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Please call regrets to 204-474-6892 or send to shannon.coyston@umanitoba.ca.

CANDIDATES FOR DEGREES, DIPLOMAS AND CERTIFICATES

1. Degrees Notwithstanding a Deficiency

A list of students to be considered for degrees notwithstanding a deficiency will be distributed at the meeting.

Deans and Directors should note that they may be asked to explain the circumstances leading to the recommendations from their respective Faculties or Schools.

At the conclusion of discussion of the report, the Speaker of the Senate Executive Committee will make the appropriate motion(s).

2. Report of the Senate Committee on Appeals

An oral report will be presented to Senate by the Chair of the Committee only if the Committee has heard an appeal which will result in the recommendation of the award of a degree notwithstanding a deficiency.

3. List of Graduands

A list of graduands will be provided to the University Secretary on the day of the meeting. The list will not be distributed to members of Senate but will be open for inspection by individual members of Senate.

The list to be provided to the University Secretary will be a compilation of the lists of the graduands of each Faculty and School.

The Speaker for the Senate Executive Committee will make the appropriate motion approving the list of graduands, subject to the right of Deans and Directors to initiate late changes with the Registrar up to May 19, 2017.

Election of Senate Representative to the Board of Governors

1. General

- (a) The procedures to be followed for the election of members of Senate to the Board of Governors can be found on the web at:

http://umanitoba.ca/admin/governance/governing_documents/governance/senate_rules/524.htm

- (b) Among the more important procedures are the procedures governing nominations, the means of balloting, and the procedures to be followed in the event of a tie vote;
- (c) Special attention is directed to Point 3, which reads in part "... If the person nominated is not present, the nominator must state that the person nominated has consented to the nomination".

2. Election of Senate Representatives to the Board of Governors

- (a) The following resolution was approved by Senate on June 4, 1997: *"That Senate rescind its resolution of March 9, 1976 reserving one of its seats on the Board of Governors for a student Senator"*.
- (b) The following resolution was approved by Senate on June 4, 1997: *"That in the future, as openings occur, Senate assure itself that at least one of the three individuals who represent it on the Board of Governors has no administrative responsibilities greater than those of department head at the time of election"*.
- (c) Members-at-Large

According to Section 27(4) of *The University of Manitoba Act* (the "Act"), a member of Senate elected by a faculty or school council, who has been subsequently elected by Senate to the Board and whose term of office on Senate expires before his or her term of office on the Board, shall be appointed by Senate to be a member-at-large of Senate for the remainder of his or her term on the Board unless re-elected to Senate.

- (d) Students and *Ex-Officio* Members

Students and *ex-officio* members who are elected to represent Senate on the Board of Governors, but whose membership on Senate expires prior to their membership on the Board, are dealt with under the terms of the Act (Section 10(2)).

Pursuant to Section 10(2) of the Act, the Senate Executive Committee shall bring to Senate a motion to grant assessor status on Senate for a student or *ex-officio* member of Senate who was elected to represent Senate on the Board of Governors and whose term on Senate has expired prior to the person's term on the Board. Should such a motion fail, a motion to terminate the membership on the Board of Governors as a Senate representative shall be adopted.

3.
 - (a) One member of Senate is to be elected by Senate to the Board of Governors for a three-year term (June 1, 2017 to May 31, 2020) to replace Dean Jeffery Taylor, whose term on the Board of Governors expires on May 31, 2017. Dean Taylor is eligible for re-election;
 - (b) Current Senate representatives on the Board of Governors are:

Dean Jeffery Taylor	(Arts)	2017
Dr. John Anderson	(Science)	2018
Dean Jonathan Beddoes	(Architecture/Engineering)	2019
 - (c) Not eligible for election are the Chancellor, the President, and the Board of Governors' representatives on Senate. In accordance with the resolution noted in 2(b) above, the individual may have administrative responsibilities greater than those of department head at the time of election.
4. Procedures
 - (a) Nominations for the position shall be received from the floor;
 - (b) Senators shall vote for no more than one candidate on the ballot provided;
 - (c) The candidate receiving the largest number of votes shall be declared elected for a three-year term;
 - (d) In the event of a tie, the question shall be resolved by another ballot involving those candidates who have tied.

Election of Senate Representatives to the Senate Executive Committee

1. Subsection 34(1) of *The University of Manitoba Act* provides that:

The senate has general charge of all matters of an academic character; and, without restricting the generality of the foregoing, the senate shall ...

- (y) elect an executive committee, which shall include
 - (i) the president, who shall be chairman of the committee;
 - (ii) the member of the senate designated by the president to be vice-chairman of the committee;
 - (iii) three members of senate from among the vice-presidents of the university, the deans of faculties and directors of schools;
 - (iv) a member of the board who has been appointed to be a member of the senate;
 - (v) a member elected by the students to be a member of senate;
 - (vi) eight other members of the senate from those elected under section 27 [i.e., elected by faculty/school councils];

2. Four Senators are to be elected from among members of Senate elected by faculty/school councils as follows:

- (a) two Senators for three-year terms (June 1, 2017 to May 31, 2020) to replace Professors Tina Chen and Mark Gabbert, whose terms on the Senate Executive Committee expire on May 31, 2017;
 - (b) one Senator for the remainder of a term ending May 31, 2019 to replace Professor Judy Anderson, whose term on Senate ends on May 31, 2017;
 - (c) one Senator for the remainder of a term ending May 31, 2018 to replace Professor Diana McMillan, whose term on Senate ends on May 31, 2017;
- (i) eligible for election are members of Senate elected by faculty/school councils;
 - (ii) presently serving:

Prof. Tina Chen	Arts	2017
Prof. Mark Gabbert	Arts	2017
Prof. Brenda Austin-Smith	Arts	2018
Prof. Mary Brabston	Management	2018
Prof. Diana McMillan	Health Sciences	2018
Prof. Derek Oliver	Engineering	2018
Prof. John Anderson	Science	2019
Prof. Judy Anderson	Science	2019

3. one Senator is to be elected from among the Vice-Presidents, Deans of Faculties and Directors of Schools for a three-year term (June 1, 2017 to May 31, 2020) to replace Dr. Todd Mondor, whose term on the Senate Executive Committee expires on May 31, 2017;

(a) Eligible for election are:

- (i) Vice-Presidents: J. Kearsey, J. Keselman and D. Jayas
- (ii) Deans/Directors: N. Halden, D. Mandzuk, J. Beddoes, T. Mondor, B. Postl, M. Benarroch, D. Brown, J. Black-Branch, E. Dawe, J. Mulvale, P. Hess, G. Hepburn

(ii) Presently serving:

Acting Dean Todd Mondor	Graduate Studies	2017
Dean Jeffery Taylor	Arts	2018
<i>(leave replacement is Dean Stefi Baum (Science) until August 31, 2017)</i>		
Dean Karin Wittenberg	Agricultural and Food Sciences	2019

4. Procedures:

- (a) Nominations for the positions shall be received from the floor.
- (b) Senators shall vote for no more than four candidates in category 1, and one candidate in category 2 on the ballot provided.
- (c) The candidates receiving the largest number of votes shall be elected.
- (d) In the event of a tie, the question shall be resolved by another ballot involving those candidates who have tied.

Election of Student Senator to the Senate Executive Committee

1. The composition of the Senate Executive Committee makes provision for three student assessors. The Assessors are as follows:
 - (a) President of UMSU (or designate) term: May 1, 2017 - April 30, 2018
 - (b) President of GSA (or designate) term: May 1, 2017 - April 30, 2018
 - (c) Student Senator appointed
by caucus of Student Senators term: May 1, 2017 - March 31, 2018
2. The composition of the Senate Executive Committee also makes provision for one elected Student member of Senate. A candidate for this position is nominated by the caucus of Student Senators at Senate. The term for this position is May 1, 2017 - March 31, 2018.
3. Procedures:
 - (a) A nomination for the position shall be provided by the Student Senate Caucus;
 - (b) Senators shall vote by a show of hands.

Report of the Senate Committee on Curriculum and Course Changes Part A- Submitted to Senate for Concurrence Without Debate

Preamble:

1. The terms of reference for the Senate Committee on Curriculum and Course Changes (SCCCC) are found on the website at:
http://www.umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/497.htm. SCCCC is “to recommend to Senate on the introduction, modification or abolition of undergraduate programs, curricula or courses.”
2. Since last reporting to Senate, the Senate Committee on Curriculum and Course Changes (SCCCC) met on March 17, 21, 29, and 31, 2017, and participated in one electronic poll (April 12 - 18, 2017), to consider curriculum and course changes from Faculties, Colleges, and Schools.
3. The Report outlines course and curriculum changes endorsed by the SCCCC at the meetings noted above.
4. Proposed course deletions, introductions, and modifications, and program modifications are described in detail in the attachment to the Report.

Observations:

1. General

In keeping with past practice, most changes for departments totalling less than ten credit hours are forwarded to Senate for concurrence without debate. This is in accordance with the Senate’s recommendation approved July 3, 1973, that course changes would cease to go to the SPPC when the resource implications are intra-faculty. Deans and Directors are to assess the resource implications to the respective units when course changes are proposed. Major changes in existing programs are to be referred to the SPPC for assessment of resource implications.

2. The committee approved the Senate Committee on Curriculum and Course Changes – 2016/2017 Timetable for Faculty/School Submissions to the Office of the University Secretary.

3. Courses to be Removed from the List of Written English Courses - none

4. Courses Recommended for the Written English Requirement

RUSN 2600 Special Topics in Russian Culture in English Translation (3)

5. Courses to be Removed from the Recommended Introductory Course (RIC) List - none

6. Courses Recommended for the Recommended Introductory Course (RIC) List - none

7. Faculty of Arts

Economics

The department is proposing one (1) course modification. There would be no change to the overall number of credit hours in course offerings.

English, Film, and Theatre

The department is proposing the deletion of one (1) course and the modification of one (1) course. The overall number of credit hours offered by the department would decrease by 3 credit hours.

German and Slavic Studies

The department is proposing the introduction of one (1) course. The overall number of credit hours offered by the department would increase by 3 credit hours.

Native Studies

The department is proposing modifications to the following programs:

- **Bachelor of Arts (Singled Advanced Major) in Native Studies – Aboriginal Governance Stream**
- **Required Minor in Business for Students** in a declared Aboriginal Governance Stream

Political Studies

The department is proposing the modification of eight (8) courses. There would be no change to the overall number of credit hours in course offerings.

Psychology

The department is proposing the modification of two (2) courses. There would be no change to the overall number of credit hours in course offerings.

Sociology

The department is proposing the modification of one (1) course. There would be no change to the overall number of credit hours in course offerings.

Faculty of Arts

The faculty is proposing modifications to the **Five-Subject Field Requirement and Humanity/Social Science/Science Requirement**, including to the lists of courses eligible for each of the Humanities, Social Sciences, and the Bachelor of Arts Science requirements.

8. **College of Dentistry**

The college is proposing the deletion of three (3) courses, the introduction of two (2) courses, and the modification of eight (8) courses. There would be no change to the overall number of credit hours in course offerings.

The college is proposing program modifications to the **Doctor of Dental Medicine** program that follow from the course deletions and introductions.

9. **Faculty of Engineering**

Biosystems Engineering

The department is proposing program modifications to **Bachelor of Science in Engineering (Biosystems Engineering)**, involving changes to the program notes, and to the **Bioresource Specialization**.

Civil Engineering

The department is proposing the modification of three (3) courses. There would be no change to the overall number of credit hours in course offerings.

The department is proposing program modifications to the **Bachelor of Science in Engineering (Civil Engineering)**.

Electrical and Computer Engineering

The department is proposing the modification of one (1) course. There would be no change to the overall number of credit hours in course offerings.

The department is proposing program modifications to the following programs:

- **Bachelor of Science in Engineering (Computer Engineering)**
- **Bachelor of Science in Engineering (Electrical Engineering)**

Mechanical Engineering

The department is proposing the deletion of four (4) courses. The overall number of credit hours offered by the department would decrease by 4 credit hours.

The department is proposing program modifications to the **Bachelor of Science in Engineering (Mechanical Engineering)**.

Faculty of Engineering

The faculty is proposing the introduction of one (1) course. The overall number of credit hours offered by the faculty would increase by four (4) credit hours.

The faculty is proposing program modifications to the **Post-Baccalaureate Diploma in Engineering**.

10. **Faculty of Environment, Earth, and Resources**

Environment and Geography

The department is proposing the introduction of one (1) course. The overall number of credit hours offered by the department would increase by three (3) credit hours.

Geological Sciences

The department is proposing modifications to the following programs, to correct an error to program modifications approved by Senate in January 2017:

- **Bachelor of Science (Honours) in Geological Sciences - Geology**
- **Bachelor of Science (Major) in Geological Sciences - Geology**

11. **Extended Education Division**

The division is proposing modifications to the **Diploma in First Nations Community Wellness**, to respond to course changes previously made by departments that offer the courses.

12. **Faculty of Management**

Accounting and Finance

The department is proposing the deletion of one (1) course and the introduction of one (1) course. There would be no change to the overall number of credit hours in course offerings.

The department is proposing a program modification involving changes to the courses identified as general Options, which are courses that are not required as part of any Major in the B.Comm.(Hons.) program.

Supply Chain Management

Course and curriculum changes proposed by the department are described in the *Report of the Senate Committee on Curriculum and Course Changes, Part B – Submitted to Senate for Ordinary Debate RE: Department of Supply Chain Management* (dated March 21, 2017).

13. **Faculty of Music**

The faculty is proposing the deletion of one (1) course and the introduction of two (2) courses. The overall number of credit hours offered by the faculty would increase by three (3) credit hours.

14. **College of Nursing**

The college is proposing to rescind the deletion of NURS 3532 Nursing Skills 4 (1), which was deleted effective for the 2018 Winter Term (Senate, December 2, 2015).

The college is proposing the deletion of twenty-two (22) courses, the introduction of two (2) courses, and the modification of three (3) courses. The overall number of credit hours offered by the college would decrease by 68 credit hours.

The college is proposing program modifications to the following programs:

- **Bachelor of Nursing**
- **Baccalaureate Program for Registered Nurses**

15. **College of Rehabilitation Sciences**

Respiratory Therapy

The department is proposing the modification of one (1) course. There would be no change to the overall number of credit hours in course offerings.

16. **Faculty of Science**

Biological Sciences

The department is proposing the deletion of two (2) courses and the modification of one (1) course. The overall number of credit hours offered by the department would decrease by 6 credit hours.

Chemistry

The department is proposing program modifications to the following programs, involving a revision to the program notes:

- **Bachelor of Science (Honours) in Chemistry**
- **Bachelor of Science (Honours) in Chemistry, Cooperative Option**
- **Bachelor of Science (Major) in Chemistry**
- **Bachelor of Science (Major) in Chemistry, Cooperative Option**

Computer Science

The department is proposing the modification of two (2) courses. There would be no change to the overall number of credit hours in course offerings.

The department is proposing program modifications to the following programs:

- **Bachelor of Science (Honours) in Computer Science**
- **Bachelor of Science (Honours) in Computer Science, Cooperative Option**
- **Bachelor of Science (Major) in Computer Science**
- **Bachelor of Science (Major) in Computer Science, Cooperative Option**

Genetics

The program is proposing program modifications to the following programs, including changes to the listing of optional courses:

- **Bachelor of Science (Honours) in Genetics**
- **Bachelor of Science (Honours) in Genetics, Cooperative Option**

- **Bachelor of Science (Major) in Genetics**
- **Bachelor of Science (Major) in Genetics, Cooperative Option**

Mathematics

The department is proposing program modifications to the following programs:

- **Bachelor of Science (Honours) in Mathematics**
- **Bachelor of Science (Double Honours) in Mathematics**
- **Bachelor of Science (Major) in Mathematics**
- **Bachelor of Science (Major) in Applied Mathematics, Computer Science Option**
- **Bachelor of Science (Major) in Applied Mathematics, Economics Option**
- **Bachelor of Science (Major) in Applied Mathematics, Statistics Option**
- **Bachelor of Science (Joint Honours) in Computer Science - Mathematics**
- **Bachelor of Science (Joint Honours) in Computer Science – Mathematics, Cooperative-Option**
- **Bachelor of Science (Joint Honours) in Mathematics - Physics and Astronomy**

Microbiology

The department is proposing the modification of two (2) courses. There would be no change to the overall number of credit hours in course offerings.

The department is proposing program modifications to the following programs:

- **Bachelor of Science (Honours) in Microbiology**
- **Bachelor of Science (Honours) in Microbiology, Cooperative Option**
- **Bachelor of Science (Major) in Microbiology**
- **Bachelor of Science (Major) in Microbiology, Cooperative Option**

17. Université de Saint-Boniface

Faculté des arts

département études françaises, langues et littératures

The Université is proposing the modification of nine (9) courses in the department. There would be no change to the overall number of credit hours in course offerings.

The Université is proposing program modifications to the following programs in the department:

- **Baccalauréat ès Arts spécialisé en études françaises**
- **Baccalauréat ès Arts general en études françaises**
- **Mineure en études françaises**
- **Mineure en espagnol**

département des sciences humaines et sociales

The Université is proposing the deletion of one (1) course, the introduction of five (5) courses, and the modification of one (1) course in the department. The overall number of credit hours offered by the department would increase by 9 credit hours.

Faculté d'éducation et des études professionnelles

École d'administration des affaires

The Université is proposing the introduction of four (4) courses in the École d'administration des affaires. The overall number of credit hours offered by the École would increase by 12 credit hours.

The Université is proposing program modifications to the following programs:

- **baccalauréat en administration des affaires (Comptabilité – concentration)**
- **baccalauréat en administration des affaires (Généraliste – concentration)**

Program proposal:

The Université is proposing to introduce a concentration in **Finances**, in the **baccalauréat en administration des affaires**.

Faculté d'éducation

The Université is proposing the introduction of one (1) course in the Faculté d'éducation, the overall number of credit hours offered by the faculté would increase by three credit hours.

The Université is proposing program modifications to the following programs:

- **post-baccalauréat en éducation**
- **baccalauréat en éducation**

Faculté des sciences

département des sciences mathématiques - physique

The Université is proposing the introduction of two (2) courses and the modification of twelve (12) courses in the department. The overall number of credit hours offered by the department would increase by 6 credit hours.

Faculté des sciences

The Université is proposing program modifications to the **baccalauréat ès sciences general**.

Recommendation

The Senate Committee on Curriculum and Course Changes recommends that curriculum and course changes from the units listed below, including the program proposals indicated, be approved by Senate:

Faculty of Arts

College of Dentistry

Faculty of Engineering

Faculty of Environment, Earth, and Resources

Extended Education Division

Faculty of Management (I.H. Asper School of Business)

Faculty of Music

College of Nursing

College of Rehabilitation Sciences

Faculty of Science

Université de Saint-Boniface

- Program proposal:
 - Finances (concentration)

Respectfully submitted,

Professor G. Smith, Chair
Senate Committee on Curriculum and Course Changes

SENATE COMMITTEE ON CURRICULUM AND COURSE CHANGES – 2017/2018

TIMETABLE FOR FACULTY/COLLEGE/SCHOOL SUBMISSIONS to the Office of the University Secretary

	Fall Deadline	SPPC Meeting	Spring Deadline	Senate Executive Meeting	Senate Meeting
Curriculum/Course changes < 9 CH	September 11, 2017 <i>Submitted to SCCCC only</i>			November 22, 2017	December 6, 2017
Curriculum/Course changes > 9 CH or with resource implications	August 14, 2017 <i>Submitted to SCCCC and SPPC</i>	September 25, 2017		November 22, 2017	December 6, 2017
Curriculum/Course changes			February 12, 2018	May 2, 2018	May 16, 2018

Note:

1. All changes with resource implications must be considered by the Senate Planning and Priorities Committee (SPPC). Faculties/Colleges/Schools should provide a separate submission for SPPC.

Resource Implications include: (i) additions/deletions of courses in a department with a net increase of more than nine credit hours, submission to SPPC should include how this will be addressed; (ii) if a course is offered jointly with other faculty(s) what are the resource implications.
2. Proposals for course deletions or modifications (including changes to pre- or corequisites) that would impact other courses/programs, including courses/programs in other units, should, **ideally**, be brought forward for the Fall deadline. Academic units initiating such changes are **required** to advise other affected units of the proposed change(s), including an indication of the term the change would take effect, so other units have an opportunity to submit corresponding changes to the SCCCC for the same Fall deadline, **ideally**, or the next ensuing Spring deadline. The Registrar's Office can assist units in identifying other courses/programs affected by a proposed course modification/deletion where an academic unit does not have this information.
3. The submission of *new* undergraduate programs and articulation agreements with or without additional funding will be considered on an on-going basis by SCCCC and SPPC. In the fall, the Committee's focus is on course changes, therefore, new programs might not be dealt with as quickly as at other times of the year.

Faculty of Arts

Economics

Modification:

ECON 3040 Introduction to Econometrics Cr.Hrs. 3 0.0
This course builds on ECON 2040 by introducing: multivariate ordinary least squares regression using matrices; heteroscedasticity; and autocorrelation. Additional topics may include: instrumental variables; binary choice models; and panel data models. Students may not hold credit for ECON 3040 and either ABIZ 3080 or the former ECON 3180. Prerequisite: [a grade of "C+" or better in ECON 2040 or the former ECON 3170] or [a grade of "C" or better in STAT 2000 or STAT 2001].

NET CHANGE IN CREDIT HOURS: 0.0

English, Film, and Theatre

Deletion:

THTR 2610 Special Studies 2 Cr. Hrs. 3 -3.0

Modifications:

THTR 2600 Special Studies Cr. Hrs. 3 0.0
An extensive examination of selected topics that will vary from year to year, depending upon the needs and interests of the instructor and students. Prerequisite: [a grade of "C" or better in THTR 1220] or written consent of instructor. The course content may vary. Students can earn multiple credits for this course only when the topic subtitle is different.

NET CHANGE IN CREDIT HOURS: -3.0

German and Slavic Studies

Introduction:

RUSN 2600 Special Topics in Russian Culture in English Translation Cr.Hrs. 3 +3.0
Language of Instruction: English. Topics dealing with Russian culture. The course content may vary. Students may earn multiple credits for this course only when the course subtitle is different.

NET CHANGE IN CREDIT HOURS: +3.0

Native Studies

Program modifications:

Modifications to the following programs are outlined on the next page:

- **Bachelor of Arts (Singled Advanced Major) in Native Studies – Aboriginal Governance Stream**
- **Required Minor in Business for Students in a declared Aboriginal Governance Stream**

Native Studies

- Modification of Native Studies Single Advanced Major - Aboriginal Governance Stream with Required Minor in Business

Added material

Deleted material

8.22.4 Native Studies Aboriginal Governance Stream

YEAR 1	YEAR 2	YEAR 3	YEAR 4
NATIVE STUDIES SINGLE ADVANCED MAJOR - ABORIGINAL GOVERNANCE STREAM TOTAL: 51 CREDIT HOURS			
NATV 1200 or NATV 1220 and NATV 1240	<ul style="list-style-type: none">• ECON 1010 or ECON 1210 or ECON 1220• NATV 2110, POLS 2070, STAT 1000• 12 credit hours from Political Governance courses: NATV 2220, NATV 3310, NATV 3280, NATV 3370, NATV 4200, POLS 4150• 12 credit hours from Aboriginal Business and Economics courses: NATV 3120, NATV 3160, NATV 3350, NATV 4320• 6 credit hours from Traditional Knowledge courses: NATV 2030, NATV 3330, NATV 4220, NATV 4230		
REQUIRED MINOR IN BUSINESS FOR THOSE STUDENTS IN A DECLARED ABORIGINAL GOVERNANCE STREAM¹ TOTAL: 18 CREDIT HOURS			
ACC 1100, GMGT 2060, HRIR 2440, MKT 2210	6 credit hours from: ACC 1110, COMP 1260 , ENTR 2010, ENTR 2020, GMGT 2010, GMGT 3300, LEAD 2010, FIN 2200, FIN 3470, HRIR 4410, MIS 2000		
NOTE:			

¹ Students must ensure that all course prerequisites are met when selecting courses for the Minor.

Political Studies

Modifications:

POLS 2070 Introduction to Canadian Government Cr. Hrs. 6 0.0

A survey of the Canadian political institutions and processes including contemporary Canadian federalism, the parliamentary system, political parties and interest groups. Students may not hold credit for POLS 2070 and any of: POLS 2073 or POLS 2075 or the former POLS 2071.

POLS 3100 Gender and Politics in Canada Cr. Hrs. 3 0.0

This course introduces the principal themes in the study of gender and politics in Canada. Topics may include women's political organizing and activism, representation in political institutions, the gendered division of labour in the private and public spheres, gender and public policy, and the gendered nature of political behaviour. Prerequisite: [a grade of "C" or better in POLS 2070 or the former POLS 2071] or [a grade of "C" or better in both POLS 2073 and POLS 2075] or written consent of instructor or department head.

POLS 3160 Human Rights and Civil Liberties Cr. Hrs. 3 0.0

An examination of the foundations of modern human rights systems in liberal democracies. Topics addressed include the main philosophical arguments on human rights, dominant legal theories of rights, and international conventions and systems of human rights protection. Students may not hold credit for both POLS 3160 and POLS 3161. Prerequisite: [a grade of "C" or better in one of: POLS 2070 or POLS 2510 or POLS 2515 or the former POLS 2071 or the former POLS 2511] or [a grade of "C" or better in both POLS 2073 and POLS 2075] or written consent of instructor or department head.

POLS 3170 The Canadian Charter of Rights and Freedoms Cr. Hrs. 3 0.0

A systematic examination of the rights and freedoms contained in the Charter through Supreme Court decisions. Additional topics addressed include the historical, political and intellectual sources of rights protection in Canada and a review of Canadian human rights legislation. Students may not hold credit for both POLS 3170 and POLS 3171. Prerequisite: [a grade of "C" or better in POLS 2070 or the former POLS 2071] or [a grade of "C" or better in both POLS 2073 and POLS 2075] or written consent of instructor or department head.

POLS 3470 Canadian Public Management Cr. Hrs. 3 0.0

An introduction to the internal and external factors affecting contemporary public sector management in Canada. The course will examine the primary values, policies, processes, and structures within the civil service. Prerequisite: [a grade of "C" or better in one of: POLS 2070 or POLS 2571 or the former POLS 2071 or the former POLS 2570] or [a grade of "C" or better in both POLS 2073 and POLS 2075] or written consent of instructor or department head.

POLS 3570 Administrative Theory in the Public Sector Cr. Hrs. 3 0.0

A study of the fundamental principles with which to understand human behaviour inside public organizations. The course addresses a diverse but comprehensive set of historical and current theories, concepts and approaches in the field of public administration. Prerequisite: [a grade of "C" or better in one of: POLS 2000 or POLS 2070 or POLS 2005 or POLS 2571 or the former POLS 2071 or the former POLS 2570] or [a grade of "C" or better in both POLS 2073 and POLS 2075] or written consent of instructor or department head.

POLS 3670 Canadian Political Parties Cr. Hrs. 3 0.0
This course provides students with an understanding of the origins, evolution, operation and programmes of Canadian political parties. Topics addressed include party types, party systems, party organization and financing, electoral activities and party leadership. Prerequisite: [a grade of "C" or better in POLS 2070 or the former POLS 2071] or [a grade of "C" or better in both POLS 2073 and POLS 2075] or written consent of instructor or department head.

POLS 3960 Canadian Politics Cr. Hrs. 6 0.0
An examination of recurrent issues and problems in the Canadian political culture including the evolution of parties and ideologies, and issues such as regionalism, dualism, continentalism, civil liberties and the interventionist state. Prerequisite: [a grade of "C" or better in POLS 2070 or the former POLS 2071] or [a grade of "C" or better in both POLS 2073 and POLS 2075] or written consent of instructor or department head.

NET CHANGE IN CREDIT HOURS: 0.0

Psychology

Modifications:

PSYC 2290 Child Development Cr.Hrs. 3 0.0
The course deals with normal psychological development from prenatal life until puberty. The scientific approach to child study is emphasized. Students may not hold credit for PSYC 2290 and any of: PSYC 2291 or FMLY 2600. Prerequisite: [a grade of "C" or better in PSYC 1200 or the former PSYC 1201] or [a grade of "C" or better in both PSYC 1211 and PSYC 1221] or written consent of department head.

PSYC 4370 Brain Plasticity Cr.Hrs. 3 0.0
The course will feature the relationship between the brain and experience. Brain plasticity refers to the ability of the brain to change its structure and function. Experience, which includes development, learning, and damage, is a major cause of plasticity in all organisms. Students will be exposed to theories on how much plasticity is possible, how it can be measured, how it can be used, and whether it can be enhanced. Students may not hold credit for both PSYC 4370 and PSYC 4540 when titled "Brain Plasticity." Prerequisite: [a grade of "C" or better in PSYC 2360 or PSYC 2361] and written consent of department head.

NET CHANGE IN CREDIT HOURS: 0.0

Sociology

SOC 2620 The Sociology of Aging Cr. Hrs. 3 0.0
This course explores sociological approaches to the study of age-related phenomena and processes, and aging societies, with a focus on Canadian issues. Associations will be drawn between individual aging experiences and outcomes, and broader political, economic, sociocultural, demographic and historical contexts (including globalization). Strategies to promote the social inclusion of older adults and reduce age-based social inequalities will be discussed. Prerequisite: [a grade of "C" or better in SOC 1200 or the former SOC 1201] or [a grade of "C" or better in both SOC 1211 and SOC 1221].

NET CHANGE IN CREDIT HOURS: 0.0

Faculty of Arts

Modifications to the **Five-Subject Field Requirement and Humanity/Social Science/Science Requirement**, including the lists of courses eligible for each of the Humanities, Social Sciences, and the Bachelor of Arts Science requirements, are outlined on the next page.

Faculty of Arts

- Modification of Bachelor of Arts Humanities, Social Science and Science Requirement

Added material
Deleted material

5.1.1 Five-subject Field Requirement and Humanity/Social Science/Science Requirement

Humanities

1) Course subjects taught by the Faculty of Arts that can be used towards the **Humanities** requirement: Arabic, Asian Studies, Canadian Studies, Catholic Studies, Classical Studies, English (excluding ENGL 0930, ENGL 0940, ENGL 2000, ENGL 2001), Film Studies, French, German, Greek, Hebrew, History, Hungarian, Icelandic, Italian, Judaic Civilization, Latin, Native Languages, Native Studies, Philosophy, Polish, Portuguese, Religion, Russian, Spanish, Theatre, Ukrainian, Ukrainian Canadian Heritage Studies, and Yiddish. In addition the following courses may be used: American Sign Language ASLL 1000; Global Political Economy GPE 3700; Women's and Gender Studies WOMN 1500, WOMN 2530, ~~WOMN 2570~~, WOMN 2600, WOMN 2620, WOMN 2630, WOMN 3110, WOMN 3120, ~~WOMN 3600~~ and WOMN 3620.

2) Course subjects offered by other units which can be used towards the **Humanities** requirement: Art History (i.e. all courses listed with course prefix FAAH). (For details on Art History courses, see Section 9).

Social Sciences

3) Course subjects taught by the Faculty of Arts that can be used towards the **Social Science** requirement: Anthropology, Economics, Global Political Economy courses GPE 1700, GPE 2700, GPE 4700, Labour Studies, Linguistics, Political Studies, Psychology, and Sociology. In addition the following courses may be used: Women's and Gender Studies WOMN 1600, WOMN 2500, ~~WOMN 2510~~, WOMN 2560, WOMN 2610, WOMN 2640, WOMN 2650, WOMN 3100, WOMN 3130, WOMN 3520, WOMN 3550, WOMN 3560 and Others ARTS 1160.

Sciences

4) Students may complete any combination of the courses listed below adding up to six credit hours to satisfy the Bachelor of Arts Science requirement.

Faculty of Science

All courses offered in these subjects in the Faculty of Science: BIOL, CHEM, COMP, FORS, MATH, MBIO, PHYS, STAT;

or courses taught by other faculties that can be used toward the Bachelor of Arts Science requirement:

Faculty of Agricultural and Food Sciences

AGRI 1500, AGRI 1510

ENTM 1000, ENTM 2050

PLNT 1000, PLNT 2500

SOIL 3060, SOIL 3520, SOIL 3600

Clayton H. Riddell Faculty of Environment, Earth, and Resources

ENVR 1000, ENVR 2000

GEOG 1290, GEOG 2200, GEOG 2272, GEOG 2520, GEOG 2530, ~~GEOG 2540~~, GEOG 2550, GEOG 2700, GEOG 3390

GEOL 1340, GEOL 1400, GEOL 1410, GEOL 1420, GEOL 2390, GEOL 2440, GEOL 2500, GEOL 2540, GEOL 2570, GEOL 3310

Faculty of Engineering

ENG 1440, ENG 1450, ENG 1460

For course titles and descriptions see the relevant faculty entries in this *Calendar*.

College of Dentistry

Deletions:

ORLB 3320 Pharmacology and Dental Therapeutics Cr.Hrs. 3	-3.0
PDSD 3422 Dental Public Health / Preventative Dental Science Cr.Hrs. 2	-2.0
RSTD 4522 Advanced Topics in Endodontics Cr.Hrs. 1	-1.0

Introductions:

DDSS 3162 Pharmacology and Therapeutics Cr.Hrs. 3 +3.0
A discussion of the basic pharmacodynamics, pharmacokinetics, mechanisms of actions, doses and adverse effects of therapeutic agents prescribed and administered by dentists. This will include antibiotics, analgesics, anxiolytics, anti-viral and anti-fungal agents. Subsequently drugs used in the management of systemic diseases will be discussed including mechanisms of actions and adverse effects, with particular focus on those which are dentally-related. May not be held with ORLB 3320 or the former ORLB 3060 or the former ORLB 3310.

PDSD 3404 Dental Public Health 2 Cr.Hrs. 3 +3.0
This course uses on-line self-study, classroom discussion, a formal debate, and clinical externships to introduce students to historical and contemporary public health topics. Topics covered include the history of fluoride use to prevent dental caries, the theory and methods for oral disease prevention in populations, the principles and methods for evidence-based practice, and geriatric and sports dentistry. May not be held with the former PDSD 3140 or the former PDSD 3422.

Modifications:

DDSS 1100 Periodontology Cr.Hrs. 1 0.0
A pre-clinical laboratory and didactic course designed to (1) introduce students to periodontal examination procedures and to basic non-surgical periodontal therapy, (2) develop skills related to periodontal instrumentation and treatment, and (3) present fundamental concepts of periodontal anatomy, physiology and microbiology in health and disease. May not be held with the former DDSS 1020.

DDSS 2100 Periodontology 2 Cr.Hrs. 2 0.0
A basic didactic course with emphasis on (1) diagnosis, classification, treatment and prevention of different forms of plaque-induced periodontal diseases, (2) oral-systemic disease associations; (3) non-plaque induced gingival alterations, (4) periodontal treatment of medically compromised patients. May not be held with the former DDSS 2120.

DDSS 3102 Periodontology 3 Cr.Hrs. 3 0.0
This combined lecture and clinical course is designed to provide experience which will allow students to apply previous and current didactic learning to the clinical environment in the field of Periodontology. The classroom sessions provide for description and discussion of periodontal treatment modalities and techniques, including non-surgical, surgical intervention, and implant treatment. Inter-relationships with other clinical disciplines also receive considerable attention. May not be held with the former DDSS 3220.

DENT 4222 General Practice Dentistry Cr.Hrs. 10 0.0

This course is designed to consolidate the theoretical and clinical building blocks of all previous dental courses into the development of a comprehensive dental care methodology. Clinical instruction and experience will facilitate the senior dental students in developing effective patient management tools and advance their technical skills to the level of a novice general dentist. May not be held with the former DENT 4030.

ORLB 2320 Cariology and Plaque Associated Diseases Cr.Hrs. 3 0.0

A study of the various dietary, host and microbial factors in the etiology of dental caries, and a discussion of the various methods of plaque control. May not be held with the former ORLB 2090.

PDSD 2420 Dental Public Health Cr.Hrs. 1 0.0

This course introduces students to healthcare concepts from a systems-level viewpoint. Topics include the methods used in Dental Public Health, history and structure of Canadian Medicare, a parallel view of Canadian dental care, social determinants of health, health promotion, measurement methods for dental health and disease, epidemiology of dental disease in Canada, and access to dental care. May not be held with the former PDSD 2130.

PDSD 4422 Community Dentistry Externship Cr.Hrs. 4 0.0

The clinical portion of the program is centred in community outreach clinics in the City of Winnipeg. The students spend time at a pediatric community clinic, a low income community clinic, and at a geriatric clinic. The clinics serve the elderly, children, Indigenous, or patients from low income families. The didactic portion of the program focuses mainly on geriatric dentistry. May not be held with the former PDSD 4080. Course evaluated on a pass/fail basis.

RSTD 2532 Fixed Prosthodontics 1 Cr.Hrs. 6 0.0

This course is designed to review the fundamentals of fixed prosthodontic restorative techniques in conjunction with laboratory exercises involving tooth preparation, waxing, and fabrication of metal and ceramic restorations. Both conventional laboratory techniques and contemporary digital technology are introduced to closely reflect contemporary dental practice. May not be held with the former RSTD 2140.

NET CHANGE IN CREDIT HOURS: 0.0

Program modifications:

Modifications to the **Doctor of Dental Medicine** degree are outlined on the next page.

SECTION D

College of Dentistry Undergraduate Calendar

Section 1.1 Programs

(no changes necessary)

Program/Degree	Years to Complete	Total Credit Hours (dental program only)
Doctor of Dental Medicine (D.M.D.) (4 year program)	Minimum time to graduation: Six years (University 1, plus one year or 2 years in either the Faculty of Science or Arts, plus four years in the College of Dentistry).	157
Doctor of Dental Medicine (D.M.D.) (International Dental Degree Program [IDDP] 2 year program)	After an 8 week summer orientation students in this program complete the 3 rd and 4 th year of the dental program.	74
Bachelor of Science in Dentistry (note: only students enrolled in the D.M.D. program are eligible for admission)	This program is completed over two (2) summers, normally commencing after first year in the dental program.	NA

Section 4: Program and Graduation Requirements

4.3 Third Year*

		Credit Hours
DDSS 3102	Periodontology 3	3
DDSS 3112	Oral Diagnosis and Radiology 1	2
DDSS 3120	Pain and Anxiety Control 2	1
DDSS 3132	Oral and Maxillofacial Surgery 1	2
DDSS 3142	Medicine	2
DDSS 3152	Temporomandibular Disorder & Orofacial Pain	2
DDSS 3162	Pharmacology and Therapeutics	3
DENT 3210	Dental Practice Management 3	1
ORLB 3300	Pathology and Microbiology 2	1
ORLB 3320	Pharmacology and Therapeutics	3
PDSD 3402	Orthodontics 3	2
PDSD 3404	Dental Public Health 2	3
PDSD 3412	Pediatric Dentistry 2	3
PDSD 3422	Dental Public Health/ Preventative Dental Science	2
RSTD 3512	Operative Dentistry 3	5
RSTD 3522	Endodontology 2	3
RSTD 3532	Fixed Prosthodontics 2	5
RSTD 3542	Complete and Removable Partial Dental Prosthodontics	3

*IDDP Students must also complete a summer Orientation program prior to commencing the 3rd year of the program (DENT 2440, IDDP Orientation – 6 credit hours)

4.4 Fourth Year

		Credit Hours
DDSS 4122	Oral and Maxillofacial Surgery 2	1
DDSS 4150	Hospital Dentistry	1
DENT 4202	Interdisciplinary Patient Centred Care Case Studies	2
DENT 4210	Dental Practice Management 4	2
DENT 4222	General Practice Dentistry	10
DENT 4232	General Practice Seminars	2
DENT 4240	Dental Jurisprudence	1
PDSD 4402	Orthodontics 4	2
PDSD 4412	Pediatric Dentistry 3	2
PDSD 4422	Community Dentistry Externship	4
RSTD 4522	Advanced Topics in Endodontics	1

Faculty of Engineering

Biosystems Engineering

Program modification:

Modifications to the **Bachelor of Science in Engineering (Biosystems Engineering)**, including the **Bioresource Specialization**, are outlined on the next five (5) pages.

Biosystems Engineering for 2017–2018 Calendar

General Office: E2-376 EITC

Telephone: 204 474 6033

Fax: 204 474 7512

Website: umanitoba.ca/faculties/engineering/departments/biosystems/

Head: Dr. D. Mann, P.Eng.

Associate Head: Dr. N. Cicek, P.Eng.

Admin. Assistant: Mandy Tanner

Office Assistant: Evelyn Fehr

For a complete listing of academic staff, please refer to the following website:

umanitoba.ca/faculties/engineering/departments/biosystems/facstaff/acadstatic.html

The Department of Biosystems Engineering offers an accredited degree program in Biosystems Engineering. Biosystems Engineering emphasizes the application of engineering principles to biologically-based systems (plants, animals, humans, and microorganisms). The program is designed to give students knowledge of the fundamental principles of engineering and to introduce biological concepts to enable these engineers to successfully interact with relevant professionals when solving engineering problems involving biological systems. The program is offered in both a traditional and a co-operative education format. The department offers three Specializations (Biomedical, Bioresource, and Environmental) and one Minor (Agribusiness). With the appropriate selection of elective courses, the bachelor's degree in Biosystems Engineering meets the requirements for admission to the Faculty of Medicine.

The undergraduate curriculum in Biosystems Engineering is an academic program in the Faculty of Engineering. Students wishing to study in Biosystems Engineering must be admitted to the Faculty of Engineering. They are required to complete the Preliminary Engineering Program as a prerequisite to the courses in Biosystems Engineering.

Biosystems Engineering Degree Program

Preliminary Engineering Program

Common to all engineering programs (see Section 4.2 for details).

Program Core Courses

Note: Students are encouraged to consult the department for eight- and ten-term program models. Students are strongly encouraged to follow the model programs when possible, as timetabling and course offerings are based on these program models.

Course No.		Credit Hours
BIOE 2110	Transport Phenomenon	3
BIOE 2900	Biosystems Engineering Design 1	4
BIOE 2480	Impact of Engineering on the Environment	3
BIOE 2590*	Biology for Engineers	3
BIOE 3270	Instrumentation and Measurement for Biosystems	4
BIOE 3320	Engineering Properties of Biological Materials	4
BIOE 3400	Design of Structural Components in Machines	4
BIOE 3590	Mechanics of Materials in Biosystems	4
BIOE 3900	Biosystems Engineering Design 2	4
BIOE 4240	Graduation Project	3
BIOE 4900	Biosystems Engineering Design 3	4
BIOE 4950	Biosystems Engineering Design 4	4
CHEM 1310	University Chemistry 1	3
BIOE 2790	Fluid Mechanics	4
BIOE 2800	Solid Mechanics	4
ENG 3000	Engineering Economics	3
ENG 2022	Engineering CAD Technologies for Biosystems	3

MATH 2120	Introduction to Numerical Methods for Engineers	4
MATH 2130	Engineering Mathematical Analysis 1	3
MATH 2132	Engineering Mathematical Analysis 2	3
MBIO 1220	Essentials of Microbiology	3
or		
MBIO 1010	Microbiology 1	3
MECH 3482	Kinematics and Dynamics	4
STAT 2220	Contemporary Statistics for Engineers	3
BIOL 1410	Anatomy of the Human Body	3
or		
SOIL 4060	Physical Properties of Soil	3
BIOL 1412	Physiology of the Human Body	3
or		
BIOE 2600	Plant and Animal Physiology for Engineers	4
One course in Technology and Society (CIVL 4600, ANTH 2430 or ANTH 2500)		3
Two Complementary Studies Electives		6
Three Biosystems Engineering Design Electives (see list below)		12
Two Free Electives		6-8
Total credit hours for graduation		150 to 153

* Please note the combination of BIOL 1020 (Biology 1: Principles and Themes) and BIOL 1030 (Biology 2: Biological Diversity, Function and Interactions) may be used in place of BIOE 2590 (Biology for Engineers).

Biosystems Engineering Design Electives

Course No.		Credit Hours
BIOE 4390	Unit Operations 1	4
BIOE 4412	Design of Light-Frame Building Systems	4
BIOE 4414	Imaging and Spectroscopy for Biosystems	4
BIOE 4420	Crop Preservation	4
BIOE 4440	Bioprocessing for Biorefining	4
BIOE 4460	Air Pollution Assessment and Management	4
BIOE 4560	Structural Design in Wood	4
BIOE 4590	Management of By-Products from Animal Production	4
BIOE 4600	Design of Water Management Systems	4
BIOE 4610	Design of Assistive Technology Devices	4
BIOE 4620	Remediation Engineering	4
BIOE 4640	Bioengineering Applications in Medicine	4
BIOE 4700	Alternative Building Design	4

Complementary Studies Electives

Complementary studies electives are required to give the engineering student exposure to topics outside the fields of science and engineering. There are many university courses that fulfill this requirement. Any course at the 1000-level or above from the faculties of Arts or Management, or the Department of Agribusiness and Agricultural Economics can be used as a complementary studies elective. However, ARTS 1100 Introduction to University may not be used for credit in the Faculty of Engineering. Other university courses which do not cover topics of science or engineering may also be acceptable. Please consult with the department head (or his/her designate) for approval of such courses.

Free Electives

Any university course at the 1000-level or above can be used as a free elective. However, ARTS 1100 Introduction to University may not be used for credit in the Faculty of Engineering. Students are permitted to take additional design electives or engineering courses from other departments to fulfill free elective requirements.

Specializations in Biosystems Engineering

Students wishing to pursue more focused studies in a Biosystems Engineering subject area have the choice of completing one of three specializations: 1) Biomedical, 2) Bioresource, or 3) Environmental. To complete a specialization, you will be required to complete two science electives (identified as Group A), three Biosystems Engineering design electives (identified as Group B), two complementary studies electives (identified as Group C), and two free electives (selected from Groups B, C or D). The similarly-themed courses that have been identified for each specialization take the place of two science electives, three Biosystems Engineering design electives, two complementary studies electives, and two free electives in the general Biosystems Engineering program (i.e., completing a specialization does not require any additional coursework).

Biomedical Specialization

Students who obtain a grade of "C" or better in the courses listed below will receive a notation of "Biomedical Specialization" on their transcript at the time of graduation.

Group A: Science Electives (choose both courses)

BIOL 1410 Human Anatomy
BIOL 1412 Physiology of the Human Body

Group B: Biosystems Engineering Design Electives (choose 3 from the list)

BIOE 4414 Imaging and Spectroscopy for Biosystems
BIOE 4610 Design of Assistive Technology Devices
BIOE 4640 Bioengineering Applications in Medicine

Group C: Complementary Studies Electives (Choose 2 from the list)

ENG 1900 Occupational Health and Safety Awareness
ENVR 3400 Introduction to Environment and Health
HIST 4660 History of Health and Disease (6) (counts as 2)
HIST 4680 Social History of Health and Disease in Modern Canada (6) (counts as 2)
HNSC 1210 Nutrition for Health and Changing Lifestyles
NATV 3240 Native Medicine and Health
PERS 1200 Physical Activity, Health and Wellness
PHIL 2740 Ethics and Biomedicine (or PHIL 2741 Éthique et biomédecine)

Group D: Free Electives (choose 2 from the list)

(Note: additional courses from Group B or C can be used to fulfill Group D electives.)

BIOE 4650 Textiles in Healthcare and Medical Applications
BIOL 2410 Human Physiology 1
BIOL 2420 Human Physiology 2
BIOL 4470 Sensory-Motor Physiology
CHEM 2210 Introductory Organic Chemistry 1
CHEM 2360 Biochemistry 1
CHEM 2370 Biochemistry 2
ECE 4610 Biomedical Instrumentation and Signal Processing
KIN 2330 Biomechanics
KIN 4330 Advanced Biomechanics
MECH 4322 Design of Biomechanical Devices
MECH 4360 Biomaterials for Medical Applications
PHYS 3220 Medical Physics and Physiological Measurement
PHYS 4400 Medical Imaging

Note: Special permission may be granted by the Head of Department for courses not appearing on the list for Group C or Group D.

Bioresource Specialization

Students who obtain a grade of "C" or better in the courses listed below will receive a notation of "Bioresource Specialization" on their transcript at the time of graduation.

Group A: Science Electives (choose both courses)

BIOE 2600 Plant and Animal Physiology for Engineers
SOIL 4060 Physical Properties of Soil

Group B: Biosystems Engineering Design Electives (choose 3 from the list)

BIOE 4390 Unit Operations 1

BIOE 4412 Design of Light-Frame Building Systems
BIOE 4420 Crop Preservation
BIOE 4440 Bioprocessing for Biorefining
~~BIOE 4530 Analysis & Design of Biomachinery~~
BIOE 4590 Management of By-Products from Animal Production
BIOE 4600 Design of Water Management Systems

Group C: Complementary Studies Electives (choose 2 from the list)

ABIZ 1000 Introduction to Agribusiness Management
ABIZ 1010 Economics of World Food Issues and Policies
ABIZ 3530 Farm Management
FOOD 1000 Food Safety Today and Tomorrow
GEOG 2520 Geography of Natural Resources

Group D: Free Electives (choose 2 from the list)

(Note: additional courses from Group B or C can be used to fulfill Group D electives.)

AGRI 1500 Natural Resources and Primary Agricultural Production
AGRI 1510 Production, Distribution and Utilization of Agricultural Products
BIOE 2090 Machinery for Agricultural Production
BIOE 2222 Precision Agriculture Concepts and Applications
ENTM 3170 Crop Protection Entomology
FOOD 3010 Food Process 1
FOOD 4260 Water Management in Food Processing
PLNT 2500 Crop Production
PLNT 2510 Fundamentals of Horticulture
PLNT 3560 Organic Crop Production on the Prairies
SOIL 3520 Pesticides: Environment, Economics and Ethics

Note: Special permission may be granted by the Head of Department for courses not appearing on the list for Group C or Group D.

Environmental Specialization

Students who obtain a grade of "C" or better in the courses listed below will receive a notation of "environmental specialization" on their transcript at the time of graduation.

Group A: Science Electives (choose both courses)

BIOE 2600 Plant and Animal Physiology for Engineers
SOIL 4060 Physical Properties of Soil

Group B: Biosystems Engineering Design Electives (choose 3 from the list)

BIOE 4460 Air Pollution Assessment and Management
BIOE 4590 Management of By-Products from Animal Production
BIOE 4600 Design of Water Management Systems
BIOE 4620 Remediation Engineering
BIOE 4700 Alternative Building Design

Group C: Complementary Studies Electives (choose 2 from the list)

ABIZ 2390 Introduction to Environmental Economics (or equivalent)
ENVR 1000 Environmental Science 1 – Concepts
ENVR 2000 Environmental Science 2 - Issues
ENVR 2270 Environmental Problem Solving and Scientific Thinking
ENVR 3160 Environmental Responsibilities and the Law
ENVR 3400 Introduction to Environment and Health
ENVR 3750 Green Building and Planning
ENVR 3850 Sustainable Manitoba
ENVR 4050 Ecosystem Management
ENVR 4400 Advanced Issues in Environment and Health
GEOG 2520 Geography of Natural Resources
PHIL 2750 Environmental Ethics

Group D: Free Electives (choose 2 from the list)

(Note: additional courses from Group B or C can be used to fulfill Group D electives.)

AGEC 2370 Principles of Ecology (or equivalent)

CIVL 3690 Environmental Engineering Analysis
CIVL 3700 Environmental Engineering Design
CIVL 4350 Hazardous Waste Treatment
ENVR 2550 Environmental Chemistry
ENVR 3110 Environmental Conservation and Restoration
GEOG 3730 Geographic Information Systems

Note: Special permission may be granted by the Head of Department for courses not appearing on the list for Group C or Group D.

Agribusiness Minor

A minor in agribusiness is available to Biosystems Engineering students. The minimum requirement is 18 credit hours consisting of ECON 1010 Introduction to Microeconomic Principles (3 credit hours), ECON 1020 Introduction to Macroeconomic Principles (3 credit hours), ABIZ 1000 Introduction to Agribusiness (3 credit hours), ABIZ 2510 Introduction to Agricultural and Food Marketing (3 credit hours), ABIZ 2520 Introduction to Management Sciences (3 credit hours) and at least three additional credit hours from the Department of Agribusiness and Agricultural Economics (students must meet all prerequisite requirements). A maximum of 3 courses (9 credit hours) of courses used for the minor may also be used to fulfill course requirements in Biosystems Engineering.

Admission to Medicine

The bachelor's degree in Biosystems Engineering provides the background to meet eligibility requirements for admission into the Faculty of Medicine. Students planning to apply for entrance to Medicine after completing the B.Sc. in Biosystems Engineering are advised to take PHIL 2740 Ethics and Biomedicine as one complementary studies elective, CHEM 2210 Organic Chemistry 1 and CHEM 2360 Biochemistry 1 as their two free electives.

Co-operative Education Program in Biosystems Engineering

Please refer to SECTION 5: Co-operative Education and Industrial Internship Programs

Civil Engineering

Modifications:

CIVL 4200 Groundwater Contamination Cr.Hrs. 4 0.0
Introduction to the principles of groundwater chemistry; chemical evolution of natural groundwater flow systems; sources of contamination; mass transport processes; hydrochemical behaviour of contaminants; nuclear waste disposal; non-aqueous phase organics; aquifer remediation. Prerequisites: CIVL 2790 and (GEOL 1340 or GEOL 2250). Pre- or corequisite: CIVL 3690.

CIVL 4380 Infrastructure Engineering and Construction Management Cr.Hrs. 4 0.0
Infrastructure engineering; drainage systems, maintenance engineering and management. Construction and project management; workplace health and safety, construction site field trips, construction equipment, temporary facilities, project management. Elements of law for civil engineers. Prerequisite: ENG 3000 or CIVL 4050.

CIVL 4590 Design Project Cr.Hrs. 6 0.0
An interdisciplinary project-based course involving engineering design, teamwork and delivered in studio format. Students are expected to work in pre-assigned teams under the guidance of professional engineers on a pre-determined project. Lecture material will cover project management, construction, environmental and economic issues. Each team will be required to give an oral presentation of their design project. Prerequisites: [ENG 2030 or ENG 2040 (or the former ENG 2010)], CIVL 2840 (or the former CIVL 2820), CIVL 3690, CIVL 3730, CIVL 3740, CIVL 3750, CIVL 3770, and CIVL 3790.

NET CHANGE IN CREDIT HOURS: 0.0

Program modification:

Modifications to the **Bachelor of Science in Engineering (Civil Engineering)** are outlined on the next two (2) pages.

ACADEMIC CALENDAR CONTENT
Civil Engineering Program – changes requested for September, 2017

Civil Engineering Program and Environmental Engineering Option
Common Core Program

Course No.		Credit Hours
CHEM 1310	Introduction to Physical Chemistry	3
CIVL 2770	Civil Engineering Materials	5
CIVL 2780	Civil Engineering Systems	4
CIVL 2790	Fluid Mechanics	4
CIVL 2800	Solid Mechanics 1	4
CIVL 2830	Graphics for Civil Engineers	2
CIVL 2840	Civil Engineering Geomatics	3
CIVL 3590	Numerical Methods for Engineers	4
CIVL 3690	Environmental Engineering Analysis	4
CIVL 3700	Environmental Engineering Design	4
CIVL 3730	Geotechnical Materials and Analysis	4
CIVL 3740	Hydraulics	4
CIVL 3750	Hydrology	4
CIVL 3760	Structural Analysis	4
CIVL 3770	Structural Design 1	4
CIVL 3790	Transportation Engineering	4
CIVL 4050	Engineering Economics	3
CIVL 4220	Geotechnical Design	4
CIVL 4380	Infrastructure Engineering and Construction Management	4
CIVL 4390	Structural Design 2	4
CIVL 4400	Transportation Engineering 2	4
CIVL 4460	Technology, Society and the Future	3
CIVL 4590	Design Project	6
ENG 2030	Engineering Communication: Strategies for the Profession	3
or		
ENG 2040	Engineering Communication: Strategies, Practice and Design	3
ENG 3000	Engineering Economics	3
GEOL 2250	Geology for Engineers	4
GEOL 1340	The Dynamic Earth	3
MATH 2130	Engineering Mathematical Analysis	3
MATH 2132	Engineering Mathematical Analysis 2	3
STAT 2220	Introduction to Probability and Statistics	3

Proposed Program Modification – Civil Engineering Program
Faculty of Engineering
December 14, 2016

Program Modifications

For many years, the topic of “engineering economics” has been taught to all engineering students under the course CIVL 4050 – Engineering Economics. The Dean’s Office, Faculty of Engineering, has decided that this course should be offered under the “ENG” subject code because the course is common to all of the engineering programs. This new course will be managed by the Centre for Engineering Professional Practice and Engineering Education. Revisions to the Calendar entry for Civil Engineering program show the replacement of CIVL 4050 with ENG 3000. CIVL 4050 will no longer be offered.

Civil engineering students are required to take GEOL 2250 - Geology for Engineers as one of four core basic science courses. Over time, this course which started as a service course for civil engineering was combined with GEOL1340, a first year geology course. Both GEOL 1340 and GEOL 2250 share the same outline, instructor, room, labs, exam and class schedule and either is accepted in the Civil Engineering program. The only notable difference is that GEOL 1340 is 3 credit hours and GEOL 2250 is 4 credit hours. Revisions to the Calendar entry for Civil Engineering program show the replacement of GEOL 2250 with GEOL 1340.

