Please note below the specific institutional risk(s) this proposal is addressing.	
	☐ Enrolment Management ☐ Faculty and Staff ☐ Funding and Resource Management ☐ IT Services, Software and Hardware ☐ Leadership and Change ☐ Physical Infrastructure	☐ Relationship with Stakeholders ☐ Reputation ☐ Research Enterprise ☐ Safety X Student Success
Legislative Compliance and jurisdiction	*Post-Secondary Learning Act* UofA Calendar General Faculties Council Faculty of Graduate Studies & Research GFC Programs Committee	

1. Calendar Language Change: Course Requirement Changes

Prepared by: Brooke Milne, Vice-Provost and Dean, FGSR [graddean@ualberta.ca]

UNIVERSITY OF ALBERTA

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Item: Course Requirement Changes

Date: February 17, 2022

2022-2023 University of Alberta Proposed Calendar Graduate Program Changes:

CURRENT	PROPOSED
Regulations of the Faculty of Graduate Studies and Research […] **Course-based Master's Programs** **Course Requirements:** ~~In course-based programs, all coursework must be at the graduate level.~~ **[…]** **Language Requirement:** It is a requirement in some ~~departments~~ offering master's degrees that students ~~show proof of~~ proficiency in a language other than English. (For specific information on language requirements see the detailed program information under the appropriate ~~departmental~~ entry in the Graduate Programs section of the Calendar.) The student is responsible for successfully completing all course work ~~and~~ the capping exercise. Where the capping exercise involves a project, the student is responsible for producing a ~~typed report of the project or some other finished product to be retained by the department.~~ It is the responsibility of the ~~department~~ to: ● ~~v~~verify that all courses ~~and~~ the capping exercise have been successfully completed before recommending a student for graduation; and ● ~~s~~ubmit to the FGSR a Report of Completion of Course-based Master's Degree form. ~~This~~ information must be received and verified by the FGSR ~~before~~ the student's name is placed on the convocation list. Failure to meet the deadlines in the Academic Schedule will result in a delay in awarding the degree.	**Regulations of the Faculty of Graduate Studies and Research** […] **Course-based Master's Programs** **Coursework Requirements: Courses taken to meet the requirements of a Master's program must be graduate level courses (e.g. 500, 600, 700, 900).** **[…]** **Language Requirement:** It is a requirement in some **academic units** offering **M**aster's degrees that students **demonstrate** proficiency in a language other than English. (For specific information on language requirements see the detailed program information under the appropriate **academic unit's** entry in the Graduate Programs section of the Calendar.) **Capping Exercise:** The student is responsible for successfully completing all course work, **including** the capping exercise. Where the capping exercise involves a project, the student is responsible for producing a **project report or equivalent as set out in the academic unit's approved program requirements**. It is the responsibility of the **academic unit** to: ● **V**erify that all courses, **including** the capping exercise have been successfully completed before recommending a student for graduation; and, ● **S**ubmit to the FGSR a Report of Completion of Course-based Master's Degree form. **The above** information must be received and verified by the FGSR **prior to** the student's name being placed on the convocation list.