Transition Plan

Documentation is being submitted in December 2016 to enable the changes to be in place for September 2017. Students admitted to the Civil Engineering program in September 2017 and forward will be required to complete ENG 3000 and GEOL 1340. Students already in the Civil Program who have not yet completed CIVL 4050 or GEOL 2250 (or GEOL 1340) will be expected to complete ENG 3000 and GEOL 1340.

Electrical and Computer Engineering

Modification:

ECE 4310 Electrical Energy Systems 2 Cr.Hrs. 4 0.0
(Lab required) Generating stations. Power system stability and optimal operation. EHV-AC and HVDC power transmission. Power system protective relaying and reliability evaluation.
Prerequisites: ECE 4150 and ECE 4300.

NET CHANGE IN CREDIT HOURS: 0.0

Program modification:

Modifications to the following programs are outlined on the next two (2) pages:

- **Bachelor of Science in Engineering (Computer Engineering)**
- **Bachelor of Science in Engineering (Electrical Engineering)**

Computer Engineering Courses Requirements

ANTH 2430	Ecology, Technology and Society	3
CHEM 1300	Structure and Modelling of Chemistry	3
GIVL 4050	Engineering Economics	3
COMP 1012	Computer Programming for Scientists and Engineers	3
COMP 1020	Computer Science 2	3
COMP 2140	Data Structures and Algorithms	3
COMP 3430	Operating Systems	3
ENG 1430	Design in Engineering	3
ENG 1440	Introduction to Statics	3
ENG 1450	Introduction to Electrical and Computer Engineering	3
ENG 1460	Introduction to Thermal Sciences	3
ENG 2030	Engineering Communication: Strategies for the Profession	3
or		
ENG 2040	Engineering Communication: Strategies, Practice, and Design	3
ENG 3000	Engineering Economics	3
MATH 1210	Techniques of Classical and Linear Algebra	3
MATH 1510	Applied Calculus 1 (or equivalent)	3
MATH 1710	Applied Calculus 2 (or equivalent)	3
MATH 2130	Engineering Mathematical Analysis	3
MATH 2132	Engineering Mathematical Analysis 2	3
MATH 3120	Applied Discrete Mathematics	3
MATH 3132	Engineering Mathematical Analysis 3	3
PHIL 1290	Critical Thinking**	3
PHYS 1050	Physics 1: Mechanics	3
PHYS 2152	Modern Physics for Engineers	3
STAT 2220	Introduction to Probability and Statistics	3
ECE 2160	Electronics 2E	5
ECE 2220	Digital Logic Systems	5
ECE 2262	Electric Circuits	4
ECE 3610	Microprocessor Systems	4
ECE 3700	Telecommunication Network Engineering	4
ECE 3740	Systems Engineering Principles 1	4
ECE 3760	Digital Systems Design 1	4
ECE 3780	Signal Processing 1	4
ECE 3790	Engineering Algorithms	4
ECE 4150	Control Systems	4
or		
ECE 4260	Communication Systems	4
ECE 4240	Microprocessor Interfacing	4
ECE 4830	Signal Processing 2	4
ECE 4600	Group Design Project	6

Plus 1 course from the list of Written English Courses for Engineering Students.

Plus 1 Complementary Studies Elective.

Plus 2 Natural Science Electives from the approved list.

Plus 5 Technical Electives from the approved list.

** PHIL 1290 Critical Thinking is the recommended complementary studies elective. However, students may select any course from the Faculty of Arts or the Faculty of Management at the 1000 level or above, with the exception of ARTS 1110 Introduction to the University which may not be held for credit within the Faculty of Engineering.

21 February 2017

Electrical Engineering Courses Requirements

ANTH 2430	Ecology, Technology and Society	3
CHEM 1300	Structure and Modelling of Chemistry	3
CIVL 4050	Engineering Economics	3
COMP 1012	Computer Programming for Scientists and Engineers	3
ENG 1430	Design in Engineering	3
ENG 1440	Introduction to Statics	3
ENG 1450	Introduction to Electrical and Computer Engineering	3
ENG 1460	Introduction to Thermal Sciences	3
ENG 2030	Engineering Communication: Strategies for the Profession	3
or		
ENG 2040	Engineering Communication: Strategies, Practice, and Design	3
ENG 3000	Engineering Economics	3
MATH 1210	Techniques of Classical and Linear Algebra	3
MATH 1510	Applied Calculus 1 (or equivalent)	3
MATH 1710	Applied Calculus 2 (or equivalent)	3
MATH 2130	Engineering Mathematical Analysis	3
MATH 2132	Engineering Mathematical Analysis 2	3
MATH 3132	Engineering Mathematical Analysis 3	3
PHIL 1290	Critical Thinking**	3
PHYS 1050	Physics 1: Mechanics	3
PHYS 2152	Modern Physics for Engineers	3
STAT 2220	Introduction to Probability and Statistics	3
ECE 2160	Electronics 2E	5
ECE 2220	Digital Logic Systems	5
ECE 2240	Numerical Methods for Electrical Engineers	4
ECE 2262	Electric Circuits	4
ECE 3540	Advanced Circuit Analysis and Design	4
ECE 3580	Foundations of Electromagnetics	4
ECE 3590	Electromagnetic Theory	4
ECE 3600	Physical Electronics	4
ECE 3610	Microprocessor Systems	4
ECE 3670	Electronics 3E	4
ECE 3720	Electric Power and Machines	4
ECE 3730	Principles of Embedded Systems Design	4
ECE 3780	Signal Processing 1	4
ECE 4150	Control Systems	4
ECE 4260	Communication Systems	4
ECE 4600	Group Design Project	6

Plus 1 course from the list of Written English Courses for Engineering Students

Plus 1 Complementary Studies Elective.

Plus 1 Natural Science Electives from the approved list.

Plus 7 Technical Electives from the approved list.

** PHIL 1290 Critical Thinking is the recommended complementary studies elective. However, students may select any course from the Faculty of Arts or the Faculty of Management at the 1000 level or above, with the exception of ARTS 1110 Introduction to the University which may not be held for credit within the Faculty of Engineering.

21 February 2017

Mechanical Engineering

Deletions:

MECH 3910 Manufacturing Cooperative Education Assignment 1 Cr.Hrs. 1	-1.0
MECH 3920 Manufacturing Cooperative Education Assignment 2 Cr.Hrs. 1	-1.0
MECH 4910 Manufacturing Cooperative Education Assignment 3 Cr.Hrs. 1	-1.0
MECH 4920 Manufacturing Cooperative Education Assignment 4 Cr.Hrs. 1	-1.0

NET CHANGE IN CREDIT HOURS: -4.0

Program modification:

Modifications to the **Bachelor of Science in Engineering (Mechanical Engineering)** are outlined on the next three (3) pages.

4.10.1 Mechanical Engineering Program

Preliminary Engineering Program - Common to all Engineering Programs. (See Section 4.2 for details.)

Program Core Courses:

Course No.		Credit Hours
CHEM 1310	An Introduction to Physical Chemistry	3
ENG 3000	Engineering Economics	3
CIVL 4050	Engineering Economics	3
CIVL 4460	Technology, Society, and the Future	3
ECE 3010	Elements of Electric Machines and Digital Systems	4
ENG 2030	Engineering Communication: Strategies for the Profession	3
or		
ENG 2040	Engineering Communication: Strategies, Practice and Design	3
MATH 2130	Engineering Mathematical Analysis 1	3
MATH 2132	Engineering Mathematical Analysis 2	3
MATH 3132	Engineering Mathematical Analysis 3	3
MECH 2012	Computer Aided Design and Manufacturing Processes	4
MECH 2150	Mechanical Engineering Modelling and Numerical Methods	4
MECH 2202	Thermodynamics	4
MECH 2222	Mechanics of Materials	4
MECH 2262	Fundamentals of Fluid Mechanics	4
MECH 2272	Engineering Materials 1	4
MECH 3170	Project Management	4
MECH 3420	Vibrations and Acoustics	4
MECH 3430	Measurements and Control	4
MECH 3460	Heat Transfer	4
MECH 3482	Kinematics and Dynamics	4
MECH 3492	Fluid Mechanics and Applications	4
MECH 3502	Stress Analysis and Design	4
MECH 3542	Engineering Materials 2	4
MECH 3980	Mechanical Engineering Laboratory (full year)	4
MECH 4650	Machine Design 4M	4
MECH 4860	Engineering Design	5
PHYS 1070	Physics 2: Waves and Modern Physics	3
STAT 2220	Contemporary Statistics for Engineers	3
5 Technical Electives (TE)		4
1 Complimentary Studies Elective (CE)		3

NOTES:

1. A student's selection and timetabling of electives are subject to the following conditions:
 - a. Only one complementary elective (CE) is required upon completion of Critical Thinking (PHIL 1290), which is recommended but not required; students may choose an alternate course from the Faculties of Arts or Management at the 1000 level or above, and one course from the approved list of Written English Courses for Engineering Students in the Preliminary Engineering Program (see Section 4.2).
 - b. The complementary elective (CE) can be any course at the 1000-level or above from the faculties of Arts or Management. However, ARTS 1110 Introduction to University may not be used for credit in the Faculty of Engineering.
2. For courses continuing through both terms, credit is given on completion of course.
3. A minimum of 20 credit hours of technical electives are required with 18 hours required if completing MECH 4162 the Mechanical Engineering Thesis Course (5 courses at 4 credit hours each or 3 courses at 4 credit hours each plus MECH 4162 at 6 credit hours).

Proposed Program Modification
Mechanical Engineering Program
December 19, 2016

Faculty of Engineering

Mechanical Engineering

Program Modifications:

Part 1:

For Many years, the topic of “Engineering Economics” has been taught to all engineering students under the course CIVL 4050 Engineering Economics. The Dean’s Office, Faculty of Engineering has decided that this course should be offered under the “ENG” prefix because the course is universal to all engineering programs. The course will be managed by the Centre for Engineering Professional Practice and Engineering Education. The NEW (ENG 3000 Engineering Economics) course has been introduced by the Centre. Revisions to the Calendar entry for the Mechanical Engineering program show the replacement of CIVL 4050 with ENG 3000.

Transition:

Documentation with respect to the above change has been submitted to enable the change to be in place for September 2017. Students admitted to the Mechanical Engineering program in September 2017 will be required to complete ENG 3000. Students already enrolled in the Mechanical Engineering program who have not completed CIVL 4050 by September 2017 will be expected to complete the new course (ENG 3000).

Faculty of Engineering

Introduction:

ENG 4110 Operational Excellence Cr.Hrs. 4 +4.0
(Lab required) Methodical application of operational excellence and engineering principles and theory to address real industry problems, with emphasis on the data and fact-based engineering method of problem solving. Grounded in the Plan-Do-Study-Act system. Covers the seven step problem solving method (problem definition, examine the current situation, root cause analysis, action planning and testing, study the results, standardize the changes, and draw conclusions), applied statistical concepts (Lean Six Sigma Management) and the fundamentals of teamwork, team dynamics and change management. It is expected that students will be challenged in terms of their understanding of the method, concepts, analytics, and the tools, and their application to solving 'real' operational problems. Students must attend both lecture and tutorial. Students will be required to attend meetings at industrial partner facilities. May not be held with MECH 4342 where the topic is Operational Excellence. Pre- or corequisite: STAT 2220 or (STAT 1000 and STAT 2000).

NET CHANGE IN CREDIT HOURS: +4.0

Program modification

The faculty is proposing modifications to the **Post-baccalaureate Diploma in Engineering** as set out on the next two (2) pages.

4.11.1 Introduction

The Faculty of Engineering offers the IEEQ Program, designed for international engineering graduates (IEGs) pursuing foreign credentials recognition with Engineers Geoscientists Manitoba (EGM, www.apegm.mb.ca), the regulatory body for engineering in Manitoba. Through the IEEQ Program, IEGs

- Meet requirements for academic qualification with EGM and, upon successful completion of IEEQ program requirements, become registered with EGM as a Member-in-Training; and,
- May earn a Post-Baccalaureate Diploma in Engineering from the University of Manitoba.

The provisions of Section 3: Academic Regulations apply to all students. In addition, the IEEQ Program has regulations and requirements that apply specifically to its students that may differ from the academic regulations in Section 3. Details on regulations and requirements not included below are provided to students upon their admission into the IEEQ Program, and can be found on-line at umanitoba.ca/engineering/ieeq

4.11.2 Admission Requirements and Application Procedures

The IEEQ Program can accept applicants whose Confirmatory Exam assignments by APEGM correspond to one of the five accredited undergraduate engineering programs offered in the Faculty of Engineering.

Program entrance is normally in September of any given year. In order to be admitted to the IEEQ Program, the student must:

- Be an IEG with an earned undergraduate engineering degree obtained from a university outside of Canada;
- Have obtained the results of an *Assessment of Academic Credentials* from APEGM, with a result of five or fewer Confirmatory Exams assigned by APEGM in order to be considered academically qualified;
- Be a Permanent Resident or Canadian Citizen; and,
- Demonstrate proficiency in the English language by meeting the minimum standard in one of the University of Manitoba approved proficiency tests or achieve Canadian Language Benchmark (CLB) Placement Test scores of level eight (8) and no more than one seven (7) in the four language areas (for example, 8/8/8/7 or similar combination).

4.11.3 Program Requirements

The Post-Baccalaureate Diploma in Engineering consists of a minimum of 24 hours of coursework, subject to the following regulations:

~~CIVL 4050~~ **ENG 3000** *Engineering Economics*; and

ENG 4020 *Professional Engineering Practice in Manitoba*; and

ENG 4800 *IEEQ Co-op Assignment*; and

Technical courses are taken from the 3000 and 4000 levels of the student's engineering discipline, and corresponding to the topic areas of Confirmatory Exams assigned by EGM.

The total number of courses required in the IEEQ Program is generally as shown in the table below:

Number of Technical Confirmatory Exams ¹ Assigned by EGM	Number of courses in IEEQ ²
One (1) or two (2)	5
Three (3)	7
Four (4)	9
Five (5)	11

Notes:

1. Technical exams refer to exams assigned from Group A or Group B of the Discipline Examinations (see http://engineerscanada.ca/e/pu_syllabus_1.cfm). Technical Exams do not include exams assigned from the Basic Studies (BS) or Complementary Studies (CS) syllabi, such as 11-CS-1 Engineering Economics

2. Including ~~CIVL 4050~~ **ENG 3000** *Engineering Economics*, ENG 4020 *Professional Engineering Practice in Manitoba*, and ENG 4800 *IEEQ Co-op Assignment*

If the courses required in IEEQ total less than 24 credit hours, the student may apply for a transfer of credit from the original earned undergraduate engineering degree (obtained outside of Canada).

All courses must be completed with a grade of C or better. Failed courses may only be repeated once, and are subject to the limits outlined in the IEEQ Student Handbook and on the IEEQ website.

4.11.4 Maximum Time Limits

Students can choose a full-time or part-time option in the IEEQ Program. Students will be asked to declare their status upon their acceptance to the IEEQ Program.

Number of courses in IEEQ	Full-time	Part-time
Seven (7) or fewer	1 yrs	2 yrs
More than seven (7)	2 yrs	3 yrs

Faculty of Environment, Earth, and Resources

Environment and Geography

Introduction:

GEOG 4940 Arctic Sea Ice Cr.Hrs. 3

+3.0

This course aims to (i) provide students with a strong background on the importance and current knowledge of Arctic sea ice and (ii) train students on current field techniques used in research pertaining to sea ice-related investigations. To attain these goals, the course will combine field safety training, classroom lectures and assignments, and direct field experience through a field trip pertaining to physical and biogeochemical processes of the snow-covered sea-ice environment. Prerequisite: permission of the instructor.

NET CHANGE IN CREDIT HOURS: +3.0

Geological Sciences

Program modification:

Modifications to the following programs are outlined on the next page:

- **Bachelor of Science (Honours) in Geological Sciences - Geology**
- **Bachelor of Science (Major) in Geological Sciences - Geology**

8.4 B.Sc. Geological Sciences (Geology)¹			
YEAR 1	YEAR 2	YEAR 3	YEAR 4
HONOURS GEOLOGY 120 CREDIT HOURS			
MAJOR GEOLOGY 120 CREDIT HOURS			

Other Note 1: Geological Sciences - Geology Electives

Honours students are required to complete a minimum of 9 credit hours; Major students must complete a minimum of 3 credit hours from: GEOL 3450, GEOL 4300, GEOL 4520 and other Geological Sciences electives (for a total of 18 credit hours);	
GEOL 2390	Environmental Geology (3)
GEOL 3140	Gemology (3)L
GEOL 3420	Engineering Geology (3)
GEOL 3740	Exploration Seismology (3)L
GEOL 3750	Geology and Geophysics of the Planets (3)L
GEOL 3810	Applied Geophysics (3)L
GEOL 4260	Applied Geophysics Field Course (3)
GEOL 4270	Advanced Studies in Earth Sciences (3)
GEOL 4280	Instrumental Techniques in Geology (3)L
GEOL 4310	Paleontologic Principles (3)L
GEOL 4360	Mineral Exploration Techniques (3) L
GEOL 4370	Global Change (3)
GEOL 4380	Mineral Resource Development (3)
GEOL 4740	Geophysics Field School (6)
GEOL4890	Basic Analysis (3)L
GEOL 4920	Technical Report (3) – for Major Students only
ENVR 2180	Introductory Toxicology (3)
ENVR 2550	Environmental Chemistry (3)L
GEOG 2310	Introduction to Process Hydrology (3)
GEOG 2930	Introduction to Oceanography (3)
GEOG 3200	Introduction to Remote Sensing (3)L
GEOG 3730	Geographic Information Systems (3)L
NOTE: With departmental approval, up to 6 credit hours of 2000-level or higher courses from Science departments may be substituted in order to satisfy professional registration (APEGM) requirements.	

Extended Education Division

Program modification:

Modifications to the **Diploma in First Nations Community Wellness** are outlined on the next two (2) pages.

FIRST NATIONS COMMUNITY WELLNESS DIPLOMA PROGRAM

Core Courses	Credit hours
ARTS 1110 Introduction to University	3
SWRK 2080 Interpersonal Communication Skills	3
NATV 1220 The Native Peoples of Canada Part I	3
NATV 3240 Native Medicine and Health	3
NURS 3350 Counselling Skills for Nurses	3
NATV 2100 Aboriginal Spirituality	3
PSYC 1200 Introduction to Psychology	6
HNSC 1210 Nutrition for Health and Changing Lifestyles	3
SWRK 4070 Social Problem and Social Work Practice Seminar	3
PERS 1200 Physical Activity, Health and Wellness	3
	33
Elective Courses (27 cr hrs are selected for each offer)	
FMLY 1020 Family Issues Across the Lifespan	3
PERS 1400 Concepts of Recreation and leisure	3
PERS 2200 Program Planning Principles	3
FMLY 1012 Introduction to Social Development	3
FMLY 2012 Development, Conflict and Displacement	3
SWRK 4050 Community Management and Evaluation	3
SWRK 2050 Community and Organizational Theory	3
SWRK 3100 Systematic Inquiry in Social Work	3
PSYC 2490 Abnormal Psychology	3
HNSC 1200 Food: Facts & Fallacies	3
HNSC 2130 Nutrition through the Life Cycle	3
NATV 3100 Aboriginal Healing Ways	3
NATV 1240 The Native Peoples of Canada, Part 2	3
NATV 4250 Topics on Aboriginal Identities	3
FMLY 1010 Human Development in the Family	3
NURS 3340 Providing Care in a Culturally Diverse Society	3
PHED 3770 Aboriginal Games and Activities	3
	51
TOTAL DIPLOMA CREDIT HOURS	33 Core + 27 Elective = 60 credit hours

REVISED 2017
FIRST NATIONS COMMUNITY WELLNESS DIPLOMA PROGRAM

Core Courses	Credit hours
ARTS 1110 Introduction to University	3
SWRK 2080 Interpersonal Communication Skills	3
NATV 1220 The Native Peoples of Canada Part 1	3
NATV 3240 Native Medicine and Health	3
NURS 3350 Counselling Skills for Nurses	3
NATV 2100 Aboriginal Spirituality	3
PSYC 1200 Introduction to Psychology	6
HNSC 1210 Nutrition for Health and Changing Lifestyles	3
SWRK 4070 Social Problem and Social Work Practice Seminar	3
KPER 1200 Physical Activity, Health and Wellness	3
	33
Elective Courses (27 cr hrs are selected for each offer)	
FMLY 1000 Families in Contemporary Canadian Society	3
KPER 1400 Concepts of Recreation and Leisure	3
KPER 2200 Planning Principles	3
FMLY 1012 Introduction to Social Development	3
FMLY 2012 Development, Conflict and Displacement	3
SWRK 4050 Community Management and Evaluation	3
SWRK 2050 Community and Organizational Theory	3
SWRK 3100 Systematic Inquiry in Social Work	3
PSYC 2490 Abnormal Psychology	3
HNSC 1200 Food: Facts & Fallacies	3
HNSC 2130 Nutrition through the Life Cycle	3
NATV 3100 Aboriginal Healing Ways	3
NATV 1240 The Native Peoples of Canada, Part 2	3
NATV 4250 Topics on Aboriginal Identities	3
FMLY 1010 Human Development in the Family	3
NURS 3340 Providing Care in a Culturally Diverse Society	3
PHED 3770 Aboriginal Games and Activities	3
	51
TOTAL DIPLOMA CREDIT HOURS	33 Core + 27 Elective = 60 credit hours

Faculty of Management (I.H. Asper School of Business)

Accounting and Finance

Deletion:

ACC 3050 Taxation Accounting Cr.Hr. 3 -3.0

Introduction:

ACC 3080 Canadian Income Taxation Cr.Hrs. 3 +3.0

(Lab required) Structure and concepts of the Canadian income tax system, calculation of income and tax thereon for individuals and corporations, introduction to planning principles. May not be held with the former ACC 3050 or ACC 3051. Prerequisite: ACC 1100 (C+).

NET CHANGE IN CREDIT HOURS: 0.0

Program modification:

Modifications to the general Options are outlined on the next page.

MEMO

Date: Tuesday, October 18, 2016

To: Laura Bean
Undergrad Program Office
Asper School of Business

From: David Stangeland, PhD, B Comm, CPA, CMA
Dept. Head & Professor of Finance
Department of Accounting & Finance



Re: **Proposed change to ACC 3050**

The Accounting and Finance department is proposing a course change to ACC 3050 which will result in Section 3.18 of the Asper Undergrad Calendar needing to be amended.

3.18 Course Selection and Requirements

All students are limited to a maximum of six credit hours of IDM 4050 Readings in Management, IDM 4070 Management Research 1, and IDM 4080 Management Research 2. These courses are considered Business Options, rather than as part of any Major.

ACC 3050 Taxation Accounting, FIN 3270 Personal Financial Planning, FIN 3420 Security Analysis and FIN 3440 Real Estate Investments are also considered general Options. They are not part of any Major.

Change required due to introduction of ACC 3080 - Canadian Income Taxation

3.18 Course Selection and Requirements

All students are limited to a maximum of six credit hours of IDM 4050 Readings in Management, IDM 4070 Management Research 1, and IDM 4080 Management Research 2. These courses are considered Business Options, rather than as part of any Major.

ACC 3080 Canadian Income Taxation, FIN 3270 Personal Financial Planning, FIN 3420 Security Analysis and FIN 3440 Real Estate Investments are also considered general Options. They are not part of any Major.

Please update the undergrad calendar to reflect this change.

If you require any further information, please do not hesitate to contact me.

Faculty of Music

Deletion:

MUSC 3054 Medieval and Renaissance Music History Cr.Hrs. 3 -3.0

Introductions:

MUSC 3034 Medieval Music History Cr.Hrs. 3 +3.0

A study of music history with emphasis on historical, stylistic, and cultural developments and issues of the Middle Ages. May not be held with the former MUSC 1070 or the former MUSC 3054. Prerequisite: MUSC 1014 or consent of the Faculty of Music.

MUSC 3044 Renaissance Music History Cr.Hrs. 3 +3.0

A study of music history with emphasis on historical, stylistic, and cultural developments and issues of the Renaissance. May not be held with the former MUSC 1070 or the former MUSC 3054. Prerequisite: MUSC 1014 or consent of the Faculty of Music.

NET CHANGE IN CREDIT HOURS: +3.0

College of Nursing

Request to rescind deletion:

NURS 3532 Nursing Skills 4 Cr.Hrs. 1, which was deleted effective for the 2018 Winter Term (Senate, December 2, 2015)

Deletions:

NURS 1260 Human Growth and Development Cr.Hrs. 3 -3.0

NURS 1280 Introduction to Nursing Cr.Hrs. 3 -3.0

NURS 2120 Nursing Health Assessment Cr.Hrs. 4 -4.0

NURS 2130 Nursing Skills Laboratory Cr.Hrs. 2 -2.0

NURS 2180 Clinical Skills Nursing Practice I Cr.Hrs. 3 -3.0

NURS 2190 Clinical Nursing Practice II Cr.Hrs. 3 -3.0

NURS 2210 Primary Care Skills: Comprehensive Health Assessment Cr.Hrs. 3 -3.0

NURS 2220 Pharmacology in Nursing Practice Cr.Hrs. 3 -3.0

NURS 2230 Health Promotion of Older Adults and Their Families Cr.Hrs. 4 -4.0

NURS 2240 Health Promotion of Childbearing and Childrearing Families Cr.Hrs. 6 -6.0

NURS 2512 Health and Illness 2: The Older Client Cr.Hrs. 2 -2.0

NURS 2516 Client and Context 2: Human Diversity Cr.Hrs. 2 -2.0

NURS 3240 Adult Intensive Care Nursing 1 Cr.Hrs. 4 -4.0

NURS 3250 Laboratory Practice in Intensive Care Nursing Cr.Hrs. 2 -2.0

NURS 3260 Clinical Practice in Adult Intensive Care Nursing Cr.Hrs. 3 -3.0

NURS 3340 Providing Care in a Culturally Diverse Society Cr.Hrs. 3 -3.0

NURS 3360 Assessing the Health of Communities Cr.Hrs. 4 -4.0

NURS 3380 Primary Care Skills Clinical Interventions Cr.Hrs. 6 -6.0

NURS 3440 Principles of Disease Related to Adult Intensive Care Cr.Hrs. 3 -3.0

NURS 4200 The Teaching-Learning Process in Nursing Practice Cr.Hrs. 3 -3.0

NURS 4240 Health Promotion in the Community Cr.Hr. 4 -4.0

NURS 4300 Promoting Health of Communities Cr.Hrs. 4

-4.0

Introductions:

NURS 2518 Health and Illness 2: The Older Client Cr. Hrs. 3

+3.0

This course provides students with knowledge of the age-related changes that occur in older adults; the interaction between age-related changes and illness; the functional consequences of these interactions; and the presentation of specific health problems commonly observed in this age group. Nursing strategies to encourage, maintain and enhance functional abilities and independence in older adults are discussed. May not be held with NURS 2230 or NURS 2512. Pre- or corequisites: NURS 2500 and NURS 2510. Registration is normally restricted to students in Year 2 of the BN program.

NURS 2522 Client and Context 2: Human Diversity Cr. Hrs. 3

+3.0

This course provides students with knowledge of the social factors that enhance or diminish the health of individuals, families and communities. Students will also analyze the concept of client-centred care and its relevance in the practices of health care professionals. May not be held with NURS 2516. Pre- or corequisites: NURS 2500 and NURS 2520. Registration is normally restricted to students in Year 2 of the BN program.

Modifications:

NURS 3520 Professional Foundations 2: Health Education Cr.Hrs. 2

0.0

This course provides students with the knowledge and skills necessary to provide health information to clients across the lifespan in a variety of settings in both planned and spontaneous situations. Emphasis will be placed on client assessment and the appropriate use of existing health information resources. May not be held with NURS 2230 or NURS 4200. Prerequisite: NURS 2542. Registration is normally restricted to students in Year 3 of the program.

NURS 3532 Nursing Skills 4 Cr. Hrs. 1

0.0

This course provides students with the opportunity to consolidate the health assessment and psychomotor skills necessary to attain proficiency in the provision of nursing care. May not be held with NURS 3280. Prerequisite: NURS 3540. Pre-or corequisite: NURS 3514. Registration is normally restricted to students in Year 3 of the BN program. This course is graded on a pass/fail basis.

NURS 3560 Professional Foundations 4: Law and Ethics in Nursing Practice Cr.Hrs. 3

0.0

This course provides the student with knowledge regarding the legal and ethical foundations that guide nursing practice. May not be held with NURS 3450 or NURS 4220. Prerequisite: NURS 2542. Registration is normally restricted to students in Year 3 of the program.

NET CHANGE IN CREDIT HOURS: -68.0

Program modifications:

Modifications to the **Bachelor of Nursing** program are outlined on the next eight (8) pages:

Academic Calendar *Revised* Program Charts & Descriptions

BACHELOR of NURSING

Non-nursing courses must be completed within 10 years; and nursing courses must be completed within 5 years of admission to the program in order to be eligible for admission and advanced standing (transfer credit).

All courses from any given term are to be completed before proceeding to the next term.

Course No.	Course Name	Credit Hours
University 1 (pre-nursing)	30 credit hours	
BIOL 1410	Anatomy of the Human Body (see Note 1)	3
BIOL 1412	Physiology of the Human Body (see Note 1)	3
MBIO 1220	Essentials of Microbiology (see Note 1)	3
	Science Electives (see Notes 1, 2, 3, 4 & 5)	9
	Electives (Any combination of the following courses/subjects for a total of 12 credits)	12
	<ul style="list-style-type: none"> • Social Sciences or Humanities (see Notes 1 & 5) (6-12) • NURS 1280 Introduction to Nursing (see Note 7) (3) • NURS 1500 Preparing for Professional Nursing Education (see Note 6) (3) • NURS/KIN 2610 Health and Physical Aspects of Aging (3) • SWRK/REC/HMEC 2650 Social Aspects of Aging (3) 	

Note 1: All courses can be completed in University 1, or an equivalent program, if students do not wish to extend their program of study.

Note 2: Science electives are courses taught by the Faculty of Science. With the exception of Geological Sciences (GEOL 1XXX), courses under the Clayton H. Riddell Faculty of Environment, Earth, and Resources do not meet the Science elective requirement if taken 2003-2004 and later. 1000 level introductory Geological Sciences courses (GEOL 1XXX now offered under Clayton H. Riddell Faculty of Environment, will be accepted as Sciences courses taken prior to September 1, 2006.

Note 3: HEAL 1600 Health and Health Professions may not be used as Science elective.

Note 4: Science prerequisites. Students must meet the current Science prerequisites before registration for Science courses. See the chapter for the Faculty of Science for the current prerequisites.

Note 5: All of the elective courses must be at the 1000 level or higher

Note 6: NURS 1500 is available only to students in the Aboriginal Nursing Cohort Initiative

Note 7: The former NURS 1280 must have been completed within five years of admission to the College of Nursing

Note 8: NURS 3532 Students admitted to the College of Nursing prior to September 2017 require permission of the Associate Dean (Undergraduate Programs) to register for NURS 3532

Course No.	Course Name	Credit Hours
Year 2	29 31 credit hours	
Term 1		
NURS 2500	Health and Illness 1: Pathophysiology/Pharmacology /Assessment	6
NURS 2510	Client and Context 1: Human Growth and Development	2
NURS 2512	Health and Illness 2: The Older Client	2
NURS 2518	Health and Illness 2: The Older Client	3
NURS 2520	Professional Foundations 1: Development of Professional Identity	2
NURS 2530	Nursing Skills 1	1
NURS 2540	Nursing Practice 1	2

Term 2

NURS 2514	Health and Illness 3: Pathophysiology/Pharmacology /Assessment	6	Elective (See note 6)	3
NURS 2516	Client and Context 2: Human Diversity	2	Term 2	
NURS 2522	Client and Context 2: Human Diversity	3	NURS 4540	Health and Illness 7: Community and Population Health 5
NURS 2532	Nursing Skills 2	1	NURS 4550	Professional Foundations 6: Leadership and Change Management 4
NURS 2542	Nursing Practice 2	3	NURS 4560	Professional Foundations 7: Preparation for Nursing Practice 7 1
HNSC 2170	Nutrition for Health Professionals	2	NURS 4570	Nursing Practice 6 4
Year 3	29 30 credit hours		Term 3	
Term 1			NURS 4580	Nursing Practice 7 9
NURS 3510	Client and Context 3: Supportive and Palliative Care	3		
NURS 3512	Health and Illness 4: Acute and Chronic Illness	5		
NURS 3520	Professional Foundations 2: Health Education	2		
NURS 3530	Nursing Skills 3	1		
NURS 3540	Nursing Practice 3	4		
Term 2				
NURS 3514	Health and Illness 5: Mental Health and Illness	3		
NURS 3532	Nursing Skills 4 (see Note 8)	1		
NURS 3542	Nursing Practice 4	4		
NURS 3550	Professional Foundations 3: Evidence Informed Practice in the Health Sciences	4		
NURS 3560	Professional Foundations 4: Law and Ethics in Nursing	3		
Year 4	39 36 credit hours			
Term 1				
NURS 4500	Health and Illness 6: Gender and Reproductive Health	3		
NURS 4510	Client and Context 4: Family Health	3		
NURS 4520	Professional Foundations 5: Interprofessional and Collaborative Practice	3		
NURS 4530	Nursing Practice 5	4		

COURSE DESCRIPTIONS

Nursing Course Descriptions – 2000 Level

NURS 2500 Health and Illness 1: Pathophysiology/ Pharmacology/Assessment Cr. Hrs. 6

This course provides students with a comprehensive survey of selected pathophysiological processes that produce alterations in human health, and the related pharmacological interventions and health assessment techniques. May not be held with: NURS 2120, NURS 2220, NURS 3290, and NURS 3310.

NURS 2510 Client and Context 1: Human Growth and Development Cr. Hrs. 2

This course provides students with knowledge of normal human growth and development across the lifespan. May not be held with NURS 1260. Registration is normally restricted to students in Year 2 of the program.

~~NURS 2512~~ Health and Illness: The Older Client 2 Cr Hrs 2

~~This course provides students with knowledge of the age-related changes that occur in older adults; the interaction between age-related changes and illness; the functional consequences of these interactions; and the presentation of symptoms commonly observed in this age group. Nursing strategies to encourage, maintain and enhance independence in the older adult are discussed. May not be~~

~~held with NURS 2230. Pre or co-requisites: NURS 2500 and NURS 2510. Registration is normally restricted to students in Year 2 of the program.~~

NURS 2518 Health and Illness 2: The Older Client Cr. Hrs. 3
This course provides students with knowledge of the age-related changes and illnesses experienced by older adults. It introduces students to health problems commonly occurring in this age group. Nursing strategies to encourage, maintain and enhance functional abilities and independence in older adults in the context of long term care are evaluated. May not be held with NURS 2230 or NURS 2512. Pre- or co-requisites: NURS 2500 and NURS 2510. Registration is normally restricted to students in Year 2 of the program.

NURS 2514 Health and Illness 3: Pathophysiology/ Pharmacology/Assessment Cr. Hrs. 6
This course provides students with a comprehensive survey of selected pathophysiological processes that produce alterations in human health, and the related pharmacological interventions and health assessment techniques. May not be held with NURS 2120, NURS 2220, NURS 3290 and NURS 3310. Pre-requisite: NURS 2500. Registration is normally restricted to students in Year 2 of the program.

~~**NURS 2516 Client and Context 2 Cr. Hrs. 2**
This course provides students with knowledge of the social factors that enhance or diminish the health of individuals, families and communities. Students will also analyze the concept of client-centred care and its relevance in professional nursing practice. Pre or Co-requisites: NURS 2500 and NURS 2520. Registration is normally restricted to students in Year 2 of the program.~~

NURS 2522 Client and Context 2: Human Diversity Cr. Hrs. 3
This course provides students with knowledge of the social factors that enhance or diminish the health of individuals, families and communities. Students will also analyze the concept of client-centred care and its relevance in the practices of health care professionals. Pre- or co-requisites: NURS 2500 and NURS 2520.

Registration is normally restricted to students in Year 2 of the program.

NURS 2520 Professional Foundations 1: Development of Professional Identity 1 Cr. Hrs. 2
This course provides the student with an introduction to the conduct, knowledge and values that characterize a professional registered nurse. Registration is normally restricted to students in Year 2 of the program.

NURS 2530 Nursing Skills 1 Cr. Hrs. 1
This course introduces students to the basic health assessment and psychomotor skills necessary to provide novice-level nursing care in the practice setting. May not be held with NURS 2120 and NURS 2130. Pre-or co-requisite: NURS 2500. Registration is normally restricted to students in Year 2 of the program. This course is graded on a Pass/Fail Basis.

NURS 2532 Nursing Skills 2 Cr. Hrs. 1
This course introduces students to the basic health assessment and psychomotor skills necessary to provide novice-level nursing care in the practice setting. May not be held with NURS 2120 and NURS 2130. Pre-requisites: NURS 2530 and NURS 2540. Pre- or co-requisite: NURS 2514. Registration is normally restricted to students in Year 2 of the program. This course is graded on a Pass/Fail Basis.

NURS 2540 Nursing Practice 1 Cr. Hrs. 2
This course enables students to demonstrate clinical competence by applying the theoretical knowledge, psychomotor skills and health assessment skills covered in Year 1 Term 1 courses in the practice setting. Pre-or co-requisites: NURS 2500, NURS 2510, NURS 2512, NURS 2520 and NURS 2530. Registration is normally restricted to students in Year 2 of the program. This course is graded on a pass/fail basis.

NURS 2542 Nursing Practice 2 Cr. Hrs. 3
This course enables students to demonstrate clinical competence by applying the theoretical knowledge, psychomotor skills and health assessment skills covered in Year 1 Term 2 courses in the practice setting. May not be held with NURS 2190. Pre-or co-requisites: NURS 2514,

NURS 2516, and NURS 2532. This course is graded on a pass/fail basis.

Nursing Course Descriptions-3000 Level

NURS 3510 Client and Context 3: Supportive and Palliative Care Cr. Hrs. 3

This course provides students with the knowledge and critical thinking skills to provide supportive and palliative nursing care to individuals and families experiencing variety of life-threatening illnesses including end of life. May not be held with NURS 4250. Pre-requisites: HNSC 1210 and NURS 2542. Registration is normally restricted to students in Year 3 of the program.

NURS 3512 Health and Illness 4: Acute and Chronic Illness Cr. Hrs. 5

This course provides students with the knowledge and critical thinking skills necessary to provide nursing care to individuals and families experiencing and chronic illness. May not be held with NURS 3290 and NURS 3310. Pre-requisites: HNSC 1210 and NURS 2542. Registration is normally restricted to students in Year 3 of the program.

NURS 3514 Health and Illness 5: Mental Health and Illness Cr. Hrs. 3

This course provides students with the knowledge and critical thinking skills necessary to provide nursing care to individuals and families experiencing acute and chronic mental illness and/or mental health problems. Pre-requisites: NURS 3512, NURS 3510 and NURS 3540. May not be held with NURS 4260. Registration is normally restricted to students in Year 3 of the program.

NURS 3520 Professional Foundations 2: Health Education Cr. Hrs. 2

This course provides students with the knowledge and skills necessary to provide health information to clients across the lifespan in a variety of settings in both planned and spontaneous situations. Emphasis will be placed on client assessment and the appropriate use of existing health information resources. May not be held with NURS 2230. Pre-requisite: NURS 2542. Registration is normally restricted to students in Year 3 of the program.

NURS 3530 Nursing Skills 3 Cr. Hrs. 1

This course introduces students to the basic health assessment and psychomotor skills necessary to provide intermediate-level nursing care in the practice setting. May not be held with NURS 3280. Prerequisites: NURS 2542. Registration is normally restricted to students in Year 3 of the program. This course is graded on a pass/fail basis.

NURS 3532 Nursing Skills 4 Cr. Hrs. 1

This course provides students with the opportunity to consolidate the communication, health assessment and psychomotor skills necessary to attain proficiency in the provision of complex nursing care. May not be held with NURS 3280. Pre-requisite: NURS 3540. Pre- or co-requisite: NURS 3514. Registration is normally restricted to students in Year 3 of the program. This course is graded on a pass/fail basis.

NURS 3540 Nursing Practice 3 Cr. Hrs. 4

This course enables students to demonstrate clinical competence by applying the theoretical knowledge, psychomotor skills and health assessment skills covered in Year 3 Term 1 courses in the practice setting. May not be held with NURS 3300, NURS 3310, and NURS 4270. Pre- or co-requisites: NURS 3512, NURS 3510, NURS 3520, and NURS 3530. Registration is normally restricted to students in Year 3 of the program. This course is graded on a Pass/Fail basis.

NURS 3542 Nursing Practice 4 Cr. Hrs. 4

This course enables students to demonstrate clinical competence by applying the theoretical knowledge and simulation skills covered in Year 3 Term 2 courses in the practice setting. May not be held with NURS 3300, NURS 3310, and NURS 4270. Pre- or co-requisites: NURS 3514, NURS 3550, NURS 3560 and NURS 3532. Registration is normally restricted to students in Year 3 of the program. This course is graded on a Pass/Fail basis.

NURS 3550 Professional Foundations 3: Evidence Informed Practice in the Health Sciences Cr. Hrs. 4

This course provides students with the knowledge and skills to locate and critically appraise health care literature, and to make decisions about how research knowledge can be transferred into nursing and health care practice. May

not be held with NURS 3210. Pre-requisite: NURS 2542. Registration is normally restricted to students in Year 3 of the program.

NURS 3560 Professional Foundations 4: Law and Ethics in Nursing Cr. Hrs. 3

This course provides the student with knowledge regarding the legal and ethical foundations that guide nursing practice. May not be held with NURS 3450. Pre-requisite: NURS 2542. Registration is normally restricted to students in Year 3 of the program.

Nursing Course Descriptions-4000 Level

NURS 4500 Health and Illness 6: Gender and Reproductive Health Cr. Hrs. 3

This course provides students with the knowledge and critical thinking skills to provide nursing care in response to the social construction of gender; gender-related health care needs; and the reproductive health needs of individuals and families. May not be held with NURS 2240. Pre-requisite: NURS 3542. Registration is normally restricted to students in Year 4 of the program.

NURS 4510 Client and Context 4: Family Health Cr. Hrs. 3

This course provides students with the knowledge and critical thinking skills to support the health promotion of families across the lifespan. May not be held with NURS 2240. Pre-requisite: NURS 3542. Registration is normally restricted to students in Year 4 of the program.

NURS 4520 Professional Foundations 5: Interprofessional and Collaborative Practice Cr. Hrs. 3

This course provides students with the knowledge, attitudes and skills necessary to collaborate with other care providers, including those from other health care disciplines, to problem solve and make decisions to enhance client care and client outcomes. For Bachelor of Nursing students: Pre-requisite: NURS 3542. Registration is normally restricted to students in Year 4 of the program. For Baccalaureate Program for Registered Nurses students: permission of the College of Nursing Registrar. For students in the Rady Faculty of Health Sciences; Faculty of Social Work; Faculty of Education; Faculty of Kinesiology and Recreation Management; Faculty of Arts, Department of

Psychology; or Faculty of Agricultural and Food Sciences, Department of Human Nutritional Sciences: completion of at least Year 3 of their program and permission of the Nursing Registrar. Students from other faculties and programs interested in taking this course will be considered on a case-by-case basis.

NURS 4530 Nursing Practice 5 Cr. Hrs. 4

This course enables students to demonstrate clinical competence by applying the knowledge and skills covered in Year 4, Term 1 courses and courses from Years 2 and 3, in the clinical setting. May not be held with NURS 2180. Pre-or co-requisites: NURS 4500, NURS 4510, NURS 4520. Registration is normally restricted to students in Year 4 of the program. This course is graded on a pass/fail basis.

NURS 4540 Health and Illness 7: Community and Population Health Cr. Hrs. 5

This course provides students with the knowledge and critical thinking skills to work with groups and communities to support population based health promotion and disease prevention. May not be held with: NURS 4420 and NURS 4440. Pre-requisite: NURS 4530. Registration is normally restricted to students in Year 4 of the program.

NURS 4550 Professional Foundations 6: Leadership and Change Management Cr. Hrs. 4

This course provides the student with knowledge regarding contemporary issues in nursing and health care, and the forces that shape contemporary and future nursing practice. Emphasis is placed on leadership development, change theory and critical inquiry. May not be held with NURS 4310. Pre-requisite: NURS 3542. Registration is normally restricted to students in Year 4 of the program.

NURS 4560 Professional Foundations 7: Preparation for Nursing Practice 7 Cr. Hr. 1

This course will enable students, in collaboration with the course leader, to assess their readiness for NURS 4560: Nursing Practice 7 and to remediate any knowledge or skill deficits identified during the assessment process. Students will also complete all the requirements necessary for the selection and confirmation of the clinical setting in which they will complete NURS 4580: Nursing Practice 7. Co-Requisite: NURS 4570. Registration is normally restricted

to students in Year 4 of the program. This course is graded on a pass/fail basis.

NURS 4570 Nursing Practice 6 Cr. Hrs. 4

This course enables students to demonstrate clinical competence by applying the knowledge and skills covered in Years 2, 3, and 4 courses in the clinical setting.

May not be held with NURS 4430. Pre-requisite: NURS 4530. Pre-or Co-Requisites: NURS 4540, NURS 4550. Co-Requisite: NURS 4560. Registration is normally restricted to students in Year 4 of the program. This course is graded on a pass/fail basis.

NURS 4580 Nursing Practice 7 Cr. Hrs. 9

This course enables students to consolidate the knowledge, skills, and attitudes included in the Bachelor of Nursing program and achieve the CRNM entry-level competencies.

May not be held with NURS 4290. Registration in this course is dependent on the completion of all other courses in the program. This course is graded on a pass/fail basis.

College of Nursing
Rady Faculty of Health Sciences
Proposed Program Modifications
Bachelor of Nursing Program

Program Modifications:

The Undergraduate Quality Assurance and Curriculum Governance Committee recommends these modifications to the Bachelor of Nursing Program reflect the amount of time needed to adequately explore concepts included in the Older Client and Human Diversity Courses. The Nursing Skills 4 course is necessary to capture the additional 'open lab' times that have been created in response to student requests and also our observation that students needed more time to consolidate their skills. The skills labs are open for supervised practice and coaching for approximately 60 hours per term, over and above the three existing nursing skills courses. NURS 3532 Nursing Skills 4 was to be deleted effective Winter 2018. The College of Nursing requests that this be rescinded and the course modified.

The open elective (3 credit hours) will be deleted to accommodate these changes.

Transitioning Delayed Students

Implementation of the proposed changes in the Bachelor of Nursing Program would commence in Fall Term 2017. Students admitted to the Bachelor of Nursing Program prior to Fall Term 2017 would continue with courses as defined in their year of admission and would not be affected by these changes. However, some students admitted prior to Fall Term 2017 may be delayed due to authorized withdrawals, voluntary withdrawals, leaves of absence and course failure. Plans for delayed students must consider resource implications and the fact that the newly introduced courses address the same content.

Transition plans for Delayed Students

Course to be repeated or missing due to AW, VW, F, LOA	Replacement Course	Comment
NURS 2512 Health & Illness 2: The Older Client (2 cr. hrs)	NURS 2518: Health and Illness 2: The Older Client (3 cr. hrs)	Delayed students might graduate with additional credit hour
NURS 2516 Client & Context 2: Human Diversity (2 cr. hrs)	NURS 2522 Client & Context 2: Human Diversity (3 cr. hrs)	Delayed students might graduate with additional credit hour

NURS 3532 Nursing Skills 4 (1 cr. hr)

Students admitted before September 2017 would not be required to take this course. However, students admitted before September 2017 may have the opportunity to take this course because they were delayed by AW, VW, F, or LOA. In these situations taking this course may be supportive of student success. Therefore some delayed students may be encouraged to register for NURS 3532. In other cases, delayed students may request this skills course because they believe it would be beneficial for their learning. Permission of the Associate Dean Undergraduate Programs would be required for students admitted prior to September 2017 to register for NURS 3532. This would be communicated via Note 8 in the Academic Calendar.

Resource Implications

These changes result in 3 additional credit hours being taught by the College of Nursing but result in no change to resources. We are already committing resources to these credit hours, but this is not being accurately reflected in the current credit hour weight of the courses. These changes allow us to more accurately reflect the current workload of faculty and students in the College of Nursing and to receive tuition for the educational support the students are provided.

Program modifications:

Modifications to the **Baccalaureate Program for Registered Nurses** program are outlined on the next two (2) pages:

College of Nursing
Rady Faculty of Health Sciences
Proposed Program Modifications
Baccalaureate Program for Registered Nurses (BPRN)

Program Modifications:

The College of Nursing offers two undergraduate programs: the Bachelor of Nursing (BN) program and the Baccalaureate Program for Registered Nurses (BPRN). The current BPRN enrollment is 36 students. The program has admitted 10 - 12 students annually for the last three years.

Some courses in the BPRN program are BN courses. The BN curriculum has been revised and the new courses common to both curricula are being launched. The old BN courses will not be offered after the 2016-2017 academic year. One core BPRN course (NURS 4220) and one BPRN nursing elective (NURS 3440) contain the same content as two new BN courses (NURS 3520 and NURS 2522). The College of Nursing proposes deleting the BPRN courses and offering the BN courses to avoid duplication of courses and better use of resources.

All BN courses which are required or nursing electives in the BPRN program would have evaluation strategies for BPRN students designed to reflect that group's experience and knowledge. This strategy is already successfully used in NURS 3210, NURS 4220 and NURS 4310.

BPRN Course	Cr. Hrs	BN Course	Cr. Hrs
Required Courses			
NURS 3210 Nursing Research Methods	3	NURS 3550 Professional Foundations 3: Evidence Informed Practice in the Health Sciences	4
NURS 4220 Law and Ethics in Nursing Practice	3	NURS 3560 Professional Foundations 4: Law and Ethics in Nursing Practice	3
NURS 4310 Nursing Leadership Issues and Practices	4	NURS 4550 Professional Foundations 6: Leadership and Change Management	4
NURS 4200 The Teaching- Learning Process in Nursing Practice	3	NURS 3520 Professional Foundations 2: Health Education	2
Nursing Electives			
NURS 4250 Palliative Nursing Care	3	NURS 3510 Client and Context 3: Supportive and Palliative Care	3
NURS 3440 Providing Care in a Culturally Diverse Society	3	NURS 2522 Client and Context 2: Human Diversity	3

Informing and Transitioning Students Implementation of the proposed changes in the BPRN Program would commence in Fall Term 2017. BPRN students meet with Student Advisors each

June to plan their course registrations for the upcoming academic year. Students would be informed of the program change via letter and emails prior to the meeting. Student Advisors will answer questions during the June meeting.

Students currently enrolled in the program who have not yet completed NURS 3210 Nursing Research Methods (3 cr) will be required to take NURS 3550 Professional Foundations 3: Evidence Informed Practice in the Health Sciences (4 cr). This may result in some students graduating with an additional credit hour. Students who have not yet completed NURS 4200 The Teaching-Learning Process in Nursing Practice (3 cr) will take NURS 3520 Professional Foundations 2: Health Education (2 cr). Those students will have completed all of the required content but may graduate with one less credit hour than required. In these cases the Dean may approve program completion. The BPRN curriculum has 45 credit hours. The modified BPRN curriculum also has 45 credit hours, as described in the attached revised Academic Calendar.

College of Rehabilitation Sciences

Respiratory Therapy

Modification:

RESP 2380 Basic Fieldwork 2 Cr.Hrs. 4 0.0
Building on RESP 1460 and RESP 2390, this course is comprised of fieldwork experiences which provide the student the opportunity to apply the integrated concepts learned in the first two years of the Respiratory Therapy program in a clinical setting. This course will prepare students for advanced clinical education coursework. Prerequisites: RESP 1460 and RESP 2390.

NET CHANGE IN CREDIT HOURS: 0.0

Faculty of Science

Biological Sciences

Deletions:

BIOL 4260 Experimental Parasitology Cr.Hrs. 3 -3.0
BIOL 2462 Wildlife and Fisheries Parasitology Cr.Hrs. 3 -3.0

Modification:

BIOL 3542 Developmental Biology Cr.Hrs. 3 0.0
Principles and concepts of developmental biology will be presented including early embryo development, tissue patterning, morphogenesis, germ cell formation, stem cell biology, organ and nervous system development, growth and regeneration. Fundamental developmental concepts as well as the cellular, genetic and molecular mechanisms behind development will be covered utilizing invertebrate, vertebrate and plant examples. May not be held with the former BIOL 2540 or the former ZOOL 2150. Prerequisites: [A "C" or better in one of BIOL 2500, BIOL 2501, PLNT 2520, the former BOTN 2460, or the former BOTN 2461] and [a "C" or better in one of BIOL 2520, BIOL 2521, the former ZOOL 2280 or the former ZOOL 2281] or consent of the department.

NET CHANGE IN CREDIT HOURS: 0.0

Chemistry

Program modifications:

Modifications to the following programs are outlined on the next two (2) pages:

- **Bachelor of Science (Honours) in Chemistry**
- **Bachelor of Science (Honours) in Chemistry, Cooperative Option**

- **Bachelor of Science (Major) in Chemistry**
- **Bachelor of Science (Major) in Chemistry, Cooperative Option**

4.5.2 Chemistry Honours Degree Program Chart

4.5.2 Chemistry Program Charts

YEAR 1	YEAR 2	YEAR 3	YEAR 4
HONOURS³ (incl. Co-operative Option if selected) 120 CREDIT HOURS			
CHEM 1300, CHEM 1310 (B)	CHEM 2210, CHEM 2220, CHEM 2260 (CHEM 2280), CHEM 2290, CHEM 2400, CHEM 2470, CHEM 2860 (CHEM 2360)	CHEM 3400, CHEM 3590	CHEM 4610 (6), CHEM 4710 (6)
PHYS 1050 (or PHYS 1020), PHYS 1070			
MATH 1500 ¹ , MATH 1700 ¹			
In Year 1 or Year 2 the following must be completed:		Sufficient credit hours (18) from the 2000, 3000 and 4000 level Chemistry ³ courses not yet taken to total a minimum of 63 credit hours of Chemistry courses at the 1000-4000 level. These credit hours may make up part of a focus area.	
6 credit hours from the Faculty of Arts, which should include the required "W" course		9 credit hours of non-Chemistry ⁵ courses which are part of a designated focus area ³ . If no Focus Area is selected, students must choose 9 credit hours of Chemistry courses.	
3 credit hours from Mathematics, Statistics or Computer Science courses ²		15 credit hours of approved electives in years three and four ⁴	
12 credit hours of approved electives in years one and two		Work Terms (if Co-op selected):	Work Terms (if Co-op selected):
		CHEM 3980, CHEM 3990	CHEM 4980 and/or CHEM 4990
30 Hours	30 Hours	30 Hours	30 Hours

NOTES:

1. MATH 1230, MATH 1510 or MATH 1520 may be taken in place of MATH 1500; MATH 1232 or MATH 1710 may be taken in place of MATH 1700; MATH 1690 may be taken in place of MATH 1500 and MATH 1700.

2. MATH 1010, MATH 1020, the former MATH 1190, MATH 1191, the former COMP 1260 and the former COMP 1270 may not be used to satisfy this requirement.

3. Students may elect to complete the requirements set out in one of the Chemistry focus areas. If a student opts for one of the focus areas, they should consult with the Department of Chemistry and a Science Academic Advisor for information regarding specific course requirements for each focus area.

4. Elective courses should be selected in consultation with the Department of Chemistry and/or a Faculty of Science Academic Advisor.

5. Not all Focus Areas include non-Chemistry courses. Some Focus Areas are all Chemistry courses. Refer to the description of each Focus Area for more information.

(Letters in brackets indicate minimum prerequisite standing for further study. The number 6 in brackets indicates a 6 credit hour course.)

4.5.3 Chemistry Major Degree Program Chart

4-YEAR MAJOR ^{3,4} (incl. Co-operative Option if selected) 120 CREDIT HOURS (comprising courses listed in chart below, and electives ⁵)			
CHEM 1300, CHEM 1310 (C+)	CHEM 2210, CHEM 2220, CHEM 2260 (CHEM 2280), CHEM 2290, CHEM 2400, CHEM 2470, CHEM 2860 (CHEM 2360)	CHEM 3400, CHEM 3590	CHEM 4610 (6)
PHYS 1050 ² -(or PHYS 1020 (C+)), PHYS 1070			
MATH 1500 ¹ , MATH 1700 ¹			
In Year 1 or Year 2 the following must be completed:			
6 credit hours from the Faculty of Arts, which should include the required "W" course.		Sufficient credit hours (18) from the 2000, 3000 and 4000 level Chemistry ³ courses not yet taken to total a minimum of 57 credit hours of Chemistry courses at the 1000-4000 level. These credit hours may make up part of a focus area.	
3 credit hours from Mathematics, Statistics or Computer Science courses ²		9 credit hours of non-Chemistry courses ⁶ which are part of a designated focus area ³ . (Note: If no Focus Area is selected, students must choose 9 credit hours of Chemistry courses.)	
		Work Terms (if Co-op selected):	Work Terms (if Co-op selected):
		CHEM 3980, CHEM 3990	CHEM 4980 and/or CHEM 4990
30 Hours	30 Hours	30 Hours	30 Hours

NOTES:

1. MATH 1230, MATH 1510 or MATH 1520 may be taken in place of MATH 1500; MATH 1232 or MATH 1710 may be taken in place of MATH 1700; MATH 1690 may be taken in place of MATH 1500 and MATH 1700.
2. MATH 1010, MATH 1020, the former MATH 1190, MATH 1191, **the former** COMP 1260 and **the former** COMP 1270 may not be used to satisfy this requirement.
3. Students may elect to complete the requirements set out in one of the Chemistry focus areas. If a student opts for one of the focus areas, they should consult with the Department of Chemistry and a Science Academic Advisor for information regarding specific course requirements for each focus area.
4. **IMPORTANT:** The four year Major program need not be completed in the manner prescribed in the chart above. The chart indicates one possible arrangement of the required courses and is meant to be a guide around which students can plan their program.
5. Elective courses should be selected in consultation with the Department of Chemistry and/or a Faculty of Science Academic Advisor.
6. Not all Focus Areas include non-Chemistry courses. Some Focus Areas are all Chemistry courses. Refer to the description of each Focus Area for more information.

(Letters in brackets indicate minimum prerequisite standing for further study. The number 6 in brackets indicates a 6 credit hour course.)

Computer Science

Modifications:

COMP 3010 Distributed Computing Cr.Hrs. 3 0.0

An introduction to the development of client server and peer-to-peer systems through web applications, distributed programming models, and distributed algorithms. Prerequisite: COMP 2150 (C) or ECE 3740 (C).

COMP 3350 Software Engineering 1 Cr.Hrs. 3 0.0

Introduction to software engineering. Software life cycle models, system and software requirements analysis, specifications, software design, testing and maintenance, software quality. Prerequisite: COMP 2150 (C) or ECE 3740 (C).

NET CHANGE IN CREDIT HOURS: 0.0

Program modifications:

Modifications to the following programs are outlined on the next two (2) pages:

- **Bachelor of Science (Honours) in Computer Science**
- **Bachelor of Science (Honours) in Computer Science, Cooperative Option**
- **Bachelor of Science (Major) in Computer Science**
- **Bachelor of Science (Major) in Computer Science, Cooperative Option**

4.6.1 Program Information

Four Year Major

To graduate with the Computer Science Major degree, a student must present a minimum grade of "C" in: MATH 1300, MATH 1500, (STAT 1000 **or** STAT 1150), COMP 2080, COMP 2130, COMP 2140, COMP 2150, COMP 2160, COMP 2280, COMP 3350, COMP 3370, COMP 3430, COMP 4620 and in each of the 18 credit hours of 3000 and 4000 level Computer Science courses that apply to the Computer Science component of their degree program. Additionally, students must achieve a minimum DGPA of 2.00.

4.6.2 Computer Science

4.6.2 Computer Science Program Charts

YEAR 1	YEAR 2	YEAR 3	YEAR 4
HONOURS ^{2,3,4,5} (Including Cooperative Option if selected) ² 120 CREDIT HOURS			
COMP 1010, COMP 1020 (B) MATH 1300(C) ¹ and MATH 1500(C) ¹	COMP 2080, COMP 2130 ¹ , COMP 2140, COMP 2150, COMP 2160, COMP 2280	COMP 3030, COMP 3170, COMP 3350, COMP 3370, COMP 3430	COMP 4620 and 21 credit hours of 4000 level Computer Science courses
In Year 1 and / or Year 2 the following must be completed: STAT 1000 (C) or STAT 1150 (C) 6 credit hours from the Faculty of Arts, which should include the required 3 credit hour "W" course. 21 credit hours of approved elective courses ^{3,4}		21 credit hours of approved electives ^{3,5} Work Terms (if Co-op Selected): COMP 2980, COMP 3980, COMP 4980 must be completed prior to the last academic term	
30 Hours	30 Hours	30 Hours	30 Hours
FOUR YEAR MAJOR ^{2,3,4,5} (Including Cooperative Option if Selected) ² 120 CREDIT HOURS			
COMP 1010, COMP 1020 (C+) MATH 1300(C) ¹ and MATH 1500(C) ¹	COMP 2080, COMP 2130 ¹ , COMP 2140, COMP 2150, COMP 2160, COMP 2280	COMP 3350, COMP 3370, COMP 3430, COMP 4620 18 credit hours of 3000 or 4000 level Computer Science courses of which 6 credit hours must be at the 4000 level	
In Year 1 or Year 2 the following must be completed: STAT 1000 (C) or STAT 1150 (C) 6 credit hours from the Faculty of Arts, which should include the required 3 credit hour "W" course. 21 credit hours of approved electives ^{4,5}		30 credit hours of approved electives ^{3,5} Work Terms (if Co-op Selected): COMP 2980, COMP 3980, COMP 4980 must be completed prior to the last academic term	
THREE YEAR GENERAL (90 CREDIT HOURS)			
COMP 1010, COMP 1020	18 credit hours of 2000, 3000, and (or) 4000 level Computer Science courses (subject to the Faculty requirement that of the 36 credit hours to in the two		

	advanced level Science areas, at least 6 credit hours must be at the 3000/4000 level.)
MINOR	
COMP 1010, COMP 1020	COMP 2140
	Plus a minimum of 9 credit hours from 2000 and (or) 3000 level Computer Science courses.
NOTES:	
<p>¹ MATH 1210 or MATH 1211, MATH 1220 or MATH 1310 may be taken in place of MATH 1300; MATH 1230, MATH 1510, MATH 1520, or MATH 1690 (6) may be taken in place of MATH 1500. A grade of "C" or better is required in each of the two 3 credit hour courses of Mathematics used as prerequisite to COMP 2130.</p>	
<p>² Entry to the Honours Cooperative Option and four year Major Cooperative Option is at the end of second year. Employment terms follow 3A (September-December), 3B (May-August) and 4A (January-April). Students in the Cooperative Option must complete three employment terms and receive a passing grade in COMP 2980, COMP 3980 and COMP 4980 prior to the last academic term.</p>	
<p>³ Additional information on how students may select their courses can be found at the beginning of this section.</p>	
<p>⁴ IMPORTANT: The Honours and four year Major degree need not be completed in the order prescribed in the chart above. The chart indicates one possible arrangement of the required courses and is meant to be a guide around which students can plan their program. Students in the Cooperative Option should be aware that while other arrangements are possible, they may jeopardize their chances of obtaining employment by selecting such arrangements. Students should discuss their planned sequence of courses with the department prior to making adjustments to the sequence above.</p>	
<p>⁵ IMPORTANT: A maximum of 90 credit hours of computer science, statistics and mathematics courses can be included in a Major or Honours program.</p>	

Genetics

Program modifications:

Modifications to the following programs, including changes to the listing of optional courses, are outlined on the next three (3) pages:

- **Bachelor of Science (Honours) in Genetics**
- **Bachelor of Science (Honours) in Genetics, Cooperative Option**
- **Bachelor of Science (Major) in Genetics**
- **Bachelor of Science (Major) in Genetics, Cooperative Option**

4.8.2 Genetics

YEAR 1	YEAR 2	YEAR 3	YEAR 4
HONOURS⁵ 120 CREDIT HOURS			
CHEM 1300, CHEM 1310	BIOL 2500, BIOL 2520	BIOL 3500	
BIOL 1020, BIOL 1030	CHEM 2210, CHEM 2220, CHEM 2360 (MBIO 2360), CHEM 2370 (MBIO 2370)	MBIO 3410	
STAT 1000 or STAT 1150		PLNT 3140	
MATH 1500 ¹	MBIO 1010, MBIO 2020	BGEN 3020 (6)	
One of: MATH 1200 ¹ , MATH 1300 ¹ , or MATH 1700 ¹	STAT 2000 or STAT 2150	BGEN 4010 ⁵ (6) or MBIO 4530 ⁵ (6)	
		One of: ANTH 2240, ANTH 2560, ANTH 2860, or ANTH 2890	
		36 credit hours from list of optional courses (a minimum of 12 of these credit hours must be 4000 level)	
In Year 1 or Year 2:			
3 credit hours from the Faculty of Arts			
3 credit hour "W" course ²			
6 credit hours of electives			
30 Hours	30 Hours	30 Hours	30 Hours
YEAR 1	YEAR 2	YEAR 3	YEAR 4
HONOURS (Cooperative Option^{3,4,5}) 120 CREDIT HOURS			
CHEM 1300, CHEM 1310	BIOL 2500, BIOL 2520	BIOL 3500	
BIOL 1020, BIOL 1030	CHEM 2210, CHEM 2220, CHEM 2360 (MBIO 2360), CHEM 2370 (MBIO 2370)	MBIO 3410	
STAT 1000 or STAT 1150		PLNT 3140	
MATH 1500 ¹	MBIO 1010, MBIO 2020	BGEN 3020 (6)	
One of: MATH 1200 ¹ , MATH 1300 ¹ , or MATH 1700 ¹	STAT 2000 or STAT 2150	One of: ANTH 2240, ANTH 2560, ANTH 2860, or ANTH 2890	
		42 credit hours from list of optional courses (a minimum of 18 of these credit hours must be 4000 level)	
In Year 1 or Year 2:		Work Terms^{3,4,5}:	
3 credit hours from the Faculty of Arts		MBIO 3980, MBIO 3990, MBIO 4980 and/or MBIO 4990	
3 credit hour "W" course ²			
6 credit hours of electives			

30 Hours	30 Hours	30 Hours	30 Hours
MAJOR (Including Cooperative Option if selected)^{3,4,5} 120 CREDIT HOURS			
CHEM 1300, CHEM 1310	BIOL 2500, BIOL 2520	BIOL 3500	
BIOL 1020, BIOL 1030	CHEM 2210, CHEM 2220, CHEM 2360 (MBIO 2360), CHEM 2370 (MBIO 2370)	MBIO 3410	
STAT 1000 or STAT 1150		PLNT 3140	
MATH 1500 ¹	MBIO 1010, MBIO 2020	BGEN 3020 (6)	
One of: MATH 1200 ¹ , MATH 1300 ¹ , or MATH 1700 ¹	STAT 2000 or STAT 2150	One of: ANTH 2240, ANTH 2560, ANTH 2860, or ANTH 2890	
		33 credit hours from list of optional courses (a minimum of 15 of these credit hours must be 4000 level)	
		9 credit hours of approved elective courses	
In Year 1 or Year 2:		Work Terms (if Co-op Selected)^{3,4,5}:	
3 credit hours from the Faculty of Arts		MBIO 3980, MBIO 3990, MBIO 4980 and/or MBIO 4990	
3 credit hour "W" course ²			
6 credit hours of electives			
NOTES:			
1 MATH 1220 or MATH 1310 may be taken in place of MATH 1300; MATH 1230, MATH 1510, or MATH 1520 may be taken in place of MATH 1500; MATH 1232 or MATH 1710 may be taken in place of MATH 1700; MATH 1690 may be taken in place of MATH 1500 and MATH 1700; MATH 1240 may be taken in place of MATH 1200.			
2 As there are no electives in Year 2 of the program, students should complete the University written English requirement in Year 1. If not completed in Year 1, a "W" course must be completed prior to Year 3 in addition to the required Year 2 courses.			
3 Students that begin their first work term in May must take BGEN 3020 in Year 3, while students that begin their first work term in January must take BGEN 3020 in Year 4.			
4 IMPORTANT: Students in the cooperative program are advised to ensure that they are able to satisfy the prerequisites for all 3000 and 4000 level courses they plan to take.			
5 MBIO 4530 and BGEN 4010 are required courses for students in Genetics Honours, but are not available to students in the Cooperative Option, and require department consent for students in the Genetics Major.			
(The number 6 in brackets indicates a 6 credit hour course.)			

The optional courses are:

Biological Sciences: BIOL 2410, BIOL 2420, BIOL 3290, BIOL 3300, **BIOL 3400 (or PLNT 3400)**, BIOL 3542, BIOL 3560, BIOL 4500, BIOL 4540, BIOL 4542, BIOL 4560, **BIOL 4650**

Chemistry: CHEM 2260 (CHEM 2280), CHEM 2290, CHEM 4360, CHEM 4370, CHEM 4620, CHEM 4630

Microbiology: MBIO 2420, MBIO 3000, MBIO 3010, MBIO 3030, MBIO 3430, MBIO 3450, MBIO 3460, MBIO 4010, MBIO 4020², MBIO 4410, MBIO 4530¹ (6), MBIO 4540, MBIO 4670 (or the former MBIO 4570), MBIO 4672², MBIO 4600, MBIO 4610.

Computer Science: COMP 1010, COMP 1020, **COMP 1500, COMP 1600**

Physics: PHYS 1020, PHYS 1030, PHYS 1050, PHYS 1070

Animal Science: ANSC 3500, ANSC 4280

Pharmacology: PHAC 4030, PHAC 4040

Plant Science: PLNT 2530, ~~PLNT 3500~~**PLNT 3400 (or BIOL 3400)**, PLNT 3520, PLNT 4330, PLNT 4610

Biochemistry and Medical Genetics: BGEN 4010¹

By an appropriate selection of courses from this list, students can obtain particular program emphasis in either plant, human or molecular genetics.

NOTES:

¹ MBIO 4530 (6) and BGEN 4010 (6) are project courses. A research project is chosen in consultation with the Microbiology department (MBIO 4530) or Biochemistry and Medical Genetics (BGEN 4010) and the Genetics program committee, and is supervised by a staff member. Only one of MBIO 4530 or BGEN 4010 may be elected in this program. These are required courses for students registered in the Genetics Honours program and may be available to students registered in the Genetics Major program by departmental consent.

² MBIO 4020 and MBIO 4672 are not available options for students in the Genetics Honours or Honours Co-op Degree programs.

Mathematics

Program modifications:

Modifications to the following programs are outlined on the next nine (9) pages:

- **Bachelor of Science (Honours) in Mathematics**
- **Bachelor of Science (Double Honours) in Mathematics**
- **Bachelor of Science (Major) in Mathematics**
- **Bachelor of Science (Major) in Applied Mathematics, Computer Science Option**
- **Bachelor of Science (Major) in Applied Mathematics, Economics Option**
- **Bachelor of Science (Major) in Applied Mathematics, Statistics Option**
- **Bachelor of Science (Joint Honours) in Computer Science - Mathematics**
- **Bachelor of Science (Joint Honours) in Computer Science – Mathematics, Cooperative-Option**
- **Bachelor of Science (Joint Honours) in Mathematics - Physics and Astronomy**

4.9.2.1 Mathematics Honours Program Chart

4.9.2 Mathematics

YEAR 1	YEAR 2	YEAR 3	YEAR 4
MATHEMATICS HONOURS 120 CREDIT HOURS			
MATH 1220 ¹ , MATH 1230 ¹ , MATH 1232 ¹ , MATH 1240	MATH 2020, MATH 2080, MATH 2090, MATH 2150, MATH 2180 6 credit hours from the following list: MATH 2030, MATH 2040, MATH 2070, MATH 2140, MATH 2160 ² , MATH 2170	36 credit hours Mathematics courses, which must include the following: MATH 3320, MATH 3340, MATH 3390, MATH 3440, MATH 3470, MATH 3472; And one of the two concentrations listed below: Applied and Computational Mathematics Concentration: MATH 3420, MATH 3460, MATH 4370; and additional 9 credit hours to be chosen from: MATH 3322, MATH 3330, MATH 4280, MATH 4320 ³ , MATH 4330 ³ , MATH 4380 ³ , MATH 4390 ³ , MATH 4440, MATH 4460 ³ Pure Mathematics Concentration: MATH 3322, one of (MATH 3410 ³ or MATH 3480 ³), MATH 4260, and one of (MATH 4300 ³ or MATH 4340 ³ or MATH 4360 ³); and an additional 6 credit hours to be chosen from: MATH 3360, MATH 4240 ³ , MATH 4270, MATH 4280, MATH 4290, MATH 4450, MATH 4470 ³	
STAT 1000, STAT 1150 ¹ , COMP 1010			
The following must be completed in Year 1 or Year 2: 6 credit hours from the Faculty of Arts, which should include the required "W" course. 15 credit hours of electives (review above list for acceptable electives)		12 credit hours of electives from: MATH 2030, MATH 2070, MATH 2160, MATH 2170 (if not taken as a required 2nd year elective) and all Year 3 and 4 mathematics courses 12 credit hours of approved (not necessarily mathematics) electives (review above list for acceptable electives)	
30 credit hours	30 credit hours	30 credit hours	30 credit hours

NOTES:

¹ Students are strongly advised to take MATH 1220, MATH 1230 and MATH 1232. The following substitutions are allowed (but not advised), provided the grades indicated in brackets are achieved: MATH 1300 (A) in place of MATH 1220, MATH 1500 (A) or MATH 1510 (A) in place of MATH 1230, MATH 1700 (A) or MATH 1710 (A) in place of MATH 1232, MATH 1690 (B) in place of MATH 1230 and MATH 1232. **With permission from the department, students may be able to substitute STAT 1000 and STAT 2000 in place of STAT 1150.**

² Department strongly recommends choosing MATH 2160 as one of the electives in Year 2.

³ These courses may not be offered every year, but are usually offered once every second year. Please refer to Aurora Student for courses offered in the current year and to the website of the Department of Mathematics for the planned schedule of future course offerings.

4.9.2.2 Mathematics Double Honours Program Chart

MATHEMATICS HONOURS DOUBLE MINIMUM 120 CREDIT HOURS (comprising courses listed in chart below, and the required courses from the other department)			
MATH 1220 ¹ , MATH 1230 ¹ , MATH 1232 ¹ , MATH 1240	MATH 2020, MATH 2080, MATH 2090, MATH 2150, MATH 2180	MATH 3320, MATH 3340, MATH 3390, MATH 3440, MATH 3470, MATH 3472	15 credit hours from: MATH 2030, MATH 2070, MATH 2160, MATH 2170 (if not taken as a required 2nd year elective); and all Year 3 and 4 mathematics courses of which at least 9 credit hours must be 4000 level.
STAT 1000, STAT 1150 ¹	6 credit hours from the following list:		
COMP 1010			
Plus 6 credit hours from the Faculty of Arts, which should include the required "W" course	MATH 2030, MATH 2040, MATH 2070, MATH 2140, MATH 2160, MATH 2170		

NOTES:

¹ Students are strongly advised to take MATH 1220, MATH 1230 and MATH 1232. The following substitutions are allowed (but not advised), provided the grades indicated in brackets are achieved: MATH 1300 (A) in place of MATH 1220, MATH 1500 (A) or MATH 1510 (A) in place of MATH 1230, MATH 1700 (A) or MATH 1710 (A) in place of MATH 1232, MATH 1690 (B) in place of MATH 1230 and MATH 1232. **With permission from the department, students may be able to substitute STAT 1000 and STAT 2000 in place of STAT 1150.**

4.9.2.3 Mathematics Major Program Chart

MATHEMATICS FOUR YEAR MAJOR 120 CREDIT HOURS		
MATH 1220 ¹ , MATH 1230 ¹ , MATH 1232 ¹ , MATH 1240	MATH 2020, MATH 2080, MATH 2090, MATH 2150, MATH 2180 6 credit hours from the following: MATH 2030, MATH 2040, MATH 2070, MATH 2140, MATH 2160, MATH 2170	A total of 48 credit hours from MATH 2030, MATH 2070, MATH 2160, MATH 2170 and any 3000/4000 level Mathematics courses, which must include: MATH 2030 (if not already taken as Year 2 elective), MATH 2160 (if not already taken as Year 2 elective), MATH 3320, MATH 3322, MATH 3340, MATH 3360, MATH 3390, MATH 3440, MATH 3460
STAT 1000 STAT 1150 ¹ , COMP 1010 15 credit hours of approved electives The following must be completed in Year 1 or Year 2: 6 credit hours from the Faculty of Arts, which should include the required "W" course.		12 credit hours of approved electives

NOTES:

¹ Students are strongly advised to take MATH 1220, MATH 1230 and MATH 1232. The following substitutions are allowed (but not advised), provided the grades indicated in brackets are achieved: MATH 1300 (B) in place of MATH 1220, MATH 1500 (B) or MATH 1510 (B) in place of MATH 1230, MATH 1700 (B) or MATH 1710 (B) in place of MATH 1232, MATH 1690 (C+) in place of MATH 1230 and MATH 1232. **With permission from the department, students may be able to substitute STAT 1000 and STAT 2000 in place of STAT 1150.**

4.9.2.4 Applied Mathematics with Computer Science Option Program Chart

APPLIED MATHEMATICS FOUR YEAR MAJOR with COMPUTER SCIENCE OPTION 120 CREDIT HOURS		
MATH 1220 ¹ , MATH 1230 ¹ , MATH 1232 ¹ , MATH 1240	MATH 2080, MATH 2090, MATH 2150, MATH 2160, MATH 2180	MATH 2070, MATH 2140, MATH 3340, MATH 3420, MATH 3440, MATH 3460, MATH 3470
COMP 1010, COMP 1020	COMP 2140	
6 credit hours from the Faculty of Arts, which should include the required "W" course	STAT 1000 and STAT 2000 STAT 1150 ¹ and STAT 2150	
6 credit hours of approved electives	9 credit hours chosen from: MATH 2030, MATH 2040, MATH 2170, or any 3000/4000 level MATH course One of the following patterns (9 credit hours): Graphics: COMP 2190, COMP 3490, COMP 4490 Software: COMP 2150, COMP 2160; and one of: COMP 3380, COMP 3440 or COMP 3020 Theoretical Computer Science: COMP 2080, and two of: COMP 3030, COMP 3170, COMP 3820 or COMP 4420 Hardware: COMP 2160, COMP 2280; and one of: COMP 3370 or COMP 3430 Artificial Intelligence: COMP 3190; and two of: COMP 4180, COMP 4190, COMP 4200, COMP 4360	
	27 credit hours of electives taken during years 2, 3 and 4	

NOTES:

¹ Students are strongly advised to take MATH 1220, MATH 1230 and MATH 1232. The following substitutions are allowed (but not advised), provided the grades indicated in brackets are achieved: MATH 1300 (B) in place of MATH 1220, MATH 1500 (B) or MATH 1510 (B) in place of MATH 1230, MATH 1700 (B) or MATH 1710 (B) in place of MATH 1232, MATH 1690 (C+) in place of MATH 1230 and MATH 1232, **STAT 1000 (C) and STAT 2000 (B) in place of STAT 1150.**

4.9.2.5 Applied Mathematics with Economics Option Program Chart

APPLIED MATHEMATICS FOUR YEAR MAJOR with ECONOMICS OPTION 120 CREDIT HOURS		
MATH 1220 ¹ , MATH 1230 ¹ , MATH 1232 ¹ , MATH 1240	MATH 2080, MATH 2090, MATH 2150, MATH 2160, MATH 2180	MATH 2070, MATH 2140, MATH 3340, MATH 3420, MATH 3440, MATH 3460, MATH 3470, MATH 4370
ECON 1010 and ECON 1020 (or ECON 1210 and ECON 1220)		
9 credit hours of electives	STAT 1000, STAT 2000 STAT 1150 ¹ and STAT 2150 COMP 1010 ECON 2030, ECON 3030 6 credit hours from: MATH 2030, MATH 2040, MATH 2170, or any 3000/4000 level MATH course 6 credit hours from: ECON 2010, ECON 2020, ECON 3010 and ECON 3020 24 credit hours of approved electives taken during years 2, 3 and 4	
3 credit hour "W" course must be taken in Year 1 or Year 2		

NOTES:

¹ Students are strongly advised to take MATH 1220, MATH 1230 and MATH 1232. The following substitutions are allowed (but not advised), provided the grades indicated in brackets are achieved: MATH 1300 (B) in place of MATH 1220, MATH 1500 (B) or MATH 1510 (B) in place of MATH 1230, MATH 1700 (B) or MATH 1710 (B) in place of MATH 1232, MATH 1690 (C+) in place of MATH 1230 and MATH 1232, **STAT 1000 (C) and STAT 2000 (B) in place of STAT 1150.**

4.9.2.6 Applied Mathematics with Statistics Option Program Chart

APPLIED MATHEMATICS FOUR YEAR MAJOR with STATISTICS OPTION 120 CREDIT HOURS		
MATH 1220 ¹ , MATH 1230 ¹ , MATH 1232 ¹ , MATH 1240	MATH 2080, MATH 2090, MATH 2150, MATH 2160, MATH 2180	MATH 2070, MATH 2140, MATH 3340, MATH 3420, MATH 3440, MATH 3460, MATH 3470
STAT 1000 STAT 1150 ¹	STAT 2000 STAT 2150	STAT 2400, STAT 3400, STAT 3470, STAT 3480, STAT 3800
6 credit hours from the Faculty of Arts, which should include the required "W" course	COMP 1010 9 credit hours from: MATH 2030, MATH 2040, MATH 2170, or any 3000/4000 level MATH course 6 credit hours of 3000 or 4000 level Statistics courses	
9 credit hours of electives	18 credit hours of approved electives taken during years 2, 3 and 4	

NOTES:

¹ Students are strongly advised to take MATH 1220, MATH 1230 and MATH 1232. The following substitutions are allowed (but not advised), provided the grades indicated in brackets are achieved: MATH 1300 (B) in place of MATH 1220, MATH 1500 (B) or MATH 1510 (B) in place of MATH 1230, MATH 1700 (B) or MATH 1710 (B) in place of MATH 1232, MATH 1690 (C+) in place of MATH 1230 and MATH 1232, **STAT 1000 (C) and STAT 2000 (B) in place of STAT 1150.**

4.6.3 Computer Science - Mathematics Joint Honours Program (Including Co-op if selected)

The departments of Computer Science and Mathematics offer a joint Honours program for in-depth study in both Computer Science and Mathematics.

Honours Requirements

To enter the Joint Honours Computer Science-Mathematics program, the student must have a minimum grade of "B" in each of COMP 1020, either MATH 1232 or MATH 1690 (or a minimum grade of "A" in MATH 1700), and have satisfied the Faculty of Science requirements for entry to the honours program. It is recommended that STAT 2000 2150 be completed in Year 1 as an elective.

YEAR 1	YEAR 2	YEAR 3	YEAR 4
JOINT HONOURS (Including Cooperative Option if selected) 120 CREDIT HOURS			
COMP 1010 and COMP 1020 (B)	COMP 2080 ² , COMP 2140, COMP 2160, COMP 2280	COMP 3030, COMP 3170, COMP 3370, COMP 3430	
MATH 1220 ¹ , MATH 1230 ¹ , MATH 1232 ¹ , MATH 1240	MATH 2020, MATH 2080, MATH 2090, MATH 2150, MATH 2180	Three of: COMP 3010, COMP 3020, COMP 3290, COMP 3350, COMP 3380, COMP 3190, COMP 3440, COMP 3490, COMP 3820	
STAT 1000 (C) STAT 1150 ¹		Three of: COMP 4020, COMP 4140, COMP 4180, COMP 4190, COMP 4290, COMP 4300, COMP 4340, COMP 4350, COMP 4360, COMP 4380, COMP 4490, COMP 4510, COMP 4580, COMP 4690, COMP 4710	
6 credit hours from the Faculty of Arts, which should include the required 3 credit hour "W" course ²	3 credit hours of approved electives	MATH 2030, MATH 2160, MATH 3320, MATH 3440, MATH 3470, MATH 3472	
6 credit hours of electives		9 credit hours from MATH 2070, MATH 2170, any 3000 or 4000 level Mathematics courses, of which at least 3 credit hours must be 4000 level	
	Work Term (if Co-op Selected) ³ :	Work Term (if Co-op Selected) ³ :	Work Term (if Co-op Selected) ³ :
	COMP 2980	COMP 3980	COMP 4980
30 Hours	30 Hours	30 Hours	30 Hours

NOTES:

¹ Students are strongly advised to take MATH 1220, MATH 1230 and MATH 1232. The following substitutions are allowed (but not advised), provided the grades indicated in brackets are achieved: MATH 1300 (A) in place of MATH 1220, MATH 1500 (A) or MATH 1510 (A) in place of MATH 1230, MATH 1700 (A) or MATH 1710 (A) in place of MATH 1232, MATH 1690 (B) in place of MATH 1230 and MATH 1232. **With permission from the department, students may be able to substitute STAT 1000 and STAT 2000 in place of STAT 1150.**

² Students in this program will not take COMP 2130. COMP 2130 is waived as a prerequisite for students in this program.

³ When chosen, the Cooperative Option work terms (2980, 3980, 4980) will normally be completed during the Summer Terms following years 2, 3, and 4 respectively. ~~(Letters in brackets indicate minimum prerequisite standing for further study.)~~

(Letters in brackets indicate minimum prerequisite standing for further study. The number 6 in brackets indicates a 6 credit hour course.)

4.9.2.8 Mathematics – Physics and Astronomy Joint Honours Program

Honours Requirements

To enter the Joint Honours Mathematics – Physics Honours program the student must have a minimum grade of "B" in: MATH 1232 or MATH 1690 (or a minimum grade of "A" in MATH 1700), PHYS 1050 (or "B+" in PHYS 1020) and PHYS 1070.

To continue in the Honours program, students must maintain a minimum DGPA of 3.00, complete a minimum of 9 credit hours each Fall and Winter Term.

To graduate with the B. Sc. Honours degree, a student must achieve a minimum DGPA of 3.00 and a minimum grade of "C+" in each of the Honours Program Specific courses⁶, and a minimum grade of "C" on all remaining courses that contribute to the 129 credit hours of the degree.

YEAR 1	YEAR 2	YEAR 3	YEAR 4
JOINT HONOURS 129 CREDIT HOURS (129 credit hours)			
MATH 1220 ¹ , MATH 1230 ¹ , MATH 1232 ¹ (B), MATH 1240 PHYS 1050 (B) (or PHYS 1020 (B+)) ² and PHYS 1070 (B) STAT 1000 STAT 1150¹ COMP 1010 6 credit hours from the Faculty of Arts, which should include the required "W" course ⁴	PHYS 2260, PHYS 2380, PHYS 2600, PHYS 2610, PHYS 2650 ³ MATH 2020, MATH 2080, MATH 2090, MATH 2150, MATH 2180	MATH 3320, MATH 3340, MATH 3440, MATH 3460, MATH 3470, MATH 3472 PHYS 3670, PHYS 3680, PHYS 3650, PHYS 3630, PHYS 3380 3 credit hours from 3000 and 4000 level Physics Honours courses	MATH 3322 12 credit hours from: MATH 2030, MATH 2070, MATH 2160, MATH 2170, or any 3000 or 4000 level Mathematics courses, of which 3 credit hours must be at the 4000 level PHYS 3430 (6), PHYS 3640 ⁵ , PHYS 3660, PHYS 4390 3 credit hours from 3000 and 4000 level Physics Honours courses
30 Hours	30 Hours	36 Hours	33 Hours

NOTES:

¹ Students are strongly advised to take MATH 1220, MATH 1230 and MATH 1232. The following substitutions are allowed (but not advised), provided the grades indicated in brackets are achieved: MATH 1300 (A) in place of MATH 1220, MATH 1500 (A) or MATH 1510 (A) in place of MATH 1230, MATH 1700 (A) or MATH 1710 (A) in place of MATH 1232, MATH 1690 (B) in place of MATH 1230 and MATH 1232. **With permission from the department, students may be able to substitute STAT 1000 and STAT 2000 in place of STAT 1150.**

² PHYS 1030 is not suitable for entry to the program. Students must also take PHYS 1070 if they have already taken PHYS 1030. Students can hold credit for both PHYS 1030 and PHYS 1070.

³ The corequisite of PHYS 2490 is waived. It is recommended that students audit PHYS 2390 and PHYS 2490 in second year.

⁴ As there are no electives in Year 2 of the program, students should complete the university written English requirement in Year I. If not completed in Year I, a "W" course must be completed prior to Year 3 in addition to the required Year 2 courses.

⁵ The prerequisite of PHYS 2490 is waived.

⁶ The Honours Program Specific courses consists of all the Physics and Astronomy courses listed in the

program chart, with the exception of PHYS 1020, ~~phys~~ **PHYS** 1050, and PHYS 1070.

(Letters in brackets indicate minimum prerequisite standing for further study. The number 6 in brackets indicates a 6 credit hour course.)

Microbiology

Modifications:

MBIO 3010 Mechanisms of Microbial Disease Cr.Hrs. 3 0.0

A consideration of host-parasite relationships, an introduction to the immune response, microbial pathogenesis, viral diseases, clinical microbiology and public health, and an introduction to antimicrobial agents. May not be held with MBIO 3011. Prerequisites: MBIO 2020 (MBIO 2021) (C) or the former MBIO 2100 (C) or the former MBIO 2101 (C).

MBIO 3430 Molecular Evolution Cr.Hrs. 3 0.0

An analysis starting with prebiotic evolution, progressing through the elaboration of macromolecules and examining their adaptation to their function as cellular components. Proteins, carbohydrates, and nucleic acids as structural, catalytic, and genetic elements in evolution of living systems. Prerequisite: A "C" or better in one of: MBIO 2020, MBIO 2021, the former MBIO 2110, the former MBIO 2111, BIOL 2500, BIOL 2501, the former BOTN 2460, the former BOTN 2461, PLNT 2520, BIOL 2520, BIOL 2521, the former ZOOL 2280, the former ZOOL 2281, MBIO 2370, MBIO 2371, CHEM 2370, CHEM 2371, MBIO 2780 or CHEM 2780.

NET CHANGE IN CREDIT HOURS: 0.0

Program modifications:

Modifications to the following programs are outlined on the next eight (8) pages:

- **Bachelor of Science (Honours) in Microbiology**
- **Bachelor of Science (Honours) in Microbiology, Cooperative Option**
- **Bachelor of Science (Major) in Microbiology**
- **Bachelor of Science (Major) in Microbiology, Cooperative Option**

4.10.1 Program Information

Microbiology is the study of microorganisms such as bacteria, viruses, fungi, protozoa, and algae, and their interactions with the environment. It is also an area of study that plays a pivotal role in understanding other life science disciplines, such as medicine, agriculture, ecology, and pharmacy. Molecular and systems microbiology are part of the program, which spans applied, environmental and medical microbiology. The departments of Microbiology and Chemistry offer joint Honours programs (including Co-op) and joint Four Year Major programs (including Co-op) in biochemistry and biotechnology (See Sections 4.2 and 4.4).

The department must approve a student's Honours or Major program prior to registration in each session. Students must also obtain approval for any and all revisions to their program.

Microbiology Prerequisite Information

Students are advised to take courses in the year suggested in the charts below; otherwise difficulties may arise with timetabling and prerequisite requirements. Students are responsible for all prerequisites and corequisites of the courses required or selected in all programs below. Since Chemistry courses form an integral part of all Microbiology programs, students should note that Grade 12 mathematics and chemistry are prerequisite to CHEM 1300. Students will also require Biology 40S (or equivalent) and any Grade 12 mathematics course (or equivalent) for entry to BIOL 1020 (the prerequisite for BIOL 1030).

Honours Requirements and Options

To enter the Honours program in Microbiology, a student must have completed at least 24 credit hours with a minimum DGPA of 3.00, and also obtained a minimum grade of "B" in MBIO 1010, and a minimum grade of "C+" in CHEM 1310. BIOL 1020, BIOL 1030, STAT 1000 (**or STAT 1150**) and the 3 credit hours of specified Mathematics or Physics are program requirements and students are strongly encouraged to complete these courses in first year.

To continue in the Microbiology Honours program, students must maintain a minimum DGPA of 3.00, and complete a minimum of 9 credit hours during each Fall and Winter Term.

To graduate from the Microbiology Honours program students must achieve a minimum DGPA of 3.00 and obtain a minimum grade of "C" on the courses that make up the 120 credit hours of the degree.

Students who wish to elect CHEM 2260, CHEM 2290 or CHEM 2470 as options should note the prerequisites in making a choice of mathematics courses.

CHEM 2210 must be taken before MBIO 2370 (CHEM 2370). Courses (MBIO 2360 and CHEM 2360); and (MBIO 2370 and CHEM 2370) are the same and credit cannot be held for both. Microbiology students will normally register in MBIO 2360 and MBIO 2370, but CHEM 2360 and CHEM 2370 will be regarded as equivalents.

By careful choice of electives, programs may be selected giving emphasis to various areas of Microbiology, e.g., Biochemistry and Molecular Biology or Environmental and Ecological Microbiology. In choosing optional courses, students should be aware of any prerequisite requirements.

Honours Cooperative Option

Students interested in alternating academic terms and terms of paid employment as part of their Honours Microbiology program may enter the Cooperative Option in April of their second year in Honours Microbiology. This program provides students with a minimum of 12 months of paid employment by the time they graduate. It enables them to obtain work experience in research and industry with participating firms, government agencies and university units.

The course and grade requirements for entry to this option are the same as those required for entry to the regular Honours program (see above), as indicated in the chart. Before their first ~~employment~~ **co-op** term, students are required to complete the first and second year requirements of the program, ~~including in addition to~~ MBIO/CHEM 2370, ~~as well as~~ MBIO 3010, and MBIO 3410. Students should refer to the general faculty regulations for B.Sc. (Honours) Cooperative Options in Section 3.6.

To continue in the Honours Cooperative program a student must maintain a minimum DGPA of 3.00, successfully complete each work term, and complete a minimum of 9 credit hours during each academic term. Students should note that the grade requirements for the Cooperative Option are the same as that for the regular Honours program (see above).

Students must check with the Co-op office for the April application deadline information. They will normally be notified of their provisional acceptance in the program by September. Acceptance into the program is dependent upon the student receiving an employment placement. Employment term positions available to the students will be approved by the department, and the employers will select the students they wish to employ. Students are advised that satisfying the entrance requirements does not guarantee a place in the Cooperative Option if the demand for places exceeds the number of places available. The department reserves the right to determine and select the best qualified applicants.

Students are required to register in and pay fees for each employment term prior to the commencement of each employment term. Students will be required to submit an employment report upon the completion of each employment term.

Four Year Major

To enter the Major Degree program in Microbiology, a student must have completed at least 24 credit hours with a minimum DGPA of 2.00, and also obtained a minimum grade of "C+" in MBIO 1010, and CHEM 1310. BIOL 1020, BIOL 1030, STAT 1000 (**or STAT 1150**) and the 3 credit hours of specified Mathematics or Physics are program requirements and students are strongly urged to complete these courses in first year.

* Students interested in studying Microbiology should note that Grade 12 mathematics and chemistry are prerequisite to CHEM 1300. Students will also require Biology 40S (or equivalent) and any Grade 12 mathematics course (or equivalent) for entry to BIOL 1020 (the prerequisite for BIOL 1030).

To continue in the Microbiology Major Degree, students must maintain a minimum DGPA of 2.00.

To graduate from, the 4-year Major degree program in Microbiology, students are required to obtain a minimum DGPA of 2.00.

Potential entrants to this program should also note the following:

Students who wish to elect CHEM 2260, CHEM 2290 or CHEM 2470 as options should note the prerequisites in making a choice of mathematics courses.

CHEM 2210 must be taken before MBIO 2370 (CHEM 2370). Courses (MBIO 2360 and CHEM 2360), and (MBIO 2370 and CHEM 2370) are the same and credit cannot be held for both. Microbiology students will normally register in MBIO 2360 and MBIO 2370, but CHEM 2360 and CHEM 2370 will be regarded as equivalents.

Students must note course and grade prerequisites when selecting 3000 and 4000 level Microbiology courses.

MBIO 4530 is not available in this program without special permission.

By careful choice of electives, programs may be selected giving emphasis to various areas of Microbiology, e.g., Biochemistry and Molecular Biology or Environmental and Ecological Microbiology. In choosing optional courses, students should be aware of any prerequisite requirements.

The listed requirements are minimum requirements. Students are reminded that should they wish to take further courses in Microbiology, they are at liberty to do so within the degree regulations.

Four Year Major Cooperative Option

Students interested in alternating employment terms and academic terms as part of their Major program in Microbiology may enter the Cooperative Option in April of their second year in Microbiology. This program provides students with a minimum of 12 months of paid employment by the time they graduate. It enables them to obtain work experience in research and industry with participating firms, government agencies and University units.

The course and grade requirements for entry to this option are the same as those required for entry to the regular Major program. MBIO 3010 and MBIO 3410 are required in Year 3. Before their first **employment co-op** term, students are required to complete the first and second year requirements of the program, ~~including in addition to MBIO/CHEM 2370, as well as MBIO 3010, and MBIO 3410.~~ See the general faculty regulations for B.Sc. (Major) Cooperative Option in Section 3.4.

Students must check with the Co-op office for the April application deadline information. They will normally be notified of their provisional acceptance in the program by September. Acceptance into the program is dependent upon the student receiving an employment placement. Employment term positions available to the students will be approved by the department, and the employers will select the students they wish to employ. Students are advised that satisfying the entrance requirements does not guarantee a place in the Cooperative Option if the demand for places exceeds the number of places available. The department reserves the right to determine and select the best qualified applicants.

Students are required to register in and pay fees for each employment term prior to the commencement of each employment term. Students will be required to submit an employment report upon the completion of each employment term.

Option List for All Microbiology Programs:

Agroecology: AGE 2370

Biological Sciences:

BIOL 2242 (BOTN 2010), BIOL 2260 (BOTN 2210), BIOL 2261, BIOL 2300 (BOTN 2370, ZOOL 2370), BIOL 2301 (BOTN 2371, ZOOL 2371), BIOL 2380 (BOTN 2180, ZOOL 2180), BIOL 2381, BIOL 2410 (ZOOL 2530), BIOL 2411 (ZOOL 2531), BIOL 2420 (ZOOL 2540), BIOL 2421 (ZOOL 2541), BIOL 3260 (BOTN 2290), BIOL 3290 (BOTN 3280), BIOL 3291, BIOL 3330 (BOTN 3250), BIOL 3370 (ZOOL 3500), BIOL 3400 (BIOL 3450), BIOL 3452 (BOTN 3010), BIOL 3460 (ZOOL 3530), BIOL 3462 (ZOOL 3540), BIOL 3470, BIOL 3472, BIOL 3500 (BOTN 3460), BIOL 3501, BIOL 3542 (BIOL 2540), BIOL 3560 (ZOOL 3060), BIOL 3561, BIOL 4242 (BOTN 4130), BIOL 4244 (BOTN 4160), BIOL 4246 (BOTN 4050), BIOL 4250 (BOTN 4210), BIOL 4430 (BOTN 4120), BIOL 4480 (ZOOL 4600), BIOL 4540 (ZOOL 4150), BIOL 4542 (ZOOL 4270), BIOL 4544 (BIOL 3540), BIOL 4556, BIOL 4560 (ZOOL 4140)

Chemistry:

CHEM 2260 (CHEM 2280), CHEM 2290, CHEM 2400 (CHEM 2380), CHEM 2470, CHEM 3390, CHEM 3590, CHEM 3570, CHEM 4590, CHEM 4360, CHEM 4370, CHEM 4620, CHEM 4630, CHEM 4670

Environmental Science: ENVR 2180

Food Sciences: FOOD 4150, FOOD 4280

General Agriculture: AGRI 2180

Pharmacology: PHAC 4030, PHAC 4040

Plant Science: PLNT 3400

Statistics: STAT 2000 or **STAT 2150**

NOTE: Other suitable options may be selected with permission of the department.

Three Year General

As prescribed with all other faculty regulations in Section 3.2, students in this program must select 18 credit hours of 2000, 3000 and (or) 4000 level courses from each of **two** Science areas. To satisfy the requirement in the area of Microbiology, students must take a minimum of 18 credit hours of Microbiology courses as prescribed in the chart below (subject to the Faculty requirement that of the 36 credit hours in the two advanced level Science areas, at least 6 credit hours must be at the 3000/4000 level.).

Students wishing to elect courses in Microbiology in fulfilment of the requirements for the B.Sc. (General) degree should note the following:

- Students must obtain a grade of "C" or better in the following: MBIO 1010, BIOL 1020, BIOL 1030, CHEM 1300 and CHEM 1310.
- Students are encouraged to elect additional Microbiology courses above the required minimum.
- Microbiology MBIO 2770 and MBIO 2780 (CHEM 2770 and CHEM 2780) are not available in this program.

Minor

Students must complete MBIO 1010, CHEM 1300, CHEM 1310, BIOL 1020, BIOL 1030, plus 12 credit hours of Microbiology courses at the 2000 and (or) 3000 level.

Biochemistry and Biotechnology Programs

The Department of Microbiology, in conjunction with the Department of Chemistry, offers Joint Honours programs, Joint Honours Cooperative Option programs, Joint four year Major programs and Joint four year Major Cooperative Option programs in Biochemistry and Biotechnology. See Sections 4.2 Biochemistry Program and 4.4 Biotechnology Program for full details.

[Back](#)

4.10.2 Microbiology Program Charts

4.10.2 Microbiology

YEAR 1	YEAR 2	YEAR 3	YEAR 4
HONOURS⁶ 120 CREDIT HOURS			
MBIO 1010 ⁵ BIOL 1020, BIOL 1030 CHEM 1300, CHEM 1310	MBIO 2020, MBIO 2360 (CHEM 2360), MBIO 2370 ³ (CHEM 2370) ³ BIOL 2500, BIOL 2520 CHEM 2210, CHEM 2220	MBIO 3010, MBIO 3030, MBIO 3280, MBIO 3410, MBIO 3470	MBIO 4020, MBIO 4440, MBIO 4480, MBIO 4530 (6), and one of: MBIO 4600, MBIO 4610 or MBIO 4672.
In Year 1 or Year 2 the following must be completed: 3 credit hours of Mathematics or Physics chosen from: MATH 1200 ¹ , MATH 1300 ¹ , MATH 1500 ¹ , PHYS 1020 or PHYS 1050 STAT 1000 or STAT 1150 6 credit hours from the Faculty of Arts, which should include the required "W" course. 9 credit hours of approved electives 3 credit hours from Microbiology or from the option list		18 credit hours of Microbiology courses including credit hours at the 4000 level 9 credit hours chosen from Microbiology courses or from the option list (see below)	
30 Hours	30 Hours	30 Hours	30 Hours
HONOURS COOPERATIVE OPTION^{6, 7} 120 CREDIT HOURS			
MBIO 1010 ⁵	MBIO 2020, MBIO 2360 (CHEM 2360), MBIO	MBIO 3010 ⁷ , MBIO 3030, MBIO 3280, MBIO 3410 ⁷ , MBIO 3470	MBIO 4020; MBIO 4440, MBIO 4480, and one of: MBIO

BIOL 1020, BIOL 1030	2370 ³ (CHEM 2370) ³		4600, MBIO 4610 or MBIO 4672.
CHEM 1300, CHEM 1310	BIOL 2500, BIOL 2520 CHEM 2210, CHEM 2220		
In Year 1 or Year 2 the following must be completed:		24 credit hours of Microbiology courses including 3 credit hours at the 4000 level	
3 credit hours of Mathematics or Physics from MATH 1200 ¹ , MATH 1300 ¹ , MATH 1500 ¹ , PHYS 1020 or PHYS 1050		9 credit hours chosen from Microbiology courses or from the option list (see below)	
STAT 1000 or STAT 1150		Work Terms:	
6 credit hours from the Faculty of Arts, which should include the required "W" course		MBIO 3980, MBIO 3990, MBIO 4980 and/or MBIO 4990	
9 credit hours of approved electives			
3 credit hours chosen from Microbiology courses or from the option list (see below)			
30 Hours	30 Hours	30 Hours	30 Hours
FOUR –YEAR MAJOR (Including Co-op)^{4,6,7} 120 CREDIT HOURS			
MBIO 1010 ⁵	MBIO 2020, MBIO 2360 (CHEM 2360), MBIO 2370 ³ (CHEM 2370) ³	MBIO 3010 ⁷ , MBIO 3030, MBIO 3410 ⁷	
BIOL 1020, BIOL 1030			
CHEM 1300, CHEM 1310	BIOL 2500, BIOL 2520 CHEM 2210, CHEM 2220		
In Year 1 or Year 2 the following must be completed:		24 credit hours of Microbiology courses ² including 15 credit hours at the 4000 level	
3 credit hours of Mathematics or Physics from MATH 1200 ¹ , MATH 1300 ¹ , MATH 1500 ¹ , PHYS 1020 or PHYS 1050		9 credit hours of Microbiology courses ² or courses chosen from the option list (see below)	
STAT 1000 or STAT 1150		18 credit hours of approved electives	
6 credit hours from the Faculty of Arts, which should include the required "W" course		Work Terms:	
12 credit hours of approved electives		MBIO 3980, MBIO 3990, MBIO 4980 and/or MBIO 4990	
THREE YEAR GENERAL (90 CREDIT HOURS)			
MBIO 1010	18 credit hours of 2000, 3000, and (or) 4000 level Microbiology courses (subject to the Faculty requirement that of the 36 credit hours in the two		

	advanced level Science areas, at least 6 credit hours must be at the 3000/4000 level.)
MINOR	
MBIO 1010 (C)	12 credit hours of Microbiology at the 2000 and (or) 3000 level
CHEM 1300, CHEM 1310(C)	
BIOL 1020, BIOL 1030 (C)	
BIOCHEMISTRY - Joint Microbiology and Chemistry Programs: See Section 4.2 Biochemistry	
BIOTECHNOLOGY – Joint Microbiology and Chemistry Programs: See Section 4.4 Biotechnology	
NOTES:	
<p>¹ MATH1220 or MATH 1310 may be taken in place of MATH 1300; MATH 1230, MATH 1510, MATH 1520 or MATH 1690 may be taken in place of MATH 1500. MATH 1240 may be taken in place of MATH 1200.</p> <p>² MBIO 4530 may be selected only by special permission.</p> <p>³ It is strongly recommended that MBIO 2370 (CHEM 2370) be completed prior to Year 3 as it is prerequisite to many upper level MBIO courses.</p> <p>⁴ IMPORTANT: The four year Major program need not be completed in the manner prescribed in the chart above. The chart indicates one possible arrangement of the required courses and is meant to be a guide around which students can plan their program.</p> <p>⁵ MBIO 1010 may be completed in either year 1 or year 2. It is recommended that it be completed in first year.</p> <p>⁶ MBIO 1220 and MBIO 1410 cannot be used to satisfy course requirements in a Major or Honours program.</p> <p>⁷ Students in the Co-operative Option must complete MBIO 3010 and MBIO 3410 before their first employment term.</p>	
(The number 6 in brackets indicates a 6 credit hour course.)	
Option List for All Microbiology Programs:	
<i>Biological Sciences:</i>	
BIOL 2242 (BOTN 2010), BIOL 2260 (BOTN 2210), BIOL 2261, BIOL 2300 (BOTN 2370, ZOOL 2370), BIOL 2301 (BOTN 2371, ZOOL 2371), BIOL 2380 (BOTN 2180, ZOOL 2180), BIOL 2381, BIOL 2410 (ZOOL 2530), BIOL 2411 (ZOOL 2531), BIOL 2420(ZOOL 2540), BIOL 2421 (ZOOL 2541), BIOL 3260 (BOTN 2290), BIOL 3290 (BOTN 3280), BIOL 3291, BIOL 3330 (BOTN 3250),BIOL 3370 (ZOOL 3500), BIOL 3450 (BOTN 2020), BIOL 3452 (BOTN 3010), BIOL 3460 (ZOOL 3530), BIOL 3462 (ZOOL 3540),BIOL 3470, BIOL 3472, BIOL 3500 (BOTN 3460), BIOL 3501, BIOL 3542 (BIOL 2540), BIOL 3560 (ZOOL 3060), BIOL 3561, BIOL 4242 (BOTN 4130), BIOL 4244 (BOTN 4160), BIOL 4246 (BOTN 4050), BIOL 4250 (BOTN 4210), BIOL 4430 (BOTN 4120), BIOL 4480 (ZOOL 4600), BIOL 4540 (ZOOL	

4150), BIOL 4542 (ZOO 4270), BIOL 4554 (BIOL 3540), BIOL 4556, BIOL 4560 (ZOO 4140)

Chemistry:

CHEM 2260 (CHEM 2280), CHEM 2290, CHEM 2400 (CHEM 2380), CHEM 2470, CHEM 3390, CHEM 3590, CHEM 3570, CHEM 4590, CHEM 4360, CHEM 4370, CHEM 4620, CHEM 4630, CHEM 4670

Environmental Science: ENVR 2180

Food Sciences: FOOD 4150, FOOD 4280

General Agriculture: AGRI 2180, AGE 2370

Pharmacology: PHAC 4030, PHAC 4040

Statistics: STAT 2000 **or** **STAT 2150**

NOTE: Other suitable options may be selected with permission of the department.

Université de Saint-Boniface

Faculté des arts [Faculty of Arts]

Département d'études françaises, de langues et de littératures

Modifications:

FRAN 1001 Grammaire de l'écrit Cr. Hrs. 6 0.0

(Laboratoire requis) Perfectionnement du français par l'entremise d'activités de compréhension et de production de textes divers menant à une étude approfondie de la grammaire, à l'enrichissement du vocabulaire et à un aperçu de la stylistique interne. Développement d'habitudes de travail telles que l'utilisation des outils de rédaction et l'autocorrection. Mise en pratique des notions apprises dans le cours et activités orales dans le cadre des séances de travaux dirigés obligatoires. N.B.: Une note minimale de C constitue un préalable à FRAN 1091. On ne peut s'inscrire à FRAN 1001 et à FRAN 1111 de façon concomitante. Ce cours ne peut être reconnu aux fins des 30 crédits nécessaires dans le cadre d'une majeure en français ou des 18 crédits nécessaires dans le cadre d'une mineure en français, ainsi que pour le baccalauréat spécialisé (4 ans).

FRAN 2523 Atelier de théâtre Cr. Hrs. 6 0.0

Initiation à la pratique de l'art théâtral. Ateliers sur les grandes théories du théâtre, les techniques de l'art dramatique, les écoles de jeu depuis le XVIII^e siècle et les divers aspects pratiques d'une production théâtrale: jeu de lumières, conception et plantation d'un décor. On ne peut se faire créditer FRAN 2523 et l'ancien FRAN 2521. Préalables: [une note minimale de C dans FRAN 1091] et [une note minimale de C dans FRAN 1021 ou FRAN 1111].

FRAN 2531 Introduction au théâtre I Cr.Hrs. 3 0.0

Étude de plusieurs oeuvres, des principaux aspects techniques et des diverses théories dramatiques - du théâtre grec au théâtre du XIX^e siècle. Préalables: [une note minimale de C dans FRAN 1091] et [une note minimale de C dans FRAN 1021, ou FRAN 1111, ou l'ancien FRAN 1071].

FRAN 2541 Introduction au théâtre II Cr.Hrs. 3 0.0

Étude de plusieurs oeuvres, des principaux aspects techniques et des diverses théories dramatiques. Préalables: [une note minimale de C dans FRAN 1091] et [une note minimale de C dans FRAN 1021, ou FRAN 1111, ou l'ancien FRAN 1071].

FRAN 2641 Le discours amoureux dans la littérature française Cr.Hrs. 3 0.0

Étude des diverses formes du discours amoureux et de ses stratégies rhétoriques et linguistiques dans la littérature romanesque française. Préalables: [une note minimale de C dans FRAN 1091] et [une note minimale de C dans FRAN 1021, ou FRAN 1111, ou l'ancien FRAN 1071].

FRAN 2651 La nature dans la littérature française Cr. Hrs. 3 0.0

Étude des diverses attitudes et réflexions associées à l'idée de nature. Parcours historique tenant compte de l'évolution des thèmes et permettant de suivre la filiation du discours ininterrompu sur les rapports, réels ou mythiques, de l'homme avec la nature. Préalables: [une note minimale de C dans FRAN 1091] et [une note minimale de C dans FRAN 1021, ou FRAN 1111, ou l'ancien FRAN 1071].

FRAN 3991 Création littérature: Conte et nouvelle Cr. Hrs. 3 0.0
Création de contes, de nouvelles et d'autres textes fictifs à partir d'une étude détaillée des genres narratifs. Une partie du cours sera consacrée à l'étude des divers types de phrase et des contextes où ils pourraient être employés. Préalables: une note minimale de C dans FRAN 2223 et FRAN 2303.

SPAN 1263 Espagnol intermédiaire I Cr Hrs. 3 0.0
(Laboratoire requis) Ce cours est la première partie de l'espagnol intermédiaire. L'accent est mis sur le développement des compétences intermédiaires en lecture, écriture, expression orale et compréhension orale. Les principaux objectifs sont de renforcer les compétences de communication et de renforcer la sensibilisation sociale et culturelle du monde hispanophone. Ce cours n'est pas ouvert aux étudiants parlant couramment l'espagnol. On ne peut se faire créditer SPAN 1263 et aucun de Spanish 40S, SPAN 1262, SPAN 1280, SPAN 1290, l'ancien SPAN 1260 ou l'ancien SPAN 1261 (ancien TRAD 1261). Préalables: une note minimale de C dans SPAN 1180 ou l'ancien SPAN 1181 ou l'ancien TRAD 1181 ou SPAN 1190 ou (SPAN 1171 et SPAN 1191) ou l'autorisation écrite de la professeure ou du professeur. Les étudiant(e)s ayant obtenu un crédit pour l'espagnol à l'école secondaire (40S) peuvent s'inscrire directement à ce cours.