[...]	Failure to meet the deadlines in the Academic Schedule will result in a delay in awarding the degree.
## Thesis-Based Master's Programs	[...]
Course Requirements: ~~Considerable variation is permitted in the balance between research and course requirements for the master's degree.~~	## Thesis-Based Master's Programs
~~Thesis-based master's students may only take undergraduate courses for credit to satisfy their graduate program requirements when all of the following conditions are satisfied. The courses must be:~~ ~~necessary;~~ ~~not in the student's field of specialization and/or major area of study; and~~ ~~approved by the department offering the graduate program.~~	**Course**work **Requirements: Courses taken to meet the requirements of a Master's program must be graduate level courses (e.g. 500, 600, 700, 900).** **If the academic unit approves the inclusion of an undergraduate course(s) in a Thesis-based Master's program, it must be at the 300 or 400-level and declared as extra-to-degree. These courses will be treated as auxiliary/supplemental to address a gap in foundational / disciplinary and may not exceed twelve (12) credit hours total <LINK: Extra-to-Degree language>. If more than twelve credit hours of auxiliary coursework is needed, the student should be admitted for a qualifying year to ensure they are prepared to be successful in graduate studies.** **(See regulations on language requirements for additional information on the inclusion of undergraduate courses in graduate degree programs <link>.)**
[...]	**[...]**
Language Requirement: It is a requirement in some ~~departments~~ offering master's degrees that students ~~show proof of~~ proficiency in a language other than English. (For specific information on language requirements see the detailed program information under the appropriate ~~departmental~~ entry in Graduate Programs.)	**Language Requirement:** It is a requirement in some **academic units** offering ~~m~~**M**aster's degrees that students **demonstrate** proficiency in a language other than English. (For specific information on language requirements see the detailed program information under the appropriate **academic unit's** entry in Graduate Programs.) **Students may be permitted by their academic units to satisfy the language requirement by successfully completing an undergraduate language course(s) at any level.** **These courses will be declared extra-to-degree up to a maximum of twelve (12) credit hours. Grades for courses extra-to-degree are not included in the CGPA for the student's graduate degree program (see Courses Extra-to-degree).**
[...]	[...]
## The Degree of PhD	## The Degree of PhD
Admission: Students may be admitted to a doctoral program if they hold a bachelor's or a master's degree, or equivalent, from an approved academic institution. Admission is contingent upon approval of the ~~department~~ and the availability of: suitable supervision; suitable courses of study; and adequate library, laboratory and other facilities.	**Admission:** Students may be admitted to a doctoral program if they hold a bachelor's or a Master's degree, or equivalent, from an approved academic institution. Admission is contingent upon approval of the **academic unit** and the availability of: suitable supervision; suitable courses of study; and adequate library, laboratory and other facilities.
Course Requirements: ~~Doctoral degree students may only take undergraduate courses for credit to satisfy their graduate program requirements when all of the following conditions are satisfied. The courses must be:~~	

~~necessary;~~ ~~not in the student's field of specialization and/or major area of study; and~~ ~~approved by the department offering the graduate program.~~ **[...]** **Language Requirement:** ~~A department may require a student to demonstrate a knowledge of one or more languages in addition to English.~~ Where this is the case, the student must satisfy the language requirement before being allowed to take the candidacy examination. See also Language Requirement of the University Calendar. [...]	**Coursework Requirements: Courses taken to meet the requirements of a Doctoral program must be graduate level courses (e.g. 500, 600, 700, 900).** **If the academic unit approves the inclusion of an undergraduate course(s) in a Doctoral program, it must be at the 300 or 400-level and declared as extra-to-degree.** **These courses will be treated as auxiliary/supplemental to address a gap in foundational / disciplinary and may not exceed twelve (12) credit hours total. If more than twelve credit hours of auxiliary coursework is needed, the student should be admitted for a qualifying year to ensure they are prepared to be successful in graduate studies.** **(See regulations on language requirements for additional information on the inclusion of undergraduate courses in graduate degree programs <link>.)** **[...]** **Language Requirement:** It is a requirement in some **academic unit's** offering Doctoral degrees that students **demonstrate** proficiency in a language other than English. (For specific information on language requirements see the detailed program information under the appropriate **academic unit's** entry in Graduate Programs.) Where this is the case, the student must satisfy the language requirement before being allowed to take the candidacy examination.See also Language Requirement of the University Calendar. **Students may be permitted by their academic units to satisfy the language requirement by successfully completing an undergraduate language course(s) at any level.** **These courses will be declared extra-to-degree up to a maximum of twelve (12) credit hours. Grades for courses extra-to-degree are not included in the cumulative GPA for the student's graduate degree program (see Courses Extra-to-degree).** [...]
Justification: Approved by:	

FINAL Item No. 12

Governance Executive Summary
Action Item

Agenda Title	**Proposed Changes to Extra-to-Degree Regulations for Graduate Programs, FGSR**

Motion

THAT the GFC Programs Committee recommend General Faculties Council approve the changes and clarification to the regulations on courses considered Extra-to-Degree, to take effect upon final approval.

Item

Action Requested	☐ Approval X 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*)	FGSR is proposing changes to the Graduate Policies on courses declared extra-to-degree.
Executive Summary (*outline the specific item – and remember your audience*)	The proposed changes aim to provide structure and administrative direction on the maximum number of courses that can be considered and approved extra-to-degree in a graduate program. The calendar presently includes language on declaring graduate courses as extra-to-degree when they are *not necessary or an integral part of the student's graduate program*. What is not included is an upper limit on how many courses a student may take in their graduate program and then declare extra-to-degree. Extra-to-degree courses are not considered a requirement of the graduate program. They may, however, be recommended or required by the student's supervisor as auxiliary or supplemental. Student's planning to take courses extra-to-degree will be required to determine, in consultation with their supervisor, if they need to register in these courses. In those instances where they are considered necessary, they will require the supervisor's approval. All courses declared extra-to-degree are subject to approval by the Dean, FGSR (as per current approved regulation). FGSR is proposing a maximum of twelve (12) credits of coursework declared extra-to-degree for students registered in a given Master's or PhD program. The proposed changes will help ensure that students are focused on completing the approved requirements of their degree programs while still providing flexibility to take additional courses as deemed necessary by the supervisor and/or program, up to a maximum of 12 credits. The

	proposed changes will also ensure supervisors and programs are actively involved in coursework planning and registration to support graduate students in their program planning and progression.
Supplementary Notes and context	*<This section is for use by University Governance only to outline governance process.>*