SPAN 2551 Espagnol langue avancée et composition Cr. Hrs. 3 0.0
Le but de ce cours, destiné aux étudiantes et aux étudiants qui ont atteint une maîtrise de niveau intermédiaire de l'espagnol, est d'améliorer leur niveau de langue et l'habileté de leur expression écrite. On ne peut pas se faire créditer SPAN 2551 et SPAN 2550. Préalable: Une note minimale de C dans SPAN 1261 ou SPAN 1262 ou SPAN 1280 ou SPAN 1290 ou l'ancien SPAN 1260 ou l'ancien TRAD 1261 ou l'autorisation écrite du professeur ou de la professeure.

NET CHANGE IN CREDIT HOURS: 0.00

Program modifications:

Modifications to the following programs are outlined on the next two (2) pages:

- **Baccalauréat ès Arts spécialisé en études françaises**
- **Baccalauréat ès Arts general en études françaises**
- **Mineure en études françaises**

H - Français (FRAN / 144)

Étant donné des modifications majeures apportées au programme de FRANÇAIS À COMPTER DE SEPTEMBRE 2016, les étudiantes et les étudiants déjà inscrits ou qui voudraient s'inscrire à une mineure ou une majeure en FRANÇAIS sont priés de rencontrer un orienteur ou un professeur du département afin d'obtenir toutes les informations pertinentes à leur cheminement académique.

Le Département d'études françaises, de langues et de littératures offre des programmes diversifiés qui exposent l'étudiant ou l'étudiante aux différents domaines des études françaises, c'est-à-dire le théâtre, la littérature et l'analyse textuelle, la linguistique et l'analyse du discours.

Pour le baccalauréat avec double spécialisation français-traduction, consultez la Faculté des études professionnelles.

Pour la mineure, il faut obtenir 18 crédits, dont FRAN 1091 Rédaction universitaire, 3 autres crédits de niveau 1000 choisis parmi FRAN 1111 Grammaire et laboratoire et FRAN 1021 L'art de parler, et au moins 3 crédits de niveau 3000 ou 4000.

Pour la majeure, il faut obtenir 30 crédits, dont FRAN 1091 Rédaction universitaire, 3 autres crédits de niveau 1000 choisis parmi FRAN 1111 Grammaire et laboratoire et FRAN 1021 L'art de parler, et au moins 9 crédits de niveau 3000 ou 4000.

~~Pour la mineure et la majeure, on ne peut prendre plus de 12 crédits de niveau 1000.~~

~~(Il est à noter que le Service de perfectionnement linguistique, de concert avec les professeurs et professeurs du Département d'études françaises, de langues et de littératures, dirigera l'étudiante ou l'étudiant vers le cours qui, parmi FRAN 1021 ou FRAN 1111, lui conviendra le mieux.)~~

(Après avoir complété son profil linguistique en ligne, si l'étudiante ou l'étudiant n'est pas dirigé(e) vers le FRAN 1001, le Service de perfectionnement linguistique, de concert avec les professeurs et professeurs du Département d'études françaises, de langues et de littératures, orientera l'étudiante ou l'étudiant vers le ou les cours qui, parmi les autres cours FRAN de niveau 1000, convient ou conviennent le mieux à son parcours.)

Le cours FRAN 1001 peut être crédité aux fins d'un diplôme en arts ou en sciences, mais ne peut être reconnu aux fins des 30 crédits nécessaires dans le cadre d'une majeure en français ou des 18 crédits nécessaires dans le cadre d'une mineure en français, ainsi que pour le baccalauréat spécialisé (4 ans).

PLAN DE TRANSITION

Modification de programme – FRAN 1001

Il y a présentement une ambiguïté sur le statut du cours FRAN 1001 – *Grammaire de l'écrit* (6 crédits). L'annuaire actuel indique que ce cours peut être crédité aux fins d'un baccalauréat ès arts ou sciences. Puisqu'il s'agit d'un cours de mise à niveau du français, il ne peut cependant pas compter à l'intérieur des crédits requis pour une mineure ou une majeure en études françaises, et cette distinction n'est pas toujours comprise par les étudiants.

Si elle est adoptée, la description de cours modifiée devrait être mise en vigueur dans l'Annuaire de septembre 2017 et lèvera toute ambiguïté.

Pour éviter de pénaliser les étudiants qui auraient pu mal comprendre le statut du cours FRAN 1001 jusqu'à maintenant, nous proposons que ceux qui ont complété le cours avec succès avant septembre 2017 puissent le créditer a) ou bien dans leur baccalauréat, b) ou bien dans une majeure ou mineure d'études française, selon leur choix. Cette mesure de transition ne s'applique pas à ceux qui s'inscriront à FRAN 1001 après l'affichage de la nouvelle description de cours dans l'Annuaire de septembre 2017.

Ce plan de transition a été discuté avec la Registraire de l'USB et si la proposition est approuvée, le plan sera communiqué aux orienteurs, professeurs et étudiants.

Le doyen de la Faculté des arts
et de la Faculté des sciences



Alexandre Brassard, Ph.D.

Program modification:

Modifications to the **mineure en espagnol** are described on the next three (3) pages.

CHANGEMENTS À APPORTER À L'ANNUAIRE POUR LA MINEURE EN
ESPAGNOL :

Insérer les notes suivantes :

- a) **L'obligation de suivre le cours SPAN 2551 (Espagnol langue avancée et composition) ne s'applique pas aux étudiant(e)s inscrits à une mineure en espagnol à l'Université de Saint-Boniface.**
- b) **Les étudiant(e)s ayant obtenu un crédit pour l'espagnol à l'école secondaire (40S) peuvent s'inscrire directement au cours SPAN 1263, *Espagnol intermédiaire I*, à l'Université de Saint-Boniface.**

Les parcours possibles pour l'obtention d'une mineure en espagnol (18 crédits) à l'USB seraient les suivants:

Option A : 6 crédits d'introduction, 6 crédits d'intermédiaire, 3 crédits d'un cours de niveau 2000 et 3 crédits d'un cours de niveau 3000.

	Automne	Hiver	Total crédits
1 ^{ere} année	SPAN 1171 Introduction à l'espagnol I	SPAN 1191 Introduction à l'espagnol II	6
2 ^{eme} année	SPAN 1263 Espagnol intermédiaire I	SPAN 1273 Espagnol intermédiaire II	6
3 ^{eme} année	SPAN 2XXX <i>N'importe quel cours de niveau 2000</i>	SPAN 3XXX <i>N'importe quel cours de niveau 3000</i>	6

Option B : 6 crédits d'intermédiaire, 6 crédits de niveau 2000 et 6 crédits niveau 3000 (pour étudiant(e)s ayant obtenu un crédit 40 S à l'école secondaire ou ayant suffisamment de connaissances).

	Automne	Hiver	Total crédits
1 ^{ere} année	SPAN 1263 Espagnol intermédiaire I	SPAN 1273 Espagnol intermédiaire II	6
2 ^{eme} année	SPAN 2XXX <i>N'importe quel cours de niveau 2000</i>	SPAN 3XXX <i>N'importe quel cours de niveau 3000</i>	6
3 ^{eme} année	SPAN 2XXX <i>N'importe quel cours de niveau 2000</i>	SPAN 3XXX <i>N'importe quel cours de niveau 3000</i>	6

Option C : 3 crédits d'introduction, 6 crédits d'intermédiaire, 6 crédits de niveau 2000 et 3 crédits niveau 3000 (pour les étudiant(e)s n'ayant pas besoin de s'inscrire au niveau Introduction I, car elles et ils possèdent une base en espagnol, tel que précisé dans l'annuaire).

	Automne	Hiver	Total crédits
1 ^{ere} année		SPAN 1191 Introduction à l'espagnol II	3
2 ^{eme} année	SPAN 1263 Espagnol intermédiaire I	SPAN 1273 Espagnol intermédiaire II	6
3 ^{eme} année	SPAN 2XXX <i>N'importe quel cours de niveau 2000</i>	SPAN 3XXX <i>N'importe quel cours de niveau 3000</i>	6
4 ^{eme} année	SPAN 2XXX <i>N'importe quel cours de niveau 2000</i>		3

Option D : 3 crédits d'introduction, 6 crédits d'intermédiaire, 3 crédits de niveau 2000 et 6 crédits de niveau 3000 (pour étudiant(e)s n'ayant pas besoin de s'inscrire au niveau

Introduction I, car elles et ils possèdent une base en espagnol, tel que précisé dans l'annuaire).

	Automne	Hiver	Total crédits
1ere année		SPAN 1191 Introduction à l'espagnol II	3
2eme année	SPAN 1263 Espagnol intermédiaire I	SPAN 1273 Espagnol intermédiaire II	6
3eme année	SPAN 2XXX <i>N'importe quel cours de niveau 2000</i>	SPAN 3XXX <i>N'importe quel cours niveau 3000</i>	6
4eme année		SPAN 3XXX <i>N'importe quel cours niveau 3000</i>	3

département des sciences humaines et sociales

Deletions:

POLS 2171 Introduction au système gouvernemental canadien Cr.Hrs. 6 -6.0

Introductions:

HIST 2283 Histoire des francophones de l'Ouest canadien (C) Cr. Hrs. 3 +3.0
Étude historique et thématique du fait français de l'Ouest canadien (Man., Sask., Alb., C.-B.) de ses premiers établissements au XVIIIe siècle jusqu'aux communautés actuelles. Différents événements, processus historiques et thèmes (socio-économie, politique, culture, religion) seront analysés. La francophonie ouest-canadienne se compose de communautés minoritaires ayant des histoires propres sans être isolées les unes des autres.

POLS 2073 Introduction à la politique canadienne I: État et société 3 Cr. Hrs. 3 +3.0
Étude du processus de formation et de transformation de l'État canadien de la Confédération au contexte contemporain. Analyse du développement des formes d'intervention étatique sur la société canadienne et de leurs transformations sur la longue durée. Analyse des forces sociales, des conflits sociaux et des idéologiques politiques, tant au niveau national que régional, sur la configuration des institutions politiques canadiennes. On ne peut faire créditer POLS 2073 et l'ancien POLS 2071 ou POLS 2070.

POLS 2075 Introduction à la politique canadienne II: Institutions et politiques publiques Cr. Hrs. 3 +3.0
Étude des principales institutions politiques canadiennes, incluant la Constitution, le fédéralisme, le système électoral, les pouvoirs exécutif, législatif, judiciaire, administratif et médiatique. Le cours analysera aussi des politiques publiques centrales qui illustrent le fonctionnement et l'interaction de ces institutions. On ne peut se faire créditer POLS 2075 et l'ancien POLS 2071 ou POLS 2070.

POLS 3161 Droits de la personne et libertés civiles Cr. Hrs. 3 +3.0
Une étude des fondements des systèmes modernes de droits de la personne dans les démocraties libérales. Les thèmes abordés incluent les principaux arguments philosophiques relatifs aux droits de la personne, les principales théories des droits, ainsi que les conventions internationales et les systèmes de protection des droits de la personne. On ne peut se faire créditer POLS 3161 et POLS 3160. Préalables: [une note minimale de C dans POLS 2515 ou POLS 2510 (ou l'ancien POLS 2511) ou POLS 2070 (ou l'ancien POLS 2171) ou (POLS 2073 et POLS 2075)] ou l'autorisation de la professeure ou professeur.

POLS 3171 La Charte canadienne des droits et libertés Cr. Hrs. 3 +3.0
Une étude systématique des droits et libertés garantis par la Charte à travers les jugements de la Cour suprême. Des thèmes supplémentaires sont abordés, dont les sources historiques, politiques et intellectuelles de la protection des droits au Canada, ainsi qu'un survol des lois canadiennes relatives aux droits de la personne. On ne peut se faire créditer le POLS 3171 et POLS 3170. Préalables: [une note minimale de C dans POLS 2071 ou POLS 2070 (ou l'ancien POLS 2171) ou (POLS 2073 et POLS 2075)] ou l'autorisation de la professeure ou du professeur.

Modification:

POLS 3141 Sujet particulier en science politique Cr.Hrs. 3 0.0
Contenu du cours variable d'année en année. Contacter le département pour une description de cours. On ne peut se faire créditer POLS 3141 et POLS 3140. Le contenu variera d'année en année, il sera donc possible de se faire créditer ce cours plus d'une fois.

NET CHANGE IN CREDIT HOURS: +9.0

Faculté d'éducation et des études professionnelles

École d'administration des affaires

Introductions:

ACC 3031 Comptabilité avancée Cr. Hrs 3 +3.0
Société en nom collectif; consolidation; regroupements d'entreprises; états financiers consolidés; comptabilité des organismes sans but lucratif et des organismes du secteur public. Ce cours n'est pas offert à chaque année. On ne peut se faire créditer ACC 3031 et ACC 3030. Préalable: [ACC 2011 ou ACC 2010] et [ACC 2021 ou ACC 2020].

FIN 3411 Investissements Cr. Hrs. 3 +3.0
Introduction aux marchés de capitaux à l'efficacité des opérations de couverture, les différents concepts financiers, les modèles de fixation de prix sur les gains en capital, la théorie et la gestion de portefeuille, les options et les marchés à terme, les investissements internationaux et l'efficacité des marchés. Les étudiants apprendront les concepts financiers, manipuleront les outils et les techniques, ainsi que leur utilisation dans les prises de décision d'investissement. Les étudiants doivent avoir une bonne connaissance du logiciel Excel, les travaux du cours exigent l'analyse des données sur les fiches de calcul. On ne peut se faire créditer FIN 3411 et FIN 3410. Préalable: une note minimale de C+ dans FIN 2201 ou FIN 2200.

FIN 3481 Financement d'entreprise: Théories et pratiques Cr. Hrs. 3 +3.0
Ce cours a pour objectif d'approfondir la compréhension que les étudiants ont de la théorie financière et des techniques financières ainsi que de leurs applications aux politiques financières d'entreprise. Parmi les sujets étudiés, on trouvera: le coût du capital, le choix des investissements, la structure financière, les politiques de dividende, le crédit-bail, les options réelles, les fusions et acquisitions ainsi que d'autres sujets spéciaux. On ne peut se faire créditer FIN 3481 et FIN 3480. Préalable: une note minimale de C+ dans FIN 2201 ou FIN 2200.

FIN 4401 Pratiques de gestion financière Cr. Hrs. 3 +3.0
Ce cours a pour but d'approfondir et de consolider la compréhension des concepts de base de finance déjà acquis aux cours d'introduction et intermédiaire, et comment appliquer ces connaissances par moyen des simulations de cas et des vraies situations d'affaires. Les grands problèmes d'éthique, de la responsabilité sociale des entreprises, des règles de gouvernance d'entreprise, et du leadership seront aussi discutés. La pensée critique et le travail d'équipe joueront des rôles importants dans l'analyse de ces cas. On ne peut se faire créditer FIN 4401 et FIN 4400. Préalable: une note minimale de D dans FIN 3481 ou FIN 3480.

NET CHANGE IN CREDIT HOURS: +12.0

Program modifications:

Modifications to the following programs are outlined on the next three (3) pages:

- **baccalauréat en administration des affaires (Comptabilité – concentration)**
- **baccalauréat en administration des affaires (Généraliste – concentration)**

Program proposal:

A proposal to introduce a **Finances** concentration, in the **baccalauréat en administration des affaires**, is also outlined on the next three (3) pages.

Baccalauréat en administration des affaires

Cours et disciplines

Les cours du programme du B.A.A. sont les cours du tronc commun, les cours de concentration, les cours à option et les cours au choix.

Cours de concentration

Gestion des ressources humaines et relations industrielles

Cette concentration requiert les cours suivants :

HRIR 3451 Relations industrielles (3)

et 9 crédits parmi les cours suivants (ou d'autres cours en gestion de ressources humaines/relations industrielles avec l'autorisation écrite du directeur ou de la directrice du programme) :

HRIR 4411 Dotation et développement des ressources humaines (3)*

HRIR 4421 Rémunération (3)*

HRIR 4481 La négociation collective (3)*

HRIR 4511 Gestion de la diversité (3)*

HRIR 4521 Relations industrielles et gestion des ressources humaines comparées (3)*

HRIR 4541 Innovation en gestion des ressources humaines (3)*

Management des organisations

Cette concentration requiert 12 crédits parmi la liste des cours suivants (ou un autre cours en management des organisations, avec l'autorisation écrite du directeur ou de la directrice du programme):

INTB 3001 Gestion interculturelle (3)*

HRIR 3541 Gestion des équipes de travail (3)*

GMGT 3561 Séminaire en management (3)*

GMGT 4151 Gestion des organisations sans but lucratif (3)*

HRIR 4511 Gestion de la diversité (3)*

GMGT 4551 Développement d'habiletés de gestionnaire (3)*

ENTR 4511 Entrepreneurship et création d'entreprise (3)*

OPM 4611 Gestion de projets (3)*

Gestion internationale

Cette concentration requiert les cours suivants :

FIN 3451 Finance internationale (3)*

INTB 2201 Introduction au management international (3)

MKT 3301 Marketing international (3)*

+ 3 crédits parmi les cours suivants (ou un autre cours en gestion internationale, avec l'autorisation écrite du directeur ou de la directrice du programme) :

INTB 3001 Gestion interculturelle (3)*
MGMT 4121 Commerce international (3)*
HRIR 4521 Relations industrielles et gestion des ressources humaines comparées (3)*
INTB 4581 Problèmes contemporains en gestion internationale (3)*

Marketing

Cette concentration requiert les cours suivants :

MKT 3221 Recherche en marketing (3)*
MKT 3231 Comportement du consommateur (3)*
MKT 4211 Gestion du marketing (3)*

+ 3 crédits parmi la liste des cours suivants (ou un autre cours en marketing, avec l'autorisation écrite du directeur ou de la directrice du programme) :

MKT 3291 Publicité (3)*
MKT 3301 Marketing international (3)*
ENTR 4511 Entrepreneurship et création d'entreprise (3)*
MKT 4271 Administration des ventes (3)*

Comptabilité

Cette concentration requiert **12 crédits parmi la liste des** les cours suivants:

ACC 2011 Comptabilité intermédiaire – Actifs (3)*
ACC 2021 Comptabilité intermédiaire – Capitaux propres et passifs (3)*
ACC 3041 Comptabilité de coûts (3)*
~~ACC 4031 Théorie comptable (3)~~
ACC 3031 Comptabilité avancée (3)*

Et au choix ACC 4031 Théorie comptable (3)*

Généraliste

On doit suivre 3 crédits de la liste de chacune des concentrations offertes, pour un total de 12 crédits.

Finances : Cette concentration requiert **12 crédits parmi la liste des** les cours suivants:

FIN 2201 Gestion financière (3)*
FIN 3411 Investissements (3)*
FIN 3481 Financement d'entreprise : théories et pratiques (3)*

FIN 4401 Pratiques de gestions financières (3)*

Et au choix FIN 3451 Finances internationales (3)*

Généraliste On doit suivre 3 crédits **choisis à partir** de la liste de ~~chacune des six~~ quatre concentrations différentes ~~offertes~~, pour un total de 12 crédits.

* Cours en rotation; les suivre l'année où ils sont offerts.

Faculté d'éducation

Introduction:

EDUB 5773 Identification des besoins et intervention pédagogique inclusive +3.0
en numératie Cr.Hrs. 3

Méthodes d'évaluation des besoins particuliers des élèves dans le domaine de la numératie; stratégies et ressources pour différencier, adapter, modifier ou individualiser l'enseignement et l'apprentissage des mathématiques. On ne peut se faire créditer EDUB 5773 et EDUB 5771.

NET CHANGE IN CREDIT HOURS: +3.0

Program modifications:

Modifications to the **post-baccalauréat en éducation** are outlined on the next four (4) pages.

Section D : Academic Calendar Content

Conditions d'obtention de diplôme

réussir tous les cours avec une note minimale de C et maintenir une moyenne cumulative de 2,0;

terminer le programme au plus tard six ans après la date d'admission (on ne peut faire compter les cours suivis plus de six ans avant la date d'obtention du diplôme d'admission au programme);

suivre un minimum de 12 crédits au niveau 5000 en éducation;

possibilité de suivre un maximum de 18 crédits en éducation de niveau 1000 à 4000;

possibilité de suivre un maximum de 18 crédits à l'extérieur de la Faculté d'éducation de niveau 1000 ou plus dont un maximum de 6 crédits au niveau 1000;

remplir un formulaire de demande de diplôme au moment de la dernière inscription à un cours. L'OBTENTION D'UN DIPLÔME N'EST PAS AUTOMATIQUE;

l'inscription aux cours de deuxième ou de troisième cycle n'est pas permise au niveau du DPBE.

Faculté d'éducation

Proposition concernant la révision du profil linguistique

Section D : Academic Calendar Content

Profil langagier

La Faculté d'éducation impose des exigences linguistiques en raison de l'importance que revêt la qualité du français parlé et écrit de ses diplômés. Comme la langue constitue un véhicule d'apprentissage, peu importe la discipline enseignée, il est essentiel que les finissants et finissantes de la Faculté d'éducation puissent s'exprimer clairement et correctement, d'autant plus qu'ils serviront de modèles à leurs élèves.

Avant d'entrer à la Faculté d'éducation, toute candidate ou tout candidat doit subir l'entrevue visant à évaluer les compétences langagières à l'oral et le Test de maîtrise du français écrit. La Faculté d'éducation refuse toute personne qui obtient la cote 4 à l'entrevue ou au Test de maîtrise du français écrit.

Pour être admis à la Faculté d'éducation, il faut avoir réussi :

le Test de maîtrise du français écrit (cote 1, 2 ou 3);

l'entrevue (cote 1, 2 ou 3).

Avec l'obtention de la cote 3 à l'entrevue ou au Test de maîtrise du français écrit, il est possible d'être admis à la Faculté d'éducation à condition de suivre un plan de perfectionnement qui comprend obligatoirement un ou plusieurs des éléments suivants :

suivre un ou des cours de français désignés par le Service de perfectionnement linguistique (SPL) avant son entrée à la Faculté;

suivre le cours de 3 crédits EDUB 2211 Perfectionnement du français oral et écrit avec séances de travaux dirigés durant sa première année en éducation (N. B. : Les cours de perfectionnement langagier ne comptent pas parmi les 60 crédits du baccalauréat en éducation);

~~toute autre mesure de perfectionnement recommandée par la Faculté ou par le SPL.~~

La Faculté d'éducation se réserve le droit d'accepter ou de refuser toute candidate ou tout candidat admissible. De plus, la Faculté d'éducation se réserve le droit d'accepter d'autres parcours de perfectionnement.

Exigences

Admissibilité à l'année de certification

Pour s'inscrire en année de certification, l'étudiante ou l'étudiant devra avoir satisfait à toutes les exigences de la 1^{re} année dans le programme de deux ans, ~~Il devra également avoir obtenu une attestation de mérite ou d'excellence en français écrit et avoir répondu aux exigences de l'expression orale en français avoir répondu ainsi qu'aux critères de la « Politique sur le casier judiciaire et le Registre concernant les mauvais traitements » et le cas échéant, avoir répondu aux exigences du plan de perfectionnement linguistique.~~

Exigences linguistiques

Toute étudiante et tout étudiant doit suffisamment maîtriser la langue française. L'évaluation des compétences langagières se fait par l'entremise du Test de maîtrise du français écrit et d'une entrevue orale ~~lors de l'admission. L'étudiante ou l'étudiant doit obtenir une cote de 1 ou 2 dans le test ainsi que dans l'entrevue.~~

Une fois admis à la Faculté d'éducation les étudiantes et les étudiants auront l'occasion, s'ils le désirent, de passer à nouveau le test afin d'obtenir une attestation d'excellence ou de mérite. ~~Les étudiants ont trois occasions de passer le test et l'entrevue : lors du processus d'admission, à la fin de la première année du B. Ed. et lors de la dernière année d'études au B.Ed.~~

~~À la fin de sa première année ou de sa deuxième année, il faut avoir obtenu :~~

- ~~* — la cote 1 ou 2 au Test de maîtrise du français écrit; et~~
- ~~* — la cote 1 ou 2 à l'entrevue.~~

~~Dans des situations de dernier recours, le SPL évalue le dossier linguistique au terme de la deuxième année du baccalauréat en éducation en vue de décerner, le cas échéant, les attestations de mérite et d'excellence.~~

~~De façon générale, le dossier linguistique comprend les éléments suivants :~~

- ~~* — la cote obtenue au Test de maîtrise du français écrit;~~
- ~~* — la note obtenue à l'entrevue;~~

- *— les notes obtenues dans les divers cours de langue et de littérature françaises suivis à l'USB (les notes égales ou supérieures à B sont considérées au niveau du mérite);
- *— la note obtenue au cours EDUB 2211 Perfectionnement du français oral et écrit (les notes égales et supérieures à B sont considérées au niveau du mérite);
- *— le nombre d'heures de formation reçues au Centre de tutorat;
- *— la préparation d'un plan de perfectionnement en collaboration avec la coordonnatrice du SPL à la rentrée et le respect de ce plan pendant la durée de ses études;
- *— tout autre renseignement pertinent. (Le SPL encourage les étudiantes et étudiants à informer son personnel de leurs initiatives s'ils désirent que celles-ci soient inscrites à leur dossier.)

Avant de procéder à l'évaluation du dossier, la coordonnatrice du SPL demande à deux membres du corps professoral qui connaissent bien les exigences linguistiques de l'Université et qui sont en mesure de témoigner de la qualité du français de l'étudiante ou de l'étudiant de verser au dossier linguistique une évaluation d'impression générale de la qualité du français écrit dans les travaux universitaires de ce dernier. Un formulaire à cette fin leur est fourni. C'est donc en consultation avec ces deux membres du corps professoral que la coordonnatrice évalue le dossier linguistique de la personne concernée.

Au cours du mois de mai, le SPL et la Faculté d'éducation procèdent à l'évaluation du dossier linguistique de toutes les étudiantes et de tous les étudiants en deuxième année qui ont rempli leurs engagements. Si c'est l'étudiante ou l'étudiant qui demande l'évaluation de son dossier, on lui impose des frais de 75 \$.

Test de maîtrise du français écrit et attestations de mérite ou d'excellence en français

L'objet du Test de maîtrise du français écrit est de mesurer les compétences en français en vue de décerner les attestations de mérite et d'excellence à ceux et à celles qui maîtrisent suffisamment le français. Pour de plus amples renseignements sur le format du test, consulter le document dans une des deux pages du baccalauréat en éducation.

Conditions d'obtention de diplôme

Le B. Ed. doit être terminé au plus tard 6 ans après la date d'admission.

— On doit avoir obtenu la cote 1 ou 2 au Test de maîtrise du français écrit.

On doit avoir obtenu la cote 1 ou 2 à l'entrevue orale.

Program modifications:

Modifications to the **post-baccalauréat en éducation** are outlined on the next four (4) pages.

Faculté d'éducation

Proposition concernant la révision du profil linguistique

Préambule : La Faculté d'éducation propose une révision de la section «profil linguistique» de l'annuaire pour mieux refléter la réalité en matière d'exigences linguistiques à la Faculté d'éducation.

Proposition : Que les sections de l'annuaire portant sur le profil langagier soient modifiées de la façon suivante :

(appuyée à l'unanimité par la Faculté d'éducation le 1^{er} mars 2016)

- Les ajouts sont en caractères gras et les suppressions sont barrées

Profil langagier

La Faculté d'éducation impose des exigences linguistiques en raison de l'importance que revêt la qualité du français parlé et écrit de ses diplômés. Comme la langue constitue un véhicule d'apprentissage, peu importe la discipline enseignée, il est essentiel que les finissants et finissantes de la Faculté d'éducation puissent s'exprimer clairement et correctement, d'autant plus qu'ils serviront de modèles à leurs élèves.

Avant d'entrer à la Faculté d'éducation, toute candidate ou tout candidat doit subir l'entrevue visant à évaluer les compétences langagières à l'oral et le Test de maîtrise du français écrit. La Faculté d'éducation refuse toute personne qui obtient la cote 4 à l'entrevue ou au Test de maîtrise du français écrit.

Pour être admis à la Faculté d'éducation, il faut avoir réussi :

le Test de maîtrise du français écrit (cote 1, 2 ou 3);

l'entrevue (cote 1, 2 ou 3).

Avec l'obtention de la cote 3 à l'entrevue ou au Test de maîtrise du français écrit, il est possible d'être admis à la Faculté d'éducation à condition de suivre un plan de perfectionnement qui comprend obligatoirement un ou plusieurs des éléments suivants :

suivre un ou des cours de français désignés par le Service de perfectionnement linguistique (SPL) avant son entrée à la Faculté;

suivre le cours de 3 crédits EDUB 2211 Perfectionnement du français oral et écrit avec séances de travaux dirigés durant sa première année en éducation (N. B. : Les cours de

perfectionnement langagier ne comptent pas parmi les 60 crédits du baccalauréat en éducation);

toute autre mesure de perfectionnement recommandée par la Faculté ou par le SPL.

La Faculté d'éducation se réserve le droit d'accepter ou de refuser toute candidate ou tout candidat admissible. De plus, la Faculté d'éducation se réserve le droit d'accepter d'autres parcours de perfectionnement.

Exigences

Admissibilité à l'année de certification

Pour s'inscrire en année de certification, l'étudiante ou l'étudiant devra avoir satisfait à toutes les exigences de la 1^{re} année dans le programme de deux ans, il devra également avoir obtenu une attestation de mérite ou d'excellence en français écrit et avoir répondu aux exigences de l'expression orale en français avoir répondu ainsi qu'aux critères de la « Politique sur le casier judiciaire et le Registre concernant les mauvais traitements » et le cas échéant, avoir répondu aux exigences du plan de perfectionnement linguistique.

Exigences linguistiques

Toute étudiante et tout étudiant doit suffisamment maîtriser la langue française. L'évaluation des compétences langagières se fait par l'entremise du Test de maîtrise du français écrit et d'une entrevue orale lors de l'admission. L'étudiante ou l'étudiant doit obtenir une cote de 1 ou 2 dans le test ainsi que dans l'entrevue.

Une fois admis à la Faculté d'éducation les étudiantes et les étudiants auront l'occasion, s'ils le désirent, de passer à nouveau le test afin d'obtenir une attestation d'excellence ou de mérite. Les étudiants ont trois occasions de passer le test et l'entrevue : lors du processus d'admission, à la fin de la première année du B. Ed. et lors de la dernière année d'études au B. Ed.

À la fin de sa première année ou de sa deuxième année, il faut avoir obtenu :

- la cote 1 ou 2 au Test de maîtrise du français écrit; et
- la cote 1 ou 2 à l'entrevue.

Dans des situations de dernier recours, le SPL évalue le dossier linguistique au terme de la deuxième année du baccalauréat en éducation en vue de décerner, le cas échéant, les attestations de mérite et d'excellence.

De façon générale, le dossier linguistique comprend les éléments suivants :

- la cote obtenue au Test de maîtrise du français écrit;
- la note obtenue à l'entrevue;
- les notes obtenues dans les divers cours de langue et de littérature françaises suivis à l'USB (les notes égales ou supérieures à B sont considérées au niveau du mérite);
- la note obtenue au cours EDUB 2211 Perfectionnement du français oral et écrit (les notes égales et supérieures à B sont considérées au niveau du mérite);
- le nombre d'heures de formation reçues au Centre de tutorat;
- la préparation d'un plan de perfectionnement en collaboration avec la coordonnatrice du SPL à la rentrée et le respect de ce plan pendant la durée de ses études;
- tout autre renseignement pertinent. (Le SPL encourage les étudiantes et étudiants à informer son personnel de leurs initiatives s'ils désirent que celles-ci soient inscrites à leur dossier.)

Avant de procéder à l'évaluation du dossier, la coordonnatrice du SPL demande à deux membres du corps professoral qui connaissent bien les exigences linguistiques de l'Université et qui sont en mesure de témoigner de la qualité du français de l'étudiante ou de l'étudiant de verser au dossier linguistique une évaluation d'impression générale de la qualité du français écrit dans les travaux universitaires de ce dernier. Un formulaire à cette fin leur est fourni. C'est donc en consultation avec ces deux membres du corps professoral que la coordonnatrice évalue le dossier linguistique de la personne concernée.

Au cours du mois de mai, le SPL et la Faculté d'éducation procèdent à l'évaluation du dossier linguistique de toutes les étudiantes et de tous les étudiants en deuxième année qui ont rempli leurs engagements. Si c'est l'étudiante ou l'étudiant qui demande l'évaluation de son dossier, on lui impose des frais de 75 \$.

Test de maîtrise du français écrit et attestations de mérite ou d'excellence en français

L'objet du Test de maîtrise du français écrit est de mesurer les compétences en français en vue de décerner les attestations de mérite et d'excellence à ceux et à celles qui maîtrisent suffisamment le français. Pour de plus amples renseignements sur le format du test, consulter le document dans une des deux pages du baccalauréat en éducation.

Conditions d'obtention de diplôme

Le B. Ed. doit être terminé au plus tard 6 ans après la date d'admission.

~~— On doit avoir obtenu la cote 1 ou 2 au Test de maîtrise du français écrit.~~

~~On doit avoir obtenu la cote 1 ou 2 à l'entrevue orale.~~

Faculté des sciences

département des sciences mathématiques - physique

Introductions:

MATH 3331 Algèbre computationnelle Cr.Hrs. 3 +3.0
Une introduction à l'utilisation des ordinateurs pour le calcul symbolique mathématique, incluant la résolution des systèmes non linéaires et les équations différentielles. Un logiciel approprié sera utilisé pour explorer les applications. On ne peut se faire créditer MATH 3331 et MATH 3330. Préalable: une note minimale de C dans MATH 2091 ou MATH 2090 (ou les anciens MATH 2301, MATH 2300, MATH 2352) ou l'autorisation écrite du professeur ou de la professeure.

MATH 3361 Combinatoire 2 Cr.Hrs. 3 +3.0
Sujets avancés en combinatoire, incluant fonctions génératrices, théorie élémentaire de la conception, récurrences, chaînes et antichaînes, énumération de Pólya. Ce cours est exigeant et s'adresse à des étudiantes et étudiants dans des disciplines riches en mathématiques. On ne peut se faire créditer MATH 3361 et MATH 3360 (ou l'ancien MATH 4400). Préalable: une note minimale de C dans MATH 2031 ou MATH 2030 (ou l'ancien MATH 3400).

Modifications:

COMP 1011 Introduction à l'informatique I Cr.Hrs.3 0.0
(Laboratoire requis) Introduction à la programmation par un langage procédural évolué. On ne peut se faire créditer COMP 1011 et COMP 1010, COMP 1013 ou COMP 1012. Préalable: n'importe quel cours de mathématiques de 12e année ou de niveau 40S, ou l'équivalent.

COMP 1021 Introduction à l'informatique II Cr.Hrs.3 0.0
(Laboratoire requis) Introduction à la programmation orientée objet, aux structures de données informatiques et à l'algorithmique. On ne peut se faire créditer COMP 1021 et COMP 1020. Préalable: [Une note minimale de C dans un de COMP 1011, COMP 1010, COMP 1013 ou COMP 1012] ou [Informatique 40S (75%) et n'importe quel cours de mathématiques de 12e année ou de niveau 40S, ou l'équivalent].

MATH 1301 Géométrie vectorielle et algèbre linéaire Cr.Hrs. 3 0.0
(Laboratoire requis) Introduction aux vecteurs, aux matrices, aux systèmes d'équations linéaires et à la géométrie à trois dimensions. On ne peut se faire créditer MATH 1301 et MATH 1211, MATH 1210, MATH 1220, MATH 1300 ou MATH 1310 (ou l'ancien MATH 1680). Préalable: [une note minimale de 60 % dans Mathématiques 40S (pré-calcul) (ou l'ancien Mathématiques 40S (300))] ou [une note minimale de C dans MATH 0401 ou MSKL 100 offert par la Extended Education de l'Université du Manitoba].

MATH 1501 Introduction au calcul Cr.Hrs. 3 0.0
(Laboratoire requis) Différentiation et intégration des fonctions élémentaires avec application à la théorie des extrêmes, aux taux de changements ainsi qu'aux aires et aux volumes. On ne peut se faire créditer MATH 1501 et MATH 1230, MATH 1500, MATH 1510, MATH 1520 ou MATH 1690 (ou les anciens MATH 1530, MATH 1680). Préalable : [une note minimale de 60 % dans Mathématiques 40S (pré-calcul) ou l'ancien Mathématiques 40S (300)] ou [une note minimale de C dans MATH 0401 ou MSKL 100 offert par la Extended Education de l'Université du Manitoba].

MATH 1701 Calcul II Cr.Hrs. 3 0.0
 (Laboratoire requis) Théories et techniques d'intégration, tracés de courbes, calculs de volume, de longueurs d'arc, d'aires et des dérivées partielles. On ne peut se faire créditer MATH 1701 et MATH 1232, MATH 1690, MATH 1700 ou MATH 1710 (ou l'ancien MATH 1730). Préalable: Une note minimale de C dans un de MATH 1230, MATH 1501, MATH 1500, MATH 1510, MATH 1520 (ou les anciens MATH 1530, MATH 1680).

MATH 2021 Algèbre 1 Cr.Hrs. 3 0.0
 (Laboratoire requis) Ce cours est destiné aux étudiantes et aux étudiants dans des disciplines riches en mathématiques. Groupes, anneaux, corps: concepts élémentaires et exemples. On ne peut se faire créditer MATH 2021 et MATH 2020 (ou l'ancien MATH 3350). Préalable: [une note minimale de C dans MATH 2091 ou MATH 2090 (ou l'ancien MATH 2352)] ou [une note minimale de B dans l'ancien MATH 2301 (ou l'ancien MATH 2300)].

MATH 2081 Introduction à l'analyse Cr.Hrs. 3 0.0
 (Laboratoire requis) Ce cours est destiné aux étudiantes et aux étudiants dans des disciplines riches en mathématiques. Propriétés fondamentales du système de nombres réels en tant que corps ordonné complet, propriété archimédienne, existence de racines carrées, densité des nombres rationnels, non-dénombrabilité des nombres réels, suites, sous-suites, théorèmes sur les limites, monotonie, théorème de Balzano-Weierstrass, suites de Cauchy, traitement rigoureux des limites, continuité des fonctions à une ou plusieurs variables, continuité uniforme et applications. On ne peut se faire créditer MATH 2081 et MATH 2080 (ou l'ancien MATH 2202). Préalables: [(une note minimale de C dans MATH 1232 ou MATH 1690) ou (une note minimale de B dans un de MATH 1701, MATH 1700 ou MATH 1710)] et [(une note minimale de C dans MATH 1220) ou (une note minimale de B dans MATH 1301 ou MATH 1300)] et [une note minimale de C dans MATH 1241 ou MATH 1240].

MATH 2091 Algèbre linéaire 2 Cr.Hrs. 3 0.0
 (Laboratoire requis) Ce cours est destiné aux étudiantes et aux étudiants dans des disciplines riches en mathématiques. Espaces vectoriels abstraits, transformations linéaires, bases et systèmes de coordonnées, représentations matricielles, orthogonalisation, diagonalisation, théorème des axes principaux. On ne peut se faire créditer MATH 2091 et MATH 2090 (ou les anciens MATH 2301, MATH 2300, MATH 2352). Préalable: [une note minimale de C dans MATH 1220] ou [une note minimale de B dans MATH 1301 ou MATH 1300].

MATH 2151 Calcul à plusieurs variables Cr.Hrs. 3 0.0
 (Laboratoire requis) Ce cours est destiné aux étudiantes et aux étudiants dans des disciplines riches en mathématiques. Introduction aux fonctions à plusieurs variables des points de vue algébrique et géométrique telles qu'on les retrouve dans le calcul des courbes et surfaces de niveaux, les dérivations partielles et le calcul du gradient, de la divergence et du rotationnel. On aborde aussi les problèmes de Min/Max, le calcul des intégrales doubles, triples, curvilignes et de surfaces, les fonctions vectorielles, les champs de vecteurs et leurs applications ainsi que les théorèmes de Green, de Stokes et de la divergence. On ne peut se faire créditer MATH 2151 et MATH 2130, MATH 2150, MATH 2720 ou MATH 2721 (ou l'ancien MATH 2750). Préalable: une note minimale de C dans MATH 2081 ou MATH 2080 (ou l'ancien MATH 2202).

MATH 2721 Calcul à plusieurs variables Cr.Hrs. 3 0.0
 Calcul différentiel et intégral à plusieurs variables. On ne peut se faire créditer MATH 2721 et MATH 2720, MATH 2151, MATH 2150 ou MATH 2130 (ou les anciens MATH 2751, MATH 2750, MATH 2110). Préalables: [une note minimale de C dans un de MATH 1301, MATH 1300,

MATH 1220 ou MATH 1310] et [une note minimale de C dans un de MATH 1701, MATH 1700, MATH 1232, MATH 1690, MATH 1710, ou l'ancien MATH 1730].

STAT 1001 Analyse statistique de base 1 Cr.Hrs.3 0.0
(Laboratoire requis) Introduction aux principes fondamentaux de la statistique et aux procédures utilisées en analyse de données. Étude de la cueillette de données, de l'affichage et de l'élagage de données, des relations entre variables, des distributions échantillonnelles, de l'estimation, des tests de signification et de l'inférence pour les moyennes. Ce cours n'est pas recommandé pour les étudiantes et les étudiants qui veulent poursuivre dans un programme de statistique ou dans une autre discipline qui requiert de bonnes habiletés en méthodes statistiques (voir la description de STAT 1150). On ne peut se faire créditer STAT 1001 et STAT 1000, STAT 1150 ou STAT 2220. Préalable: N'importe quel cours de mathématiques de 12e année ou de niveau 40S, ou l'équivalent.

STAT 2001 Analyse statistique de base 2 Cr.Hrs.3 0.0
(Laboratoire requis) Étude des procédures d'estimation et de tests d'hypothèses pour les moyennes et les proportions dans les contextes d'échantillonnage à une, deux ou plusieurs variables. Introduction à l'analyse de variance, à la régression et à la corrélation. Les méthodes non paramétriques, la conception d'expériences, les modèles probabilistes. Ce cours n'est pas recommandé pour les étudiantes et les étudiants qui veulent poursuivre dans un programme de statistique ou dans une autre discipline qui requiert de bonnes habiletés en méthodes statistiques (voir la description de STAT 2150). On ne peut se faire créditer STAT 2001 et STAT 2000 ou STAT 1150. Préalable: une note minimale de C dans STAT 1001 ou STAT 1000.

PHYS 2261 Optique Cr.Hrs.3 0.0
(Laboratoire requis) Étude de la réfraction, de la réflexion, des systèmes de lentilles simples et des systèmes optiques, de la dispersion, de l'achromatisme. Vue élémentaire de la diffraction, de l'interférence et de la polarisation. On ne peut se faire créditer PHYS 2261 et PHYS 2260. Préalables: [une note minimale de C dans PHYS 1051 ou PHYS 1050] ou [une note minimale de C+ dans PHYS 1021 ou PHYS 1020] et [une note minimale de C dans un de MATH 1230, MATH 1501, MATH 1500, MATH 1510, ou MATH 1520]. Prérequis ou concomitants: [un de PHYS 1031, PHYS 1030, PHYS 1071, PHYS 1070 ou PHYS 2152] et [un de MATH 1220, MATH 1301, MATH 1300 ou MATH 1310] et [un de MATH 1232, MATH 1690, MATH 1701, MATH 1700 ou MATH 1710].

NET CHANGE IN CREDIT HOURS: +6.0

Program modifications:

Modifications to the **baccalauréate ès sciences général** are outlined on the next four (4) pages.

Description des règlements du programme – Program Requirements - Revised Chart

Faculté des sciences
Université de Saint-Boniface

Baccalauréat ès sciences général
Proposition de modifications des règlements
Entrée en vigueur proposée : automne 2017

Une étudiante ou un étudiant doit suivre un total de 90 crédits répartis de la façon suivante :

- a. 24 crédits de cours d'introduction en sciences. On doit choisir 18 crédits à partir de la liste de cours d'introduction du groupe A, soit 6 crédits dans trois disciplines différentes. De plus, on doit choisir 6 crédits additionnels qui peuvent être compris dans le groupe A ou le groupe B.

N. B. : Un maximum de 6 crédits peut être choisi dans une discipline pour obtenir les 24 crédits de cours d'introduction.

Groupe A

Astronomie	6 crédits parmi PHYS 1810, PHYS 1820 et PHYS 1830
Biologie	BIOL 1021* et BIOL 1031*
Chimie	CHEM 1301* et CHEM 1311*
Informatique	COMP 1011* (COMP 1013* ¹) et COMP 1021*
Mathématiques	6 crédits parmi les suivants : <ul style="list-style-type: none">• MATH 1200² (ou MATH 1211*³), MATH 1241*• 3 crédits parmi : MATH 1211*², MATH 1301*², MATH 1220² (ou l'équivalent)• 3 crédits parmi : MATH 1501*, MATH 1230 (ou l'équivalent)• 3 crédits parmi : MATH 1701*, MATH 1232 (ou l'équivalent)• MATH 1241*
Microbiologie	MBIO 1011* et MBIO 2021*
Physique	PHYS 1021* ou PHYS 1051*; et PHYS 1031* ou PHYS 1071*
Statistiques	STAT 1001* ⁴ (ou STAT 2220 ³) et STAT 2001* ⁴ ; ou STAT 1150 ⁴ et STAT 2150 ⁴

Groupe B

BIOL 1411*, FORS 2000

* Offerts à l'USB

Notes importantes :

1. COMP 1013 est un cours destiné aux étudiantes et aux étudiants voulant s'orienter en ingénierie. On ne peut se faire créditer COMP 1013 et COMP 1011.
2. MATH 1211 est un cours destiné aux étudiantes et aux étudiants voulant s'orienter en ingénierie. On ne peut se faire créditer MATH 1211 et MATH 1200, MATH 1220 ou MATH 1301.
3. STAT 2220 est un cours destiné aux étudiantes et aux étudiants voulant s'orienter en ingénierie. On ne peut se faire créditer STAT 2220 et STAT 1001 ou STAT 1150.
4. Il est recommandé aux étudiantes et aux étudiants qui désirent suivre leurs cours avancés en sciences en statistiques ou en mathématiques de suivre STAT 1150 et STAT 2150 au lieu de STAT 1001 et STAT 2001. On ne peut se faire créditer [STAT 1001 et STAT 2001] et STAT 1150.

- b. 36 crédits de cours avancés en sciences (niveaux 2000, 3000 ou 4000). On doit choisir 18 crédits dans deux disciplines différentes avec au moins 6 crédits de niveau 3000 ou 4000. À l'USB, on doit choisir deux des quatre disciplines suivantes : chimie, mathématiques, microbiologie ou sciences biologiques. Depuis l'automne 2009, une étudiante ou un étudiant peut décider de suivre la totalité de ses 36 crédits de cours avancés en sciences biologiques tant que les cours spécifiques exigés sont complétés avec succès.
- c. Un minimum de 12 crédits doit être obtenu hors de la Faculté des sciences (6 crédits de français + 6 autres crédits). Un maximum de 30 crédits peut être suivi hors de la Faculté des sciences et être utilisé pour le B.Sc. général.
- d. 18 crédits facultatifs (choisis dans la Faculté des sciences ou dans d'autres facultés).

RÉSUMÉ DES CHANGEMENTS ET JUSTIFICATIONS:

Des modifications ont été apportées à la liste de cours de mathématiques et de statistiques, tel que modifié à l'University of Manitoba.

- 1) MATH 1200, ajout d'une référence à la note 2
- 2) Suppression de MATH 1211 et MATH 1241 à la première puce. Ces deux cours ont été placés dans les puces subséquentes puisque ces cours ne sont pas équivalents à MATH 1200.
- 3) Ajout de MATH 1211 à la deuxième puce.
- 4) Ajout d'une cinquième puce pour MATH 1241.
- 5) Ajout des nouveaux cours de statistiques (STAT 1150 et STAT 2150).
- 6) Ajout de STAT 1150 à la note 3.
- 7) Ajout de la note 4 : « Il est recommandé aux étudiantes et aux étudiants qui désirent suivre leurs cours avancés en sciences en statistiques ou en mathématiques de suivre STAT 1150 et STAT 2150 au lieu de STAT 1001 et STAT 2001. On ne peut se faire créditer [STAT 1001 et STAT 2001] et STAT 1150. »

Modification de programme – Current and Revised Programs Charts

Faculté des sciences
Université de Saint-Boniface

Baccalauréat ès sciences général
Proposition de modifications de programme
Entrée en vigueur proposée : automne 2017

Baccalauréat ès sciences général – 90 crédits

Pour les étudiantes et les étudiants admis à Université 1 à partir de 2007-2008, le cheminement suivant permet l'obtention du Baccalauréat ès sciences général en 3 ANS. Un cheminement différent prolongera la durée du programme d'études.

Les étudiantes et étudiants admis à Université 1 avant 2007-2008 devraient communiquer avec le Registrariat ou un conseiller en orientation en ce qui concerne les exigences du Baccalauréat ès sciences général.

Année 1 (ou Université 1) – 30 crédits	Année 2 – 30 crédits	Année 3 – 30 crédits
<ul style="list-style-type: none"> • 24 crédits de cours d'introduction en sciences • 6 crédits de français¹ <p>Nous recommandons les cours suivants :</p> <p>BIOL 1021 (3) L et BIOL 1031 (3) L CHEM 1301 (3) L et CHEM 1311 (3) L MATH 1501 (3) L² et MATH 1701 (3) L² PHYS 1021 (3) L ou PHYS 1051 (3) L et PHYS 1031 (3) L ou PHYS 1071 (3) L <i>(Les cours de physique sont obligatoires pour passer au Baccalauréat ès sciences avec majeure conjointe en biochimie-microbiologie et pour certains programmes de médecine.)</i></p>	<ul style="list-style-type: none"> • 36 crédits de cours avancés en sciences (niveaux 2000, 3000 ou 4000)³ • 18 crédits facultatifs⁴ • 6 crédits obtenus hors des sciences¹ 	

Notes :

1. Un minimum de 12 crédits doit être obtenu hors de la Faculté des sciences (6 crédits de français + 6 autres crédits).
2. MATH 1230 ou MATH 1510 peut être suivi au lieu de MATH 1501; MATH 1232 ou MATH 1710 peut être suivi au lieu de MATH 1701.
3. Parmi les 36 crédits de cours avancés en sciences, il faut suivre un minimum de 6 crédits de niveaux 3000 ou 4000.
4. Les 18 crédits facultatifs peuvent être suivis à la Faculté des Sciences ou dans d'autres facultés.

En 2^e et 3^e années, il faut suivre 36 crédits de cours avancés en sciences (niveaux 2000, 3000 ou 4000) avec un minimum de 6 crédits de niveaux 3000 ou 4000. À l'Université de Saint-Boniface, on peut obtenir ses 36 crédits de cours avancés en sciences de deux façons :

1. en choisissant de suivre 18 crédits dans deux des quatre disciplines suivantes : chimie, mathématiques, microbiologie ou sciences biologiques
2. en choisissant de suivre les 36 crédits de cours avancés en sciences biologiques tant que les cours spécifiques exigés sont complétés avec succès.

SCIENCES BIOLOGIQUES

Année 1 (ou Université 1)	Années 2 et 3
BIOL 1021 (3) L BIOL 1031 (3) L +18 crédits de cours d'introduction en sciences	18 crédits en sciences biologiques de niveau 2000, 3000 ou 4000 (sujet à l'exigence de la Faculté qu'au moins 6 crédits parmi les 36 crédits de cours avancés en sciences soient de niveau 3000 ou 4000) ou Depuis 2009, on peut choisir de suivre ses 36 crédits en sciences biologiques, en respectant les exigences suivantes : 1) Cours obligatoires : BIOL 2301 ^{1,2} , BIOL 2501 et BIOL 2521 2) Un des cours suivants : BIOL 2201 ¹ ou BIOL 2231 ¹ 3) Un des cours suivants : BIOL 2261 ¹ , BIOL 2242, ou BIOL 2240 ou BIOL 2262 4) 21 crédits optionnels en sciences biologiques avec au moins 6 crédits de niveau 3000 ou 4000 ³

Notes :

1. Cours requis offerts en rotation; il faut les suivre l'année où ils sont offerts.
2. STAT 1001 est préalable ou concomitant à BIOL 2301.
3. Certains cours optionnels sont offerts en rotation, à tous les 2 ans; il faut les suivre l'année où ils sont offerts.

RÉSUMÉ DES CHANGEMENTS ET JUSTIFICATIONS:

- 1) Nous avons ajouté BIOL 2262 à la liste des cours qui peuvent être suivis (au numéro 3).

Report of the Senate Committee on Instruction and Evaluation RE: Revised Academic Regulations concerning Student Progress and Academic Status, Faculty of Engineering

Preamble:

1. The terms of reference for the Senate Committee on Instruction and Evaluation (SCIE) are found on the web at:
http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/502.htm
2. At its meeting on April 28, 2016, the Committee considered a proposal from the Faculty of Engineering to make an editorial change to its regulations on Student Progress and Academic Status, particularly with regard to the regulation, *Required to Withdraw*.

Observations:

1. The Faculty of Engineering is proposing an amendment to existing academic regulations concerning Student Progress and Academic Status, for undergraduate programs in the Faculty of Engineering. In particular the wording of the regulation, *Required to Withdraw*, would be revised to clarify that students who have been required to withdraw can continue to register for courses offered by faculties during the period they are on suspension, including courses that might contribute toward their Engineering degree. Students on suspension are only ineligible to register for courses taught by the Faculty of Engineering.

Recommendation:

The Senate Committee on Instruction and Evaluation recommends:

THAT Senate approve the Report of the Senate Committee on Instruction and Evaluation concerning revised regulations on Student Progress and Academic Status, Faculty of Engineering , effective upon Senate approval.

Respectfully submitted,

Dr. Janice Ristock, Chair
Senate Committee on Instruction and Evaluation

Comments of the Senate Executive Committee:
The Senate Executive Committee endorses the report to Senate.



UNIVERSITY
OF MANITOBA

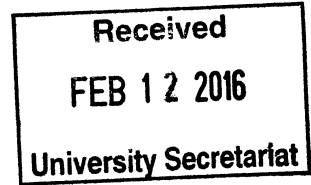
Academic Regulations and
Curriculum Committee

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Dean.McNeill@umanitoba.ca

Memo

11 February 2016

To: Senate Committee on Instruction and Evaluation (SCIE)
From: Dean McNeill, Chair
Academic Regulations and Curriculum Committee (ARCC)
Faculty of Engineering
Subject: Clarification of Student Progression Rules



The Faculty of Engineering is proposing an editorial modification to regulation 3.12 *Student Progress and Academic Status* to further clarify the regulation for students with the intent of removing possible misinterpretations.

Currently students who are *Required to Withdraw* from their Engineering program may continue to take courses from other faculties during their 8-month rustication. However, the wording of the regulation lead some to believe that they were not permitted to take courses from other faculties which might ultimately be applied to their Engineering program. The proposed wording is expected to make it clear that the student is only ineligible to take courses taught by the Faculty of Engineering during the rustication period.

This change is for clarification only and does not alter the intent or implementation of the regulation.

3.12 Student Progress and Academic Status

Students shall be evaluated at the conclusion of each academic term in which they receive a final grade in a minimum of 6 credit hours of course material (excluding Special Student credit hours), with the assessment being based on the resulting Term Grade Point Average (TGPA) in those courses. This assessment shall be based on only those courses which form part of the student's Engineering Program. The academic assessments are as follows:

Good Academic Standing

A student with a TGPA of 2.00 or higher is in Good Academic Standing. This will be notated as "Faculty Minimum Met" or "Satisfactory" on the student academic transcript.

Academic Warning

The first time the student's TGPA drops below 2.00, he/she will receive an Academic Warning. Students who receive such a warning are required to meet with an academic advisor from their department or, in the Preliminary Engineering Program, from the Dean's Office.

Academic Probation

The second time that a student's TGPA drops below 2.00, the student will be placed on Academic Probation.

Required to Withdraw

The third time that a student's TGPA drops below 2.00, the student will be Required to Withdraw. Students who receive such a suspension shall be ineligible to **take courses offered by the Faculty of Engineering** from the end of the term for which the suspension was issued through to the start of that same term in the subsequent academic year (normally, a period of 8 months.)

In order to be reinstated following the suspension period, the student must submit a written application for reinstatement to the Associate Dean (Undergraduate Programs). Applications must be received between 30-60 days in advance of the effective date of reinstatement; requests made earlier than 60 days in advance will not be accepted.

Ineligible to Proceed in Engineering

A student shall be Ineligible to Proceed in Engineering under either of the following conditions:

- a) The student's TGPA drops below 2.00 for a fourth time, or;
- b) The ratio of credit hours passed (from all courses with a grade of "C" or better that are applicable to the student's Engineering program) to total credit hours attempted for that student drops below 75%, and the student has attempted a minimum of 72 credit hours.

Starting Afresh

Students who have become Ineligible to Proceed in Engineering may apply to the Dean for permission to start their degree afresh, should they wish to return to the Faculty of Engineering.

At the discretion of the Dean, a student may start afresh in an engineering program after a minimum period of two years from their last academic assessment by the Faculty of Engineering, and may request to transfer up to 40 credit hours in which a minimum grade of "C+" was achieved. All previous courses will remain on the student's academic transcript, but will not be applied to their new program.

Report of the Executive Committee of the Faculty of Graduate Studies on Course and Curriculum Changes

Preamble

1. The Faculty of Graduate Studies has responsibility for all matters relating to the submission of graduate course, curriculum and program changes. Recommendations for new programs or changes are submitted by the Faculty Council of Graduate Studies for the approval of Senate.
2. In October 2007, the Faculty of Graduate Studies approved a process of *Streamlining Course Introductions, Modifications, & Deletions* which allows the Executive Committee to approve these changes in lieu of Faculty Council when the courses are not associated with a new program or program changes.
3. The Faculty of Graduate Studies Executive Committee met on the above date to consider proposals from the Dept. of Civil Engineering, Asper School of Business, Dept. of History, and Université de Saint-Boniface (Education).

Observations

1. The **Dept. of Civil Engineering** proposes one course introduction, CIVL 7810. This topic is not taught at the University of Manitoba but becomes increasingly more important in the engineering business (e.g., global importance on drinking water reservoirs in hard rock aquifers, the development of deep hydrothermal systems, its importance in carbon capture and storage (CCS), the exploitation of unconventional oil and gas reservoirs using hydraulic fracturing, and the investigation of the deep repository for the storage of toxic or nuclear waste). There are other courses which the course professor teaches on groundwater. They do not contain this content. He teaches groundwater flow in porous media in CIVL4250 Groundwater Hydrology and CIVL7720 Groundwater and Solute Transport Modeling. Flow in fractured media is very different from flow in porous. A Ph.D. student in the area of petroleum engineering took the Flow and Transport in Fractured Rock course because there is no course in Geology or in Mechanical Engineering.

Course Introduction

CIVL 7810 Flow and Transport in Fractured Rock

+3

The physics and numerical solution of mathematical models of flow and transport processes in fractured rocks; scale effects; single, dual, and mixed modelling techniques; heat flow and transport in fractured rock systems; applications to local and regional groundwater flow

NET CREDIT HOUR CHANGE

+3

2. The **Asper School of Business** proposes one course deletion, MIS 5110, and one course introduction, MIS 5120, to change the course title and thereby better reflect the course

content, and two course modifications, FIN 7000 and FIN 7020, to update the courses pre-requisites.

Course Deletion

MIS 5110 IT Seminar -1

Course Introduction

MIS 5120 Spreadsheet Skills for Management +1

This course will provide students with spreadsheet skills for use in the studies and practice of management. Students can be exempt by demonstrating proficiency, evaluated through a computer based test recommended by the faculty. Course graded Pass/Fail. Cannot be held with MIS 5110.

Course Modifications

FIN 7000 Managerial Economics 1.5

Supply, demand, elasticity, perfect competition, monopoly, revenue and cost functions, and determinants of competitive advantage are considered in this course. Economic profit, accounting profit and value creation are compared so they are used properly in the context of optimal business strategy. Pre-requisites: MSCI 5110 and MIS 5120 (or the former MIS 5110). Not to be held with either IDM 7720 or FIN 7120.

FIN 7020 Corporate Finance 3

The financial management of businesses including agency problems, valuation, capital budgeting, risk/return relationships, the term structure of interest rates, market efficiency, long-term financing, capital structure, and the use of options and futures for risk management. Not to be held with either of FIN 6070 or FIN 6072. Pre-requisite: MIS 5110, FIN 7000 and MIS 5120 (or the former MIS 5110).

NET CREDIT HOUR CHANGE 0

3. The **Dept. of History** proposes one course introduction, HIST 7776, to provide a zero credit hour course in which students in the Major Research Project stream of the M.A. can register. This is similar to the zero credit-hour “comprehensive exam” or “thesis” course students in those respective streams would register. The Major Research Project stream was passed by Senate in May 2016.

Course Introduction

HIST 7776 Major Research Paper 0

The Major Research Paper is (MRP) is a piece of original writing based on primary research, submitted in fulfillment of the JMP in History, Major Research Project stream. It is of roughly 35-45 pages (8,500 – 12,000 words). The student consults the Chair of the Joint Discipline

Committee in History to select an Advisor. The student meets with the Advisor to develop a topic for the paper. After the MRP is submitted, it is circulated to a second reader. The MRP is graded pass/fail.

NET CREDIT HOUR CHANGE **0**

4. The **Université de Saint-Boniface (Education)** proposes one course introduction, EDUB 7241, to fulfill a need in the Faculty of Education at the Université de Saint-Boniface which addresses the issues surrounding the theory and practice of language use and society for teachers of French in Manitoba. This course is a welcomed addition to the faculty's limited list of elective choices in the Langue, Littérature et curriculum specialization. There is no English-equivalent course for EDUB 7241, nor is there one currently proposed.

EDUB 7241 La sociolinguistique et la pédagogie du Français langue seconde **+3**

Ce cours explore le domaine de la sociolinguistique et cible en particulier la perspective microscopique (régionale) portant sur l'éducation en Français langue seconde ou additionnelle au Manitoba.

NET CREDIT HOUR CHANGE **+3**

Recommendations

The Executive Committee recommends THAT: the course changes from the unit(s) listed below be approved by Senate:

Dept. of Civil Engineering
Asper School of Business
Dept. of History
Université de Saint-Boniface (Education)

Respectfully submitted,

Dr. Todd A. Mondor, Chair
Faculty of Graduate Studies Executive Committee

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Comments of the Senate Executive Committee:
The Senate Executive Committee endorses the report to Senate.

Senate Membership 2017-2018

(as of June 1, 2017)

President

David T. Barnard 2008.07.01

Chancellor

Harvey Sector 2010.01.01

Vice-Presidents

Provost and Vice-President (Academic)	Janice Ristock	2016.07.01
Vice-President (Administration)	Joanne Keselman*	2016.10.19
Vice-President (External)	John Kearsey	2010.07.13
Vice-President (Research and International)	Digvir Jayas	2009.04.28

Deans of Faculties

Agricultural & Food Sciences	Karin Wittenberg	2015.01.01
Architecture	Jonathan Beddoes	2015.09.01
Arts	Robert Hoppa*	2011.09.01
Clayton H. Riddell Faculty of Environment, Earth, and Resources	Norm Halden	2008.07.01
Education	David Mandzuk	2013.08.01
Engineering	Jonathan Beddoes	2011.07.01
Graduate Studies	Todd Mondor*	2016.04.01
Rady Faculty of Health Sciences	Brian Postl	2014.02.01
I.H. Asper School of Business	Michael Benarroch	2011.11.15
Kinesiology and Recreation Management	Douglas Brown	2013.09.01
Law	Jonathan Black-Branch	2016.07.01
Marcel A. Desautels Faculty of Music	Edmund Dawe	2007.07.01
Science	Stefi Baum	2014.10.01
Social Work	James Mulvale	2013.07.01
Director, School of Art	Paul Hess	2008.07.01
Dean, Extended Education	Gary Hepburn	2014.07.01
University Librarian	Mary-Jo Romaniuk	2014.10.01
Vice-Provost (Students)	Susan Gottheil	2010.08.15

Deans of Constituent Colleges

Dentistry	Anthony Iacopino	2007.07.01
Max Rady College of Medicine	Brian Postl	2010.07.01
Nursing	Beverly O'Connell	2012.10.15
Pharmacy	Xiaochen Gu*	2016.09.01
Rehabilitation Sciences	Reginald Urbanowski	2016.06.01
University College	Jeffery Taylor*	2011.09.01

Appointed by the Board of Governors

TBA	2017.06.01 – 2018.05.31
TBA	2017.06.01 – 2018.05.31

Members-at-large

N/A

President of UMSU

Tanjit Nagra	2016.05.01 - 2018.04.30
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Appointed by Alumni Association

TBA	2017.06.01 - 2018.05.31
TBA	2017.06.01 - 2018.05.31

Elected by Faculty and School Councils

Agricultural & Food Sciences	Nazim Cicek	2015.06.01 – 2018.05.31
	Robert Currie	2015.06.01 – 2018.05.31
	Annemieke Farenhorst	2016.06.01 – 2019.05.31
	Jitendra Paliwal	2017.06.01 – 2020.05.31
Architecture	Lisa Landrum	2012.06.01 – 2018.05.31
	Alyssa Schwann	2015.06.01 – 2018.05.31
Art, School of	Oliver Botar	2014.06.01 – 2020.05.31
Arts	David Churchill	2015.06.01 – 2018.05.31
	Radhika Desai	2015.06.01 – 2018.05.31
	Mark Gabbert	2003.06.01 – 2018.05.31
	Mary-Anne Kandrack	2015.06.01 – 2018.05.31
	Tracey Peter	2015.06.01 – 2018.05.31
	Caterina Reitano	2015.06.01 – 2018.05.31
	Greg Sobie	2015.06.01 – 2018.05.31
	David Watt	2015.06.01 – 2018.05.31
	Brenda Austin-Smith	2014.06.01 – 2020.05.31
Clayton H. Riddell Faculty of Environment, Earth and Resources	Tina Chen	2011.06.01 – 2020.05.31
	David Walker	2015.06.01 – 2018.05.31
Education	Bonnie Hallman	2016.06.01 – 2019.05.31
	Richard Hechter	2010.06.01 – 2019.05.31
Engineering	Clea Schmidt	2017.06.01 – 2020.05.31
	Derek Oliver	2015.06.01 – 2018.05.31
	TBA	2017.06.01 – 2020.05.31
	TBA	2017.06.01 – 2020.05.31
	TBA	2017.06.01 – 2020.05.31

Extended Education	Stephanie Olson	2016.03.21 – 2020.05.31
Rady Faculty of Health Sciences	Chris Anderson	2015.06.01 – 2018.05.31
	Raj Bhullar	2015.06.01 – 2018.05.31
	Leslie Johnson	2015.06.01 – 2018.05.31
	Sarvesh Logsetty	2015.06.01 – 2018.05.31
	Mojgan Rastegar	2015.06.01 – 2018.05.31
	Annette Schultz	2015.06.01 – 2018.05.31
	Barbara Shay	2015.06.01 – 2018.05.31
	Lynda Balneaves	2017.06.01 – 2018.05.31
	Robert Tate	2007.12.01 – 2018.05.31
	Brenda Elias	2010.06.01 – 2019.05.31
	Wael El-Matary	2016.06.01 – 2019.05.31
	James Gilchrist	2010.06.01 – 2019.05.31
	Soheila Karimi	2016.06.01 – 2019.05.31
	Shaundra Popowich	2016.06.01 – 2019.05.31
	Gayle Restall	2015.06.01 – 2019.05.31
	Pamela Wener	2016.06.01 – 2019.05.31
	Silvia Alessi-Severini	2017.02.03 – 2020.05.31
	Trina Arnold	2017.06.01 – 2020.05.31
	Frank Burczynski	2013.07.01 – 2020.05.31
	Susan McClement	2014.06.01 – 2020.05.31
I.H. Asper School of Business	Parshotam Dass	2014.11.21 – 2018.05.31
	Mary Brabston	2004.06.01 – 2019.05.31
	Robert Biscontri	2014.06.01 – 2020.05.31
Kinesiology and Recreation Management	Steven Passmore	2016.06.01 – 2019.05.31
	Christine Van Winkle	2017.06.01 – 2020.05.31
Law	Michelle Gallant	2016.06.01 – 2019.05.31
Libraries	Ada Ducas	2015.06.01 – 2018.05.31
	Jordan Bass	2016.05.19 – 2018.05.31
	Lisa Demczuk	2016.06.01 – 2019.05.31
Marcel A. Desautels Faculty of Music	TBA	2017.06.01 – 2020.05.31
Science	Gary Anderson	2012.06.01 – 2018.05.31
	Peter Blunden	2015.06.01 – 2018.05.31
	Mike Domaratzki	2015.06.01 – 2018.05.31
	Thomas Booth	2010.06.01 – 2019.05.31
	Joan McConnell	2014.06.01 – 2019.05.31
	John Anderson	2008.06.01 – 2020.05.31
	Jim Hare	2017.06.01 – 2020.05.31
	Brian Mark	2017.06.01 – 2020.05.31
Social Work	David Delay	2016.06.01 – 2019.05.31
	Regine King	2017.06.01 – 2020.05.31
Student Affairs	Jim Honeyford	2014.06.01 – 2020.05.31

Heads of Affiliated or Member Institutions

St. Andrew's College	Roman Bozyk*	2003.05.01
St. John's College	Christopher Trott	2011.07.01
St. Paul's College	Christopher Adams	2012.07.01
Université de Saint-Boniface	Gabor Csepregi	2014.07.01

Deputy Minister of Education

Deputy Minister of Education and Training (or designate)	Bramwell Strain Jan Forster (designate)
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Elected by the Students (2017.04.01 – 2018.03.31)

Agricultural & Food Sciences	Luke Dojack
Architecture	Cornie Friesen
Art, School of	Sarah Blanchard
Arts	TBA, TBA, TBA
Clayton H. Riddell Faculty of Environment, Earth and Resources	Agoston Fischer
Education	TBA, TBA
Engineering	Emily Kiely-Smith, Ian Veloso
Graduate Studies	Silvia Araujo, Nour Eissa, David Kushner
Rady Faculty of Health Sciences:	
Dentistry/Dental Hygiene	Maninderpal Gundhu
Max Rady College of Medicine	Boyang (Richard) Zhang
Nursing	Sandra Ragheb
Pharmacy	Roberto Duarte Fernandez
Rehabilitation Sciences	Amanda Ameis
I.H. Asper School of Business	Aaron Menon, Kira Pearson
Kinesiology and Recreation Management	Courtney Gabrielle
Law	Emily Cummings
Marcel A. Desautels Faculty of Music	Karen Sigurdson
Science	Abrar Latif, Carly Mastromonaco, Mira Villegas
Social Work	TBA

Assessors

Vice-Provost (Academic Affairs)	Diane Hiebert-Murphy
Vice-Provost (Integrated Planning and Academic Programs)	David Collins
Associate Vice-President (Research)	Gary Glavin
Associate Vice-President (Partnerships)	Jay Doering
Associate Dean of Graduate Studies	Brooke Milne
Associate Dean of Extended Education	Rod Lastra
Chair SPPC	N/A
UMFA Representative	Janet Morrill
Université de Saint-Boniface	Stéphane Dorge
Executive Director of Enrolment Services	Jeff Adams
Registrar	Neil Marnoch
Executive Director of Student Support	Don Stewart

Chair SCCCC
Vice-President UMSU
President GSA
Executive Director, Student Academic
Success
Executive Director, CATL
University1 Students
Executive Lead, Indigenous Achievement

Greg Smith
Allison Kilgour
Carl Neumann
Jerome Cranston

Mark Torchia
Muhsen Haroon, Hifza Jalbani, Shaheer Saad
Frank Deer

* = acting
l/r = leave replacement
updated May 8, 2017

SCHEDULE OF MEETINGS AND AGENDA AVAILABILITY
SENATE AND SENATE EXECUTIVE COMMITTEE

Date for Items to the Secretary	Agenda to the Executive Committee	Executive Committee Meetings	Agenda available to Senate Members	Senate Meetings
May 17, 2017*	May 24, 2017	May 31, 2017	June 14, 2017	June 21, 2017
September 6, 2017	September 13, 2017	September 20, 2017	September 27, 2017	October 4, 2017
October 4, 2017	October 11, 2017	October 18, 2017**	October 25, 2017	November 1, 2017
November 8, 2017	November 15, 2017	November 22, 2017	November 29, 2017	December 6, 2017
November 29, 2017	December 6, 2017	December 13, 2017	December 20, 2017	January 3, 2018
January 10, 2018	January 17, 2018	January 24, 2018	January 31, 2018	February 7, 2018
January 31, 2018	February 7, 2018	February 14, 2018	February 28, 2018	March 7, 2018
March 7, 2018	March 14, 2018	March 21, 2018	March 28, 2018	April 4, 2018
April 18, 2018	April 25, 2018	May 2, 2018	May 9, 2018	May 16, 2018
May 23, 2018*	May 30, 2018	June 6, 2018	June 13, 2018	June 20, 2018
September 5, 2018	September 12, 2018	September 20, 2018**	September 27, 2018	October 3, 2018
October 10, 2018	October 17, 2018	October 24, 2018	October 31, 2018	November 7, 2018
November 7, 2018	November 14, 2018	November 21, 2018	November 28, 2018	December 5, 2018

1. Senate meets the end of June so that a meeting in July is not required.
2. Senate meets the third Wednesday in May to consider the list of graduands for Senate approval.
3. Senate meetings are held in the Senate Chambers, Room E3-262 EITC at 1:30 p.m.
4. Senate Executive meetings are held in the Alan A. Borger Sr. Executive Conference Room, E1-270 EITC at 1:30 p.m.
5. [* Latest date by which to submit items for June Senate agenda, where approval is required in time for the subsequent academic session.](#)
6. [**Senate Executive will meet at 9:00 am on October 18, 2017 and on Thursday, September 20, 2018.](#)

Preamble

1. The terms of reference for the Senate Committee on Academic Accommodation Appeals are found at the link:
http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/scaaap.html
2. In accordance with the Student Accessibility Appeal Procedure, if a student or an Academic Staff Member does not agree with the decision of the Coordinator of Student Accessibility Services (SAS) regarding a request for reconsideration of a proposed accommodation, the student or Academic Staff Member may file a formal appeal to the Senate Committee on Academic Accommodation Appeals.

The Committee will meet to determine whether there are grounds to hear the appeal and whether the appeal falls within the jurisdiction of the Committee. The Committee will determine the appropriate accommodation on the basis of the student's disability and the Bona Fide Academic Requirements or Essential Skills Document of the course or program.

Observations

1. Members of the Committee for 2016 - 2017 were: Acting Dean Robert Hoppa , Chair (Arts); Dr. T. Ashcroft (Health Sciences); Professor N. Hansen (Graduate Studies); Professor Z. Lutfiyya (Education); Professor Cathy Rocke (Social Work); Mr. Md Monjurul Khan (Student member – Graduate Studies); and Ms. Allison Kilgour, (Student Member - Arts).
2. Revisions to the Student Accessibility Appeal Procedure were approved by Senate on June 22, 2016. The revisions included certain procedural elements which were missing, such as a deadline by which an appeal must be submitted and other details regarding the submission of an appeal.
3. During the period from April 1, 2016 to March 31, 2017 the Committee received 1 appeal which is summarized below:

#	Faculty	Decision
1	Engineering	Denied

Respectfully submitted,

Dr. Robert Hoppa, Chair
Senate Committee on Academic Accommodation Appeals

Annual Report of the Senate Committee on Academic Computing

Preamble

The current terms of reference for the Senate Committee on Academic Computing are found on the University Governance website at:

http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/485.html

Observations

1. Members of the Committee for 2016-2017 were:

Dr. Mark Torchia (Centre for the Advancement of Teaching and Learning), Chair
Prof. Greg Bak (Arts)
Dean Stefi Baum (Science)
Prof. Mary Brabston (Management)
Mr. Sol Chu (Centre for the Advancement of Teaching and Learning)
Dr. Jay Doering (Associate Vice-President (Partnerships))
Prof. James Gilchrist (Health Sciences)
Mr. Mario Lebar (Information Services and Technology)
Dr. Todd Mondor (Graduate Studies)
Dr. Mary-Jo Romaniuk (University Librarian)
Ms Christine Shaw (Libraries)
Prof. Karen Smith (Education)
Prof. James Young (Science)
Mr. Barrett Hill (student)
Mr. Md Monjurul Khan (graduate student)
Mr. Anjan Neupane (graduate student)
Mr. Arthur Coelho Reis (student)
Mr. Gilbert Detillieux (technical resource, Computer Science)
Ms Lynette Phye (resource, Distance and Online Education).

2. Four meetings were held during the reporting period:

- The Committee considered the topic of Making Technology in Teaching Frictionless
- The Committee received updates on a number of ongoing matters and projects:
 - Experimental Classroom
 - Learning Technologies
 - IT Status
 - Learning Technology Systems Advisory Committee
 - Learning Management System
- A special presentation was provided to the Committee regarding the Digital Future

- During the reporting period, the Committee received and reviewed nine IT Investment Proposals related to teaching and learning, provided feedback and made recommendations to the University IT Advisory Council (UITAC).

Respectfully submitted,

Dr. Mark Torchia, Chair
Senate Committee on Academic Computing

Annual Report of the Senate Committee on Academic Dress

Preamble

Terms of Reference for the Senate Committee on Academic Dress can be found at:

http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/486.html

Observations

1. Committee members (2016-2017):

Prof. Paul Hess (School of Art), Chair
Prof. Kelley Beaverford (Architecture)
Prof. Song Liu (Engineering)
Mr. Neil Marnoch (Registrar)
Ms Julia Minarik (student)
Mr. Md Waliullah (graduate student)
2. The Committee is scheduled to meet on May 1, 2017.

Respectfully submitted,

Professor Paul Hess, Chair
Senate Committee on Academic Dress

Annual Report of the Senate Committee on Academic Freedom

Preamble

The Terms of Reference for the Senate Committee on Academic Freedom can be found on the web at http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/488.html.

Observations

1. Committee members 2016-2017:
Professor R. Bhullar (Health Sciences), Professor R. Cardwell (Agricultural and Food Sciences), Mr. M. Hasan (student, Graduate Studies), Professor R. Hechter (Education), Professor C. Morrill (Management), Professor R. Tate (Health Sciences), Dean J. Taylor (Arts), and Ms. M. Trembath (student, University 1).
2. The committee did not meet during the reporting period.

Respectfully submitted,
Senate Committee on Academic Freedom

Annual Report of the Senate Committee on Academic Review

Preamble

The Terms of Reference for the Senate Committee on Academic Review can be found at:
http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/489.htm

Observations

1. Committee members (2016-2017):
Dr. D. Collins (Vice-Provost, Integrated Planning and Academic Programs), Chair, Prof. H. Anderson (Health Sciences), Prof. J. Anderson (Science), Dean D. Brown (Kinesiology and Recreation Management), Prof. T. Chen (Arts), Mr. M. Khan (student, Graduate Studies), Mr. A. Reis (student, University 1), Acting Dean T. Mondor (Graduate Studies), Prof. L. Wang (Science)
2. The Committee met three times during the reporting period, on May 6 and December 12, 2016, and February 17, 2017. The committee also participated in one teleconference meeting on September 6, 2016.
3. During this period, the Committee reported to Senate on the following matters:
 - the status of current graduate and undergraduate program reviews (Senate, *for information*, June 6, 2016 and February 1, 2017)
 - Annual Report on the Status of Academic Program Reviews, April 1, 2015 – April 30, 2016 (Senate, *for information*, June 22, 2016)
 - proposal for Institute for Leadership Development (Senate, February 1, 2017)
 - proposal for Indigenous Institute of Health and Healing (Senate, April 5, 2017)
4. The Committee considered Summaries of Graduate Program Reviews for graduate programs in Architecture, Biosystems Engineering, Civil Engineering, Electrical and Computer Engineering, German and Slavic Studies, Human Nutritional Sciences, Interior Design, Mathematics, Mechanical Engineering, Psychology, and Sociology.
5. The Committee received for its consideration, Summaries of Undergraduate Program Reviews for programs in French, Spanish and Italian, Geological Sciences, Labour Studies, Law, Music, and Physics and Astronomy.
6. The committee received the *Annual Report 2016, Centre for Engineering Professional Practice and Engineering*, for information.
7. The committee considered a request from Senate Executive that Senate receive additional information on academic program reviews. The results of that discussion will be reported to Senate in May 2017.

Respectfully submitted,

Dr. David Collins, Chair
Senate Committee on Academic Review

Preamble

1. The terms of reference for the Senate Committee on Admissions Appeals are found at the link:
http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/491.html
2. The Committee is charged to hear and determine appeals from:
 - a) decisions of faculty and school Selection Committees;
 - b) administrative decisions affecting the admission process;
 - c) decisions related to the transfer of credit policy of the faculty/school; and
 - d) the possible granting of advanced standing.
3. The Committee is to report to Senate on the determination of all appeals submitted to it; and recommend any changes in admission policies and procedures which should be considered as a result of the appeal.

Observations

1. Members of the Committee for 2016 - 2017 were: Dean D. Mandzuk, Chair (Education); Professor B. Hann, Vice-Chair (Science); Professor J. Paliwal, (Engineering); Professor M. Domaratzki, (Science); Professor S. Sivaramakrishnan, (I.H. Asper School of Business); Professor L. Guse, (Nursing); Professor K. Sharma, (Science); Professor L. Tromly, (Arts); Professor R. Cardwell, (Agriculture); Professor J. Schulz, (Law); Mr. J. Ahmed (Student Member – Graduate Studies); Ms. A. Smith, (Student member – Science); Ms. T. Nagra (Student member - President of UMSU - Ex Officio); and Ms. Erin Stone, (Director of Admissions - Ex Officio - Non-voting).
2. The Senate Committee on Admissions Appeals reports to Senate on an ongoing basis as appeals are heard. During the period from April 1, 2016 to March 31, 2017 the Committee received 3 appeals which are summarized below:

#	Faculty	Decision
1	Agriculture	Denied
1	Engineering	No grounds
1	I.H. Asper School of Business	No grounds

Respectfully submitted,

Dr. D. Mandzuk, Chair
Senate Committee on Admission Appeals

ANNUAL REPORT OF THE SENATE COMMITTEE ON ADMISSIONS (SCADM) FOR THE YEAR FROM MAY 1, 2016 TO APRIL 30, 2017

The terms of reference for the Senate Committee on Admissions (SCADM) are found on the University website at:

http://www.umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/490.htm

The committee membership is as follows:

<u>Incumbent</u>	<u>Position</u>	<u>Composition</u>
Ms. Susan Gottheil	Vice-Provost (Students)	(1) VP (Academic) or designate, Chair
Ms Erin Stone	Director, Admissions	(2) Vice Provost (Student Affairs) or designate
Mr. Jeff Adams	Executive Director, Enrolment Services	(3) Executive Director (Enrolment Services)
Dr. Jason Leboe-McGowan	Associate Dean, Faculty of Arts	(4) Dean, Faculty of Arts or designate
Dr. Gary Anderson	Associate Professor, Faculty of Science	(4) Dean, Faculty of Science or designate
Dr. John Perry	Associate Professor, Faculty of Dentistry	(4) Dean, Faculty of Dentistry or Medicine or designate
Dr. David Mandzuk	Dean, Faculty of Education	(5) Senate-appointed dean/director
Dr. Michael Benarroch	Dean, IH Asper School of Business	(5) Senate-appointed dean/director
Dr. Gary Anderson	Associate Head, Faculty of Science	(6) Senate Appointee
Dr. Jerome Cranston	Executive Director, Student Academic Success	(6) Senate Appointee
Dr. Nariman Sepehri	Assoc Dean, Faculty of Engineering	(6) Senate Appointee
Dr. Derek Brewin	Assoc Professor, Agricultural and Food Sciences	(6) Senate Appointee
Dr. Sarah Teetzel	Assoc Dean, Fac of Kinesiology and Rec Mgmt	(6) Senate Appointee
Dr. Robert Biscontri	Associate Professor, Asper School of Business	(6) Senate Appointee
Mr. Hadeesha Piyadasa	Student, Graduate Studies	(7) Student
Ms. Taylor Nimchonok	Student, Faculty of Science	(7) Student
Ms. Alexa Smith	Student, Faculty of Science	(7) Student
Vacant (Declined)	Declined	(8) Deputy Minister of Education (or designate)
Ms. Kelly Teixeira	University Advisor, St. John's Ravenscourt	(8) Counsellor from a Manitoba high school

Subsequent to the previous Annual Report, SCADM met on May 20, 2016, June 28, 2016, August 31, 2016, December 15, 2016, January 12, 2017, February 21, 2017, March 21, 2017 and April 10, 2017.

1. Enrolment Services – SCADM reviewed a proposal from Enrolment Services on a change to the Indigenous language terminology used within admissions, effective Fall 2017. Endorsed by the Senate Committee on Admissions on May 20, 2016. Approved by Senate on June 22, 2016.

2. Faculty of Health Sciences – SCADM reviewed a proposal from The Faculty of Health Sciences to add the Interdisciplinary programs – Health Studies and Health Sciences as a direct entry option, effective Fall 2017. Endorsed by the Senate Committee on Admissions on May 20, 2016. Approved by Senate on June 22, 2016.

3. Faculty of Education - SCADM reviewed a proposal from The Faculty of Education to modify the required courses for entry into the early years and middle year's after-degree program, effective Fall 2018. Endorsed by the Senate Committee on Admissions on June 28, 2016. Approved by Senate on October 5, 2016.

4. Asper School of Business – SCADM reviewed a proposal from the Asper School of Business to create an international applicant admission category, effective Fall 2018. Endorsed by the Senate Committee on Admissions on August 31, 2016. Approved by Senate on October 5, 2016.

5. **Max Rady College of Medicine** – SCADM reviewed a proposal from the Max Rady College of Medicine to modify the admissions criteria for the Undergraduate Medical Education program which would eliminate grades from a prior program of study, effective Fall 2018. Endorsed by the Senate Committee on Admissions on December 15, 2016. Approved by Senate on February 1, 2017.
6. **Max Rady College of Medicine** – SCADM reviewed a proposal from the Max Rady College of Medicine to modify the equivalency of “Manitoba Resident” for residents of the Territories under the admissions criteria for the Undergraduate Medical Education program, effective Fall 2018. Endorsed by the Senate Committee on Admissions on December 15, 2016. Approved by Senate on February 1, 2017.
7. **Max Rady College of Medicine** – SCADM reviewed a proposal from the Max Rady College of Medicine to eliminate biochemistry and humanities/social sciences pre-requisites from the admissions criteria for the Undergraduate Medical Education program, effective Fall 2018. Endorsed by the Senate Committee on Admissions on December 15, 2016. Approved by Senate on February 1, 2017.
8. **Université de Saint-Boniface** – SCADM reviewed a proposal from the Université de Saint-Boniface to modify the Bachelor of Social Work admissions requirements, effective Fall 2018. Endorsed by the Senate Committee on Admissions on December 15, 2016. Approved by Senate on February 1, 2017.
9. **Asper School of Business** – SCADM reviewed a proposal for an articulation agreement between the Asper School of Business at the University of Manitoba and the School of Business and Applied Arts at Red River College, effective on approval by Senate. Endorsed by the Senate Committee on Admissions on January 12, 2017. Approved by Senate on March 1, 2017.
10. **Student Affairs** - SCADM reviewed the undergraduate admission targets. This was provided for information only. Reviewed by Senate Committee on Admissions on January 12, 2017.
11. **Faculty of Architecture** – SCADM reviewed a proposal from the Faculty of Architecture to modify supplementary program regulations for the Bachelor of Environmental Design program, effective Fall 2018. Endorsed by the Senate Committee on Admissions on February 21, 2017. Approved by Senate on April 5, 2017.
12. **Faculty of Agriculture and Food Sciences** – SCADM reviewed a proposal from the Faculty of Agriculture and Food Sciences to create an advanced entry admissions category for the Diploma in Agriculture program, effective Fall 2018. Endorsed by the Senate Committee on Admissions on February 21, 2017. Approved by Senate on April 5, 2017.
13. **Rady Faculty of Health Sciences** – SCADM reviewed a proposal from the Rady Faculty of Health Sciences and the College of Pharmacy to create a Pharm.D. Program, effective Fall 2020. Endorsed by the Senate Committee on Admissions on March 21, 2017. Pending Senate approval.
14. **Faculty of Kinesiology and Recreation Management** – SCADM reviewed a proposal from the Faculty of Kinesiology and Recreation Management to revise the admission requirements for the following degree programs:
- Bachelor of Kinesiology, effective Fall 2018. Endorsed by the Senate Committee on Admissions on April 10, 2017. Pending Senate approval.
 - Bachelor of Kinesiology (Athletic Therapy) effective Fall 2018. Endorsed by the Senate Committee on Admissions on April 10, 2017. Pending Senate approval.
 - Bachelor of Physical Education, effective Fall 2018. Endorsed by the Senate Committee on Admissions on April 10, 2017. Pending Senate approval.

- Bachelor of Recreation Management and Community Development degree programs, effective Fall 2018. Endorsed by the Senate Committee on Admissions on April 10, 2017. Pending Senate approval.

Preamble

1. The terms of reference for the Senate Committee on Appeals are found at the link:
http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/493.html
2. The Committee is charged to hear and determine appeals from:
 - a) decisions made by academic administrators involving Senate regulations in which Faculty or School Councils have no jurisdiction; and
 - b) appeals against decisions taken by Awards Selection Committees of Faculties and Schools.
3. The Committee is to report to Senate on the determination of all appeals submitted to it; and advise the Executive Committee of any Senate regulations affecting students which appear to be creating particular difficulties.

Observations

1. Members of the Committee for 2016 - 2017 were: Professor S. Alward (School of Art, Chair), Dean D. Brown (Kinesiology & Recreation Management), Dean E. Dawe (Music), Dean B. O'Connell (Nursing), Professor P. Blunden (Science), Professor C. Enns (Education, Vice-Chair), Professor V. Swain (Dentistry), Professor D. McMillan (Nursing), Professor D. Oliver (Engineering), Professor D. Ruth (Engineering), Professor M. Scanlon (Agricultural and Food Sciences, Vice-Chair), Professor M. Soderstrom (Arts), Professor T. Booth (Science), Ms. T. Nagra (President of UMSU), Mr. S. Moulton (Student), Ms. B. Schott (Student), Mr. Tristan Smythe (Student), Ms. C. LeBlanc-Tod, Mr. A. Sadick (Student) and Mr. R. C. Talukder (Student). Professor A. McNicol (Graduate Studies/Pharmacy) served as Chair until December 2016.

At its meeting on February 15, 2017, the Senate Executive Committee appointed Professor S. Alward as Chair and Professor Martin Scanlon as Vice Chair

2. The Committee reports to Senate on a regular basis and details of these reports are contained in the Senate minutes.
3. During the reporting period from April 1, 2016 to March 31, 2017 the Committee received 13 appeals which are summarized below:

#	Faculty/College/School	Decision
1	Agriculture	Pending
1	Art, School of	1 No grounds
1	Arts	1 Appeal withdrawn
4	Engineering	1 Pending 1 Denied 1 Granted
1	Graduate Studies	1 No grounds
1	Management	1 Granted
4	Science	4 No grounds

4. One appeal reported as pending in the April 1, 2016 annual report has been resolved and is summarized below:

#	Faculty/College/School	Decision
1	Engineering	No grounds

Respectfully submitted,

Sharon Alward, Chair
Senate Committee on Appeals

Annual Report of the Senate Committee on Approved Teaching Centres

Preamble

1. Terms of reference for the Senate Committee on Approved Teaching Centres can be found at: http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/494.html.

Observations

1. Committee members, 2016-2017:
Prof. C. Cartmill (Arts), Prof. T. Chen (Arts), Prof. M. Faubert (Arts), Prof. M. Glenwright (Arts), Prof. K. Kumar (Extended Education), Prof. R. Linden (Arts), Dean J. Taylor (Arts), Prof. I. Whicher (Arts)
2. The Committee participated in one electronic meeting during the reporting period, responding to a poll conducted between May 26 and May 31, 2016.
3. The Committee considered the list of proposed courses and instructors as submitted by Booth University College and the Prairie Theatre Exchange for cross-registration with the University of Manitoba in 2016-2017. (Senate, June 22, 2016)
4. The following are Approved Teaching Centres at the University of Manitoba:

Prairie Theatre Exchange
William and Catherine Booth College

Respectfully submitted,

Senate Committee on Approved Teaching Centres

ANNUAL REPORT TO SENATE FROM THE SENATE COMMITTEE ON AWARDS

Number of meetings

The Senate Committee on Awards met 10 times (including one electronic poll) between May 1, 2016 and April 30, 2017.

Terms of Reference

Terms of Reference for the Senate Committee on Awards can be found on the University of Manitoba website at:

http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/495.html

Committee Members

Academic Representatives:

Dr. Philip Hultin (Chair / Faculty of Science)
Dr. Laura Loewen (Vice Chair / Desautels Faculty of Music)
Dr. Jared Carlberg (Faculty of Agricultural and Food Sciences)
Dr. Peter Cattini (Rady Faculty of Health Sciences)
Prof. Darcy MacPherson (Faculty of Law)
Dr. Greg Smith (Faculty of Arts)

Student Representative:

Mr. Mohammad Hasan (Faculty of Graduate Studies)

Director, Financial Aid and Awards

Ms. Jane Lastra

Vice-Provost (Graduate Education) and Dean, Faculty of Graduate Studies

Dr. Todd Mondor
Ms. Rowena Krentz (alternate)

Consultants:

Mr. Jeff Adams (Executive Director, Enrolment Services)
Ms. Adrienne Domingo (Recording Secretary/Financial Aid and Awards)
Ms. Pamela Gareau (Financial Aid and Awards)
Ms. Mandy Laing (Financial Aid and Awards, *on leave*)
Ms. Mabelle Magsino (Financial Aid and Awards)
Ms. Lesli Lucas-Aseltine (Awards Selection Coordinator, Financial Aid and Awards)

Observations

1. In 2016-2017, the Senate Committee on Awards approved the establishment of 118 new awards, amendments to 108 existing awards, and the withdrawal of 28 awards. Of the 118 new awards, 76 are scholarships, prizes, travel awards, or fellowships, 42 are bursaries. 73 awards are funded out of endowments, 40 are annually funded, and the remaining five are medal prizes.
(Appendix A)
2. The Senate Committee on Awards recommended to Senate, for approval, 17 requests to establish awards that appear to be discriminatory under the policy on the *Non-Acceptance of Discriminatory Awards*. The awards will provide funding for Indigenous and female students.

Respectfully submitted,

Dr. Philip Hultin
Chair, Senate Committee on Awards

New Awards* Established Between May 1, 2016 and April 30, 2017 (Total = 118)

Undergraduate, Graduate, and Extended Education	Entrance Awards	Renewable Entrance Awards	In-course and Graduating Awards	Subtotal
Undergraduate	6	2	81	89
Graduate	1	0	22	23
Undergraduate and/or Graduate and Residents	-	-	6	6
TOTAL				118

New Undergraduate Awards* by Faculty, College or School, May 1, 2016 - April 30, 2017 and Historical Data for 2012-2013 through 2015-2016

Faculty, College, or School	16-17	15-16	14-15	13-14	12-13
Agricultural & Food Sciences	7	4	2	2	2
Architecture	-	1	-	-	-
Art (Fine Arts)	-	1	-	-	1
Arts	2	5	4	5	3
Asper School of Business	12	9	7	13	8
Central [†]	13	11	15	6	6
Dentistry	4	2	2	2	1
Dental Hygiene	1	-	1	-	-
Education [°]	1	-	1	1	-
Engineering [°]	10	6	3	3	7
English Language Centre	-	-	1	1	2
Environment, Earth, & Resources	-	1	2	-	2
Extended Education	-	-	-	-	-
Health Sciences	2				
Human Ecology [§]	-	-	-	-	1
Interdisciplinary	-	-	-	-	-
Kinesiology & Recreation Management	1	1	-	-	1
Law	3	4	5	3	1
Medicine	7	5	4	4	11
Music	2	1	-	1	1
Nursing	16	1	1	-	-
Pharmacy	1	4	-	1	1
Rehabilitation Sciences	-	-	-	1	-
Science	5	2	3	3	-
Social Work	-	2	2	-	2
University 1	2	-	-	-	-
Totals	89	60	53	46	50

* scholarships, prizes, fellowships, and bursaries; [†] awards open to students in any faculty, college, or school; [°] including Internationally Educated Teachers Program, Internationally Educated Engineers Qualification; [§] the Faculty of Human Ecology closed on July 1, 2014.

New Graduate Awards* by Area of Study, May 1, 2016 - April 30, 2017 and Historical Data for 2012-2013 through 2015-2016

Area of Study	16-17	15-16	14-15	13-14	12-13
Agricultural & Food Sciences	4	2	-	1	-
Architecture	3	4	-	-	1
Art (Fine Arts)	-	-	1	-	1
Arts	1	4	-	-	2
Asper School of Business	3	2	3	-	-
Central†	1	3	5	2	1
Dentistry	-	-	-	-	-
Education	1	2	1	-	-
Engineering	1	-	-	2	1
Environment, Earth, & Resources	2	1	-	-	2
Human Ecology§	-	-	-	-	1
Interdisciplinary	-	1	1	1	-
Law	-	-	-	-	-
Medicine	-	2	2	2	2
Music	3	1	-	1	-
Nursing	2	1	-	1	-
Pharmacy	-	1	-	-	-
Rehabilitation Sciences	1	3	2	-	-
Science	1	2	3	-	-
Social Work	1	-	-	-	-
Totals	23	29	18	10	11

* scholarships, prizes, fellowships, and bursaries; † awards open to students in any faculty, college, or school; § the Faculty of Human Ecology closed on July 1, 2014.

New Awards* Open to Undergraduate and/or Graduate Students or Residents by Area of Study, May 1, 2016 - April 30, 2017 and Historical Data for 2012-2013 through 2015-2016

Area of Study	16-17	15-16	14-15	13-14	12-13
Architecture	-	1	-	-	-
Asper School of Business	1	-	-	-	-
Arts	-	1	-	1	-
Central†	4	1	-	-	1
Environment, Earth, & Resources	-	-	2	-	-
Education	-	1	-	-	-
Interdisciplinary	-	-	-	-	-
Kinesiology and Recreation Management	-	-	-	-	1
Medicine – Rehabilitation Sciences	-	-	-	-	1
Medicine – UGME & MPAS	-	-	-	1	-
Medicine - PGME	-	-	1	-	8
Multiple Programs	1	-	-	-	-
Science	-	-	1	-	-
Social Work	-	-	-	1	-
Totals	6	4	4	3	11

* scholarships, prizes, fellowships, and bursaries; † awards open to students in any faculty, college, or school.

Annual Report of the Senate Committee on the Calendar

Preamble

1. Terms of reference for the Senate Committee on the Calendar can be found at:
http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/496.html

Observations

1. Committee members, 2016-2017:
Mr. J. Leclerc (University Secretary), Chair, Prof. O. Botar (School of Art), Dr. J. Doering (Chair, Senate Committee on Rules and Procedures), Prof. P. Hultin (Science), Mr. M. Khan (student, Graduate Studies), Mr. N. Marnoch (Registrar), Acting Dean T. Mondor (Graduate Studies), Ms. G. Saindon (Calendar Editor)
2. The Committee did not meet during the reporting period.

Respectfully submitted,

Mr. Jeff M. Leclerc, Chair
Senate Committee on the Calendar

Annual Report of the Senate Committee Curriculum and Course Changes

Preamble

1. Terms of reference for the Senate Committee on Curriculum and Course Changes can be found at:
http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/497.html

Observations

1. Committee members, 2016-2017:
Prof. G. Smith (Arts), Chair, Prof. D. McNeill (Engineering), Vice-Chair, Ms. S. Bannatyne (designate for Registrar), Prof. J. Carlberg (Agricultural and Food Sciences), Dr. D. Collins (Vice-Provost (Integrated Planning and Academic Programs)), Prof. J. Cranston (Education), Ms. C. Davidson (designate for Vice-Provost (Integrated Planning and Academic Programs)), Dr. P. Dorrington (Université de Saint-Boniface), Prof. J. Hamilton (Health Sciences), Ms. K. Kruse (Libraries), Mr. N. Marnoch (Registrar), Ms. R. Quairgrain (student, Graduate Studies), Mr. J. Sanderson (student, Arts), Prof. S. Teetzel (Kinesiology and Recreation Management), Prof. B. Temple (Health Sciences), Mr. Y. Villanueva (student, Science)
2. During the reporting period, the Committee met on twelve occasions on: October 12, October 18, October 20, October 21, October 26, and October 28, 2016, and on January 12, February 22, March 17, March 21, March 29, and March 31, 2017. The committee also participated in one teleconference meeting, on September 14, 2016 and in two electronic polls conducted between December 15-19, 2016 and April 12-18, 2017.
3. During this period, the Committee reported to Senate on:
 - course changes totaling less than nine credit hours from departments in various faculties, colleges, and schools (Senate, May 18, 2017, and January 4, 2017), including the following:
 - program proposals: Littérature et analyse textuelle (concentration), Université de Saint-Boniface
 - program closures: Manufacturing Option, in B.Sc. in Engineering (Mechanical), Faculty of Engineering; baccalauréat ès Arts général avec majeure avancée en français, Littérature canadienne française (concentration), Littératures françaises et francophone (concentration), Université de Saint-Boniface
 - program name changes: baccalauréat ès Arts spécialisé en françaises renamed baccalauréat ès Arts spécialisé en études françaises, baccalauréat de service social renamed baccalauréat de travail social, Université de Saint-Boniface
 - undergraduate course changes beyond nine credit hours RE:
 - Department of Civil Engineering (Senate, May 18, 2016)

- Faculty of Kinesiology and Recreation Management (Senate, January 4, 2017)
 - Department of Statistics (Senate, April 5, 2017)
- proposal for a Baccalauréat ès arts avec majeure en espagnol [Bachelor of Arts (General Major) in Spanish], Université de Saint-Boniface (Senate, May 18, 2016)
- proposal to revise the baccalauréat en service social, (Bachelor of Social Work), Université de Saint-Boniface (Senate, February 1, 2017)
- articulation agreement renewal: University of Manitoba, Bachelor of Commerce (Honours) – Red River College, Diploma in Business Administration (Senate, March 1, 2017)
- closure of the Bachelor of Human Ecology (General) degree, Rady Faculty of Health Sciences (Senate, March 1, 2017)
- revised Degree Regulations, B.Sc. in Geological Sciences General and Major Programs, Clayton H. Riddell Faculty of Environment, Earth, and Resources, (Senate, January 4, 2017)
- Annual Update on Academic Program Listings (*for information*, Senate, May 18, 2016)

Respectfully submitted,

Professor Greg Smith, Chair
Senate Committee on Curriculum and Course Changes

April 17, 2017

Annual Report of the Senate Committee on Honorary Degrees

Preamble

The terms of reference for the Senate Committee on Honorary Degrees are found online at:

http://www.umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/501.htm

Observations

1. The membership of the Committee for 2016-2017 included: Dr. David T. Barnard (President), Ms. Kim Metcalfe (President of Alumni Association), Dr. Annemieke Farenhorst (Agricultural & Food Sciences), Dean Edmund Dawe (Music), Dr. Judy Anderson (Science), Dr. Brenda Austin-Smith (Arts), Ms. Tanjit Nagra (President of UMSU), Dr. Bill Pope (community representative), and Dr. Harvey Sector (Chancellor) as Chair.
2. The Committee on Honorary Degrees reports to Senate as required in closed session on candidates for honorary degrees, and the naming of buildings, parts of buildings, roadways and special units.
3. During the period from May 2016 to April 2017, the Committee reported to Senate on seven occasions: May 19, 2016, June 14, 2016, August 23, 2016, September 30, 2016, October 20, 2016, December 8, 2016, and February 13, 2017. Details of these reports are available in the Office of the University Secretary (312 Administration Building) upon request by eligible members of Senate.

Respectfully submitted,

Chancellor Harvey Sector, Chair
Senate Committee on Honorary Degrees

/sf

Annual Report of the Senate Committee on Instruction and Evaluation

Preamble:

The terms of reference for the Senate Committee on Instruction and Evaluation (SCIE) are found on the web at:

http://www.umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/502.htm

Observations:

1. Committee members, 2016-2017:
Dr. J. Ristock, Vice-Provost (Academic Affairs), Chair (until June 30, 2016), Dr. Diane Hiebert-Murphy, Vice-Provost (Academic Affairs), Chair (effective July 1, 2016), Mr. B. Akoh (student, Graduate Studies), Professor B. Elias (Health Sciences), Professor A. Farenhorst (Agriculture and Food Sciences), Ms D. Hallock (student, Science), Ms A. Kilgour (student, Arts), Ms K. Koczanski (Science), Dean D. Mandzuk (Education), Ms K. Marcynuk (student, Graduate Studies), Professor L. Neville (Management), Professor V. Warne (Arts), Professor P. Wener (Health Sciences), Mr. N. Marnoch (Registrar), Ms T. Nagra (UMSU, President), Dr. M. Torchia (Director, University Teaching Services, Ms. B. Usick (Director, Student Advocacy and Accessibility), Professor X. Wang (Graduate Studies)
2. The Committee met 7 times during the reporting period on May 12, September 22, October 27 and November 24, 2016 and February 16, March 16 and April 11, 2017.
3. During this period, the Committee reported to Senate on the following matters:
 - Revised Academic Regulations concerning Dean's Honour Roll, Bachelor of Science in Human Nutritional Sciences, Faculty of Agriculture and Food Sciences (Senate, May 18, 2016)
 - Revised Academic Regulations for Bachelor of Environmental Design, Faculty of Architecture (Senate, April 5, 2017):
 - Qualifications for Graduation
 - Dean's Honour List
 - Residency Requirement
 - Probation and Academic Suspension
 - Incomplete Term Work
 - Establishment of Regulation on Accommodation for Missed Undergraduate Term Examinations, I.H. Asper School of Business (Senate, April 5, 2017)
 - New and revised regulations, Faculty of Education concerning:
 - revised Professional Unsuitability Bylaw for Students (Senate, May 18, 2016)
 - establishment of Mandatory Orientation for Teacher Candidates, Bachelor of Education and Integrated Bachelor of Music/Bachelor of Education Degrees (Senate, January 4, 2017)
 - Revised Academic Regulations, Faculty of Engineering concerning:
 - Procedure Regarding the Inclusion of Elective Courses Taken Towards a Student's Degree Requirements (Senate, April 5, 2017):

- Course Selection (Senate, April 5, 2017)
 - Grading and Assessment (Senate, April 5, 2017)
 - Withdrawal from Courses (Senate, April 5, 2017)
- Revised Degree Regulations for the Bachelor of Science in Geological Sciences General and Major Programs, Clayton H. Riddell Faculty of Environment, Earth and Resources (Senate, January 4, 2017)
- New and revised policies and procedures for the Undergraduate Medical Education program, Max Rady College of Medicine, concerning:
 - revised Reappraisal of Student Evaluations Policy and Procedures, Undergraduate Medical Education Program (Senate, December 7, 2016)
 - revised Promotion and Failure policy (Senate, January 4, 2017)
 - revised Remediation policy (Senate, January 4, 2017)
 - revised Forward Feeding Clerkship Summative Evaluation Information policy (Senate, January 4, 2017)
 - revised Formative Assessment policy (Senate, January 4, 2017)
 - revised Midpoint In-Training Evaluation Report (MITER) and Final In-Training Evaluation Report (FITER) Preparation, Distribution and completion and Essential Clinical Presentation (ECP) Preparation, Distribution, Audit and Remediation policy (Senate, January 4, 2017)
 - revised Deferred Examination policy (Senate, January 4, 2017)
 - revised Supplemental Examinations policy (January 4, 2017)
 - revised Examination Conduct policy (January 4, 2017)
 - revised Invigilation of Examinations policy (January 4, 2017)
 - establishment of Computer Policy (Senate, January 4, 2017)
- Revised Academic Regulations, Université de Saint-Boniface (Senate, May 18, 2016) concerning:
 - Entrance, Continuation, and Graduation Requirements, Bachelor of Science (Joint Major) in Biochemistry and Microbiology
 - Graduation Requirements, Post-baccalaureate Diploma in Education
- New and revised academic policies and procedures, University of Manitoba, concerning:
 - establishment of Transference of External Grades policy, University of Manitoba (Senate, May 18, 2016)
 - revised Responsibilities of Academic Staff with Regard to Students Policy and Procedure, University of Manitoba (Senate, June 22, 2016)

Respectfully submitted,

Dr. Diane Hiebert-Murphy, Chair
Senate Committee on Instruction and Evaluation

***Joint Senate Committee on Master's Programs
Annual Report
April 19 2017***

I submit the following report on the work of the Joint Senate Committee on Master's Programs between the University of Manitoba and the University of Winnipeg from May 2016 through April 2017.

Membership

Zana Lutfiyya	Chair of the JSC Director, Peace and Conflict Studies
Todd Mondor	Acting Vice Provost (Graduate Education) & Dean (FGS) University of Manitoba Ex-officio
Diane Hiebert-Murphy	Dean Designate, FGS University of Manitoba (until June 30, 2016)
Brooke Milne	Dean Designate, FGS University of Manitoba (as of July 1, 2016)
Sean Byrne	Peace and Conflict Studies, University of Manitoba Director, the Arthur V. Mauro Centre for Peace & Justice
Andrea Rounce	Political Studies, University of Manitoba
Mark Libin	English, Film & Theatre, University of Manitoba
Christina Reinke	University of Manitoba graduate student representative JMP Peace & Conflict Studies
Mavis Reimer	Dean, FGS, University of Winnipeg
Malcolm Bird	Political Science, University of Winnipeg
Andrew Burke	English, University of Winnipeg
Anne Caudano	History, University of Winnipeg

<i>Vacant</i>	University of Winnipeg graduate student representative
Deanna England	Graduate Studies Officer, University of Winnipeg
Pam Yarushinsky	Interim Programs Coordinator, FGS, University of Manitoba (until October 18, 2016)
Andrea Kailer	Programs Coordinator, FGS, University of Manitoba (as of October 19, 2016)

Committee Activities for 2016-2017

- The JSC met on September 6 and October 31, 2016 and voted via e-mail on February 24, 2017;
- UM and UW Senates approved Revised Joint Masters Program Governing Regulations (Fall 2016);
- JSC approved Peace & Conflict Studies Supplemental Regulations (February 2017);
- JSC approved Public Administration admission criteria (to be consistent with minimum FGS requirements) (February 2017)
- Commencement of Public Administration second-cycle graduate program review (self-evaluation report due to FGS in Spring 2018)

Upcoming Activities

- JSC evaluation of second-cycle JMP (M.A.) History review (report to be written by JSC Chair in Fall 2017)

Respectfully submitted by
Zana Lutfiyya
Chair, JSC
University of Manitoba

Annual Report of the Joint Senate Committee on Master's Programs Appeals

Preamble

The Terms of Reference for the Joint Senate Committee on Master's Programs can be found on the web at:

http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/504.html

Observations

1. The Committee membership presently stands vacant until such time as the Committee is required.
2. No appeals were referred to the Committee for consideration; therefore, no meetings were held during the reporting period of May 2016 - April 2017.

Annual Report of the Senate Committee on Libraries

Preamble

1. Terms of reference for the Senate Committee on Libraries can be found at:
http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/505.html

Observations

1. Committee members (2016-2017):
Dr. M.-J. Romaniuk, University Librarian (and designate for Provost and Vice-President (Academic)), Chair, Ms. A. Bolefski (Libraries), Prof. T. Booth (Science), Dean D. Brown (Kinesiology and Recreation Management), Mr. M. Chu (student, Science), Dr. J. Doering (designate for Vice-President (Research and International)), Prof. J. Gilchrist (Health Sciences), Ms. M. Goldberg (student, University 1), Ms. L. O'Hara (designate for University Librarian), Dean J. Mulvale (Social Work), Mr. C. Neumann (student, Graduate Studies), Prof. P. Perkins (Arts), Ms. J. Rothney (Libraries), Dr. S. Sweeney (Libraries), Prof. X. Wang (designate, Vice Provost (Graduate Education) and Dean, Graduate Studies)
2. The Committee met once during the reporting period, on April 6, 2017.
3. The Committee received one presentation, *Review of University of Manitoba Libraries' Strategic Initiatives*. The committee received an operational update, as well as updates on a services model review and realignment, collections and resources, and new research support services.

Respectfully submitted,

Dr. Mary-Jo Romaniuk, Chair
Senate Committee on the Libraries

M E M O R A N D U M

TO: Mr. Jeff Leclerc
University Secretary
312 Administration Building
Fort Garry Campus

FROM: Dr. Sara Israels, Vice Dean, Academic Affairs

DATE: April 5, 2017

**RE: ANNUAL REPORT OF THE SENATE COMMITTEE ON MEDICAL QUALIFICATIONS (SCMQ)
MAY 2016 – APRIL 2017**

On July 1, 2016, Dr. Helmut Unruh agreed to serve as leave replacement for Dr. Murray Enns. Dr. Unruh's term runs until May 31, 2017.

On May 26, 2016, the SCMQ considered the application under Section 64 of the Medical Act for Dr. Quais Mujawar (Pediatrics and Child Health). The application was recommended to Senate and approved.

The SCMQ met again on October 11, 2016, to consider the applications under Section 64 of the Medical Act for Dr. Ties Boerma (Community Health Sciences), Dr. Geert 't Jong (Pediatrics and Child Health), and Dr. Tanya Brown (Pediatrics and Child Health). All applications were recommended to Senate and all were approved.

The SCMQ considered and approved for submission to the College of Physicians and Surgeons of Manitoba the following applications under Section 10 of the Registration of Medical Practitioners Regulation:

- May 24, 2016 – Dr. Nakul Patel (Surgery)
- August 15, 2016 – Dr. Sapna Oberoi (Pediatrics and Child Health)
- September 7, 2016 – Dr. Giuseppe Retrosi (Surgery)
- October 11, 2016 – Dr. Charles Brudney (Anesthesia)
- March 22, 2017 – Drs. Monica Liu and Kim Wild (Anesthesia)

The expertise of the members of SCMQ is employed by the College of Medicine to review the medical qualifications of individuals applying for time-limited licensure under Section 10 of the Registration of Medical Practitioners Regulation (under the Medical Act). Section 10 is used by the College of Medicine to provide licensure, for a time period limited to less than 12 months, for physicians engaged in advanced specialized training or serving as visiting medical experts and teachers.