Engagement and Routing (Include meeting dates)

Consultation and Stakeholder Participation (parties who have seen the proposal and in what capacity) <For information on the protocol see the Governance Resources section Student Participation Protocol>	*Those who have been **consulted**:* ● GEFAC - February 25, 2021 ● GPST - February 25, 2021 ● PRC - March 10, 2021 ● FGSR Council - March 24, 2021 (Info; no discussion) ● PRC - Sept. 29, 2021 ● FGSR Council - Oct. 13, 2021 ● GEFAC - Nov. 4, 2021 ● GEFAC - December 2, 2021 ● GPST - January 24, 2022 ● GEFAC - February 3, 2022
Approval Route (Governance) (including meeting dates)	PRC - February 2, 2022 (Approved) FGSR Council - February 23, 2022 (Approved) GFC Programs Committee - March 17, 2022 General Faculties Council - May 2, 2022

Strategic Alignment

Alignment with *For the Public Good*	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. 19. OBJECTIVE 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	Please note below the specific institutional risk(s) this proposal is addressing.	
	☐ Enrolment Management ☐ Faculty and Staff ☐ Funding and Resource Management ☐ IT Services, Software and Hardware ☐ Leadership and Change ☐ Physical Infrastructure	☐ Relationship with Stakeholders ☐ Reputation ☐ Research Enterprise ☐ Safety X Student Success
Legislative Compliance and jurisdiction	*Post-Secondary Learning Act* UofA Calendar General Faculties Council Faculty of Graduate Studies & Research GFC Programs Committee	

Item No. 12

1. Calendar Language Change - Courses Extra to Degree

Prepared by: Brooke Milne, Vice-Provost and Dean, FGSR [graddean@ualberta.ca]

UNIVERSITY OF ALBERTA

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Item: Courses Extra to Degree

Date: November 25, 2021

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

CURRENT **text from the 2020-2021 calendar**	**PROPOSED**
Regulations of the Faculty of Graduate Studies and Research […] **Registration** […] **Courses Extra-to-Degree** ~~Students may wish to take courses that are not necessary to or an integral part of their graduate program.~~ Courses must be designated as extra-to-degree at the time of registration ~~in the courses. Designation as extra-to-degree is subject to approval by the Dean, FGSR.~~	**Regulations of the Faculty of Graduate Studies and Research** […] **Registration** […] **Courses Extra-to-Degree** Courses declared extra-to-degree are not considered a requirement of the graduate program and/or are not part of the Master's or Doctoral program. Such courses may, however, be recommended or required by the student's supervisor as auxiliary/supplemental for disciplinary background knowledge or in preparation for meeting another program requirement (e.g. language requirement). The student and their supervisor must determine if there is a valid need to register in a course(s) that is extra to the approved coursework requirements for the student's degree program. Extra-to-Degree courses must be designated as extra-to-degree at the time of course registration, and are subject to approval by the academic unit. To register courses as extra-to-degree, students must complete a 'Course Extra-to-Degree form.' The student's academic unit must approve the form and submit it to FGSR. A maximum of twelve (12) credits of coursework declared extra-to-degree is permitted while registered in a given Master's or PhD program. (Note: some programs may not permit students to take courses extra-to-degree under any circumstance; therefore, students should consult their graduate program requirements.)