Members of the SCMQ are:

Dr. Sara Israels, Chair, Designate, Dean of Max Rady College of Medicine
Dr. David Collins, Designate, Vice-President (Academic) & Provost
Dr. Anna Ziomek, Registrar, College of Physicians and Surgeons of Manitoba
Dr. Helmut Unruh, Faculty Member, Max Rady College of Medicine
Dr. Michael Moffatt, Faculty Member, Max Rady College of Medicine
Dr. Elizabeth Cowden, Faculty Member, Max Rady College of Medicine

Annual Report of the Senate Committee on Nominations

Preamble

The Terms of Reference for the Senate Committee on Nominations can be found on the University Governance website at:

http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/507.html

Observations

1. Committee members (2016-2017):

Prof. Marie Edwards (Health Sciences), Chair
Prof. Robert Biscontri (Management)
Prof. Helen Cameron (Science)
Prof. Witold Kinsner (Engineering)
Prof. Gordon Fitzell (Music)
Ms Vera Keown (Libraries)
Prof. Sandra Kouritzin (Education)
Prof. Pam Perkins (Arts)
Dean Karin Wittenberg (Agricultural and Food Sciences)
Mr. Ifeanyi Nwachukwu (graduate student)
Ms Mercy Oluwafemi (student)
2. During the reporting period, the Committee met twice on April 26 and September 12, 2016, and participated in two electronic meetings on June 8 and December 2, 2016.
3. The Committee reported to Senate on May 18, June 22, October 5, 2016 and January 4, 2017 to consider academic member nominees for vacancies on standing committees of Senate.
4. Student nominees for standing committees of Senate are prepared by a special subcommittee. Lists of nominees were received from the subcommittee and recommendations were made by the Senate Committee on Nominations to Senate on June 22, October 5, 2016 and January 4, 2017.

Respectfully submitted,

Professor M. Edwards, Chair
Senate Committee on Nominations

Annual Report of the Senate Planning and Priorities Committee

Preamble

1. Terms of reference for the Senate Planning and Priorities Committee (SPPC) can be found at: http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/508.html

Observations

1. Committee members, 2016-2017:
Ms. A. Ducas (University Libraries), Chair, Prof. Judy Anderson (Science), Prof. M. Campbell (Environment, Earth, and Resources), Dr. D. Collins (designate for Vice-President Academic and Provost), Dr. J. Doering (designate for Vice-President, Research and International), Prof. J. Dodd (Health Sciences), Prof. M. Gabbert (Arts), Ms. S. Gottheil (Vice-Provost (Students)), Ms. D. Hallock (student, Science), Mr. M. Hasan (student, Graduate Studies), Mr. A. Konowalchuk (designate for Vice-President (Administration)), Prof. K. Main (Management), Ms. T. Nagra (UMSU President), Prof. R. Perron (Architecture), Dr. J. Ristock (designate for President), Prof. A. Shalaby (Engineering), Prof. F. Wang (Environment, Earth, and Resources), Prof. D. Watt (Arts)
2. The work of the Committee is carried out by three sub-committees:
Program and Curriculum Planning – Chair, Prof. J. Anderson
Campus Planning – Chair, Ms. A. Ducas
Finance Planning – Chair, Ms. A. Ducas
3. The Chair of SPPC and the members of the Finance Planning subcommittee are members of the President's Budget Advisory Committee (BAC). This committee contributes to discussion of the University Budget through a series of meetings scheduled in April 2017.
4. During the reporting period, the Senate Planning and Priorities Committee met on eight occasions: May 30, August 29, September 26, October 31, and November 28, 2016, and January 30, February 27, and March 27, 2017. The committee also participated in one electronic poll conducted on April 13 – 19, 2017.
5. During this period, the Committee reported to Senate on the following matters:
 - undergraduate course changes beyond nine credit hours:
 - Department of Civil Engineering (Senate, May 18, 2016)
 - Faculty of Kinesiology and Recreation Management (Senate, January 4, 2017)
 - Department of Statistics (Senate, April 5, 2017)
 - graduate course changes beyond nine credit hours:
 - I.H. Asper School of Business (Senate, October 5, 2016)
 - Department of Computer Science (Senate, October 5, 2016)
 - Department of Environment and Geography (Senate, June 22, 2016)
 - Department of Mathematics (dated October 15, 2016; Senate, May 18, 2016)
 - Department of Mathematics (date February 12, 2016) (Senate, May 18, 2016)
 - Joint Master of Public Administration (Senate, October 5, 2016)
 - proposal for a Master of Finance, I.H. Asper School of Business (Senate, May 18, 2016)

- proposal for a Master of Science in Prosthodontics, College of Dentistry (Senate, March 1, 2017)
- proposal for a Master of Human Rights (Senate, April 5, 2017)
- proposed building site, Engineering Innovation Centre (Senate, December 7, 2016)
- proposed building site, Centre for Research, Teaching and Innovation in Health Care (Senate, December 7, 2016)

Respectfully submitted,

Ms. Ada Ducas, Chair
Senate Planning and Priorities Committee

Annual Report of the Senate Committee on Rules and Procedures

Preamble

Terms of reference for the Senate Committee on Rules and Procedures can be found at:

http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/509.html

Observations

1. Committee members (2016-2017):
Dr. Jay Doering (Associate Vice-President (Partnerships)), Chair
Prof. John Anderson (Science)
Acting Dean Robert Hoppa (Arts)
Mr. Mathieu Bourrier (student)
2. During the reporting period, the Committee met on September 29, 2016 and is scheduled to meet on May 25, 2017.
3. On November 2, 2016, the Committee reported to Senate regarding revisions to the Rady Faculty of Health Sciences Council Bylaws.
4. The Committee also received, for its consideration and review, the Department Council Bylaws for the Faculty of Agricultural and Food Sciences.

Respectfully submitted,

Dr. Jay Doering, Chair
Senate Committee on Rules and Procedures

Preamble

The terms of reference for the Senate Committee on University Research (SCUR) can be found on the web at: http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/510.html

Observations

As per the July 27, 2016 SCUR Membership list (updated October 18, 2016), the members of the Committee during the Annual Report period of **May 2016 - April 2017** included:

- Digvir Jayas, Vice-President (Research & International), as Chair
- David T. Barnard, President and Vice-Chancellor (Ex-Officio)
- Diane Hiebert-Murphy, Vice-Provost (Academic Affairs) (Ex-Officio)
- Gary Glavin, Associate Vice-President (Research) (Ex-Officio)
- Jay Doering, Associate Vice-President (Partnerships) (Ex-Officio)
- Barbara Crutchley, Director, Office of Research Services (Ex-Officio/Non-Voting)
- Todd Mondor, Acting Dean- Faculty of Graduate Studies
- Anthony Iacopino, Dean - College of Dentistry, Faculty of Health Sciences
- Jeffery Taylor, Dean, Faculty of Arts
- Stefi Baum, Dean, Faculty of Science
- Jonathan Beddoes, Dean, Faculty of Engineering
- Anita Brûlé-Babel, Professor, Plant Science, Agricultural and Food Sciences
- Peter Jones, Professor, Dept. of Food Science, Faculty of Agricultural & Food Sciences
- James Davie, Professor, Dept. of Biochemistry and Medical Genetics, Faculty of Health Sciences
- Pawan Singal, Professor, Dept. of Physiology, Faculty of Health Sciences
- Gordon Fitzell (on leave), Associate Dean, Faculty of Music;
- Liqun Wang, Professor, Dept. of Statistics, Faculty of Science
- Kathryn Marcynuk, Graduate Studies, GSA Student Rep;
- Karalyn Dokurno, Graduate Studies, GSA Student Rep
- Niigaanwewidam Sinclair, Department of Native Studies, Faculty of Arts (*June 9, 2016 SCUR Meeting*);
- Janice Ristock, Vice-Provost (Academic Affairs) (*June 9, 2016 SCUR Meeting*)

1. The Committee met **four times** during the reporting period on **June 9, 2016; September 29, 2016; December 08, 2016; and March 09, 2017.**
2. The committee reviewed and recommended to Senate for approval of the following Chairs, Professorships, and Centres/Institutes:

Professorships and Chairs

Establishment of Research Chairs:

- Endowed Research Chair in Leadership Research (February 17, 2017; Senate)
- Endowed Research Chair in Leadership Education (February 17, 2017; Senate)

Conversion of Professorships to Chairs:

- Professorship in Pediatric Asthma and Allergy to a Chair (December 7, 2016; Senate)
- Bihler's Professorship in Stem Cell Research to a Chair (December 7, 2016; Senate)
- Bryce Douglas Professorship in Corporate Finance to a Chair (April 5, 2017; Senate)

Expansion to the scope of the Terms of Reference for:

- The McDole Professorship in Improved Healthcare Delivery to Rural, Remote and Underserved Populations in Manitoba from the College of Pharmacy to include candidates from all disciplines in the Rady Faculty of Health Sciences. (December 7, 2016; Senate)

Centres and Institutes; and Research Groups

Centre/Institute Term Renewals:

- Manitoba Centre for Nursing and Health Research (MCNHR)
5 Years effective March 31, 2017 through to March 31, 2022 (April 5, 2017; Senate)
- Centre for Human Rights Research (CHRR)
5 Years effective April 1, 2017 through to April 1, 2022 (April 5, 2017; Senate)
- Health Leisure and Human Performance Research Institute (HLHPRI)
5 Years effective April 1, 2017 through to April 1, 2022 (April 5, 2017; Senate)

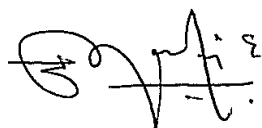
Extensions to Centre/Institute Term End Dates:

- Centre for Professional and Applied Ethics (CPAE); original Term End Date- *April 1, 2017*
CPAE to continue in its present form until December 1, 2017 (April 5, 2017; Senate)
- Centre for Earth Observation Science (CEOS); original Term End Date – *April 1, 2017*
CEOS to continue in its present form until December 1, 2017 (April 5, 2017; Senate)

3. The Committee approved the *Membership of the Selection Committees* for:

- The Falconer Emerging Rh Awards - 2016
- The Dr. John M. Bowman Memorial Winnipeg RH Institute Foundation Award – 2017

Respectfully submitted,



Digvir S. Jayas, Ph.D.
Chair, Senate Committee on University Research

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REPORT OF THE SENATE COMMITTEE ON AWARDS – PART A

Preamble

Terms of reference for the Senate Committee on Awards include the following responsibility:

On behalf of Senate, to approve and inform Senate of all new offers and amended offers of awards that meet the published guidelines presented to Senate on November 3, 1999, and as thereafter amended by Senate. Where, in the opinion of the Committee, acceptance is recommended for new offers and amended offers which do not meet the published guidelines or which otherwise appear to be discriminatory under the policy on the *Non-Acceptance of Discriminatory Awards*, such offers shall be submitted to Senate for approval. (Senate, October 7, 2009)

Observations

At its meeting of April 4, 2017 the Senate Committee on Awards approved 13 new offers, 18 amended offers, and the withdrawal of 3 awards, as set out in Appendix A of the *Report of the Senate Committee on Awards – Part A* (dated April 4, 2017).

Recommendations

On behalf of Senate, the Senate Committee on Awards recommends that the Board of Governors approve 13 new offers, 18 amended offers, and the withdrawal of 3 awards as set out in Appendix A (dated April 4, 2017). These award decisions comply with the published guidelines of November 3, 1999, and are reported to Senate for information.

Respectfully submitted,

Dr. Phil Hultin
Chair, Senate Committee on Awards

SENATE COMMITTEE ON AWARDS

Appendix A

April 4, 2017

1. NEW OFFERS

Alex Tadman Bursary

In memory of Alex Tadman (C.A./46, F.C.A./86), and in honour of his contributions to the profession of Chartered Accountants, May Tadman Tallman has established an endowment fund with an initial gift of \$100,000 at the University of Manitoba in 2017. The purpose of the fund is to provide bursaries to students in the I.H. Asper School of Business who are pursuing studies towards a B.Comm. (Hons.) in Accounting. Each year, beginning in the 2018 – 2019 academic year, the available annual income from the fund will be used to offer one or more bursaries to undergraduate students who:

- (1) are enrolled full-time (minimum 60% course load) in their second year of study or higher with a declared a major in Accounting in the B.Comm. (Hons.) program in the I.H. Asper School of Business;
- (2) have achieved a minimum degree grade point average of 2.0;
- (3) have demonstrated financial need on the standard University of Manitoba bursary application form.

The selection committee will have the discretion to determine the number and value of awards offered each year based on the available funds.

The Dean of the I.H. Asper School of Business (or designate) will name the selection committee for this award.

This agreement may be amended by the mutual consent of the donor (or designate) and the University of Manitoba. All such amendments shall be in writing. In the absence of the donor (or designate), and providing all reasonable efforts have been made to consult, the Board of Governors of the University of Manitoba has the right to modify the terms of this award if, because of changed conditions, it becomes necessary to do so. Such modification shall conform as closely as possible to the expressed intention of the donor in establishing the award.

Bison Women's Hockey Scholarship

Inspired by Uncle Davey Einarsson and his generosity in establishing the Women's Volleyball Award in 2006, his niece Carla Sharman (B.A.[Adv.]/83) and Bill Sharman (M.B.A./83), have established an endowment fund at the University of Manitoba with an initial gift of \$12,500 in 2017. The purpose of the scholarship is to recognize the academic excellence of Bison Women Hockey players. Beginning in the 2018 – 2019 academic year, the available annual income from the fund will be used to offer scholarships to undergraduate students who:

- (1) are eligible to compete in U Sports and are members of the Bison Women's Hockey team;
- (2) are enrolled full-time, as defined by U Sports, in any faculty, college, or school at the University of Manitoba;
- (3) have achieved either:
 - (a) as an entering student, a minimum average of 80% on those high school courses used for admission to the University; or
 - (b) a minimum degree grade point average of 2.0;
- (4) will be enrolled in a minimum of 9 credit hours in each of the terms of competition.

The selection committee will have the discretion to determine the number and value of awards offered each year based on the available funds.

The Director of Athletics and Recreation (or designate) will name the selection committee for this award, which will include the Head Coach of the Bison Women's Hockey team (or designate).

This agreement may be amended by the mutual consent of the donor (or designate) and the University of Manitoba. All such amendments shall be in writing. In the absence of the donor (or designate), and providing all reasonable efforts have been made to consult, the Board of Governors of the University of Manitoba has the right to modify the terms of this award if, because of changed conditions, it becomes necessary to do so. Such modification shall conform as closely as possible to the expressed intention of the donor in establishing the award.

The terms of this award will be reviewed annually against the U Sports criteria governing "Athletic Financial Awards Policy" (also referred to as "Athletics Scholarships Policy"), currently numbered C50.10 in the U Sports Operations Manual.

Canadian Institute of Food Science and Technology Graduate Travel Award

In 2016, the Board of the Canadian Institute of Food Science and Technology (CIFST) Scholarship Trust decided to bring its operations to a conclusion, and in doing so established graduate awards at nine Canadian universities to support graduate students studying in food science programs. With a gift of just over \$25,000, an endowment fund was established at the University of Manitoba to recognize graduate students travelling to present their work at major events. Each year, beginning in 2018-2019, the available annual income from the fund will be used to offer one or more travel awards to graduate students who:

- (1) are enrolled full-time in the Faculty of Graduate Studies in a graduate program delivered by the Department of Food Science in the Faculty of Agricultural and Food Sciences, or in a discipline closely related to Food Science*;
- (2) have achieved a minimum grade point average of 3.5 based on the previous 60 credit hours (or equivalent) of study;
- (3) have been accepted to present either an oral or poster presentation at one of the following events:
 - (a) International Union of Food Science and Technology World Congress of Food Science and Technology,
 - (b) Canadian Institute of Food Science & Technology National Conference, or
 - (c) Institute of Food Technologists annual meeting.

* Students in departments outside of Food Science (including but not limited to Human Nutritional Sciences) are eligible to apply, provided that the research program is one that is an area of classic food science, or their supervisor is a member of CIFST.

Applications are available from the Department of Food Sciences and must be submitted by the advertised deadline.

Award selection will be based on the following (in order of importance):

- (i) academic performance;
- (ii) comments from letters of recommendation;
- (iii) the quality of the abstract submitted and proposed research results to be presented;
- (iv) the potential value of the meeting to the student's development.

Recipients will submit receipts for travel, registration, hotel and food expenses (based on current University of Manitoba *per diem* rates). Expenses will be reimbursed up to the value of the award offered. Funding must be used within the 12-month period following the date of the award offer. Recipients

graduating within the 12-month period following the date of the award offer must use the funding no later than six months from the date of convocation.

The selection committee will have the discretion to determine the number and value of awards offered each year based on the available funding and number of eligible students. If there are no suitable candidates in any given year, the award may be offered to students who otherwise meet criteria (1) and (2) and who will be attending, but not presenting at, either of the events listed as (a) or (c) in criterion (3) above.

The Vice-Provost (Graduate Education) and Dean of the Faculty of Graduate Studies (or designate) will ask the Head of the Department of Food Science (or designate) to convene the selection committee for this award.

The Board of Governors of the University of Manitoba has the right to modify the terms of this award if, because of changed conditions, it becomes necessary to do so. Such modification shall conform as closely as possible to the expressed intention of the donor in establishing the award.

Chinese Members Chapter of Engineers Geoscientists Manitoba Scholarship

The Chinese Members Chapter of Engineers Geoscientists Manitoba has established an annually funded entrance scholarship for students entering the Faculty of Engineering. The purpose of the scholarship is to recognize the academic excellence of International students entering the faculty directly from high school. Each year, beginning in 2017-2018 and ending in the 2021-2022 academic year, one scholarship valued at \$500 will be offered to an undergraduate student who:

- (1) is an International student;
- (2) is admitted to the Faculty of Engineering, via the Direct Entry Program Option;
- (3) will be enrolled full-time (minimum 80% course load) in the first year of study in the Faculty of Engineering;
- (4) has achieved the highest admission average (minimum 85%), based on Pre-Calculus Mathematics 40S, Physics 40S, and Chemistry 40S (or their equivalents).

The selection committee will be the Scholarships, Bursaries, and Awards Committee of the Faculty of Engineering.

The donor will notify the Financial Aid and Awards office by March 31 in any year this award is not to be offered.

This agreement may be amended by the mutual consent of the donor (or designate) and the University of Manitoba. All such amendments shall be in writing. In the absence of the donor (or designate), and providing all reasonable efforts have been made to consult, the Board of Governors of the University of Manitoba has the right to modify the terms of this award if, because of changed conditions, it becomes necessary to do so. Such modification shall conform as closely as possible to the expressed intention of the donor in establishing the award.

Desautels Faculty of Music Annual Scholarship Fund

Through the generosity of alumni and friends, the Desautels Faculty of Music has established the Desautels Faculty of Music Annual Scholarship Fund at the University of Manitoba in 2017. The purpose of the fund is to reward the academic achievements of students pursuing studies in the Desautels Faculty of Music. Beginning in the 2017 – 2018 academic year, the fund will be used to offer annual scholarships to undergraduate students who:

- (1) are enrolled full-time (minimum 80% course load) in any year of study in the Desautels Faculty of Music at the University of Manitoba;

- (2) have achieved a minimum degree grade point average of 3.5.

The selection committee will have the discretion to determine the number and value of awards offered each year based on the available funds.

The Faculty of Music will be responsible for contacting the Financial Aid and Awards office by no later than March 31 to confirm the available funds each year.

The Dean of the Desautels Faculty of Music (or designate) will name the selection committee for this award.

This agreement may be amended by the mutual consent of the donor (or designate) and the University of Manitoba. All such amendments shall be in writing. In the absence of the donor (or designate), and providing all reasonable efforts have been made to consult, the Board of Governors of the University of Manitoba has the right to modify the terms of this award if, because of changed conditions, it becomes necessary to do so. Such modification shall conform as closely as possible to the expressed intention of the donor in establishing the award.

Dr. Doug and Mrs. Sharon Garnett Bursary

Dr. Doug Garnett (D.M.D./66) and Sharon Garnett (Cert. Nurs.(T.&S.)/66) have established an endowment fund with the initial gift of \$20,000 at the University of Manitoba in 2016. The purpose of the fund is to support undergraduate students pursuing studies in the College of Dentistry. The donors have provided an additional \$1,000 to offer the first bursary during the 2017-2018 academic year. Each year, the available annual income from the fund will be used to offer one bursary to an undergraduate student who:

- (1) is enrolled full-time (minimum 60% course load) in the third year of study in the College of Dentistry at the University of Manitoba;
- (2) has achieved a minimum degree grade point average of 3.0;
- (3) has demonstrated financial need on the standard University of Manitoba bursary application form.

The selection committee will be the College of Dentistry Awards Committee.

This agreement may be amended by the mutual consent of the donor (or designate) and the University of Manitoba. All such amendments shall be in writing. In the absence of the donor (or designate), and providing all reasonable efforts have been made to consult, the Board of Governors of the University of Manitoba has the right to modify the terms of this award if, because of changed conditions, it becomes necessary to do so. Such modification shall conform as closely as possible to the expressed intention of the donor in establishing the award.

Max Rady College of Medicine Program Medal University Program Medal in Family Social Sciences

General Selection Criteria

The University Program Medal shall be awarded to the graduating student who:

- (1) has achieved the highest degree grade point average (3.75 or above); and,
- (2) has carried a full, normal course load (no transfers, repeats, resits, or supplementals in any academic or fieldwork portion of the curriculum, including internships) throughout the three year program.

Tie Breaking Mechanism

Only one winner is to be named each year in each eligible program. Ties are to be broken using criteria determined by individual faculties and schools. The following mechanism has been approved by Senate for the Governor General's silver medal for undergraduate excellence, and may serve as an example for the University Gold Medal:

- (1) the cumulative grade point average (G.P.A.) is to be calculated to the fourth decimal place;
- (2) preference is to be given to students who have a higher proportion of "A+"s and "A"s in a total program;
- (3) preference is to be given to students who have taken more than the required number of courses;
- (4) preference is to be given to students with a greater proportion of senior or advanced level courses in their program.

Number TEN Scholarship in Architecture

Number TEN Architectural Group has established an endowment fund at the University of Manitoba with gifts totaling \$25,000 by 2020. The purpose of the fund is to recognize and encourage Architecture students whose studies have a Northern Canada and/or Indigenous focus. Beginning in the 2019-2020 academic year, the available annual income from the fund will be used to offer one scholarship to a graduate student who:

- (1) is enrolled full-time in the Faculty of Graduate Studies, in the Master of Architecture program offered through the Faculty of Architecture;
- (2) has achieved a minimum grade point average of 3.5 based on the previous 60 credit hours (or equivalent) of study;
- (3) is developing a research project, studio project, or thesis project focused on issues relevant to Northern Canada and/or Indigenous culture(s).

If there are no graduate students who have met the above criteria, the scholarship will be offered to an undergraduate student who:

- (1) is enrolled full-time (minimum 80% course load) in the third or fourth year of study in the Architecture Option in the Bachelor of Environmental Design program offered through the Faculty of Architecture;
- (2) has achieved a minimum degree grade point average of 3.5;
- (3) has a research project or a studio project focused on issues relevant to Northern Canada and/or Indigenous culture.

To demonstrate how they have met criterion (3), all applicants are required to submit a concise statement (maximum 250 words) describing how their project intersects with issues facing Northern Canada and/or Indigenous culture(s).

Students will be eligible to receive this scholarship more than once, provided that they continue to meet the criteria outlined above.

The Vice-Provost (Graduate Education) and the Dean of the Faculty of Graduate Studies (or designate) will ask the Dean of the Faculty of Architecture (or designate) to name the selection committee for this award, which will include a representative from Number TEN Architectural Group.

This agreement may be amended by the mutual consent of the donor (or designate) and the University of Manitoba. All such amendments shall be in writing. In the absence of the donor (or designate), and providing all reasonable efforts have been made to consult, the Board of Governors of the University of Manitoba has the right to modify the terms of this award if, because of changed conditions, it becomes

necessary to do so. Such modification shall conform as closely as possible to the expressed intention of the donor in establishing the award.

OPUS Bursary

The Organization of Physics Undergraduate Students will make an annual contribution valued at \$600 to the University of Manitoba for a five-year term to offer the OPUS Bursary. The purpose of the award is to provide support and encouragement to undergraduate students pursuing studies in the Department of Physics and Astronomy. Beginning in 2017-2018 and ending in the 2021-2022 academic year, one bursary of \$600 will be offered to an undergraduate student who:

- (1) is enrolled full-time (minimum 60% course load) in any Honours, Joint Honours, or Major program offered by the Department of Physics and Astronomy at the University of Manitoba;
- (2) has achieved a minimum degree grade point average of 2.5;
- (3) has demonstrated financial need on the standard University of Manitoba bursary application form.

In the event that there are no eligible students, the award can be offered to a student in the Faculty of Science who has completed at least one 2000 level Physics course and is enrolled in or has completed a 3000 level Physics course in the year in which the bursary is tenable, and meets criteria (2) and (3).

The same student may hold the bursary in consecutive years provided they continue to meet the above criteria.

The donor will contact the Financial Aid and Awards office by no later than March 31 in any year this award is not to be offered.

The Head of the Department of Physics and Astronomy (or designate) will name the selection committee for this award.

This agreement may be amended by the mutual consent of the donor (or designate) and the University of Manitoba. All such amendments shall be in writing. In the absence of the donor (or designate), and providing all reasonable efforts have been made to consult, the Board of Governors of the University of Manitoba has the right to modify the terms of this award if, because of changed conditions, it becomes necessary to do so. Such modification shall conform as closely as possible to the expressed intention of the donor in establishing the award.

Rady Faculty of Health Sciences Program Medal University Program Medal in Health Studies

General Selection Criteria

The University Program Medal shall be awarded to the graduating student who:

- (1) has achieved the highest degree grade point average (3.75 or above) in the Bachelor of Health Studies program; and,
- (2) has carried a full, normal course load (no transfers, repeats, resits, or supplementals in any academic or fieldwork portion of the curriculum, including internships) throughout the three year program.

Tie Breaking Mechanism

Only one winner is to be named each year in each eligible program. Ties are to be broken using criteria determined by individual faculties and schools. The following mechanism has been approved by Senate for the Governor General's silver medal for undergraduate excellence, and may serve as an example for the University Gold Medal:

- (1) the cumulative grade point average (G.P.A.) is to be calculated to the fourth decimal place;
- (2) preference is to be given to students who have a higher proportion of “A+”s and “A”s in a total program;
- (3) preference is to be given to students who have taken more than the required number of courses;
- (4) preference is to be given to students with a greater proportion of senior or advanced level courses in their program.

University Program Medal in Health Sciences

General Selection Criteria

The University Program Medal shall be awarded to the graduating student who:

- (1) has achieved the highest degree grade point average (3.75 or above) in the Bachelor of Health Sciences program; and,
- (2) has carried a full, normal course load (no transfers, repeats, resits, or supplementals in any academic or fieldwork portion of the curriculum, including internships) throughout the three year program.

Tie Breaking Mechanism

Only one winner is to be named each year in each eligible program. Ties are to be broken using criteria determined by individual faculties and schools. The following mechanism has been approved by Senate for the Governor General’s silver medal for undergraduate excellence, and may serve as an example for the University Gold Medal:

- (1) the cumulative grade point average (G.P.A.) is to be calculated to the fourth decimal place;
- (2) preference is to be given to students who have a higher proportion of “A+”s and “A”s in a total program;
- (3) preference is to be given to students who have taken more than the required number of courses;
- (4) preference is to be given to students with a greater proportion of senior or advanced level courses in their program.

Schmerzzenfrei Dental Bursary

An endowment fund has been established at the University of Manitoba by Dr. C.J. Cottick. Dr Cottick’s family has had a long time association with the College of Dentistry. His father was a long time instructor at the college and his elder brother graduated in 1983. Dr. Cottick has worked at the College of Dentistry since graduating in 1990, as well as serving as President of the Dental Alumni Association (UMDAA). Dr. Cottick has an abiding interest in the progress, education and wellbeing of dental students. Each year, beginning in 2017-2018, the available annual income from the fund will be used to offer one bursary to an undergraduate student who:

- (1) is enrolled full-time (minimum 60% course load) in the third year of study in the College of Dentistry;
- (2) has achieved a minimum degree grade point average of 2.25;
- (3) has demonstrated financial need on the standard University of Manitoba Bursary Application form.

The selection committee will be the College of Dentistry Awards Committee.

This agreement may be amended by the mutual consent of the donor (or designate) and the University of Manitoba. All such amendments shall be in writing. In the absence of the donor (or designate), and providing all reasonable efforts have been made to consult, the Board of Governors of the University of Manitoba has the right to modify the terms of this award if, because of changed conditions, it becomes

necessary to do so. Such modification shall conform as closely as possible to the expressed intention of the donor in establishing the award.

William Wilson Muir Graduate Fellowship

With an initial gift of \$25,000 in 1997, Jean Elizabeth established an endowment fund at the University of Manitoba to honour her late husband, William Wilson Muir of Roland, Manitoba. The purpose of this fund is to support graduate students working in a research-based graduate program focusing on agronomy in the Faculty of Agricultural and Food Sciences. Each year, beginning in 2017-2018, the available annual income from the fund will be used to offer one fellowship to a graduate student who:

- (1) is enrolled full-time in the Faculty of Graduate Studies, in an M.Sc. or Ph.D. degree program delivered by a department in the Faculty of Agricultural and Food Sciences;
- (2) has obtained a minimum grade point average of 3.5 (or equivalent) based on the last 60 credit hours of study;
- (3) submits an application which consists of a one to two page (maximum 500 words) description of their research interest;
- (4) submits a letter of support from their graduate supervisor or proposed graduate supervisor.

Preference will be given to Canadian citizens, Permanent Residents, and to graduates of Canadian universities. The Fellowship is not automatically renewable but previous recipients may reapply. If the selection committee deems there to be two students of equal merit for this Fellowship, and if the funds are available from the unspent revenue allocation, a second award of equal value can be offered.

Recipients may hold the William Wilson Muir Graduate Fellowship concurrently with any other awards, consistent with policies in the Faculty of Graduate Studies.

The Vice-Provost (Graduate Education) and Dean of the Faculty of Graduate Studies (or designate) will ask the Dean of the Faculty of Agricultural and Food Sciences to convene the selection committee for this award.

The Board of Governors of the University of Manitoba has the right to modify the terms of this award if, because of changed conditions, it becomes necessary to do so. Such modifications shall conform as closely as possible to the expressed intent of the donor in establishing the award.

2. AMENDMENTS

Bernhard B. Fast Memorial Bursary

The following amendments were made to the terms of reference for the Bernhard B. Fast Memorial Bursary:

- The opening paragraph was revised to:
Mrs. Thelma Fast has established an endowment fund of \$50,000 at the University of Manitoba in memory of her husband, Bernhard B. Fast. Memorial gifts given in memory of Dr. Fast will be directed to this fund. The Manitoba Scholarship and Bursary Initiative has made a contribution to this fund. The available annual income from the fund shall support one or more bursaries, valued at a minimum of \$1,000 in the Max Rady College of Medicine at the University of Manitoba to students who:
- The biographical information was removed from the second paragraph and added to the end of the terms of reference under the heading of Biographical Information
- The numbered criteria were revised to:

- (1) *are enrolled in clerkship in the Max Rady College of Medicine at the University of Manitoba;*
- (2) *have chosen electives in Internal Medicine or Geriatrics;*
- (3) *have demonstrated financial need on the standard University of Manitoba bursary application form.*
- The standard Board of Governors Statement was added.

Betty Havens Centre on Aging Graduate Fellowship

The following amendments were made to the terms of reference for the Betty Havens Centre on Aging Graduate Fellowship:

- The numbered selection criteria were revised to:
 - (1) *is enrolled full-time in the Faculty of Graduate Studies, in either the first or second year of a Master's program, or is within the first four years of a doctoral program, and whose research focuses on aging;*
 - (2) *has achieved a minimum grade point average of 3.5 based on the previous 60 credit hours (or equivalent) of study;*
 - (3) *has demonstrated outstanding interest in, or commitment to, research in aging;*
 - (4) *is not a recipient of a major award valued at \$10,000 or greater in the year in which the fellowship is tenable.*
- The applications materials have been outlined:

Applicants will be required to submit: (i) a description of the proposed research and a statement of its practical applicability and relevance to aging, (ii) information on their educational background and research experience, (iii) an official transcript, and (iv) two letters of reference, one from the graduate advisor and one from another faculty member familiar with the student's research work. Both letters must be forwarded by the referees, directly to the Centre on Aging.
- The selection committee statement was revised to:

The Vice-Provost (Graduate Education) and Dean of the Faculty of Graduate Studies (or designate) will ask the Advisory Board of the Centre on Aging to name the selection committee for this award.
- The standard Board of Governors statement was added.

College of Registered Nurses Medals of Excellence

The following amendments were made to the terms of reference for the College of Registered Nurses Medals of Excellence:

- The name of the award has been changed to: ***Association of Registered Nurses Medals of Excellence.***
- The opening paragraph was changed to:

The Association of Registered Nurses of Manitoba (ARNM) offers four convocation medals to nursing students at the University of Manitoba, recognizing academic achievement and clinical excellence. The medals are to be presented annually at the spring convocation, and the recipients will be recognized at the ARNM awards banquet.
- The tie-breaking mechanism was removed from each section throughout this award and moved to the opening paragraph.

- The name of the College of Nursing was updated thought out the terms of reference.
- Criterion (2) under the Master of Nursing Program section was revised to:
(2) has demonstrated strong leadership throughout their program and;
- The following paragraph was added under the Master of Nursing Program section:
Candidates will be required to submit a letter of application (no more than 250 words) and a letter of support from an academic advisor outlining how they meet criterion (2).
- The following section was added:

PhD in Nursing Program

One medal will be offered to a graduate student who:

- (1) has successfully completed the PhD in Nursing Program as either a full-time or part-time student and;*
- (2) has demonstrated strong leadership throughout their program and;*
- (3) from among those who meet criteria (1) and (2), has achieved a minimum degree grade point average of 4.0.*

Candidates will be required to submit a letter of application (no more than 250 words) and a letter of support from an academic advisor outlining how they meet criterion (2).

The selection committee will be the Graduate Studies Committee of the College of Nursing.

Dr. Ivy Falardeau Memorial Travel Bursaries

The following amendments were made to the terms of reference for the Dr. Ivy Falardeau Memorial Travel Bursaries:

- The name of the award has been changed to: ***Dr. Ivy Falardeau Memorial Travel Awards***
- The opening paragraph was changed to:
In memory of Dr. Ivy Falardeau (M.D. '25), Miss Helen S. Smith has established a fund at the University of Manitoba. Each year \$1,000 will be available to offer awards of no less than \$100 to one or more students who:
- Criterion (2) was revised to:
(2) proceed in the next ensuing academic year to the next year in the M.D. program at The University of Manitoba.
- Criterion (4) was revised to:
(4) have completed and signed the Max Rady College of Medicine's Conference Travel Award Application.
- The standard Board of Governors Statement was added.

Dr. Mark Nickerson Graduate Entrance Scholarship in Pharmacology and Therapeutics

The following amendments were made to the terms of reference for the Dr. Mark Nickerson Graduate Entrance Scholarship in Pharmacology and Therapeutics:

- The following sentence was added to the paragraph after the numbered criteria:

For the purpose of this entrance award, the calendar year will be used (January 1 and continue through December 31).

- The selection paragraph was revised to:
The Vice-Provost (Graduate Education) and Dean of the Faculty of Graduate Studies (or designate) will ask the Graduate Studies Committee of the Department of Pharmacology and Therapeutics to name the selection committee for this award.
- The standard Board of Governors Statement was added.

Elaine Goldie Entrance Bursary

The following amendments were made to the terms of reference for the Elaine Goldie Entrance Bursary:

- Criteria (2) and (3) were revised to:
(2) have met the minimum admission requirements to University 1 or any faculty, college, or school with a Direct Entry program option;
(3) will be enrolled full-time (minimum 60% course load) in the first year of study in University 1 or any Direct Entry program option at the University of Manitoba;
- The following statement was added:
In the event that there are no students who meet all of the above criteria, the bursary may be awarded to a full-time undergraduate student (minimum 60% course load) in any year of study who meets criteria (1) and (4), with a satisfactory degree grade point average (minimum 2.5).

English-Speaking Union of Canada

The following amendments were made to the terms of reference for the English-Speaking Union of Canada:

- The fund is to be exhausted over the next five years, and the award withdrawn:
Beginning in 2017-2018 and ending in the 2020-2021 academic year, \$2,000 from the capital and available annual income will be used to offer a variable number of prizes. In 2021-2022 the last prizes will be offered. The value will be adjusted to ensure that all funds have been exhausted and the award will be withdrawn.
- The following statements were added:
All essays submitted for consideration to the Department of English, Film, and Theatre undergraduate essay awards are automatically considered for this prize.
The selection committee will have the discretion to determine the number and value of prizes offered. The values of the individual prizes will be based on the values of the other essay awards.
The Head of the Department of English, Film, and Theatre (or designate) will name the selection committee for this award.
The standard Board of Governors statement.

Ernest and Elizabeth McGirr Award for Academic Excellence

The following amendments were made to the terms of reference for the Ernest and Elizabeth McGirr Award for Academic Excellence:

- The fund will be used to offer two scholarships of equal value, instead of one.

- The numbered criteria were revised to:
 - (1) are admitted to, and will register full-time (minimum 80% course load) in University 1 or any Direct Entry program option in any faculty, college, or school at the University of Manitoba;*
 - (2) have graduated from Dauphin Regional Comprehensive Secondary School (DRCSS) in Dauphin, Manitoba;*
 - (3) have achieved the highest averages (minimum of 90%) on those courses considered for the University of Manitoba General Entrance Scholarship Program.*
- The following statement was added:

The status of the fund will be reviewed from time-to-time and, if the earnings on the fund permit, the number of awards will be increased.

Helen Humphrey Ross Prize of Excellence

The following amendments were made to the terms of reference for the Helen Humphrey Ross Prize of Excellence:

- Criteria (1) and (4) were revised to:
 - (1) was enrolled full-time in the Faculty of Graduate Studies in the first year of the Master of Physical Therapy program at the College of Rehabilitation Sciences at the University of Manitoba;*
 - (4) was a student member of the Canadian Physiotherapy Association (CPA) in the first year of the program and continues to be a student member during the second year of the program.*

Helgason Travel Award for Graduate Students in Plant Science

The following amendments were made to the terms of reference for the Helgason Travel Award for Graduate Students in Plant Science:

- The biographical information has been removed from the opening paragraph and moved to the end of the terms under a section called Biographical Information.
- The award will now be offered to one or more graduate students.
- Criteria (1) and (2) were revised to
 - (1) are enrolled full time in the Faculty of Graduate Studies and have completed at least one year of an M.Sc. or Ph.D. program delivered by the Department of Plant Science;*
 - (2) have achieved a minimum degree grade point average of 3.0 (or equivalent) based on the last 60 credit hours of study (or equivalent);*
- The application process was changed to:

Applications will be available annually from the Department of Plant Science and must be submitted to the Associate Head, Department of Plant Science, by the advertised deadline. Funding must be used within the 12 month period following the date that the award recipients are announced. Recipients graduating within the 12 month period following the date that the award recipient is announced must use the funding received within six months of the date of convocation.

Selection of the recipient is based on:

 - academic performance;*
 - letters of recommendation;*

(iii) *quality of the abstract submitted and proposed research results to be presented;*

(iv) *the potential value of the meeting to the student's development.*

- The reimbursement paragraph was revised to:

The award recipient will submit receipts for travel, registration, hotel and food expenses (based on current University of Manitoba per diem rates). Expenses will be reimbursed up to the current maximum value of the award.

- The following sentence was added:

Recipients may not hold more than one travel award offered through the Department of Plant Science within the same calendar year.

- The selection committee paragraph was changed to:

The Vice Provost (Graduate Education) and Dean of the Faculty of Graduate Studies (or designate) will ask the Chair of the Awards Committee of the Department of Plant Science to convene the selection committee for this award. Any unspent revenue may be used at the discretion of the selection committee to award additional Fellowships.

Jack MacDonnell Scholarship for Research in Aging

The following amendments were made to the terms of reference for the Jack MacDonnell Scholarship for Research in Aging:

- The numbered selection criteria were revised to:

(1) is enrolled full-time in the Faculty of Graduate Studies, in either the first or second year of a Master's program, or is within the first four years of a doctoral program, and whose research focuses on aging;

(2) has achieved a minimum grade point average of 3.5 based on the previous 60 credit hours (or equivalent) of study;

(3) has demonstrated outstanding interest in, or commitment to, research in aging;

(4) is not a recipient of a major award valued at \$10,000 or greater in the year in which the fellowship is tenable.

- The applications materials have been outlined:

Applicants will be required to submit: (i) a description of the proposed research and a statement of its practical applicability and relevance to aging, (ii) information on their educational background and research experience, (iii) an official transcript, and (iv) two letters of reference, one from the graduate advisor and one from another faculty member familiar with the student's research work. Both letters must be forwarded by the referees, directly to the Centre on Aging.

- The selection committee statement was revised to:

The Vice-Provost (Graduate Education) and Dean of the Faculty of Graduate Studies (or designate) will ask the Advisory Board of the Centre on Aging to name the selection committee for this award.

- The standard Board of Governors statement was added.

Lamari Travel Award for Graduate Studies in Plant Science

The following amendments were made to the terms of reference for the Lamari Travel Award for Graduate Studies in Plant Science:

- The biographical information has been removed from the opening paragraph and moved to the

end of the terms under a section called Biographical Information.

- Criteria (1) and (2) were revised to:
 - (1) *are enrolled full-time in the Faculty of Graduate studies and have completed at least one year of an M.Sc. or Ph.D. program delivered by the Department of Plant Science;*
 - (2) *have achieved a minimum grade point average of 3.0 (or equivalent) based on the last 60 credit hours of study (or equivalent);*
- The selection of the recipients numbered criteria was revised to:
 - (i) *academic performance;*
 - (ii) *letters of recommendation;*
 - (iii) *the quality of the abstract submitted and of the proposed research results to be presented;*
 - (iv) *the potential value of the meeting to the student's development.*
- The selection committee paragraph was changed to:

The Vice-Provost (Graduate Education) and Dean, Faculty of Graduate Studies will ask the Chair of the Awards Committee of the Department of Plant Science to convene the selection committee for this award. Any unspent revenue may be used at the discretion of the selection committee to award additional Fellowships.
- The standard Board of Governors Statement was added.

Manitoba Blue Cross Medical Rehabilitation Scholarship

The following amendments were made to the terms of reference for the Manitoba Blue Cross Medical Rehabilitation Scholarship:

- The name of the award has been changed to: ***Manitoba Blue Cross Rehabilitation Sciences Scholarship.***
- The numbered criteria for the Occupational Therapy Scholarship were revised to:
 - (1) *is enrolled full-time in the Faculty of Graduate Studies in the Master of Occupational Therapy program;*
 - (2) *was a resident of Manitoba at the time they were offered admission into the Master of Occupational Therapy program, and continues to reside in Manitoba throughout their program;*
 - (3) *has achieved the highest standing in the first year of the Master of Occupational Therapy program, with a minimum grade point average of 3.5;*
 - (4) *in the next ensuing academic year is enrolled full-time in second year Master of Occupational Therapy program.*
- The numbered criteria for the Physical Therapy Scholarship were revised to:
 - (1) *is enrolled full-time in the Faculty of Graduate Studies in the Master of Physical Therapy program;*
 - (2) *was a resident of Manitoba at the time they were offered admission into the Master of Physical Therapy program, and continues to reside in Manitoba throughout their program;*
 - (3) *has achieved the highest standing in the first year Master of Physical Therapy program, with a minimum grade point average of 3.50;*
 - (4) *in the next ensuing academic year is enrolled full-time in the second year Master of Physical Therapy program.*

- The numbered criteria for the Respiratory Therapy Scholarship were revised to:
 - (1) *is enrolled full-time in the Bachelor of Respiratory Therapy program;*
 - (2) *was a resident of Manitoba at the time they were offered admission into the Bachelor of Respiratory Therapy program, and continues to reside in Manitoba throughout their program;*
 - (3) *has achieved the highest standing in the second year of the Respiratory Therapy program, with a minimum grade point average of 3.50;*
 - (4) *in the next ensuing academic year is enrolled full-time in the third year of the Bachelor of Respiratory Therapy program.*
- The following sentence was revised to:

The Manitoba Blue Cross Rehabilitation Sciences Scholarship may not be held with any other scholarships or prizes with a combined value greater than \$1,000.
- The selection committee paragraph was revised to:

The Vice-Provost (Graduate Education) and the Dean of the Faculty of Graduate Studies will ask the Awards Committee of the College of Rehabilitation Sciences to act as the selection committee for the graduate awards in Occupational Therapy and Physical Therapy. The Awards Committee for the College of Rehabilitation Sciences will also act as the selection committee for the undergraduate award in Respiratory Therapy.
- The standard Board of Governors Statement was added.

Manitoba Pork Council Prize

The following amendments were made to the terms of reference for the Manitoba Pork Council Prize:

- The amounts of the annually funded prizes (one for each of the diploma and degree programs) have been increased to \$1,000 each.
- The numbered criteria for the Diploma prize were revised to:
 - (1) *has successfully completed the program requirements of the Agriculture Diploma program offered by the School of Agriculture at the University of Manitoba;*
 - (2) *was enrolled full-time (minimum 80% course load) in the School of Agriculture;*
 - (3) *has achieved a minimum degree grade point average of 3.0.*
- The following sentence was removed:

This award will be made annually at the diploma graduation banquet. In the case of a tie, the prize will be offered to the student with the highest cumulative grade point average.
- The numbered criteria for the Degree prize was revised to:
 - (1) *has successfully completed the degree requirements for the Bachelor of Science in Agriculture program in the Faculty of Agricultural and Food Sciences at the University of Manitoba;*
 - (2) *was enrolled full-time (minimum 80% course load) in the Faculty of Agricultural and Food Sciences;*
 - (3) *has achieved a minimum degree grade point average of 3.0.*
- The following sentence was removed:

In case of a tie the CGPA will be used as a tie breaker.

- The following sentence was added to both prizes:
Preference will be given to students who demonstrate an interest in animal production or animal nutrition.
- The selection committee statement for both prizes was revised to:
The selection committee will be the Faculty of Agricultural and Food Sciences Awards Committee.
- The following sentence was added:
The donor will contact Financial Aid and Awards by March 31 in any year that this award will not be offered.
- The standard Board of Governors Statement was added.

Michelle Cloutier Memorial Award for Student Involvement

- The following amendments were made to the terms of reference for the Michelle Cloutier Memorial Award for Student Involvement:
- The opening paragraph was changed to:
Two awards, each valued at \$250, are allotted by the Max Rady College of Medicine Student Endowment Fund. The purpose of this award is to encourage and acknowledge student engagement within the Family Social Sciences program at the University of Manitoba.
Each year, two scholarships will be given to two undergraduate students who:
- The numbered criteria were revised to:
 - (1) *are enrolled full time (80% course load) in the Max Rady College of Medicine in the second year of the Family Social Sciences Program;*
 - (2) *have a minimum degree grade point average of 3.0;*
 - (3) *demonstrates engagement in the Family Social Science program. This may include leading student based committees, student representation on departmental committees, and/or planning and organizing department related events, or other related events.*
- The application paragraph was revised to:
To support criterion (3), candidates will be required to submit a short letter (maximum 500 words) outlining their engagement in the Family Social Science program, as well as two letters of support from persons familiar with the student's engagement in student related activities in Family Social Sciences.
- The selection committee paragraph was revised to:
The Dean of the Max Rady College of Medicine (or designate) will name the selection committee.
- The standard Board of Governors Statement was added.

Norma E. Watts Walker Award

- The following amendments were made to the terms of reference for the Norma E. Watts Walker Award:
- The opening paragraph was changed to:
To mark the retirement of Professor Norma E. Watts Walker from the Department of Family Studies in the former Faculty of Human Ecology, her colleagues and friends established a fund in

her honour. The Manitoba Scholarships and Bursaries Initiative has made a contribution to this fund. The available annual interest, with a minimum value of \$200, has been used to support an annual award beginning after the spring series of examinations in 1975. This award is now available to an undergraduate student who:

- The numbered criteria were revised to:
 - (1) is enrolled full-time (minimum 80% course load) in the Max Rady College of Medicine in their third year of the Family Social Sciences program;*
 - (2) is majoring in the Child and Adolescent Option;*
 - (3) demonstrates outstanding professional potential and personal qualities.*
- The following sentence was added:

To satisfy criterion (3), applicants will be required to submit a short letter (maximum 500 words) in support of their application.
- The selection paragraph was revised to:

If, in the judgement of the selection committee, there are two or more well qualified students in any given year, the award may be divided between such qualified candidates. If, there is no qualified student in any given year, no award needs to be made in that year, and the funds will be returned to the capital of the fund.
- The following sentences were removed:

The capital of the fund will be kept intact. To the capital of the fund, further contributions can be made at any time. The Manitoba Scholarships and Bursaries Initiative has made a contribution to this fund.

If a student who graduates at the regular May Convocation receives this award, such student's name will be duly noted in the awards section of the Convocation Proceedings.
- The selection committee paragraph was revised to:

The selection committee will be named by the Dean of the Max Rady College of Medicine (or designate).
- The standard Board of Governors Statement was added.

Sam And Esther Sair Scholarship

The following amendments were made to the terms of reference for the Sam and Esther Sair Scholarship:

- The opening paragraph was revised to:

A scholarship has been established by Skills Unlimited at The Winnipeg Foundation to assist qualified individuals who wish to pursue special studies in the rehabilitation of persons with long term mental disorders as part of their training in Psychiatry, Psychology, or Occupational Therapy or who have completed formal training and who show aptitude and willingness. The Winnipeg Foundation will confirm the value of these awards annually. In each year when the award is offered, one scholarship will be offered to a graduate student who:
- The numbered criteria were revised to:
 - (1) is enrolled full-time in the Faculty of Graduate Studies at the University of Manitoba, in a Master's or Ph.D. program in the Psychiatry, Psychology, or Occupational Therapy departments.*
 - (2) have achieved a minimum grade point average of 3.5 (or equivalent) in the last 60 credit hours (or equivalent);*

(3) have demonstrated an interest and aptitude for special studies in the rehabilitation of persons with long term mental disorders.

- The following paragraph was removed:

The scholarship is administered by the Faculty of Medicine. Selection of a successful candidate will be made by the Dean of Medicine in consultation the Provincial Director of Psychiatric Services. Details of application procedures are available on request from the office of the Dean of Medicine.

- The following application process was added:

The application will consist of:

- (i) *a letter (maximum 500 words) explaining the student's work on the rehabilitation of persons with long term mental disorders;*
 - (ii) *a curriculum vitae;*
 - (iii) *a current transcript.*
- The selection committee paragraph was revised to:

The Vice-Provost (Graduate Education) and Dean of the Faculty of Graduate Studies (or designate) will ask the Vice-Provost (Health Studies) and Dean of the Rady Faculty of Health Sciences (or designate) to name and convene the selection committee. The committee will include at least one representative from the Department of Psychiatry, the Department of Psychology, and the Department of Occupational Therapy.
- The standard Board of Governors statement was added.

Willy Wiebe Graduate Fellowship in Agricultural and Food Sciences

The following amendments were made to the terms of reference for the Willy Wiebe Graduate Fellowship in Agricultural and Food Sciences:

- Criteria (1) and (2) were revised to:
 - (1) *is enrolled as a full-time student in the Faculty of Graduate Studies at the University of Manitoba in a Master's or Ph.D. program in Agricultural and Food Sciences;*
 - (2) *as a Master's student, achieved a minimum grade point average of 3.5 in the last 60 credit hours completed in their undergraduate program or, as a Ph.D. student, achieved a minimum grade point average of 3.75 in their Master's program;*
- The renewal paragraph was changed to:

The fellowship can be renewed once by the same recipient in a Master's program, and twice for the same recipient in a Ph.D. program. The fellowship recipient will receive a renewal provided they are making satisfactory progress in their program. In years when a renewal of the award is made, no new award will be offered. If, in the judgment of the selection committee, no applicants meet the award criteria in a given year, the award will not be made in that year.
- The standard Board of Governors statement was added.

3. WITHDRAWALS

Bristol Aerospace Limited - Robert H. May Bursary

This award is being withdrawn at the request of the donor, the trust has been depleted.

Distance and Online Education Scholarships

This award is being withdrawn at the request of the donor.

Mike Ridley Award

This award is being withdrawn at the request of the donor.

Report of the Senate Committee on Academic Review RE: Undergraduate and Graduate Program Reviews

Preamble:

1. The Terms of Reference for the Senate Committee on Academic Review (SCAR) are found on the web at:
http://www.umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/489.htm
2. At its meeting on February 17, 2017, the committee discussed a request from Senate Executive that Senate receive additional information from SCAR on academic program reviews.
3. At the same meeting, the Committee considered summaries of one undergraduate program review and two graduate program reviews.

Observations:

1. The committee considered a request from the Senate Executive Committee that Senate receive additional information from SCAR on the academic program reviews. The committee determined that it would be appropriate for Senate to receive the summaries of undergraduate and graduate program reviews that are prepared for the committee by the Office of the Provost and Vice-President (Academic) and the Faculty of Graduate Studies, respectively.

The committee was advised that the Office of the Provost and Vice-President (Academic) is reviewing the University's policy and procedure on *Academic Program Reviews*. As part of that exercise, the procedure might be revised to formally stipulate that SCAR provide Senate with information on the academic program reviews, following a review by that committee. Any revisions to the policy and procedure that might be proposed would be considered by SCAR, for recommendation to Senate.

2. The Committee considered a summary of one undergraduate program review concerning French, Spanish and Italian (Attachment I).
3. The Committee considered summaries of two graduate program reviews, including Human Nutritional Sciences (Attachment II) and Psychology. (Attachment III).

Respectfully submitted,

Dr. David Collins, Chair
Senate Committee on Academic Review

Date: February 9, 2017

To: Members of the Senate Committee on Academic Review (SCAR)

From: David Collins, Vice-Provost (Integrated Planning and Academic Programs)

Subject: **Report on the Undergraduate Program Review, French, Spanish and Italian**



1. Preamble

In May 2000, the Senate of the University of Manitoba endorsed a process for the periodic review of undergraduate programs to assess the quality of undergraduate programming presently provided at the University, and to stimulate strategic planning and actions for future enhancements. The purpose of this report is to summarize the highlights of the undergraduate program review team's evaluation of the programs in the Department of French, Spanish and Italian (FSI), the responses to the report, recommendations, actions taken to date, and a disposition of the process from the perspective of the Provost.

2. Chronology

This was the first review of the undergraduate programs in FSI under its new departmental name and under the Senate approved policies and processes of May 2000; the last review of these programs was in 1992. The current review was initiated in October 2012, but was delayed. The Self-Evaluation Report (SER) was subsequently completed in May 2015, and an external review team (the reviewers) comprising two external members (Dr. Larry Steele, Mount Saint Vincent University and Dr. Virrotia Frigerio, Dalhousie University) and one internal member (Dr. Erik Thomson, History, University of Manitoba) undertook a site visit over October 15-16, 2015. The reviewers met with relevant academic and administrative staff and students in FSI, and in the Faculty of Arts and the Office of the Provost. The report of the reviewers (the review report) was submitted in November 2015. The response from FSI was received from the Acting Head, Dr. Constance Cartmill, in February 2016, and the response from the Faculty of Arts was received from the Associate Dean (Undergraduate Studies), Dr. Steven Lecce, in May 2016. All of the above documents accompany this report, and I would strongly encourage you to read these documents.

On behalf of the Provost, I would like to thank everyone who worked so diligently on this review.

3. Program/Unit Overview

FSI, established in 1994, is a modern languages department offering courses in literature, culture, and language-studies. The French program is the largest of the unit's offerings, with the bulk of teaching and enrolment in this area. The Spanish program has grown in popularity over the years and currently participates in the interdisciplinary Latin American Studies program. The Italian program is the smallest of the three programs and is subsidized by the Cassamarca Foundation, an Italian philanthropic organization that promotes Italian culture. In all three areas, students begin with an introductory use of language and specialize as they progress through their programs. In recent years, FSI has expanded their program, introducing courses on cinema, popular culture, feminist and post-modernist theory, and human rights. They have also hired a specialist in Francophone Africa. At the time of the review, the Department was comprised of twelve permanent faculty appointments; eight in French, three in Spanish and one in Italian. Teaching duties are supplemented by sessional appointments and teaching assistants, two of whom are hired annually through a government program in France. FSI is supported by one full-time administrative assistant and one-part time office assistant.