~~The FGSR does not~~ include ~~these courses when calculating the student's GPA for continuation in the graduate program~~ or convocation (see Academic Standing). [Re-ordered] *Courses extra-to-degree are included in the calculation of registration status (see Registration Status)* […]	Once a course is completed, it cannot be retroactively declared extra-to-degree. Courses completed in another awarded credential/completed graduate program cannot be retroactively declared extra-to-degree. For both thesis and course based students: ● Courses declared extra-to-degree *are not* included in a student's GPA calculation when considering program progress, completion, and/or convocation (see Academic Standing); ● Courses declared extra-to-degree *are* included in the calculation of registration status (see Registration Status); and, ● Courses declared extra-to-degree *are* included in GPA calculations for Awards and Scholarships If thesis-based students take courses with the intent of declaring them extra-to-degree for transfer into a subsequent University of Alberta graduate program, they cannot exceed more than six (6) credits of the new program's required course requirements. If course-based students take courses with the intent of declaring them extra-to-degree for transfer into a subsequent University of Alberta graduate program, the total extra-to-degree courses cannot exceed one third of the new program's course requirements. […]
Justification: (see memo) Approved by:	

FINAL Item No. 13

Governance Executive Summary
Action Item

Agenda Title	**Proposed Changes to Transfer Credits and Requirements for Graduate Programs, FGSR**

Motion

THAT the GFC Programs Committee recommend that General Faculties Council approve the changes to the transfer credit and exemptions policies for all graduate students, as noted in the included calendar change, for implementation upon final approval.

Item

Action Requested	☐ Approval X 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*)	FGSR is proposing changes to the "Transfer Credit, Course Exemption, and Credit by Special Assessment" and "Change of Program Requirements" regulations currently published in the calendar.
Executive Summary (*outline the specific item – and remember your audience*)	These changes will provide clarity and direction for supervisors, graduate students, and administrators on coursework requirements, credit transfer, and registration as they relate to: ● Transfer Credits relating to minimum registration requirements ● Course exemptions/reductions ● Coursework requirements when transferring to a new program The proposed changes will establish clearer criteria relating to transfer credit/advanced standing in graduate programs, minimum registration requirements, and transfer credit limits The impact of the proposed changes will ensure students are consistently completing the same requirements, as they are approved, for their degree program year over year, that program standards are maintained and equitable, and they will communicate more effectively student expectations related to required courses and those that would be considered auxiliary to their program.
Supplementary Notes and context	*<This section is for use by University Governance only to outline governance process.>*

Engagement and Routing (Include meeting dates)

Consultation and Stakeholder Participation (parties who have seen the proposal and in what capacity)	*Those who have been **consulted**:* ● GEFAC - September 2, 2021 ● PRC - September 29, 2021 ● FGSR Council - October 13, 2021 (Early) ● GPST - January 24, 2022

<For information on the protocol see the Governance Resources section Student Participation Protocol>	• GEFAC - February 3, 2022 • FGSR Council - February 23, 2022
Approval Route (Governance) (including meeting dates)	PRC - February 2, 2022 (Approved) FGSR Council - February 23, 2022 (Approved) GFC Programs Committee - March 17, 2022 General Faculties Council, May 2, 2022

Strategic Alignment

Alignment with *For the Public Good*	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. 19. OBJECTIVE 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	Please note below the specific institutional risk(s) this proposal is addressing.	
	☐ Enrolment Management ☐ Faculty and Staff ☐ Funding and Resource Management ☐ IT Services, Software and Hardware ☐ Leadership and Change ☐ Physical Infrastructure	☐ Relationship with Stakeholders ☐ Reputation ☐ Research Enterprise ☐ Safety ☒ Student Success
Legislative Compliance and jurisdiction	*Post-Secondary Learning Act* UofA Calendar General Faculties Council Faculty of Graduate Studies & Research GFC Programs Committee	

1. Calendar Language - Transfer Credit & Course Exemption Changes

Prepared by: Brooke Milne, Vice-Provost and Dean, FGSR [graddean@ualberta.ca]

UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH
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Item: Transfer Credit & Course Exemption Changes

Date: February 17, 2022

2022-2023 University of Alberta Proposed Calendar Graduate Program Changes:

CURRENT	PROPOSED
Regulations of the Faculty of Graduate Studies and Research […] **Minimum Registration Requirements** **Course-Based Master's Program:** ~~Over the duration of their program, s~~students in course-based master's programs must successfully complete a minimum of ★24. Only approved transfer credits from the University of Alberta may count towards the ★24 minimum requirement. Notwithstanding the above, students are required to fulfil the ~~department's~~ program requirements (often more than the minimum ★24) as approved by Faculty of Graduate Studies and Research Council and as stated in the ~~department's~~ graduate program requirements. See Graduate Programs. **Thesis-Based Master's Programs** ● **Admitted before Fall 2011:** ~~Over the duration of their program, s~~students in thesis-based master's programs admitted before Fall 2011 must successfully complete a minimum of ★24, which may consist of a combination of courses and thesis research. Only approved transfer credits from the University of Alberta may count towards the ★24 minimum requirement. Notwithstanding the above, students are required to fulfil the ~~department's~~ thesis-based program requirements as approved by Faculty of Graduate Studies and Research Council and as stated in the ~~department's~~ graduate program requirements. See Graduate Programs.	**Regulations of the Faculty of Graduate Studies and Research** […] **Minimum Registration Requirements** **Course-Based Master's Program:** **S**tudents in course-based master's programs must successfully complete a minimum of ★24. Only approved transfer credits from the University of Alberta may count towards the ★24 minimum requirement. Notwithstanding the above, students are required to fulfil**l** the **academic unit's** program requirements (often more than the minimum ★24) as approved by the Faculty of Graduate Studies and Research Council, and as stated in the **academic unit's** graduate program requirements. See Graduate Programs. **Note: transfer credits may only be used to meet the requirements of one program. Further, courses previously accounted for or applied in a degree program cannot be used as the basis to request advanced standing in a subsequent program.** **Thesis-Based Master's Programs** **Admitted before Fall 2011: S**tudents in thesis-based master's programs admitted before Fall 2011 must successfully complete a minimum of ★24, which may consist of a combination of courses and thesis research. Only approved transfer credits from the University of Alberta may count towards the ★24 minimum requirement**s**. Notwithstanding the above, students are required to fulfil the **academic unit's** thesis-based program requirements as approved by the Faculty of Graduate Studies and Research Council and as stated in the **academic unit's** graduate program requirements. See Graduate Programs.

- **Admitted Fall 2011 and thereafter:** ~~Over the duration of their program, s~~students in thesis-based master's programs admitted Fall 2011 and thereafter must pay the equivalent of at least one full year of program fees; see Graduate Instructional and Non-Instructional Fees. Notwithstanding the above, students are required to fulfil the ~~department's~~ thesis-based program requirements as approved by Faculty of Graduate Studies and Research Council and as stated in the ~~department's~~ graduate program requirements. See Graduate Programs.

Doctoral Programs:

- **Admitted before Fall 2011:** Over the duration of their program, students in a doctoral program admitted before Fall 2011 must successfully complete a minimum of ★36, which may consist of a combination of coursework (where required) and thesis research. Only approved transfer credits from the University of Alberta may count towards the ★36 minimum requirement.

  Notwithstanding the above, students are required to fulfil the ~~department's~~ doctoral program requirements as approved by the Faculty of Graduate Studies and Research Council and as stated in the ~~department's~~ graduate program requirements. See Graduate Programs.

- **Admitted Fall 2011 and thereafter:** Over the duration of their program, students in a doctoral program admitted Fall 2011 and thereafter must pay the equivalent of at least three full years of program fees; see Graduate Instructional and Non-Instructional Fees. Notwithstanding the above, students are required to fulfil the ~~department's~~ doctoral program requirements as approved by the Faculty of Graduate Studies and Research Council and as stated in the ~~department's~~ graduate program requirements. See Graduate Programs.

[…]

Transfer Credit, ~~Course Exemption,~~ and Credit by Special Assessment

[…]

~~Course Exemption~~

~~Course Exemption refers to the reduction in required credit weights of a student's program at the discretion of the department offering the program. The program will not be reduced by more~~

Admitted Fall 2011 and thereafter: **S**tudents in thesis-based master's programs admitted Fall 2011 and thereafter must pay the equivalent of at least one full year of program fees; see Graduate Instructional and Non-Instructional Fees. Notwithstanding the above, students are required to fulfil the **academic unit's** thesis-based program requirements as approved by the Faculty of Graduate Studies and Research Council and as stated in the **academic unit's** graduate program requirements. See Graduate Programs.

Note: transfer credits may only be used to meet the requirements of one program. Further, courses previously taken and/or applied in a degree program cannot be used as the basis to request advanced standing in a subsequent program.

Doctoral Programs:

- **Admitted before Fall 2011:** Over the duration of their program, students in a doctoral program admitted before Fall 2011 must successfully complete a minimum of ★36, which may consist of a combination of coursework (where required) and thesis research. Only approved transfer credits from the University of Alberta may count towards the ★36 minimum requirement. **Note: transfer credits may only be used to meet the requirements of one program. Further, courses previously taken and/or applied in a degree program cannot be used as the basis to request advanced standing in a subsequent program.** Notwithstanding the above, students are required to fulfil the **academic unit's** doctoral program requirements as approved by the Faculty of Graduate Studies and Research Council and as stated in the **academic unit's** graduate program requirements. See Graduate Programs.
- **Admitted Fall 2011 and thereafter:** Over the duration of their program, students in a doctoral program admitted Fall 2011 and thereafter must pay the equivalent of at least three full years of program fees; see Graduate Instructional and Non-Instructional Fees. Notwithstanding the above, students are required to fulfil the **academic unit's** doctoral program requirements as approved by the Faculty of Graduate Studies and Research Council and as stated in the **academic unit's** graduate program requirements. See Graduate Programs.

[…]

Transfer Credit~~, Course Exemption,~~ and Credit by Special Assessment

[…]

~~than the value set out below in Limits for Transfer Credit and Course Exemption. For course-based master's degrees, the FGSR minimum requirement of ★24 must still be met. See Minimum Units of Course Weight Registration Requirements.~~

Limits for Transfer Credit ~~and Course Exemption~~

Thesis-based programs: The total credit weight required for any thesis-based program will not be reduced by any combination of Transfer Credit ~~and Course Exemption~~ from the requirement set out in Graduate Programs by more than ★6.

Course-based programs: The number of courses nearest to, but not exceeding, 1/3 of the total units of course weight of a student's program can be met through transfer credit ~~and/or course exemption~~.

For course-based master's programs, only approved transfer credits from the University of Alberta may count towards the FGSR minimum requirement of ★24. See Minimum Units of Course Weight Registration Requirements.

Exceptions

For students who have ~~commenced~~ an equivalent graduate program at a recognized university and are relocating to the University of Alberta, consideration will be given to ~~departmental~~ recommendations for transfer credit ~~which exceeds~~ the limit stated above.

~~In exceptional circumstances and with the explicit prior approval of the Faculty of Graduate Studies and Research, up to 1/2 of the total units of course weight for the program may be met through transfer credit and/or course exemption.~~

Laddering

For the laddering of graduate certificates and diplomas into a course-based Master's degree see Laddering of Freestanding Graduate Certificates and Diplomas into a Course - based Master's Degree.

Credit by Special Assessment

The Faculty of Graduate Studies and Research does not accept credit by special assessment.

Change of Program

Within a graduate program, students may change program category to a different degree or change to a different ~~department~~(s). All changes of program are subject to

Limits for Transfer Credit

Transfer credits may only be used to meet the requirements of one program. Further, courses previously taken and/or applied in a degree program cannot be used as the basis to request advanced standing in a subsequent program. (Note: this does not apply to Laddering, see: Laddering.)

Thesis-based programs: The total credit weight required for any thesis-based program will not be reduced by any combination of Transfer Credit from the requirement set out in Graduate Programs by more than ★6.

Course-based programs: The number of courses nearest to, but not exceeding, one third of the total units of course weight of a student's program can be met through transfer credit.

For course-based master's programs, only approved transfer credits from the University of Alberta may count towards the FGSR minimum requirement of ★24. See Minimum Units of Course Weight Registration Requirements.

Exceptions

For students who have **started** an equivalent graduate program at a**nother** recognized university and are relocating to the University of Alberta **with the intent to complete it**, consideration will be given to **the academic unit's** recommendations for transfer credit **that may exceed** the limit stated above. **Approval for transfer credit beyond that specified may be considered by the Dean, FGSR for approval.**

Laddering

For the laddering of graduate certificates and diplomas into a course-based Master's degree see Laddering of Freestanding Graduate Certificates and Diplomas into a Course - based Master's Degree.

Credit by Special Assessment

The Faculty of Graduate Studies and Research does not accept credit by special assessment.

Change of Program

Within a graduate program, students may change program category to a different degree or change to a different **academic**

recommendation by the ~~Department~~ and approval by the Dean, FGSR. In the event of a change of program, all applicable coursework, credit granted, residence, fee requirements and time spent from the initial term of admission to the graduate program will apply to the subsequent program. Coursework that is not applicable must be declared as extra to degree at the time of the change of program category. A change in program category may result in a change in fee requirements. […]	**unit**(s). All changes of program are subject to recommendation by the **Academic Unit** and approval by the Dean, FGSR. In the event of a change of program, all applicable coursework, credit granted, residence, fee requirements and time spent from the initial term of admission to the graduate program will apply to the subsequent program. Coursework that is not applicable must be declared as extra to degree at the time of the change of program category. A change in program category may result in a change in fee requirements. **If the new program specifies core and/or required courses that must be completed, the student must complete them so as to satisfy the new program's approved requirements, as published by the academic unit in the calendar at the time of the program change.** […]
Justification: Approved by:	