The academic offerings in French, Spanish and Italian include the following undergraduate programs:

- French: B.A. (Hons.), B.A. (Adv.), B.A., Minor/B.A.I.S. Concentration
- Spanish: B.A. (Adv.), B.A., Minor/ B.A.I.S. Concentration
- Italian: B.A. (Adv.), B.A., Minor/B.A.I.S. Concentration

The department also teaches beginner and intermediate Portuguese, provides service teaching for many programs, and administers language examinations for graduate students.

While the documents addressing the 1992 review were not made available in the current review, the SER does reference outcomes arising from that review, noting that the department was doing a good job in difficult times at that juncture. While some of the concerns raised in 1992 have been addressed - such as a greater cohesiveness within and across the department, and increased success rates in the introductory courses with the splitting of the 6 credit-hour introductory courses into two 3 credit-hour courses - FSI continues to convey concerns about resources, and a feeling that their programs are undervalued.

4. Academic Program Review

The review report notes that the reviewers were quite impressed by the way that FSI functions, considering that it "houses four different language programs of varying size and importance". Faculty were described as actively cooperative and respectful, and having a true sense of common purpose. While the reviewers comments were generally positive, they did voice concerns about low morale within the unit, ascribing it to a lack of alignment between the potential of the department, and the policies and priorities of administration, both within the Dean's Office and centrally. The reviewers also posit that until this issue is resolved and appropriate resources and support are made available to the various language programs, the Department's offerings and its ability to produce excellent graduates will remain somewhat precarious.

Notwithstanding the above, the French program was characterized as providing a suitable variety of courses across all levels. The reviewers noted an active student society, and a high level of student satisfaction. While efforts to revitalize course offerings were lauded, it was also recommended that the program as a whole be reviewed and changes made as identified.

The Spanish program was characterized as having great potential for growth, given what the reviewers characterized as the current importance of Latin America, both economically and culturally. The reviewers were unable to meet with the one faculty member associated with the Italian program during the course of the site visit but were provided with additional comments in writing.

The reviewers did not place the undergraduate programs in any category; however, did make nine recommendations addressing possible improvements. The recommendations, together with the responses from both FSI and the Dean's Office, follow below.

5. Recommendations and Responses

In prefacing his response to the review, Dr. Steve Lecce, Associate Dean (Undergraduate), Faculty of Arts, raised concerns with the reviewer's comments about the perception of low morale, particularly as this was ascribed to the broader Faculty. To reach such a conclusion following interviews within one Faculty unit raises many concerns. As Dr. Lecce notes, FSI is not unique in being subject to budgetary pressures. Dr. Lecce stressed that the central role that FSI and its programs play in the humanities, languages and liberal arts, is fully recognized by the Faculty of Arts. Further, that any stated (or implied disconnect) is more likely to be a reflection of budget realities and not a reflection of any targeted policy on restricting enrolments in specific units (a policy that does not exist within the Faculty). In my interview with the reviewers, I reinforced this view from the broader perspective of the University.

- 1. That the university administration take proactive steps to reassure Department members with regards to the importance of their contribution to the university community as a whole, and that these declarations be supported by concrete measures to support the Department in its mission.*

The department agrees with this and believes that the remaining recommendations need to be heeded for this to be properly addressed. For their part, they have been working on increasing the profile of the unit including updating their website, distributing and developing a newsletter and other promotional materials, and developing exchanges with France and Costa Rica.

The Dean's Office does not agree with the characterization that many of the concerns and problems raised in the review stem from the perceived value of importance (or lack thereof) of the programs in FSI. Dr. Lecce indicates that they "will work with the Department to make the best use of its present resources (human and material), as well as to secure an equitable distribution of future ones given enrolment trends, budgetary constraints, and potential opportunities for expansion in each of the three programs." He further recommends that the department organize a retreat to examine the mission and strategic priorities of the unit from within, not only to address the challenges and opportunities outlined in the review report, but also to expand on the growing sense of community across the programs.

- 2. That the University administration at least maintain the present faculty complement of the French, Spanish and Italian Program (including sessionals) by ensuring that any departing or retiring members be replaced, in order to preserve the quality of education.*

See recommendation 3.

3. *That the Italian program be given the tools it needs to achieve its potential with the creation of a new position at the professor level (language, literature and culture).*

FSI will be requesting two, tenure track positions, one for the Italian program and one to help with shortfalls in French, especially given some anticipated faculty departures over the next few years. The Dean's Office reiterates their commitment to FSI; however, they note that while in previous years faculty lines would automatically return to the Department, the current process for redistribution under budgetary constraints is based on identified need and that their office must take into account all units when making these decisions.

4. *That the University invest in lower level language courses so that there is a larger student pool available to take more advanced literature and culture courses.*

See recommendation 5.

5. *That registration in Introductory French classes be lowered from the present excessive number of 40 students per class to an absolute maximum of 25 students per class.*

The department agrees with this recommendation and indicates that one way to assist morale, and to improve on pedagogy, would be to reinstate the enrolment limit of 25 on the introductory courses and to add at least one more section for each course. In response, the Dean's Office notes that there are no new resources to increase section numbers; however, an assessment of the correlation between enrolment in introductory courses and declared majors may lead the department to make decisions on the reallocation of resources from some upper level courses into the lower levels. It was also suggested that the department look into how larger sections work in other programs and other institutions.

6. *That the Department conduct outreach efforts towards Indigenous and Métis students with the goal of increasing the numbers of Aboriginal students attending university, in accordance with the university's goal of reaching out to traditionally under-represented groups.*

The department will begin promoting existing courses that contain relevant course materials as well as highlight related guest lecturers and conference speakers on their website. They will also work with the Dean's Office on recruitment in these areas. The Dean's Office welcomed a proposed joint-appointment between FSI and Native Studies for the purposes of an Article 18 request.

7. *That French members of the Department involve themselves in a collective re-examination of their program of study, driven by a discussion of the nature of the program itself, its intended target groups and the skills it should provide them with, compared to presently available means.*

The department has indicated that they will appoint two members to review the suite of course offerings and associated texts and program structures to make recommendations accordingly. The Dean's Office encourages the inclusion of Spanish and Italian members in these discussions to bolster the departmental community.

8. *That Spanish and Italian consider the creation of new intermediate language classes (when means to do so are made available) to address a perceived gap between first and second-year classes.*

The department does not feel that there are sufficient resources in place to address this recommendation and notes the greater need for intermediate courses in the French programs as many students come directly from high school immersion programs and by-pass the introductory courses. This is not seen to a similar extent in the Spanish and Italian programs so students should be getting what they need pedagogically from the introductory course. However, two Spanish faculty members have agreed to teach introductory courses in an effort to attract more students into second year. The Dean's Office notes that, even without new resources, they hope that the department will continue to examine retention rates between first and second year.

9. *That the Department create a position of Undergraduate Advisor to better serve students.*

The review team indicated surprise that the position of undergraduate advisor had not been assigned to a dedicated member of faculty, as is often the case at other institutions with which they were familiar. In response, the Department notes that this role is currently shared by the Head, Associate Head, Grad Chair and Spanish coordinator, all of whom receive teaching releases for this work. As there are not sufficient resources to support additional teaching releases, they will ensure these roles are made clear on the website. The Dean's Office does not support the recommendation as this goes against the existing advising model within the Faculty and within the institution. While they agree that developing relationships with faculty members is important, and that the current structure allows for this, students should ultimately be referred to the program advisors within the Faculty Office.

6. Summary

In the Faculty of Art's response to this review, Dr. Steven Lecce suggests that the central conclusion of the reviewers is consistent with that arising from the earlier 1992 review; that is, "the department has been doing a good job in difficult circumstances"—I would endorse this conclusion. I would also endorse his characterization of this review as equivocal; on one hand speaking to a number of positive changes, such as highly motivated faculty and program popularity, and on the other hand, speaking to the "precarious" position of the programs, and concerns about marginalization by administration both in the Faculty of Arts and centrally. In reaching their conclusion, the reviewers argue that providing the "concrete measures" necessary to support the Department will convey an appreciation of the value of their programs; in this, the reviewers appear to be confusing necessity and sufficiency. The argument may have some validity in times of fiscal growth; however, we are all operating in a climate of constraint. As such, the lack of dedicated new resources should not be construed as reflecting the value of the unit's programs to the institution.

Notwithstanding my concerns, I believe discussions arising from this review will be beneficial. I strongly endorse Dr. Lecce's recommendation that the department organize a retreat to examine the mission and strategic priorities of the unit from within, not only to address the challenges and opportunities outlined in the review report, but also to expand on the growing sense of community across the programs. I am sure that the Faculty of Arts would contribute to this event as appropriate.

7. Recommendations for Follow-up

I would request that the Department of French, Spanish and Italian follow-up on the below:

- i. An update on the review of introductory course offerings. This should include, but not be limited to, a better understanding of student demand in light of the recent implementation of waitlist functionality on Aurora Student, any correlations identified between introductory enrolment and major enrolment, and any shifts in resources directed at introductory offerings.
- ii. An update of the curricular review of the French programs.
- iii. An update on plans to hold a Departmental retreat involving all areas of FSI, as well as any outcomes arising.

Please forward comments addressing these issues to the Chair of SCAR no later than **February 1, 2018**.

Cc: Janice Ristock, Provost and Vice-President (Academic)
Rob Hoppa, Acting Dean, Faculty of Arts
Jason Leboe-McGowan, Associate Dean for Undergraduate Studies, Faculty of Arts
Heidi Marx, Associate Dean for Undergraduate Studies, Faculty of Arts
Maria Martinez, Head, Department of French, Spanish and Italian
Jeff Leclerc, University Secretary
Cassandra Davidson, Academic Programs Specialist, Office of the Provost
Jennifer Chappellaz, Confidential Assistant to the Associate Deans, Faculty of Arts



Graduate Studies

Attachment II

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January 9, 2017

To: Dr. David Collins, Vice-Provost (Academic Planning & Programs), Office of the Vice-President (Academic) & Provost

From: Dr. Xikui Wang, Associate Dean, Faculty of Graduate Studies

Re: Faculty of Graduate Studies Response to the Graduate Program Review of the Department of Human Nutritional Sciences

Xc: Dr. Todd A. Mondor, Acting Vice-Provost (Graduate Education) and Dean (Faculty of Graduate Studies)

Dr. Jay Doering, Associate Vice-President (Partnerships), Office of the Vice-President (Research & International)

Dr. Karin Wittenberg, Dean, Faculty of Agricultural and Food Sciences

Dr. James House, Head, Department of Human Nutritional Sciences

Dr. Mohammed Moghadasian, Graduate Chair, Department of Human Nutritional Sciences

Ms. Cassandra Davidson, Undergraduate Program Analyst, Office of the Provost & Vice-President (Academic)

PREAMBLE

In May 2000, the Senate of the University of Manitoba endorsed a process for the periodic review of graduate programs. The primary purpose of these comprehensive program-specific evaluations is to assess the overall quality of graduate education presently provided, and to stimulate strategic planning and actions for future enhancements. The first-cycle reviews have concluded and the second cycle is presently underway.

A graduate program review requires an investment of time and energy on the part of many people including support staff, students, faculty, and administrators. Nonetheless it is a critical process that can be instrumental in enhancing the quality of graduate education at the University of Manitoba by

identifying those program elements that are working well and those that might be improved. On behalf of the Faculty of Graduate Studies, I would like to thank all those who contributed so thoughtfully and conscientiously to this important undertaking.

On April 26 and 27, 2016, a review team comprised of Dr. G. Harvey Anderson (University of Toronto), Dr. David D. Kitts (University of British Columbia), and Dr. Peter Cattini (University of Manitoba) convened on campus to review the graduate program in the Department of Human Nutritional Sciences. Their assessment report was received by the Faculty of Graduate Studies (FGS) on June 14, 2016. The Department of Human Nutritional Sciences submitted its written response on September 30, 2016 and Dr. Karin Wittenberg provided her perspective on October 19, 2016, as Dean of the Faculty of Agricultural and Food Sciences. I met with Dr. James House, Department Head of Human Nutritional Sciences and Dr. Mohammed Moghadasian, Graduate Chair of Human Nutritional Sciences, on November 30, 2016 to discuss the review, its recommendations, and the Department's response and plan.

HIGHLIGHTS OF THE REVIEW AND RESPONSES

Overall Evaluation

The review team evaluated the graduate program in the Department of Human Nutritional Sciences as falling in Category II, requiring minor revision or restructuring to enhance effectiveness or appeal. The assessment of the graduate programs in Human Nutritional Sciences was highly positive. The review team viewed the recent change in budget Faculty (of Agricultural and Food Sciences) was positive and appropriate, and the graduate program in Human Nutritional Sciences is strategically important in relation to the strategic directions of the budget faculty. The Department has a strong and effective leadership and three primary research areas, including metabolic and molecular nutrition, food quality and acceptability, and community nutrition. There is a high level of excellence and productivity in faculty research. Faculty members and colleagues located at the Canadian Centre for Agri-Food Research in Health and Medicine (CCARM) and the Richardson Centre for Functional Foods and Nutraceuticals (RCFFN) have exceptional breadth of expertise in molecular nutrition and clinical nutrition. Graduate training opportunities appear to be well supported by available resources in terms of physical space, and there is enormous potential for interdisciplinary training opportunities for both M.Sc. and Ph.D. students. This requires maintaining a critical mass of faculty members to reach the full potential of the interdisciplinary program. Although the PhD program is relative new, the Department as reviewed appears to be strong and healthy, offering high quality graduate programs that are fully in-line with the University of Manitoba's mandate. Both the quality of students and quality of graduate student supervision appear to be good. The review team particularly praised the annual Graduate Student Symposium which is described by the Department as a "signature event". This event provides an opportunity for leadership and research training of graduate students.

The review team also raised a number of challenges, including inadequate graduate student funding, limited orientation for new graduate students, issues with the candidacy examination, issues with graduate courses, and uncertainty around merging the Department of Human Nutritional Sciences and the smaller but important Department of Food Sciences.

The committee's main recommendations and suggestions for improvement to the graduate programs are summarized below along with the relevant Department and Faculty responses.

Main Review Recommendations and Suggestions

1. Minimum stipends and durations for both entering M.Sc. students and Ph.D. students are already in place in other Departments at the University of Manitoba and Universities with related programs across Canada. Thus, to be competitive, HNS (Department of Human Nutritional Sciences) is encouraged to re-visit this issue. The Department should reflect on current studentship funding levels offered by Research Manitoba and via the University of Manitoba Graduate Fellowship. In terms of duration, a starting point for discussion might be HNS's own targets for time to completion (2 years for a M.Sc. and as little as 3 years for a Ph.D.) reflected in the "Sample Program Listing and Timeline for Completion" form (pages 29 and 30 of the Department self-study).

Department/Faculty Response. The Department plans to conduct a review of their stipend policy, and will ensure transparency and recognition of the diverse forms of training opportunities available in the human nutritional sciences. The Department will aim to be comparable to other Canadian universities with respect to duration and value of training stipends. These potential changes will be clearly posted on the web site. During the process of developing a new policy of funding, all students admitted into the program will still be required to sign a statement of financial support that clearly indicates the level and type of support offered.

2. The graduate program imbalance between international and national students needs consideration. To address the low enrollment of graduate students from the university and to meet the University goal to increase aboriginal students in all programs, a more seamless link between the undergraduate and graduate programs should be created. Engagement of undergraduates could be stimulated by creating an integrative summer program that allows a student to be paired with a supervisor, but also through weekly meetings where they are exposed to graduate students who provide a brief introduction to their research program. A program of paid stipends of which part might come from a scholarship pool from donations to the Faculty will need to be considered. Addition of research courses in the undergraduate program might also be considered.

Department/Faculty Response. The Departments of Human Nutritional Sciences and Food Science are exploring a merger, which will create new graduate programming opportunities. The recommendation will be reviewed in the context of their overall program review efforts. The Department will also explore the implementation of more near-term opportunities, including connecting undergraduate summer research with graduate recruitment.

3. The Department's graduate student orientation is limited and does not appear to adequately make use of the major sources of student information. It is recommended that the Department consider involving the general office support staff in any orientation events. As current students will continue to be targeted for information, it is also recommended that the Department identify more "senior" student representatives at each of the major research sites.

These representatives should again be informed and included in (or asked to lead) student orientation event(s).

Department/Faculty Response. The Department will strengthen the orientation session presented at the beginning of each term. This will be widely advertised, all new graduate students will be required to attend, and all faculty members and staff will be invited. The department has developed a Graduate Student Orientation Guide to assist graduate students, and this guide includes important information on departmental and university policies and procedures. The Department will continue to refine this guide with input from the Human Nutritional Sciences graduate students association.

4. It is recommended that the Department reconsider the nature and timing of their Candidacy Examination. Preparation, even if limited to the Advisor/ advisory committee and not just a description of the elements of the examination, should be clearly defined. The Candidacy Examination and courses should complement each other, not duplicate each other.

Department/Faculty Response. The departmental candidacy examination procedures have been extensively updated over the last year and positioned within their revised supplementary regulations. Currently the newly revised supplementary regulations allow students to complete their candidacy examination one year before the projected graduation time. The review team would like to see that PhD students complete their candidacy examination within the first 18 months of their program. With the potential for a merger of the Departments of Human Nutritional Sciences and Food Science, the Department will seek harmonization of all processes and procedures between graduate programs, while maintaining independent graduate streams. The issue with candidacy examination will be reviewed concurrent with discussions regarding the merger of departments. The method of evaluation will also be revised to ensure transparency. The students will be allowed to choose between the Research Manitoba operating research grant model or the NSERC Individual Discovery grant model. The issue of candidacy examination will also be discussed in the graduate student orientation sessions.

5. The Department advertises three primary research and teaching areas: Metabolic and Molecular Nutrition, Food Quality and Acceptance, and Community Nutrition. The Department is encouraged to develop and structure course programs to complement these research areas. Based on student feedback, efforts should be made to review course content and ensure quality, relevance and fair evaluation. Consultation with students as well as faculty is recommended.

Department/Faculty Response. The Department will review the current course offerings and structure and re-design all graduate courses during the merger of the Departments of Human Nutritional Sciences and Food Science. The goals for this process will include: 1) matching course offerings to departmental expertise; 2) ensuring consistency in course offerings (timing and delivery); 3) ensuring a variety of experiences to fulfill the mandate of further education of graduate students in the nutritional sciences.

6. The “seminar course” (HNSC 7200) is an important vehicle used not only to educate students in terms of presentation skills but also to bring students (and faculty) together from multiple sites (sense of Department) and provide a student orientation (in September). The format,

normally a one-hour (MSc. or Ph.D.) student presentation from one of the primary research areas, is limiting and students have a tendency to become disengaged. It is recommended that the Department consider changing the format. By using shorter time slots more options, topic areas and or skill sets can be covered/explored. For example, M.Sc. students from each of the three primary research areas could present in a single session if presentation time was restricted to 15 minutes, which would be more likely to engage more students and also free up available time in the course. Similarly, two 20-25 min presentation reflecting progress of PhD students could be held annually for each of three years so both incoming as well as continuing students can appreciate more fully the effort made and its outcome.

Department/Faculty Response. As part of the course evaluation process discussed in #5, the Department will thoroughly review the seminar course and re-assess its objectives. The Department is committed to developing an optimal vehicle to foster the goals of enhancing student presentation skills and promoting the sense of Department.

7. If the reporting lines/budgetary responsibility for the RCFFN changes from the Vice President Research & International Office to the Faculty of Agricultural and Food Sciences, which is supported, additional or reallocation of resources, including departmental office personnel, are recommended to meet student support and financial accountability responsibilities. Currently the Office has two full time personnel and one term appointment. A minimum of three full time personnel is recommended to fill immediate administrative needs of HNS.

Department/Faculty Response. The department fully supports this recommendation and will work closely with the Faculty of Agricultural and Food Sciences administration to ensure necessary resources to meet graduate program needs. One priority is to convert a term position handling all students HR into continuing. Issues regarding departmental services and organization will be thoroughly discussed during the merger of the Departments of Human Nutritional Sciences and Food Science.

8. HNS and its graduate program has enormous potential, however, this was developed with support from within the Faculty of Human Ecology. The review committee was looking for a sense of the level of support for HNS and its strategic importance in its new home, the Faculty of Agricultural and Food Sciences. This might have included, but not only, comment on the plans/priorities in the allocation of emerging positions (new/recruitment or from loss/retirement), as well as existing resources that might impact the graduate program, but where current allocation processes may favour historically other Departments over HNS, the “new kid on the block”. This reflects concerns made to the review committee by more than one member of the faculty. In addition, clarification was needed concerning the RCFFN and whether it is now a unit of the Faculty and, if so, how this will impact, for example, work load for the Departmental Office and whether any new funding stream might be made available to the Department for the expected increase in administrative work load. This was not possible as although Dr. Carlberg who carries the undergraduate portfolio did meet with the committee, neither the Dean nor the Associate Dean Research were available to the committee, and representatives from the President’s Office may have been unaware of recent events affecting the RCFFN and HNS. Thus, it is not possible to make a specific recommendation. We would, however, request that this comment provoke discussion between the Faculty and Department on this topic, and that an indication of this is provided in any response to this review document.

Department/Faculty Response. In the process of merging the Departments of Human Nutritional Sciences and Food Science, the Department will work closely with the Faculty of Agricultural and Food Sciences administration to ensure fair supports of budget and infrastructure. The Department is fully intent on continuing to push for commitments with respect to faculty renewal, particularly in light of a recent announcement of an impending retirement (Dr. J. Friel). The department will be meeting to prioritize requirements for renewal before submitting a formal request to fill, with the hope that new positions requested will be given serious consideration by the Faculty administration.

FACULTY OF GRADUATE STUDIES PERSPECTIVE

The graduate program in the Department of Human Nutritional Sciences is running relatively well. The following list of actions should be taken in response to the review in order to further strengthen the graduate program and better enhance the experience of the graduate students.

Timeline for Action on Relevant Issues

	Action	Timeline
1.	Review the current policies of minimum stipend levels and durations for both M.Sc. and Ph.D. students, and develop new graduate funding guidelines.	This should be completed by the end of 2017 and implemented for the 2018 - 19 academic year.
2.	Explore options to balance recruiting international and national students, including linking undergraduate summer research with graduate recruitment.	Develop recruitment strategies during the process of merging the Departments of Human Nutritional Sciences and Food Science.
3.	Further enhance the process of orientation for new graduate students.	Improve the organization of the graduate student orientation event and further improve the Graduate Student Orientation Guide, by the end of 2017.
4.	Review the current procedures of candidacy examination. During the process of merging the Departments of Human Nutritional Science and Food Science, harmonize the procedures of candidacy examination while maintaining independence for different graduate streams.	Complete by the end of the merger.
5.	Review and re-design, if needed, all	This is one of the important issues in the

	graduate courses to fulfill the goals of matching course offerings to faculty expertise and ensuring consistency.	process of merging the two departments and should be completed by the end of the merger.
6.	Thoroughly review and improve the offering of the seminar course.	Complete by the end of 2017, and start the new offering in 2018 – 19.
7.	Work closely with the Faculty of Agricultural and Food Sciences administration to resolve issues related to administrative support and faculty renewal.	This is an important issue in the process of merging the two departments, and should be completed in principle by the end of the merger.

The FGS understands that many of the required actions are holistically or partially embedded in the process of merging the two Departments of Human Nutritional Sciences and Food Science. Firm deadlines are impossible to impose at this stage because FGS is unaware of the details and timeline of the merger.

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UNIVERSITY
OF MANITOBA

Faculty of Graduate Studies

January 23, 2017

To: Dr. David Collins, Vice-Provost (Integrated Planning and Academic Programs)

From: Dr. Brooke Milne, Associate Dean, Faculty of Graduate Studies 

Re: **Faculty of Graduate Studies Response to the Cycle #2 Graduate Program Review of the Department of Psychology**

Xc: Dr. Todd Mondor, Acting Vice-Provost (Graduate Education) and Dean (Graduate Studies)
Dr. John (Jay) Doering, Associate Vice-President (Partnerships), Office of the Vice-President (Research & International)
Dr. Robert Hoppa, Acting Dean, Faculty of Arts
Dr. Greg Smith, Associate Dean for Graduate Studies, Faculty of Arts
Dr. Daniel Bailis, Professor and Head, Department of Psychology
Dr. Melanie Soderstrom, Associate Professor and Associate Head (Graduate), Department of Psychology
Ms Cassandra Davidson, Academic Programs Specialist, Office of the Provost & Vice-President (Academic)

Preamble

In May 2000, the Senate of the University of Manitoba endorsed a process for the periodic review of graduate programs. The primary purpose of these comprehensive program-specific evaluations is to assess the overall quality of graduate education presently provided, and to guide strategic planning and actions for future enhancements. The first-cycle reviews have concluded and the second cycle is presently underway.

A graduate program review is an important exercise that aims to identify those components that are working well for faculty, staff, students, and administrators within the academic unit, and those that might be improved upon. Such a review is time and energy intensive, and requires the active participation of many individuals to successfully complete. The collective goal of a program review is to enhance the quality of graduate education at the University of Manitoba. On behalf of the Faculty of Graduate Studies, I thank all of those individuals who made the effort to thoughtfully and constructively contribute to this undertaking.

The review team, which included Dr. Valerie Thompson (University of Saskatchewan), Dr. Jean-Paul Boudreau (Ryerson University), and Dr. Terry Jansen (University of Manitoba), spent two days – April

18-19 – in the Department of Psychology to conduct their review. The reviewers' assessment report was received in the Faculty of Graduate Studies (FGS) June 21, 2016. The Department of Psychology submitted its response to the review on September 16, 2016, and the Faculty of Arts provided its assessment of the review and department response to FGS on November 9, 2016. I discussed the review, its recommendations, and the Department's response and plans with Drs. Daniel Bailis (Department of Psychology Head) and Melanie Soderstrom (Department of Psychology Associate Head – Graduate) on December 5, 2016.

Overall Evaluation

The review team evaluated the graduate program in the Department of Psychology as a Category I – continue as is. The reviewers praised the broad range of programs presently offered in the Department that include experimental, applied, and community-based training and research opportunities for graduate students. The diversity of Faculty member interests, their respective accomplishments, and demonstrated research excellence are recognized as impressive, and serve to foster a strong core of dedicated graduate students that are proudly committed to their studies in Psychology. The reviewers feel Faculty excellence combined with dedicated students is a genuine strength of the overall graduate program.

The Department of Psychology has well respected ties with organizations including the St. Amant Centre and Manitoba Family Services, among others, which serve to enhance student-training experiences while simultaneously underscoring the University's long standing engagement with the community. The Clinical Psychology program is the only one in the province of Manitoba that is accredited by the Canadian Psychological Association, and the program's most recent accreditation review acknowledged its high quality of clinical training.

The review team commended the Department for actively investing in graduate student support, which has positively contributed to faster time-to-completions. Moreover, Department led efforts to support student conference travel provide invaluable professional development and networking experience for young researchers early in their academic careers.

The recommendations made by the reviewers are presented as "suggestions" for the Department to consider with the overall aim of enhancing "the quality, governance, efficacy and efficiency of its graduate programs" (p. 2). These recommendations are grouped into five main categories including: student experience, resources, curriculum, infrastructure, and building community. Given the detailed responses submitted by the Department and the Faculty of Arts addressing the review recommendations relating to physical space, Department/Faculty hiring priorities, Department/Faculty teaching load, and lab renovation/renewal, this response principally focuses on those issues directly under the purview of the Faculty of Graduate Studies including: communications, supervisory relationships and the Advisor/Student Guidelines (ASG), student and Faculty diversity, and curriculum.

Review Findings and Recommendations

1. Communications

The reviewers note that while students were positive overall with their experience in their respective programs, those who participated in the review process did comment that communication between faculty and students was sometimes problematic wherein students felt they did not always get the information they needed about their programs and/or the Department. Further, students expressed a need for greater clarification regarding their roles and responsibilities when serving on Department committees, and a better understanding of procedures when participating on Department council. The

reviewers recommended that the Department clarify and formalize both procedures and expectations for Faculty members and students when serving on committees. Additionally, appointing a Faculty mentor to facilitate student engagement with Department matters, including membership on Department Council and Executive, was suggested.

- *Department/Faculty Response:* The Department has actively responded to the need for improved communication with students and Faculty members regarding programs and resources available. A new graduate program website was recently launched to assist with this, and comments and feedback are being solicited so as to further improve accessibility and content. While the Faculty of Arts is largely positive about the new website, it points out that the website does not conform to “the University of Manitoba MCO guidelines for web presence.” The Department is aware of this yet has no immediate plans to substantively change the website’s present format. The Department has already scheduled and met with student representatives on standing committees to discuss their roles and responsibilities, and to explain the procedures guiding meetings and governance. The end goal is to create a written plan that existing and new student representatives can consult to familiarize themselves and other students on issues pertinent their graduate programs. The Faculty of Arts supports these efforts.

2. Supervisory relationships and the Advisor Student Guideline (ASG)

Concerns about student-advisor relationships were discussed with the reviewers. Some individuals explained that students did not know what to do in instances when “things did not go as planned.” While the ASG instituted through FGS is intended to address this advisory issue, among others, both Faculty members and graduate students felt the process of filling it out and discussing the questions/points it raises was merely a formality, “that it did not impact or guide the supervisory relationship through the student’s program, and that it was not typically referred to beyond its initial introduction.” The reviewers recommended that the Department institute “clear procedures” for dealing with issues that arise between students and their advisors. This information would ideally be communicated during the graduate student orientation at the beginning of the academic year, and made available in the Department of Psychology graduate student handbook. The Department is encouraged to foster a “climate” where students can readily to seek guidance and assistance from the Associate Head (Graduate) or Head when dealing with program related matters. Clear procedures and open channels of communication with Department administrators should help to resolve the concerns that were expressed as well as other issues that may be encountered between students and their advisors. The reviewers questioned the effectiveness of the ASG “as it stands” and suggested that FGS consider “evaluating its effectiveness” in facilitating communication between students and advisors for the duration of a student’s program.

- *Department/Faculty Response:* The Department is presently developing strategies to deal with supervisory issues when they arise for students currently in the graduate program, and in anticipation of future students who may encounter similar circumstances. Short-term solutions include communicating with students during the Fall orientation events about what to do and whom in the Department to consult should problems arise. The Associate Head (Graduate) is also instituting an “open-house” for new students to meet with her in advance of their annual course registration and/or progress reports to discuss concerns or to answer questions about their programs and/or advisors. A longer-term strategy proposed by the Department is to review the graduate curriculum and admission procedures in an effort to “link” students to more than just one advisor and/or lab so that students develop a broader supervisory network within the Department, which should counteract some of the challenges described when there is a breakdown in communication between the principal student/advisor relationship. The Faculty of Arts supports both the short- and long-term strategies the Department aims to implement to

address this matter. Moreover, it reminds the Department that students can speak to Associate Deans in both the Faculty of Graduate Studies and the Faculty of Arts (Graduate) should an issue arise that they are uncomfortable discussing with the Department Head and/or Associate Head (Graduate).

3. Student and Faculty Diversity

The reviewers note that the graduate student body in the Department of Psychology is largely populated by individuals that are local to Winnipeg and Manitoba more broadly. The reviewers recommend that FGS work with the Department on its student recruitment efforts to target individuals “beyond the Manitoba border.”

- *Department/Faculty Response:* The Department noted that it already promotes its graduate programs provincially, nationally, and internationally. Moreover, one of its key recruitment incentives is Department-level funding support that is offered to incoming MAs and PhDs for up to two years at a level equivalent to UMGFs. That said, the Department is happy to work with FGS to explore future recruitment strategies. The Faculty of Arts is supportive of initiatives to develop a larger international student cohort within the Department’s graduate programs. It encourages Faculty members to use the “My Research Tools” research expert search engine on the University of Manitoba webpage as one means of highlighting individual research profiles, available infrastructure, and prospective student-training opportunities.

4. Curriculum

The reviewers’ addressed several subcategories relating to curriculum including: time-to-completion, the thesis proposal course, course offerings, and course innovation. The Department was praised for working to reduce the time-to-completion rates since the first cycle review. However, Faculty members are encouraged to improve further in this area. One suggestion is to reduce the total required course credit hours “by at least one or two courses” from the current total of 15 credit hours + 0 credit hour thesis proposal course for the MA, and 12 credit hours + 0 credit hour thesis proposal course for the PhD. The reviewers’ also suggested establishing a financial-based completion incentive award. The thesis proposal course was viewed as problematic given its structure and timing since it must be completed within the first four terms for MAs and first eight terms for PhDs. Students engaged in experimental research and that involving animal science were viewed as being at a disadvantage since they would have comparatively little time to collect pilot data in order to formulate their research question/problem to meet the course timeline. The reviewers’ question the relevance of the thesis proposal course. The regularity of core course offerings for certain programs was also raised as problematic. Establishing a standardized course rotation schedule spanning a 3-5 year period was recommended to facilitate curriculum planning, Faculty teaching schedules/loads/research leaves, and student program planning. Lastly, the reviewers’ proposed the idea of establishing a “cross-lab course or practicum” as an element of course innovation within the Department since similar courses exist in comparable programs at other Canadian Universities.

- *Department/Faculty Response:* The Department continues to work towards reducing the time-to-completion for its graduate programs. Within the next year, it will consult with the Curriculum and Instruction committee regarding program requirements for non-certified programs, and bring specific recommendations to Department Council for consideration. The Department has already initiated discussions on the thesis proposal development course and whether it is meeting its intended goals. As discussions continue, the Department will consider whether to maintain it as a requirement for its graduate degree programs. The Faculty of Arts further acknowledges that it is

up to the Department to decide on the structure and requirements of its graduate programs. If changes are to be made, the appropriate guidance and support will be offered to make those changes. The Faculty also encourages the Department to engage in multi-year timetable planning to address issues encountered with irregular course offerings.

Faculty of Graduate Studies Perspective

The graduate program in the Department of Psychology is in good standing with a collegial faculty that has established, positive working relationships with both staff and students. Faculty and staff are to be commended for working together to provide such a diverse range of specialized programs at the MA and PhD levels. Active Faculty research programs provide students with invaluable experiential training and learning opportunities, all of which serve to maintain the Department's well respected reputation for graduate student and clinician training provincially, nationally, and internationally. FGS is pleased to learn that the Department has already begun implementation of many of the reviewers' suggestions, and has clearly laid out plans for tackling the more substantive elements of their report like those dealing with program structure and curriculum. Addressing these suggestions will enhance an already strong program.

FGS reiterates the Faculty of Arts comment regarding student communication and concerns with supervisory relationships in that graduate students can and should approach the Dean or appropriate Associate Dean if they are unable or uncomfortable dealing with a matter within the Department proper. Students should also be made aware of the resources available to them through the Student Advocacy Office (<http://umanitoba.ca/student/advocacy/>), which provides confidential support and advice to all graduate students.

On p. 4 of the report, the reviewers' question the relevance of the ASG and whether it has value in guiding the student-advisor relationship throughout the duration of a student's graduate program. This document and its required completion are indeed valuable for outlining and protecting the rights and responsibilities for both the student and advisor. When an issue arises, the student, advisor, and FGS can consult the ASG to review what discussions occurred when it was completed, and what arrangements/agreements were put in place and/or made as a result. The document can and should be reviewed during a student's program so that if circumstances change, there is clarity about how those changes will be accommodated moving forward. The guidelines are intended to encourage effective communication between the student and supervisor. If students have a clear understanding of the ASG, its purpose, and how it benefits them, it will undoubtedly work toward alleviating some of the communication problems described in the reviewers' report especially in instances when things "don't go according to plan." FGS can work with Graduate Program staff and Chairs, and students to reiterate the purpose of the ASG.

Also on p. 4 of the report, the reviewers' encourage FGS to work with the Department to recruit students from outside of Manitoba. While FGS is supportive, like the Faculty of Arts, for encouraging a diverse student cohort within the Psychology graduate program, among others, FGS does not advertise or promote individual graduate programs since doing so would be an overwhelming task given the diversity of programs the University offers. FGS does, however, promote graduate studies as a whole, and provides program specific information application requirements, program duration, fees, and application deadlines (http://umanitoba.ca/faculties/graduate_studies/admissions/programs/index.html). Therefore, if prospective students from outside the province are interested in finding out more detail about a degree program or potential advisor, they are directed to the Department's own home webpage or the MRT function on the main University webpage.

Changes to the Department's graduate program curriculum must originate within the Department. As noted, efforts to do this have been initiated and are expected to continue for the next one to two years. FGS provides guidance and support to Departments to facilitate bringing these changes forward through the approval process, including making changes to supplementary regulations governing MA and PhD programs. FGS strongly encourages the Department to engage in long-term timetable planning so that required core courses, like, for example, those in research methods, are regularly offered. If such planning does not remedy this problem, it is incumbent on the Department to ensure it can meet the needs of its programs.

Timeline for Action on Relevant Issues

	Action	Expected Completion Date
1.	Communications	In process. The Department has launched a new graduate program website and while recognizing it does not conform with MCO requirements, the website continues to provide Department and program specific information for current and prospective graduate students. The Department Head and Associate Head (Graduate) have already met with students regarding committee participation, etc. Efforts to create a reference handbook regarding student committee participation are ongoing. The Department will follow up with FGS to report on the progress made with these items in September 2017 .
2.	Supervisory relationships and the ASG	In process. The Department has devised and implemented two-short term solutions to address these items. The longer-term solution is to address this item within a review of the Department's curriculum and student admission procedures. The Head and Associate Head will follow up with FGS in September 2017 to discuss progress made on this item.
3.	Student and Faculty diversity	Ongoing. The Department does not entirely agree with this point of the reviewers' report since it already receives applications from a diverse pool of prospective applicants including those from within Canada and internationally. The Department will revisit this item with FGS in advance of the December 2017 graduate student application deadline should its position change.
4.	Curriculum	In process. The Department has begun consultations regarding course offerings, course innovation, and evaluation of the thesis proposal development course. A timeline of 12-months had been specified in the Department's response to seek recommendations from its Curriculum and Instruction Committee on these items. The Department will follow up with FGS in September 2017 to discuss the progress made and future plans relating to these discussions/recommendations.

Report of the Senate Committee on Curriculum and Course Changes RE: Annual Update on Academic Program Listing (*for information*)

Preamble:

1. The terms of reference for the Senate Committee on Curriculum and Course Changes (SCCCC) are found on the website at:
http://www.umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/497.htm.
2. At the meeting on June 25, 2014, Senate received a Report of the SCCCC concerning an Audit of the University's Programs. The audit had been completed by the Office of the Vice-President (Academic) and Provost and the Registrar's Office, in consultation with deans and directors of faculties and schools. It includes degree programs, academic minors, and academic concentrations.
3. The purpose of the audit was to ensure an accurate and comprehensive listing of academic program offerings that can be used in the academic planning process and in support of strategic initiatives at the University.
4. The Office of the Provost and Vice-President (Academic) will report to the SCCCC and to Senate annually on any changes to the program listing.

Observations:

1. At its meeting on March 31, 2017, the SCCCC received, for information, an annual update on the academic program listing from the Vice-Provost (Integrated Planning and Academic Programs).

Respectfully submitted,

Professor Greg Smith, Chair
Senate Committee on Curriculum and Course Changes

REVISED

Date: March 31, 2017

To: Senate Committee on Curriculum and Course Changes
David Collins, Vice-Provost (Integrated Planning & Academic Programs)

From: Cassandra Davidson, Academic Programs Specialist

Re: **Annual Update on Academic Program Listing: March 2016 – February 2017**

In June 2014, Senate was presented with a comprehensive list of academic programs offered at the University of Manitoba. As part of this audit, it was identified that an update on any changes to the offerings would be provided to Senate on an annual basis. Please find below an update of the changes over the last year.

Should you have any questions or concerns about this process, please contact Cassandra Davidson, Academic Programs Specialist, at cassandra.davidson@umanitoba.ca.

PROGRAM INTRODUCTIONS

Senate Review

- | | |
|---|---------------|
| ▪ baccalauréate ès arts avec majeure en espagnol, USB
Effective term: Fall 2016 | May 18, 2016 |
| ▪ Collaborative Ph.D., Faculty of Graduate Studies
Effective term: Fall 2016 | June 22, 2016 |
| ▪ Master of Finance, Faculty of Graduate Studies
Effective term: Fall 2017 | May 18, 2016 |
| ▪ M.Sc., Genetic Counselling, Faculty of Graduate Studies
Effective term: Fall 2016 | June 24, 2015 |

PROGRAM CLOSURES

- | | |
|---|-----------------|
| ▪ Manufacturing Option, in B.Sc. Engineering (Mechanical), Faculty of Engineering
Effective term: Fall 2017 | January 4, 2017 |
|---|-----------------|

SUSPENSION OF ADMISSIONS

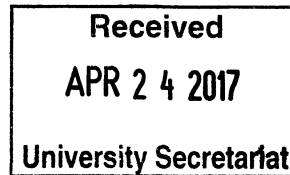
Senate Notification

- **B.Sc. (Textile Sciences), Product Development and B.Sc. (T.S.), Textile Development** in *Faculty of Agricultural and Food Sciences*.
Effective: May 2013
Extended to: May 2017 Status review: February 2017 October 5, 2016
- **B.H.Ecol. (General)** in *Rady Faculty of Health Sciences*
Effective: May 2013
Extended to: May 2017 Status review: February 2017 October 5, 2016
- **M.A., Icelandic**, *Faculty of Graduate Studies*
Effective: September 2015
Extended to: May 2017 Status review: February 2017 October 5, 2016
- **M.Sc., Family Social Sciences**, *Faculty of Graduate Studies*
Effective: May 2015
Extended to: May 2017 Status review: February 2017 October 5, 2016
- **M.Sc., Textile Sciences**, *Faculty of Graduate Studies*
Effective: September 2015
Extended to: May 2017 Status review: February 2017 October 5, 2016
- **Ph.D., Cancer Control**, *Faculty of Graduate Studies*
Effective: May 2014
Extended to: May 2017 Status review: February 2017 October 5, 2016
- **Post-Bac. Diploma in Agrology (IEAP)**, *Faculty of Agricultural and Food Sciences*
Effective: September 2015
Extended to: May 2017 Status review: February 2017 October 5, 2016

PROGRAM NAME CHANGES

Senate Review

- *baccalauréat ès Arts spécialisé en françaises* renamed **baccalauréat ès Arts spécialisé en études françaises**, *USB*
Effective term: Fall 2016 May 18, 2016
- *baccalauréat de service social* renamed to **baccalauréat en travail social**, *USB*
Effective term: Fall 2016 May 18, 2016
- *M.Sc. and Ph.D. in Medical Microbiology* renamed to **Medical Microbiology and Infectious Diseases**, *Faculty of Graduate Studies*
Effective term: Fall 2017 December 7, 2016



DATE: April 21, 2017

TO: Jeff Leclerc
University Secretary

FROM: David T. Barnard, Ph.D.
President and Vice-Chancellor

RE: Extension – Suspension of Admissions of Programs

I have received the attached request recommending that the current suspension of admissions for the following undergraduate and one graduate programs be extended until May 2018, and three graduate programs until May 2019.

Undergraduate Programs (extend to May 2018):

- B.Sc. (T.S.) - Product Development
- B.Sc. (T.S.) - Textile Development
- Internationally Educated Agrologists Post-Baccalaureate Diploma Program (IEAP)

Graduate Programs:

- Ph.D., Cancer Control (extension to May 2018)
- M.Sc., Family Social Sciences
- M.A., Icelandic
- M.Sc., Textile Sciences

Under the Admission Targets Policy, it is the President who approves changes to, or the introduction of, enrolment limits following consultation and discussion with the dean or director and with Senate. Prior to making a decision on this request, I would like an opportunity to present this matter to Senate for consultation.

Please place this item on the next agenda for the Senate Executive Committee and Senate.

cc: Dr. Janice Ristock, Provost and Vice-President (Academic)
Dr. David Collins, Vice-Provost (Integrated Planning and Academic Programs)
Dr. Brian Postl, Dean, College of Medicine & Dean, Faculty of Health Sciences Vice-Provost (Health Sciences)
Dr. Todd A. Mondor, Acting Vice-Provost (Graduate Education) & Dean, Faculty of Graduate Studies
Dr. Beverly O'Connell, Dean, College of Nursing, Faculty of Health Sciences
Dr. Robert Hoppa, Acting Dean, Faculty of Arts
Dr. Karin Wittenberg, Dean, Faculty of Agricultural and Food Sciences
Mr. Neil Marnoch, Registrar
Cassandra Davidson, Academic Program Specialist



UNIVERSITY
OF MANITOBA

Office of the Provost & Vice-President (Academic)

208 Administration Building
Winnipeg, Manitoba
Canada R3T 2N2
Telephone 204-480-1408
Fax 204-275-1160

Date: April 17, 2017
To: Dr. David Barnard, President and Vice-Chancellor
From: Dr. David Collins, Vice-Provost (Integrated Planning & Academic Programs)
Subject: Recommendation on Suspension of Programs, Follow-up

Further to a review of programs whose admissions are currently suspended, please find the attached recommendations to extend the suspensions of three undergraduate and one graduate programs until May 2018, and three graduate programs until May 2019.

Please note that in consultation with the Office of the University Secretary, I have confirmed that to facilitate notification of Senate and the Board at their next meeting, your advice in this regard would need to be submitted to their office no later than **April 24, 2017**. In order for a decision to be in place for the Fall 2018 term, I would request that you accommodate this deadline if at all possible.

cc. Janice Ristock, Provost and Vice-President (Academic)
Jeff Leclerc, University Secretary



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Date: April 17, 2017
To: Dr. David Barnard, President and Vice-Chancellor
From: Dr. David Collins, Vice-Provost (Integrated Planning & Academic Programs)
Subject: Recommendation on Suspension of Admissions, Undergraduate Programs

Admissions to the following undergraduate-level programs are currently suspended:

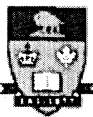
- **Textile Sciences, [B.Sc. (T.S.) – Product Development and B.Sc. (T.S.) – Textile Development]** (Senate notified of original decision, January 8, 2014; last extension of status, July 14, 2016; effective until May 2017)
- **Internationally Education Agrologists Post-Baccalaureate Diploma Program (IEAP)** (Senate notified February 3, 2016; last extension of status, July 14, 2016, effective until May 2017)

Following consultations with the Dean of the Faculty of Agricultural and Food Sciences (see attached), I would recommend that the current suspension of admissions to these programs be extended to May 2018.

There are currently no students in these programs and the Faculty has indicated that they will be moving forward with requests to close these programs over the course of the next year. Suspension of admissions for one more academic year will allow the time needed for consideration of the requests for closure as they begin moving through the appropriate institutional and provincial approval processes.

As per the Admissions Target Policy, the President may suspend admissions to a program following consultation with the Dean/Director, with Senate and with the Board of Governors. As such, I would request that you give this request favorable consideration.

cc. Janice Ristock, Provost and Vice-President (Academic)
Jeff Leclerc, University Secretary
Karin Wittenberg, Dean, Faculty of Agricultural and Food Sciences
Jared Carlberg, Associate Dean (Academic), Faculty of Agricultural and Food Sciences



UNIVERSITY
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Office of the Provost & Vice-President (Academic)

208 Administration Building
Winnipeg, Manitoba
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Fax 204-275-1160

Date: April 17, 2017
To: Dr. David Barnard, President and Vice-Chancellor
From: Dr. David Collins, Vice-Provost (Integrated Planning & Academic Programs)
Subject: Recommendation on Suspension of Programs, Graduate Programs

Admissions to the following graduate-level programs are currently suspended:

- **Ph.D., Cancer Control** (Senate notified April 2, 2014; extension effective until May 2017)
- **M.Sc., Family Social Sciences** (Senate notified February 4, 2015; extension effective until May 2017)
- **M.A., Icelandic** (Senate notified February 3, 2016; extension effective until May 2017)
- **M.Sc., Textile Sciences** (Senate notified February 3, 2016; extension effective until May 2016)

Dr. Todd Mondor, Acting Vice-Provost (Graduate Education) and Dean, Faculty of Graduate Studies is recommending that the current suspension of admissions to these programs be extended (see attached). I concur with this assessment and further recommend that the suspended status of the PhD in Cancer Control be granted an extension until May 2018, and all others to May 2019, with a subsequent review of these decisions no later than February of the respective year.

Current students will continue to register in these programs for the 2017-2018 and 2018-2019 academic year, where applicable.

As per the Admissions Target Policy, the President may suspend admissions to a program following consultation with the Dean/Director, with Senate and with the Board of Governors. As such, I would request that you give this request favorable consideration.

cc. Janice Ristock, Provost and Vice-President (Academic)
Jeff Leclerc, University Secretary
Todd Mondor, Acting Vice-Provost (Graduate Education) and Dean, Faculty of Graduate Studies
Bev O'Connell, Dean, College of Nursing
Brian Postl, Dean and Vice-Provost (Health Sciences), Faculty of Health Sciences
Jeff Taylor, Dean, Faculty of Arts
Karin Wittenberg, Dean, Faculty of Agricultural and Food Sciences



UNIVERSITY
OF MANITOBA


Faculty of Agricultural and Food
Sciences

Office of the Dean
256 - 66 Dafoe Road
Winnipeg, Manitoba
Canada R3T 2N2
Phone (204) 474-6026
Fax (204) 474-7525

MEMORANDUM

DATE: April 13th, 2017

TO: Dr. David Collins, Vice-Provost (Integrated Planning and Academic Programs)

FROM: Dr. Jared Carlberg, Associate Dean (Academic) 

SUBJECT: Continued Suspension of Intake into Internationally Educated Agrologists Post-Baccalaureate Program (IEAP) and B.Sc. (Textile Sciences) Programs

The Faculty of Agricultural and Food Sciences recommends continued suspension (first implemented by Senate in June of 2015) of admissions into the Internationally Educated Agrologists Post-Baccalaureate Diploma Program (IEAP) for the 2017-2018 academic year. Intake for the IEAP was previously suspended for the 2015-2016 and 2016-2017 years due to low enrolment and the high cost of delivering the program. The conditions that led to our Faculty's previous request to suspend IEAP admissions have not changed, and it is the Faculty's intent to apply for program closure this spring.

The Faculty of Agricultural and Food Sciences also recommends continuing the suspension (first implemented by Senate in January of 2014) of admissions into the Bachelor of Science (Textile Sciences) programs. The last student enrolled in the program graduated this past October. It is the Faculty's intent to apply for program closure this spring.

Please do not hesitate to contact me if you require any further information on this matter.



UNIVERSITY
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Graduate Studies

500 University Centre
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Telephone: (204) 474-9887
Fax: (204) 474-7553

MEMORANDUM

April 3, 2017

To: Cassandra Davidson, Academic Program Analyst
Office of the Provost & Vice-President (Academic)

From: Todd A. Mondor, Acting Vice Provost (Graduate Education)
And Dean of Graduate Studies

Re: Requests to Extend Status of Suspended Programs (Spring 2017)

Further to my memo of April 26, 2016 (which follows) requesting the suspension of the below programs, I have consulted with the respective home unit Deans concerning the option to extend the suspensions of these programs. The results are as follows:

- Ph.D. in Cancer Control
 - an additional 12 month extension to May 2018
- Master of Science in Textile Sciences:
 - an additional 24 month extension to May 2019
- Master of Arts in Icelandic Language & Literature:
 - an additional 24 month extension to May 2019
- Master of Science in Family Social Sciences
 - an additional 24 month extension to May 2019

There are a number of students still registered in and completing their programs of study and I therefore respectfully ask that these programs not be closed at this time.

/ak



UNIVERSITY
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Office of the Dean
Faculty of Graduate Studies

Todd A. Mondor
500 University Centre
Winnipeg, Manitoba
Canada R3T 2N2
Telephone: (204) 474-9887
Fax: (204) 474-7553

MEMORANDUM

Date: April 26, 2016

To: Cassandra Davidson, Undergraduate Program Analyst
Office of the Provost & Vice-President (Academic)
109 Admin Bldg.

From: Todd A. Mondor, Acting Vice Provost (Graduate Education)
and Dean of Graduate Studies

Re: Requests to Extend Status of Suspended Programs

Master's Program in Textile Sciences

In 2015, the Master's program in Textile Sciences was amalgamated with the graduate programs in Biosystems Engineering, with the agreement that all future admissions would be to Biosystems Engineering programs. As a result, admissions to the Master's program in Textile Sciences were suspended in 2015. Dr. Karin Wittenberg, Dean of the Faculty of Agricultural and Food Sciences, has advised that this suspension should continue and I concur. I am, therefore, writing to you to request that the suspension of admissions to the Master's program in Textile Sciences be continued.

Master's Program in Icelandic Language and Literature

In 2015, admissions to the Master's program in Icelandic Language and Literature were suspended because only a single academic staff member was affiliated with the department. Dr. Jeff Taylor, Dean of the Faculty of Arts, has recommended that this suspension should continue and I concur. I am, therefore, writing to you to request that the suspension of admissions to the Master's program in Icelandic Language and Literature be continued.

Master's Program in Family Social Sciences

In 2015, admissions to the Master's program in Family Social Sciences were suspended owing to the amalgamation of the graduate programs in the Departments of Family Social Sciences and Community Health Sciences, and the redundancy that was created as a result. Dr. Verena Menec, the Graduate Chair in Community Health Sciences, has recommended that this suspension should continue and I concur. I am, therefore, writing to you to request that the suspension of admissions to the Master's Program in Family Social Sciences be continued.

PhD Program in Cancer Control


Admissions to the PhD program in Cancer Control were suspended in 2015 because the program had been replaced by the PhD program in Nursing. Dr. Jo Ann Sawatzky, Associate Dean in the Faculty of Nursing, has recommended that this suspension should continue and I concur. I am, therefore, writing to you to request that the suspension of admissions to the PhD Program in Cancer Control be continued.



UNIVERSITY OF MANITOBA
OFFICE OF THE PRESIDENT

Date: March 31, 2017

To: Jeff Leclerc
University Secretary

From: David T. Barnard, Ph.D.
President and Vice-Chancellor 

Re: Suspension of Admissions to the Integrated Bachelor of Music/Bachelor of Education Program

The recommendations to suspend admissions to the Integrated Bachelor of Music/Bachelor of Education Program were brought forward for consultation with Senate on March 1, 2017 and the Board of Governors on March 21, 2017, with no significant concerns being raised. Under the Admission Targets Policy, it is the President who approves changes to, or the introduction of, enrolment limits following consultation and discussion with the dean or director, Senate, and the Board of Governors. As a result, admission to the Integrated Bachelor of Music/Bachelor of Education Program should be suspended for the Fall 2018 intake and I would ask that you proceed accordingly.

cc. Dr. Janice Ristock, Provost and Vice-President (Academic)
Dr. Edmund Dawe, Dean, Faculty of Music
Dr. David Mandzuk, Dean, Faculty of Education
Mr. Jeff Leclerc, University Secretary
Mr. Jeff Adams, Executive Director, Enrolment Services
Mr. Neil Marnoch, Registrar
Mr. Randy Roller, Executive Director, OIA
Ms. Cassandra Davidson, Academic Programs Specialist



UNIVERSITY
OF MANITOBA


Office of the University Secretary

312 Administration Building
Winnipeg, Manitoba
Canada R3T 2N2
Telephone (204) 474-9593
Fax (204) 474-7511

MEMORANDUM

DATE: February 22, 2017

TO: David Barnard, Chair of Senate

FROM: Jeff M. Leclerc, University Secretary 

SUBJECT: ***APPROVAL OF MOTION, Board of Governors MEETING – February 17, 2017***

At its meeting on February 17, 2017, the Board of Governors approved the following motions:

THAT the Board of Governors approve fifteen new offers, eleven amended offers, and the withdrawal of two offers, as set out in Appendix A of the Report of the Senate Committee on Awards – Part A [dated October 25, 2016].

THAT the Board of Governors approve three new offers and one amended offer, as set out in Appendix A of the Report of the Senate Committee on Awards – Part B [dated October 25, 2016].

THAT the Board of Governors approve eight new offers, fifteen amended offers, and the withdrawal of four offers, as set out in Appendix A of the Report of the Senate Committee on Awards – Part A [dated December 20, 2016].

THAT the Board of Governors approve four new offers, as set out in Appendix A of the Report of the Senate Committee on Awards – Part B [dated December 20, 2016].

THAT the Board of Governors approve revisions to the terms of reference for the Gerry McDole Professorship in Improved Healthcare Delivery to Rural, Remote and Underserved Populations of Manitoba.

THAT the Board of Governors approve the conversion of the Professorship in Pediatric Asthma, Allergy and the Environment to a Chair.

THAT the Board of Governors approve the conversion of the Bihlers' Professorship in Stem Cell Research to a Chair.

THAT the Board of Governors approve the establishment of the Institute for Leadership Development, for a period of five years, with continuation subject to a review process [as recommended by Senate, February 1, 2017].

THAT the Board of Governors approve the establishment of an endowed research Chair in Leadership Education [as recommended by Senate, February 1, 2017].

THAT the Board of Governors approve the establishment of an endowed research Chair in Leadership Research [as recommended by Senate, February 1, 2017].

Copy: Shannon Coyston
Janice Ristock
Digvir Jayas
John Kearsey

JML/sf



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Fax (204) 474-7511

MEMORANDUM

DATE: March 22, 2017

TO: David Barnard, Chair of Senate

FROM: Jeff M. Leclerc, University Secretary 

SUBJECT: ***APPROVAL OF MOTION, Board of Governors MEETING –
March 21, 2017***

At its meeting on March 21, 2017, the Board of Governors approved the following motions:

THAT the Board of Governors approve eight new offers and seven amended offers, as set out in Appendix A of the Report of the Senate Committee on Awards – Part A [dated January 24, 2017].

THAT the Board of Governors approve one new offer and one amended offer, as set out in Appendix A of the Report of the Senate Committee on Awards – Part B [dated January 24, 2017].

THAT the Board of Governors approve a proposal to establish a Master of Science in Prosthodontics [as recommended by Senate, March 1, 2017].

THAT the Board of Governors approve the closure of Bachelor of Human Ecology (General) degree, effective upon approval [as recommended by Senate, March 1, 2017].

THAT the Board of Governors approve the establishment of the Department of Food and Human Nutritional Sciences through the merger of the Department of Human Nutritional Sciences and the Department of Food Science [as recommended by Senate, March 1, 2017].

Copy: Shannon Coyston
Janice Ristock
Digvir Jayas

JML/sf



UNIVERSITY
OF MANITOBA

Office of the University Secretary

312 Administration Building
Winnipeg, Manitoba
Canada R3T 2N2
Telephone (204) 474-9593
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MEMORANDUM

DATE: April 19, 2017
TO: David Barnard, Chair of Senate
FROM: Jeff M. Leclerc, University Secretary 
SUBJECT: ***APPROVAL OF MOTION, Board of Governors MEETING – April 18, 2017***

At its meeting on April 18, 2017, the Board of Governors approved the following motions:

THAT the Board of Governors approve seventeen new offers and five amended offers, as set out in Appendix A of the Report of the Senate Committee on Awards – Part A [dated February 21, 2017].

THAT the Board of Governors approve four new offers, as set out in Appendix A of the Report of the Senate Committee on Awards – Part B [dated February 21, 2017].

THAT the Board of Governors approve the conversion of the Bryce Douglas Professorship in Corporate Finance to a Chair.

THAT the Board of Governors approve the establishment of the Indigenous Institute of Health and Healing, for a period of five years, with continuation subject to a review process and with the *proviso* that, at the end of the first twelve months, the Head of the Institute would forward clear procedures for appointing members to the Institute, for review by the Senate Committee on Academic Review and Senate [as recommended by Senate, April 5, 2017].

That the Board of Governors authorize the University to execute the Recognition and Educational Services Agreement (the "Agreement") between the University and the International College of Manitoba Limited ("ICM"), thereby renewing the arrangement to deliver the ICM Program under the current agreement, which expires December 31, 2017.

Copy: Shannon Coyston
Janice Ristock
Digvir Jayas

JML/sf

PRESIDENT'S REPORT: May 17, 2017

GENERAL

The [Travel and Expense Steering Committee](#), chaired by Dr. Kelley Main, has released a report summarizing the responses to the stakeholder engagement process for the Travel and Expense Management Project. It was generated on the basis of feedback provided by faculty and staff about the current travel and expense management system, including process, policy and the Concur system and may be found on the [Travel and Expense Management project website](#). The Travel and Expense Steering Committee will use this feedback to inform recommendations to improve the university's travel and expense management system, it is expected that these recommendations will be submitted to the Provost and Vice-President (Academic) by June 2017 for review and consideration.

The Budget Model Redesign Initiative continues and the President recently accepted the Steering Committee's recommendation for a new and more decentralized budget model. Two information sharing sessions inviting faculty, staff and students were held in March to provide an update on the progress of the new model.

The Province recently announced that it will provide \$600,000 in capital funding to expand the Campus Day Care Centre and create 52 new spaces. The announcement comes less than a year after the Graduate Student's Association donated \$300,000 and University of Manitoba Students Union donated \$2.4 million to support this childcare expansion. Indigenous students will be given priority access to the newly created spaces. Work on the child care expansion project is expected to begin in late spring or early summer 2017, with the additional spaces ready for enrolment for the 2018/19 academic year.

On March 22, the federal government introduced its budget for 2017/18. New funds include support for Indigenous education and additional funding for post-secondary student grants and bursaries. External Relations is continuing to follow-up for additional information. The provincial budget is scheduled to be released on April 11, 2017.

Electronic voting was used for the University of Manitoba Student Union (UMSU) General Election and several student councils including Nursing, Science, Engineering International Students, Students of Fine Arts, University 1, Arts Student Body and St Paul's College resulting in outstanding turnout results:

- UMSU General Election: 27.8% turnout – 20 year high
- University of Manitoba Engineering Society (UMES) : 38.2% turnout – highest since 1987

The incoming executive will be led by incumbent UMSU president Tanjit Nagra.

ACADEMIC MATTERS

- Senior executive searches are in the process for the recruitment of a Vice-Provost (Indigenous Engagement) and a Dean of Graduate Studies and Vice-Provost (Graduate Education).
- UM Achieve is a new online resource that provides students with a way to track academic progress, map degree requirements, estimate time to degree completion and find alternative degree paths. UM Achieve was launched in March and is a resource to assist with academic advising and help students ensure timely completion of their academic goals.

- Johise Namwira, women's and gender studies student, was one of 338 young women chosen to attend House of Commons on International Women's Day (March 8th). Equal Voice organized representatives from every riding across the country; they met with Prime Minister Justin Trudeau, Party Leaders and former Prime Minister Kim Campbell.
- Maryam Al-Azazi, respiratory therapy student, was one of two students awarded the 2017 Nahlah Ayed Prize for Student Leadership and Global Citizenship. She has worked or volunteered with a variety of Winnipeg organizations including helping Syrian refugees and advocating for marginalized groups.
- A team of students from the University of Manitoba took home the \$20,000 grand prize at the Munich Re Cup, a prestigious national actuarial case competition. The team's first-place victory is the second in the competition's three-year history. The competition is open to all Society of Actuaries (SOA) Centres of Excellence across Canada. The Warren Centre for Actuarial Studies and Research at the Asper School of Business was named a Centre of Excellence in 2009.
- Asper MBA's business planning competition team, Paramergent, enjoyed amazing success on the March international competition circuit receiving second place overall in the fast pitch competition at the prestigious Brown-Forman Cardinal Challenge at the University of Louisville. The team also placed a close second in their division at Cardinal's business plan competition, and fourth at the U of M's Stu Clark Investment Competition. Paramergent is pitching a business plan for the first all-in-one mobile software application that paramedics can use to track and report a patient's pre-hospital journey and transmit the relevant information directly into a hospital's records.
- Asper School of Business hosted a panel discussion focusing on the critical need to engage Indigenous participation in Manitoba's economy. 20/20 Vision: Indigenous Participation: Key to Success of Manitoba's Future Economy brought together business, community and government leaders with expertise in Indigenous business and community engagement to explore directions forward during what is proving to be a pivotal moment in our national and provincial history.
- Two occupational therapy graduate students organized a community art show at The Madison, a supportive housing complex operated by Siloam Mission. The students used art therapy to help residents of The Madison develop life skills. The art show enabled the residents to display or sell their works to the public.
- The Faculty of Science held an Indigenous student and alumni evening event, "Building Community in Science." The first of a series of events being planned to engage with faculty's Indigenous alumni to help foster ongoing and future initiatives that will build and strengthen relationships as part of the University's strategic commitment to Indigenous achievement.

RESEARCH MATTERS

- On March 3, 2017, the provincial and federal governments announced \$2,732,998 to nine research projects at the University of Manitoba. The investment made by the Government of Canada is part of the Canada Foundation for Innovation's (CFI) John R. Evans Leaders Fund. This fund helps universities attract and retain the best and brightest researchers from around the world by giving them access to cutting-edge research tools.

- The recipients are:
 - Kristine Cowley and Katinka Stecina (Physiology), \$400,000 - Human Spinal Cord Injury Research Centre for Health, Balance and Motor Control
 - Rebecca Davis (Chemistry), \$320,000 - Laboratory for Asymmetric Organocatalysis
 - Chuang Deng (Mechanical Engineering), \$319,682 - In-situ Nano-mechanical and Nano-electrical Characterization of Low-dimensional Nanomaterials
 - Joseph Gordon (Nursing/Children's Hospital Research Institute of Manitoba), \$319,670 - Comprehensive In Vivo and Culture-based Exercise and Metabolic Analysis Platform
 - Ian Jeffrey (Electrical & Computer Engineering), \$181,344 - Near Real-Time Electromagnetic Imaging
 - Sachin Katyal (Pharmacology/Research Institute of Oncology & Hematology), \$319,986 - Identification of Novel Therapeutics to Modulate DNA Damage Repair in the Treatment of Cancer
 - Peter Pelka (Microbiology), \$318,480 - Studies of Cellular Reprogramming by Adenovirus
 - Qiuyan Yuan (Civil Engineering), \$320,000 - A Tissue Engineering Platform for Fibrotic and Developmental Diseases
 - Adrian West (Physiology), \$233,836 - Infrastructure for Zero Waste Research Program
- On March 15, 2017, the University of Winnipeg and University of Manitoba announced the recent signing of a service agreement that will have the two universities collaborate on commercialization of technologies. The University of Winnipeg will have access to the expertise and services of the University of Manitoba's Technology Transfer Office.

The services provided include:

- Invention assessment for commercial and technical viability
- Patenting assistance and coordination with patent agents (if required)
- Market assessment and marketing of technology to potential receptors
- Discussion and recommendations on commercialization strategies with inventors
- Assistance in identifying corporate partners and with creation of startup companies (if required)
- License negotiations (if required)

The University of Manitoba currently provides similar services to: Brandon University, Winnipeg Regional Health Authority, Health Sciences Centre, St-Boniface General Hospital, Children's Hospital Research Institute of Manitoba and CancerCare Manitoba.

- On March 13, 2017, TRIUMF announced the recent appointment of Distinguished Professor and Vice-President (Research and International) Dr. Digvir S. Jayas as Chair of the Board of Management. He has been serving the Board as Vice-Chair since April 2015. His appointment to Chair became effective November 29, 2016. Based in Vancouver, TRIUMF is Canada's national laboratory for accelerator-based science and nuclear and particle physics research.

The University of Manitoba has been a TRIUMF member since March 20, 2009 and is a key contributor of technology for FrPNC francium laser trap, ARIEL beam separation, the Ultracold Neutron project, the TRINAT Fundamental Symmetries program, and many other TRIUMF projects.

In the role of Board Chair, Jayas provides strategic direction and operational oversight for the laboratory and its partnerships. Jayas works in close collaboration with TRIUMF Director Dr. Jonathan Bagger in communicating the laboratory's vision and engaging both member universities and federal agencies to help further TRIUMF's goals and priority projects such as the completion of its flagship facility, the Advanced Rare Isotope Laboratory (ARIEL).

- Twenty-six researchers were awarded funding from various external sponsors totaling \$1,461,506. Those receiving more than \$25,000 per project are:

PI	Sponsor	Title	Awarded
Ayele, Belay (Plant Science)	NSERC	Development of hormone based genomic tools to accelerate wheat breeding for enhanced preharvest sprouting tolerance	\$105,867
Cardwell, Ryan (Agricultural and Food Sciences)	SSHRC	Determinants of public support for supply management: A randomized survey experiment	\$69,233
Eftekharpour, Eftekhar (Physiology & Pathophysiology)	Paralyzed Veterans of America	Increasing neuroprotection and regeneration after spinal cord injury	\$201,390
Filizadeh, Shaahin (Electrical and Computer Engineering)	Mitacs Inc.	Real-time modeling and simulation of alternative modular multilevel converter topologies	\$75,000
Frosk, Patrick (Pediatrics and Child Health)	Children's Hospital Foundation of Manitoba Inc.	Exploring genomic technologies for use in clinical medicine	\$30,000
Ireland, Laurie (Family Medicine)	Research Manitoba	Building access to specialist care for remote, rural populations through eConsultations (BASE)	\$100,000
Jafari Jozani, Mohammad (Statistics)	NSERC	Partial discharge source classification based on analyzing PD pulse waveforms using statistical pattern recognition techniques	\$25,000
Rajapakse, Athula (Electrical and Computer Engineering)	Manitoba HVDC Research Centre	Investigation of power system protection performance under special operating conditions	\$25,127

Restall, Gayle (Occupational Therapy)	CIHR	HIV stigma and discrimination in Manitoba	\$32,912
Roth, James (Biological Sciences)	NSERC	Polar bears and permafrost: Student-led climate change field research at the Arctic's edge	\$156,000
Stasolla, Claudio (Plant Science)	Mitacs Inc.	Enhancing water stress tolerance through phytoglobin manipulation	\$55,000
't Jong, Geert (Pediatrics and Child Health)	Children's Hospital Foundation of Manitoba Inc.	Kidscan: A network of clinical trial sites that facilitate multi-centre drug trials across Canada	\$90,000

ADMINISTRATIVE MATTERS

- The Province of Manitoba introduced new public sector compensation legislation and its impact on the University is being analyzed.
- On March 9, 2017, the City of Winnipeg in support of the TransCanada Trail and associated infrastructure including the Bike Kiosk, awarded the University a 2-year Community Incentive Grant worth \$30,000 to be received with completion of milestones. This funding will augment the approximately \$150,000 received from Western Diversification for the project.
- On March 10, 2017, the Province of Manitoba formally approved a \$40,000 Waste Reduction and Pollution Prevention (WRAPP) grant in support of the waste audit and composting investigation. Monies will be received with completion of milestones.
- In support of active transportation and healthy living opportunities, shower passes at a cost of \$2/day or \$10/month are now available at the Joe Doupe Center for Bannatyne staff and faculty.
- Maria Versace and Student Advocacy held two sessions on investigating misconduct in March 2017; one at Fort Garry and one at Bannatyne. Efforts are being made to better promote the program, with the target audience being department heads and associate deans. Next session dates will be in the fall 2017.
- On March 20th Jackie Gruber and Maria Versace attended the first meeting of the Sexual Assault and Violence Steering Committee (SAVSC), which replaces the Sexual Assault Working Group. Terms of reference and initiatives moving forward were discussed. The committee is a joint initiative of Student Affairs and Human Resources.
- The Office of Human Rights & Conflict Management released its 2015/16 annual report on March 21, 2017. The report has been distributed to various stakeholders both on and off campus and will be posted to the website.

EXTERNAL MATTERS

- For the period of April 1, 2016 to March 24, 2017, the University has raised \$41,365,042 towards the 2016/2017 fiscal year.
- As of March 24, 2017 we have raised \$276,891,321 in philanthropic gifts, tracking ahead of our cumulative goal for 2016/2017 of \$250 million. We are continuing discussions with the provincial government regarding a \$150 million commitment towards our \$500 million goal for the Front and Centre campaign.
- Significant gifts in the last reporting period include:
 - Guy Carpenter & Company Ltd. has renewed its support of the Guy Carpenter Chair in Agricultural Risk Management and Insurance with an additional gift of \$750,000 to extend the chair for a period of five years.
 - Mr. Richard Bird [BA/69] made a \$125,000 endowed gift to create the Ptarmigan Youth in Care Tuition Grant.
 - The Friends of Engineering made a gift of \$100,000 towards construction of the Stanley Pauley Engineering Building.
- On March 2 and 4, the University hosted Visionary Conversations Across the Nation events for alumni and friends living in Vancouver and Victoria. The event, titled “Acknowledging the Past, Creating our Future - a discussion focused on the importance of human rights in today's climate”, was moderated by President David Barnard and featured Mr. Ry Moran, Director, National Centre for Truth and Reconciliation and Dr. Katherine Starzyk, Assistant Professor, Department of Psychology.
- On March 9, the University hosted a Visionary Conversations event at the Bannatyne Campus. The event, titled "Why do we allow poverty to persist in Canada? - What role should corporations, individuals, governments and non-profit organizations play in reducing poverty?" was moderated by President David Barnard. Panelists included Mr. Donald Benham, Hunger and Poverty Awareness Manager, Winnipeg Harvest, Dr. Evelyn Forget, Professor, Community Health Sciences, Mr. Edward Kennedy, President and CEO, North West Company, Dr. Susan Prentice, Professor, Department of Sociology and Ms. Diane Redsky, Executive Director, Ma Mawi Wi Chi Itata Centre. Over 160 alumni, friends and community members attended to take part in the discussion.
- On March 21, President David Barnard and Mr. John Kearsey, Vice-President (External), met with Mayor Brian Bowman to discuss the City of Winnipeg's support for the Front and Centre campaign and other areas for partnership. The meeting included a discussion with Mr. Ry Moran and Dr. Frank Deer, Acting Executive Lead, Indigenous Achievement and a tour of Migizii Agamik.
- On March 23, the University of Manitoba hosted a reception to reconnect with alumni and friends living in Edmonton. The event took place at the Art Gallery of Alberta and featured student speaker Ms. Rebecca Kunzman [BA/06], first-year student, Faculty of Law.

- On March 28, President David Barnard and Dr. Jay Doering, Associate Vice-President (Partnerships), met with Mr. Sean Barr, Assistant Deputy Minister, Western Economic Diversification. The purpose of the meeting was to discuss campus infrastructure, research priorities, and Western Economic Diversification-funded projects at the University.
- The recipients of the 2017 Distinguished Alumni Awards will be honoured at the Celebration of Excellence on May 2 at the Metropolitan Entertainment Centre. The 2017 Distinguished Alumni Award recipients are:
 - Lifetime Achievement: John Patkau [BA/69, BES/69, MArch/72] and Patricia Patkau [BID/73]
 - Professional Achievement: Reva Stone [BA/68, BFA(Hons)/85]
 - Community Service: Sr. Lesley Sacouman [BA/75]
 - Service to the University of Manitoba: Isabella Wiebe [BMROT/86]
 - Outstanding Young Alumni: Desiree Scott [BA/16]
- Alumni Relations has received five approved nominations for the position of Alumni Representative to the Board of Governors. The election will open on Monday, March 20 and will run until Monday, May 22. Completed ballots can be obtained through Alumni Relations and submitted by mail, fax or email, or by delivering them to the Alumni Relations office during business hours. Ballots must include the voter's alumni number. Results will be determined on May 24, 2017. The candidates are:
 - Samuel Davidson [BComm(Hons)/15]
 - Marcelo Dubiel [BSc(ME)/11]
 - Jerome Knysh [BSc(IE)/84, ExtEd/87, MBA/90]
 - James Mansfield [MSC/90]
 - Derek Neufeld [BSc(ME)/11]

Report of the Senate Executive Committee

Preamble

The Executive Committee of Senate held its regular monthly meeting on the above date.

Observations

1. Speaker for the Executive Committee of Senate

Dean Karin Wittenberg will be the Speaker for the Executive Committee for the May meeting of Senate.

2. Vacancies on the Senate Committee on Nominations

The report of the University Secretary on the Senate Committee on Nominations is attached (Appendix A). Members of the Senate Committee of Nominations are nominated by the Senate Executive Committee and elected by Senate (See recommendation below). Senate Executive has made recommendations on nominations for three vacancies for academic staff.

3. Comments of the Executive Committee of Senate

Other comments of the Executive Committee accompany the report on which they are made.

Recommendation

The Senate Executive Committee recommends:

THAT the following nominations to the Senate Committee on Nominations be approved by Senate for three-year terms ending May 31, 2020:

- a) Professor Pam Perkins (re-appointment), representing Arts;**
- b) Professor Barbara Shay (new appointment, Senator), representing Health Sciences;**
- c) Professor Robert Biscontri (re-appointment, Senator) representing Management, Law, and Social Work.**

Respectfully submitted,

Dr. Janice Ristock, Acting Chair
Senate Executive Committee

Terms of Reference:

http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/477.htm

Vacancies on the Senate Committee on Nominations

At the July 1977 meeting of Senate, Senate approved without debate area representations for the Senate Committee on Nominations. The representation was amended in July 1991 to include the Libraries, in June 2005 to include the Clayton H. Riddell Faculty of Environment, Earth and Resources, and in October 2014 to take into account the Faculty of Health Sciences.

The current membership is as follows:

Agricultural and Food Sciences & Environment, Earth and Resources	Dean Karin Wittenberg*	2018
Architecture & Engineering	Prof. Witold Kinsner*	2019
Arts	Prof. Pam Perkins	2017
Education, Kinesiology and Recreation Management & Extended Education	Prof. Sandra Kouritzin*	2018
Health Sciences (2)	Prof. Marie Edwards vacant	2019 2017
Libraries & Student Affairs	Ms Vera Keown	2019
Management, Law & Social Work	Prof. Robert Biscontri*	2017
Music & School of Art	Prof. Gordon Fitzell*	2018
Science	Prof. Helen Cameron	2018
Students (2)	Mr. Ifeanyi Nwachukwu Ms Mercy Oluwafemi	2017 2017

* denotes member of Senate presently or at time of appointment

The terms for Professor Robert Biscontri, Professor Pam Perkins and the vacant position will end on May 31, 2017. Consequently, replacements are required for the following areas for the term of June 1, 2017 to May 31, 2020:

Management, Law and Social Work
Arts
Health Sciences

The composition of the Senate Committee on Nominations calls for ten members of the academic staff, the majority of whom are to be members of Senate. Since four of the remaining academic members currently on the Committee are Senators or were Senators at the time of appointment, at least two of the replacements must be a member of Senate at the time of election to the Senate Committee on Nominations.

The terms of Mr. Ifeanyi Nwachukwu and Ms Mercy Oluwafemi as student members will end on May 31, 2017. Consequently, student replacements are required for the term June 1, 2017 to May 31, 2018.

REPORT OF THE SENATE COMMITTEE ON AWARDS – PART B

Terms of reference for the Senate Committee on Awards include the following responsibility:

On behalf of Senate, to approve and inform Senate of all new offers and amended offers of awards that meet the published guidelines presented to Senate on November 3, 1999, and as thereafter amended by Senate. Where, in the opinion of the Committee, acceptance is recommended for new offers and amended offers which do not meet the published guidelines or which otherwise appear to be discriminatory under the policy on the *Non-Acceptance of Discriminatory Awards*, such offers shall be submitted to Senate for approval. (Senate, October 7, 2009)

Observation

At its meeting of April 4, 2017, the Senate Committee on Awards reviewed three new offers that appear to be discriminatory according to the policy on the *Non-Acceptance of Discriminatory Awards*, as set out in Appendix A of the *Report of the Senate Committee on Awards - Part B* (dated April 4, 2017).

Recommendation

The Senate Committee on Awards recommends that Senate and the Board of Governors approve three new offers, as set out in Appendix A of the *Report of the Senate Committee on Awards - Part B* (dated April 4, 2017).

Respectfully submitted,

Dr. Phil Hultin
Chair, Senate Committee on Awards

Comments of the Senate Executive Committee:
The Senate Executive Committee endorses the report to Senate.

SENATE COMMITTEE ON AWARDS

Appendix A

April 4, 2017

1. NEW OFFER

I.H. Asper School of Business Scholarship in Aboriginal Business Education

The I.H. Asper School of Business has secured \$25,000 in 2017 in order to offer a renewable scholarship. The purpose of the scholarship is to recognize the achievements of a student enrolled in the Aboriginal Business Education Partners (ABEP) program in the I.H. Asper School of Business at the University of Manitoba. Beginning in the 2017-2018 academic year and ending when the funds are depleted, one scholarship, valued at \$5,000, will be offered to an undergraduate student who:

- (1) is a member of the ABEP program in the I.H. Asper School of Business at the University of Manitoba;
- (2) has a record of high academic achievement, which is defined as:
 - (a) for first year students, meet the minimum admission requirements for the I.H. Asper School of Business Direct Entry Program Option at the University of Manitoba;
 - (b) for continuing students, a minimum degree grade point average of 3.0;
- (3) is enrolled full-time (minimum 60% course load) in the I.H. Asper School of Business in the year in which the scholarship is tenable;
- (4) has demonstrated academic promise and leadership potential for ABEP, the Indigenous community and/or the I.H. Asper School of Business;
- (5) has been identified by the selection committee to be the runner up of the Pauline and Roger Presland Scholarship in Aboriginal Business Education.

Students will be required to submit an application to ABEP, which includes (i) a transcript (ii) an autobiographical essay, and (iii) one letter of reference (from a non-relative) who is familiar with the student and their ability to excel in the I.H. Asper School of Business.

The scholarship is renewable provided that the recipient:

- (1) continues to be a member of the ABEP program;
- (2) is enrolled full-time (minimum 60% course load) in the I.H. Asper School of Business;
- (3) has achieved a minimum degree grade point average of 3.0.

Only one recipient may hold the scholarship at any one time.

In the event that a recipient does not qualify for renewal, a new recipient will be selected based on criteria (1) through (4).

The selection committee shall be named by the Director of the ABEP program (or designate) and may include the Director of Financial Aid and Awards (or designate).

This agreement may be amended by the mutual consent of the donor (or designate) and the University of Manitoba. All such amendments shall be in writing. In the absence of the donor (or designate), and providing all reasonable efforts have been made to consult, the Board of Governors of the University of Manitoba has the right to modify the terms of this award if, because of changed conditions, it becomes necessary to do so. Such modification shall conform as closely as possible to the expressed intention of the donor in establishing the award.

(Attachment I)

Ptarmigan Youth in Care Tuition Grants

J. Richard Bird (B.A./69) and Cathryn Bird, through the Ptarmigan Foundation, have generously established an endowment fund at the University of Manitoba, initially valued at \$125,000 in 2017. The purpose of the fund is to provide the opportunity for youth who are, or who have been, in the care of Child and Family Services to attend post-secondary education. The Ptarmigan Foundation has provided an additional \$5,000 to offer the first award during the 2017-2018 academic year, and a further \$400 to top up the award in the 2018-2019 academic year. Each year, one grant valued at a minimum of \$5,000 will be offered to an undergraduate student who:

- (1) is Indigenous (First Nations, Métis, Inuit);
- (2) is, or will be, enrolled full-time (minimum 60% course load) in any undergraduate degree or diploma program at the University of Manitoba in the year in which the award is tenable;
- (3) has either:
 - (a) as an entering student, met the minimum admission requirements for University 1 or any faculty, college, or school with a Direct Entry program option;
 - (b) as a continuing student, achieved a minimum degree grade point average of 2.0;
- (4) is currently or formerly a youth in care of the Child Welfare System in Canada;
- (5) has demonstrated financial need on the Youth in Care Tuition Grant application.

The grant can be renewed for up to three years provided the recipient:

- (1) remains enrolled full-time (minimum 60% course load) in any undergraduate degree or diploma program at the University of Manitoba;
- (2) continues to maintain a minimum degree grade point average of 2.0;
- (3) continues to demonstrate financial need on the Youth in Care Tuition Grant application.

Only one student may hold the grant in any academic year.

The Director of Financial Aid and Awards (or designate) will name the selection committee for this grant.

This agreement may be amended by the mutual consent of the donor (or designate) and the University of Manitoba. All such amendments shall be in writing. In the absence of the donor (or designate), and providing all reasonable efforts have been made to consult, the Board of Governors of the University of Manitoba has the right to modify the terms of this award if, because of changed conditions, it becomes necessary to do so. Such modification shall conform as closely as possible to the expressed intention of the donor in establishing the award.

(Attachment II)

UnionWare Excel, Reach, Lead Bursary

Mr. James Perchaluk (M.Sc./89) has established an endowment fund at the University of Manitoba with an initial gift of \$25,000 in 2017. The Manitoba Scholarship and Bursary Initiative has made a contribution to the fund. The purpose of the fund is to support female undergraduate students in Computer Science. Beginning in the 2018-2019 academic year, the available annual interest from the fund will be used to offer one bursary to a female undergraduate student who:

- (1) is a graduate of Balmoral Hall School;
- (2) is enrolled full-time (minimum 60% course load) in at least the second year of study of the Bachelor of Science program in Computer Science (Honours, Joint Honours, Major) offered through the Faculty of Science at the University of Manitoba;
- (3) has achieved a minimum degree grade point average of 2.0;
- (4) has demonstrated financial need on the standard University of Manitoba bursary application form.

In any given year, if there are no eligible students who meet all of the initial criteria, the selection committee may select a student who meets criteria (2) through (4) to receive the award.

The bursary is renewable for those students who meet all of the initial criteria, for a maximum of four years, provided that the recipient continues to meet criteria (2) through (4) in the following years.

Only one student may hold the UnionWare Excel, Reach, Lead Bursary in any given year.

The Head of the Department of Computer Science (or designate) will name the selection committee for this award.

This agreement may be amended by the mutual consent of the donor (or designate) and the University of Manitoba. All such amendments shall be in writing. In the absence of the donor (or designate), and providing all reasonable efforts have been made to consult, the Board of Governors of the University of Manitoba has the right to modify the terms of this award if, because of changed conditions, it becomes necessary to do so. Such modification shall conform as closely as possible to the expressed intention of the donor in establishing the award.

(Attachment III)



UNIVERSITY
OF MANITOBA

Asper School of Business

Dean's Office
319 Drake Centre
181 Freedman Crescent
Winnipeg, Manitoba
Canada R3T 5V4
Telephone (204) 474-9353
Fax (204) 474-7544

March 27, 2017

Dr. Philip Hultin
Chair, Senate Committee on Awards
c/o Adrienne Domingo, Awards Establishment Coordinator
422 University Centre
University of Manitoba

RE: I.H. Asper School of Business Scholarship in Aboriginal Business Education

Dear Dr. Hultin,

Financial Aid and Awards supports the establishment of the **I.H. Asper School of Business Scholarship in Aboriginal Business Education**.

In the Fall Term of 2016, the I.H. Asper School of Business' Indigenous undergraduate student population was 4.9% of total enrolment, compared to Manitoba's Indigenous population of 16.7%¹. Indigenous student enrolment data for the past five years at the University of Manitoba is provided for context in the table below.

Year (Fall Term)	Number of Indigenous Students in the I.H. Asper School of Business (undergraduate)	Total Students in the I.H. Asper School of Business (undergraduate)	% Indigenous Students
2016	85	1,738	4.9
2015	71	1,753	4.1
2014	63	1,753	3.6
2013	55	1,752	3.1
2012	59	1,742	3.4

/continued

¹ Statistics Canada. *Aboriginal Peoples in Canada: First Nations People, Metis and Inuit, National Household Survey, 2011*, Catalogue no. 99-011-X2011001, <http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-011-x/2011001/tbl/tbl02-eng.cfm>.



Letter to Dr. Philip Hultin
Chair, Senate Committee on Awards
March 27, 2017
RE: I.H. Asper School of Business Scholarship in Aboriginal Business Education
Page Two

As an institution, our commitment is to increase the number of Indigenous students on our campuses. Increasing the number of bursaries, scholarships and awards for Indigenous students contributes to this commitment. This scholarship will provide the opportunity to recruit, support and retain Indigenous students at the University of Manitoba and, in doing so; will also contribute to the success of individual Indigenous students.

Sincerely,

A handwritten signature in black ink, appearing to read 'M Benarroch', with a stylized flourish at the end.

Dr. Michael Benarroch
Dean and CPA Manitoba Chair in Business Leadership



UNIVERSITY
OF MANITOBA
February 27, 2017

Enrolment Services

Financial Aid & Awards
422 University Centre
Winnipeg, Manitoba
Canada R3T 2N2
Telephone (204) 474-9531
Fax (204) 474-7543
awards@umanitoba.ca

Dr. Philip Hultin
Chair, Senate Committee on Awards
c/o Adrienne Domingo, Awards Establishment Coordinator
422 University Centre
University of Manitoba

RE: Ptarmigan Youth in Care Tuition Grants

Dear Dr. Hultin,

Financial Aid and Awards supports the establishment of the **Ptarmigan Youth in Care Tuition Grants**.

In the Fall Term of 2016, the University of Manitoba's Indigenous undergraduate student population was 8.5% of total enrolment, compared to Manitoba's Indigenous population of 16.7%¹. Indigenous student enrolment data for the past five years at the University of Manitoba is provided for context in the table below.

Year (Fall Term)	Number of Indigenous Students (undergraduate)	Total Students	% Indigenous Students
2016	2,170	25,611	8.5
2015	1,974	25,460	7.8
2014	1,997	25,298	7.9
2013	1,973	25,363	7.8
2012	1,933	24,996	7.7

As an institution, our commitment is to increase the number of Indigenous students on our campuses. Increasing the number of bursaries, scholarships and awards for Indigenous students contributes to this commitment. This scholarship will provide the opportunity to recruit, support and retain Indigenous students at the University of Manitoba and, in doing so; will also contribute to the success of individual Indigenous students.

Sincerely,

Ms. Jane Lastra
Director, Financial Aid and Awards
University of Manitoba

¹ Statistics Canada. *Aboriginal Peoples in Canada: First Nations People, Metis and Inuit, National Household Survey, 2011*, Catalogue no. 99-011-X2011001, <http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-011-x/2011001/tbl/tbl02-eng.cfm>.



UNIVERSITY
OF MANITOBA

Faculty of Science

Office of the Dean
239 Machray Hall
Winnipeg, Manitoba
Canada R3T 2N2
Phone (204) 474-9348
Fax (204) 474-7618

March 16, 2017

Dr. Philip Hultin
Chair, Senate Committee on Awards
c/o Adrienne Domingo,
Awards Establishment Coordinator
422 University Centre
University of Manitoba



Dear Dr. Hultin,

The Faculty of Science is pleased to support the establishment of the **UnionWare Excel, Reach, Lead Bursary**.

When comparing the numbers in the table below to the number of undergraduate female students in the general University of Manitoba population (53.7%)¹, it becomes clear that female students are under-represented in the department of Computer Science.

Year (fall)	Total number of students in Computer Science (Majors, Honours, and Joint Honours programs)	Number female students in Computer Science (Majors, Honours, and Joint Honours programs)	% female students in Computer Science
2015	493	55	11.2
2014	398	50	12.6
2013	351	35	10
2012	300	36	12
2011	297	30	10.1

The addition of this new bursary will have the potential to recruit, retain, and encourage female students in the area of Computer Science.

Sincerely,

Dr. Stefi Baum
Dean
Faculty of Science

¹ Office of Institutional Analysis, *Undergraduate Students by Program or Area of Study, Full/Part Status, and Gender Fall 2015, as of November 1, 2015* (University of Manitoba), http://umanitoba.ca/admin/oia/media/enrol_UG_area_of_study_MF_f15.pdf



UNIVERSITY
OF MANITOBA

Rady Faculty of
Health Sciences

Max Rady College of Medicine
Office of the Dean
230 Basic Medical Sciences Building
745 Bannatyne Avenue
Winnipeg, Manitoba
Canada R3E 0J9
Phone: 204-789-3485
Fax: 204-789-3661

MEMORANDUM

Date: January 25, 2017

To: Mr. Jeff Leclerc
University Secretary

From: Dr. Brian Postl
Dean, Rady Faculty of Health Sciences

Re: PharmD Proposal

The attached PharmD Proposal was previously approved at the Faculty Council meeting on January 24, 2017 and is being forwarded for final Senate Approval.

Please let me know if you require additional information or clarification.

Thank you.

Comments of the Senate Executive Committee:
The Senate Executive Committee endorses the
report to Senate.



UNIVERSITY
OF MANITOBA

Rady Faculty of
Health Sciences



K. L. Cor

College of Pharmacy
Apotex Centre
750 McDermot Avenue
Winnipeg, Manitoba
Canada R3E 0T5
Phone: 204-474-9306
Fax: 204-789-789-3744

Executive Summary – Doctor of Pharmacy Program Application

The College of Pharmacy at the University of Manitoba has been responsible for educating pharmacists for more than a century. The current B.Sc. (Pharmacy) program was introduced in 1992. We are now forwarding this application for approval to make the mandatory change from the existing B.Sc. (Pharmacy) program to a new Doctor of Pharmacy (Pharm.D.) program at the College of Pharmacy. We respectfully submit this proposal to the Rady Faculty of Health Sciences' Faculty Council for consideration.

Reasons for the Change

- In February, 2010, the Association of Faculties of Pharmacy of Canada (AFPC) and Association of Deans of Pharmacy of Canada (ADPC) mandated the introduction of a Pharm.D. program as the entry-to-practice standard for Pharmacy education in Canada.
- On December 16, 2016, the Canadian Council for Accreditation of Pharmacy Programs (CCAPP) also made its decision to cease reaccrediting B.Sc. (Pharmacy) programs in Canada by December 31, 2020.
- The University of Manitoba is the sole provider of undergraduate Pharmacy education in Manitoba. The College of Pharmacy has full accreditation status for the B.Sc. (Pharmacy) program until 2019. We must remain compliant with the CCAPP accreditation standards and implement a new Pharm.D. program.

Upgrades in the Program

- Prerequisite credit hours before admission will increase to 60 credit hours (minimum 2 years) from 30 credit hours in the B.Sc. (Pharmacy) program.
- The Pharm.D. program at the College of Pharmacy will be 4 years, consisting of 144 credit hours of a new and enhanced curriculum.
- The new curriculum will expand the breadth and depth in clinical and advanced therapeutics, scientific literature evaluation, pharmacogenetics, pharmacoepidemiology, pharmacoeconomics, skills laboratories, simulation training, and indigenous health.
- Experiential learning components of the program will increase to 1600 hours (40 weeks) from 640 hours in the B.Sc. (Pharmacy) program. Fourth-year students will spend their final year of the program in various experiential rotations as "Pharmacy Interns".
- Interprofessional learning and service learning components will be added to the program, and this will be coordinated with other Colleges in the RFHS.
- The new Pharm.D. program proposed by the College of Pharmacy will meet the CCAPP accreditation standards for Pharmacy education.

Finances of the Program

- One-time funding request: \$4,540,837. These funds will include: 1) \$1.6 million for a new primary care simulation laboratory; 2) \$210,000 for telehealth and audiovisual renovations; and 3) \$2,730,837 for staff hiring requirements.

- New staff hiring request: 16 positions. These positions will include: 4 tenure-track faculty, 2 instructors, 8 experiential education facilitators, and 2 support staff.
- The College of Pharmacy has also allocated \$1.4 million for capital investment to contribute to the simulation laboratory (total project budget \$3 million).

Implementation Timeline

- Admissions into the B.Sc. (Pharmacy) program will be phased out by the 2019/20 academic year. The last intake of B.Sc. (Pharmacy) students in the fall of 2018 will be transitioned to the Pharm.D. program in 2019.
- Admissions directly into the Pharm.D. program will start in the fall of 2020.
- Due to program transition, there will be no graduating class from the College of Pharmacy in June 2022.
- Projected enrolment: 55 students/year. Projected program tuition: \$14,500/year.

The College of Pharmacy is committed to providing an undergraduate pharmacy education that is comprehensive, balanced, up-to-date, and in support of contemporary pharmacy practice. The Pharmacy program at the University of Manitoba has been ranked as one of the top Pharmacy programs in Canada. The implementation of the new Pharm.D. program is not only an accreditation requirement, but it will also produce qualified and competent practicing pharmacists to serve the Province and all Manitobans. We request support and approval of this application by the RFHS, the University of Manitoba, and the Government of Manitoba in the near future.

NEW PROGRAM OF STUDYUnder *The Advanced Education Administration Act*

Universities and colleges requesting approval for a **new** program of study from Education and Advanced Learning must apply using this application form. This form reflects the requirements set out in the Programs of Study Regulation (MR 134/2015) under *The Advanced Education Administration Act*.

UM INTERNAL REQUIREMENTS:
UNIVERSITY
OF MANITOBA

1. Following unit approval, please submit the complete proposal electronically (.docx) both to the Office of the Provost & Vice-President (Academic) and, for:
 - Undergraduate Programs:* Office of the University Secretary (for Senate submission deadlines visit <http://umanitoba.ca/admin/governance/meetings/index.html>.)
 - Graduate Programs:* Faculty of Graduate Studies (for timelines visit http://umanitoba.ca/faculties/graduate_studies/admin/program_approval_timeline.html.)
2. Along with the information requested below, please **append** details on the following:
 - a) ALD Financial Support Form [*available through the Office of the Provost & Vice-President(Academic)*]
 - b) Admission and/or transfer criteria for the proposed program.
 - c) Course details for required coursework, including title, course number, credit hours and calendar description. Highlight any proposed new courses and attach:
 - Undergraduate Programs:* for SCCCC Program and Course Change forms, as applicable, visit <http://umanitoba.ca/admin/governance/forms/index.html>
 - Graduate Programs:* for course change forms visit http://umanitoba.ca/faculties/graduate_studies/admin/course_changes.html
 - d) Any new academic regulations for the program that are not currently addressed in existing faculty/college/school requirements.
 - e) Letters of support from internal units that may be impacted by the proposed new program and any external letters of support as outlined below.
 - f) Library statement of support.
3. Please direct questions to Cassandra Davidson, Program Analyst at Cassandra.Davidson@umanitoba.ca in the Office of the Provost and Vice-President (Academic).

SECTION A – PROPOSAL DETAILS

Institution: **UNIVERSITY OF MANITOBA**

Applicable faculties/department with responsibility for the program: **COLLEGE OF PHARMACY**

If program is a joint program, list all participating institutions and the roles of each in delivering the proposed program:
Not a joint program

Program name: **Doctor of Pharmacy**

Credential awarded: **Pharm. D.**

Funding request: **Yes**

Proposed start date: **2019-09-03**
2018-09-04: B.Sc. (Pharmacy) transition year required

Office Use Only

One-time funding: _____

On-going funding: _____

List any critical issues that may impact the start date of the program:

- The University of Manitoba is the last of the 10 Pharmacy schools in Canada to receive official approval for implementing an entry-to-practice Pharm.D. program;
- The Canadian Council for Accreditation of Pharmacy Programs (CCAPP) has announced its decision of December 16, 2016 to cease reaccrediting CCAPP-Accredited B.Sc. (Pharmacy) programs in Canada by December 31, 2020;
- The University of Manitoba must remain compliant with the new Canadian accreditation standards in Pharmacy education;
- The Pharm.D. program cannot be implemented without additional resources.

UM INTERNAL REQUIREMENT: Name of Person(s) responsible for the Program (please include contact information):

The Dean's Office
College of Pharmacy
The University of Manitoba
Apotex Centre
750 McDermot Avenue
Winnipeg, MB R3E 0T5
www.umanitoba.ca/faculties/pharmacy
pharmacy@umanitoba.ca

Dr. Xiaochen Gu
Professor and Interim Dean
College of Pharmacy
(204) 474-8794
Xiaochen.Gu@umanitoba.ca

B-1 Provide a general description of the program and its objectives: *(Include intended purpose, curriculum design, and highlight distinctive attributes)*

Intended Purpose

The University of Manitoba has been responsible for educating pharmacists for more than a century. The current B.Sc. (Pharmacy) program was introduced in 1992. However, in order to address changing educational needs and remain compliant with the new Canadian accreditation standards, the College of Pharmacy is required to replace the B.Sc. (Pharmacy) program with a new entry-to-practice professional program, the Doctor of Pharmacy (Pharm.D.) program by 2020.

The Association of Faculties of Pharmacy of Canada (AFPC) and Association of Deans of Pharmacy of Canada (ADPC) mandated in February, 2010 the introduction of a Pharm.D. program as the entry-to-practice standard for Pharmacy education. Since then, five Canadian Pharmacy schools have implemented Pharm.D. programs, and all remaining schools except the University of Manitoba have announced government approvals for implementation. The College of Pharmacy is now forwarding this proposal for approval to make this mandatory change to the new program of study at the University of Manitoba.

The Canadian Council for Accreditation of Pharmacy Programs (CCAPP) has announced its decision of December 16, 2016 to cease reaccrediting B.Sc. (Pharmacy) programs in Canada by December 31, 2020. This decision is supported by the National Association of Pharmacy Regulatory Authorities (NAPRA) and the Pharmacy Examining Board of Canada (PEBC). If the University of Manitoba does not initiate a Pharm.D. program in time, the College of Pharmacy will lose its accreditation status for training pharmacists, and B.Sc. (Pharmacy) graduates will no longer qualify for direct access to write the national certification examination administered by the PEBC.

Curriculum Design

The College of Pharmacy is committed to providing an undergraduate pharmacy education that is comprehensive, balanced, up-to-date, and in support of contemporary pharmacy practice. In order to deliver an accredited Pharm.D. program, the College of Pharmacy has designed a new curriculum, balancing all fields of pharmaceutical and clinical sciences including biomedical, pharmaceutical, behavioural, and social pharmacy, plus significantly expanding the experiential training in contemporary pharmacy practice. The Pharm.D. program will integrate different components of the curriculum and develop students' practice skills and professionalism through various case-based and simulation learning opportunities. The Pharm.D. graduates will possess the clinical knowledge, practice competence, collaborative professionalism, and clinical judgement to work with other healthcare providers in making, implementing and taking responsibility for evidence-based therapeutic decisions.

The College of Pharmacy is also working closely with all other Colleges within the Rady Faculty of Health Sciences (RFHS) to develop and participate in interprofessional education programs. The strategy is to build shared clinical decision making skills, to facilitate interdisciplinary collaboration, communication, patient advocacy, and to improve overall therapeutic outcomes in a patient-centered healthcare system. With expanded collaboration and integration of these education programs, the roles of all healthcare professions including pharmacists will be further recognized and valued, thus fulfilling the original intention and ultimate goal of innovating modern health sciences education programs at the University of Manitoba.

Distinctive Attributes

One of the distinctive attributes of the Pharm.D. curriculum is the significantly expanded experiential components required by the CCAPP Standard 28. These learning experiences must provide students the opportunities to develop all NAPRA-prescribed competencies for entry to pharmacy practice. In addition to practice experiences in community pharmacy and hospital pharmacy in the second year, students will participate in service learning and interprofessional education throughout their first two years of the program. The last year of the Pharm.D. program is the "internship year", when Pharm.D. interns will take part in various practicum rotations involving different learning settings including community pharmacy, hospital pharmacy, and primary care environments. Students are also required to complete a research-based project. This advanced experiential learning in the Pharm.D. curriculum will provide substantially

enhanced opportunities over the current B.Sc. (Pharmacy) program for students to achieve the learning outcomes required of a CCAPP-accredited Pharm.D. program.

The University of Manitoba is the sole provider of undergraduate pharmacy education in the Province, and pharmacists are one of the readily accessible professionals in healthcare services. Recognizing the evolving role of pharmacists within the healthcare system, Manitoba's Regulated Health Professions Act (2009) has already accommodated the Pharm.D. degree and entitled the graduates of this program to use the designation of "Doctor of Pharmacy". Therefore, in order to fulfill the accreditation requirements and to train students with the knowledge, skills and competence that can directly benefit patient-centered services, the University of Manitoba must facilitate a smooth and timely transition from the existing B.Sc. (Pharmacy) program to the newly proposed Pharm.D. program.

B-2 Length of Program: *(Define the length of the proposed program using measures appropriate to the schedule and delivery format. This will include total course credits and weeks/months, and, where relevant, hours and semesters of instruction)*

Once the admission requirements of **60 credit hours (CH)** are met, the proposed Pharm.D. program will be **four years**, consisting of **144 credit hours**.

B-3 Intended outcomes of the program:

B-3.1 Describe how this program serves and advances the academic, cultural, social and economic needs and interests of students and the province:

Academic Advancements

The design of Pharm.D. curriculum is guided by the CCAPP accreditation standards, the AFPC education outcomes, and the NAPRA practice competencies.

The Pharm.D. program will advance pharmacy education by:

- offering advanced learning contents in both basic and clinical sciences;
- increasing the quantity and complexity of clinical courses;
- focusing on scientific literature evaluation for evidence-based decision making;
- expanding the breadth and depth of patient-focused experiential training that will develop professional confidence and competence of students;
- increasing interprofessional education and collaboration with other health professions;
- advancing education in Indigenous health and cultural diversity.

The new curriculum will also leverage existing teaching strengths within units of the broader RFHS, i.e., Departments of Pharmacology and Therapeutics, Human Anatomy and Cell Science, and Biochemistry and Medical Genetics. Pharmacy students will participate in mandatory interprofessional education programs together with students from other Colleges, resulting in a greater understanding of the interdisciplinary nature of clinical practice.

Cultural & Social Needs

Canadian pharmacists are highly valued healthcare providers, working collaboratively with other healthcare professions in making decisions, prescribing medications, monitoring drug therapy outcomes, and improving the health and quality of life for the general Canadian public. As a result, the nature and delivery of conventional pharmacy education must adapt to meet the needs, demands and standards of contemporary pharmacy practice. Through their Pharm.D. program, students will be trained to the expectations and responsibilities of practicing pharmacists. They will experience first-hand their future roles as healthcare professionals working collectively with patients, physicians, nurses and other healthcare providers in meeting the increasing demands for efficient healthcare services in Manitoba. On December 20, 2013, the Government of Manitoba passed the Manitoba Pharmaceutical Act that recognizes the pharmacists' enhanced scope of practice for patient care services. These Regulations enable pharmacists to exercise a greater role in supporting the health and well-being of those in need, while improving the accountability and enhancement of patient safety.

The growing aging population has placed an increased demand on the healthcare system, as the elderly have more chronic conditions, require more medication oversight in monitoring and adjustments, and are at greater risk for

experiencing adverse drug events. Common chronic diseases in Manitoba include heart disease, stroke and type 2 diabetes. These may impact more on the health of the elderly and those especially vulnerable, for example Indigenous peoples and new immigrants. The proposed Pharm.D. program will include specific learning activities and experiences aiming at expanding patient-centered experiential training, supporting interdisciplinary outreach learning activities, enhancing intercultural understanding, and addressing unique healthcare needs of all Manitobans. The Pharm.D. students and interns will receive advanced training in risk assessment and early detection, prevention and management of diseases, thus contributing to effective medication management and therapy monitoring. Through extensive experiential and interprofessional learning opportunities, the students will have direct engagement in many pharmacy practice settings, and accumulate experiences towards working efficiently and collaboratively in future clinical practice.

Economic Impacts

With an aging Canadian population, medication costs are one of the fastest rising expenditures in our healthcare system. Increased drug use also leads to greater potential for adverse drug effects. Pharmacists provide expert medication information to patients for optimal drug use and quality pharmaceutical care, ultimately contributing to better health outcomes, improved patient safety, and reduced healthcare costs. By implementing the Pharm.D. program, students will be trained with enhanced learning opportunities and under different experiential settings to become medication therapy experts. They will acquire knowledge and skills in identifying and resolving drug-related issues, such as drug adherence and abuse, smoking cessation, minor ailment screening, lab testing interpretation, and management of chronic diseases. Eventually the Pharm.D. graduates can provide expanded pharmacy practice to meet the demands for convenient, accessible and cost-efficient patient care.

The value of extended experiential placements by pharmacy interns is economically beneficial to the pharmacy organizational/professional services. Internship rotations will incorporate interns' activities within the preceptors' daily practice and as such the Pharm.D. interns will become readily integrated into the practice upon graduation. This has been seen as an asset to provide value-added pharmacy services by interns, especially in rural areas and northern communities where such support has not been consistently offered, to increase service efficiency and to benefit patient care.

On the other hand, there is no indication that the broader contributions to healthcare by Pharm.D. graduates create expectations for higher wages for pharmacists. Higher salary is not a motivational factor for student applicants to earn a Pharm.D. degree. Pharmacists' salaries have not been impacted by the implementation of the entry-level Pharm.D. programs in the US and other Canadian provinces.

B-3.2 Describe the existing and anticipated post-secondary learning needs of students in Manitoba that this program addresses and responds to:

The existing B.Sc. (Pharmacy) program at the University of Manitoba is the only accredited post-secondary Pharmacy education program in the Province of Manitoba. In order to meet the CCAPP accreditation standards and to continue to graduate qualified pharmacists in support of future healthcare needs of Manitobans, the College of Pharmacy must now join all other Canadian Pharmacy schools in introducing the entry-level Doctor of Pharmacy program.

B-4 Mode of Delivery

B-4.1 Provide the total program length through one of the following measures:

- ☒ Total credit hours
- ☐ Total contact hours
- ☐ Total courses

The Pharm.D. program will include four years of study at the College of Pharmacy totaling 144 credit hours.

Pharm.D. Program Year	Credit Hours
Year 1	34
Year 2	41
Year 3	31
Year 4	38
Total Credit Hours	144

B-4.2 What proportion of the total program length (as indicated above) can be completed through the two following modes of delivery? *(Note that one or both selections can be offered up to the total program length.)*

98% In-person

~2% Online

The modes of instruction for the Pharm.D. program will include didactic lecturing, laboratory instruction, and the incorporation of patient simulation and experiential training in community, hospital or primary care settings.

Online instruction is currently limited to the delivery of Nutrition for Health Professionals (HNSC2170, 2CH), and learning modules of jurisprudence (pharmacy law) and immunization. This mode of delivery will increase as more experience is gained with online instruction at the University of Manitoba. The College of Pharmacy would consider increasing the capacity of online delivery options for appropriate courses up to 20-30%.

B-5 Provide an overview of the suggested progression of courses on a year-by-year basis for the program from start to maturity. *(Course level detail is not necessary, however, please include credit hours/contact hours, proportion of upper level courses, clinical placements or practicums, or subject area requirements where applicable).*

The College of Pharmacy has designed a Pharm.D. curriculum in accordance with the CCAPP accreditation standards, AFPC educational outcomes, and NAPRA competencies. The College is prepared to provide students with various educational opportunities and train them to develop knowledge, skills and professionalism for future practice.

Year 1

Students will be admitted into the Pharm.D. program after having completed the admission requirements including 60 CH of prerequisite courses. Courses in the first professional year focus on core and foundational knowledge and skills needed as the basis for understanding medical conditions, disease management, optimal drug use, and pharmacy practice. Courses in basic and pharmaceutical sciences include: Human Anatomy (ANAT1030, 3CH), Applied Pathophysiology (PHMD1010, 4CH), Medicinal Chemistry (PHMD1008, 4CH), Pharmacology (PHAC2100, 6CH), and Pharmaceutics (PHMD1016, 3CH). Courses relevant to pharmacy practice and patient care include: Applied Pharmacy Practice Lab 1 (PHMD1002, 4CH), Introduction to Pharmacotherapy Literature (PHMD1004, 1CH), Pharmacy Informatics (PHMD1006, 1CH), Extemporaneous Pharmaceutical Compounding (PHMD1012, 3CH), and Clinical Therapeutics 1 (PHMD1014, 3CH). These courses will help students develop professional communication skills, familiarize them with patient assessment and drug use information, and build competence in evaluating pharmacotherapy literature and using evidence to support decision-making.

Students in Year 1 will take Introduction to Professional Practice (PHMD1000, 1CH) and Service Learning/IPE 1 (PHMD1040, 1CH). Both courses will introduce students to professionalism, ethical practice, personal responsibility and accountability, Indigenous health, and cultural and social diversity. Students will learn and develop interprofessional skills in community-based settings together with other students of the RFHS. Students are also required to complete online modules of jurisprudence (pharmacy law) and immunization in summer months before Year 2.

Year 2

Courses in the second-year program will continue to reinforce fundamental medical and pharmaceutical knowledge for specific applications to pharmacy practice. Courses include: Drug Delivery (PHMD2000, 3CR), Applied Biopharmaceutics and Pharmacokinetics (PHMD2006, 3CH), Principles of Biotechnology (PHMD2010, 2CH), and Pharmacogenetics (PHMD2012, 2CH). These courses will further develop students' advanced pharmaceutical knowledge in drug administration, drug disposition, and the latest developments in biopharmaceuticals and pharmacogenetics. The practicing skills and application of knowledge to clinical settings are further enhanced by courses: Critical Appraisal of the Pharmacotherapy Literature 1 (PHMD2004, 4CH), Clinical Therapeutics 2 (PHMD2014, 8CH), Clinical Pharmacokinetics-Pharmacodynamics (PHMD2016, 3CH), and Applied Pharmacy Practice Lab 2 (PHMD2002, 4CH). They will advance the students' skills in clinical pharmacy practice, such as patient assessment and disease state management for specific individualized pharmacotherapies. The didactic lectures will be further reinforced in a skills laboratory with patient assessment, immunization training, laboratory test interpretation, prescription evaluation, and patient safety monitoring.

Nutrition for Health Professionals (HNSC2170, 2CH) is an online interdisciplinary course exploring the basics of nutrition and human health. Pharmacy Law (PHMD2008, 1CH) is designed to interpret federal and provincial legislation and regulations governing the Pharmacy profession and pharmacy practice. Interprofessional education will continue in collaboration with other RFHS Colleges through Service Learning/IPE 2 (PHMD2040, 1CH). Second-year students will also enter their experiential rotations directly with patients in Introductory Pharmacy Practice Experience - Community (PHMD2020, 4CH, 4 weeks) and Introductory Pharmacy Practice Experience - Hospital (PHMD2030, 4CH, 4 weeks), respectively. Under the direct supervision of pharmacy preceptors, students will learn and advance their skills in providing patient-focused pharmacy services, while developing a sense of responsibility and professionalism for collaboration and shared decision-making.

Year 3

Courses in the third-year program will further increase students' knowledge, skills of critical thinking and problem solving, and application ability to provide complex pharmaceutical care. The advanced clinical science courses include: Clinical Therapeutics 3 (PHMD3014, 8CH), Advanced Clinical Therapeutics (PHMD3006, 6CH), and Applied Pharmacy Practice Lab 3 (PHMD3002, 4CH). They build on the second-year curriculum, and will further increase the level of complexity in therapeutics and improve students' proficiency in providing competent and quality patient care.

With the expansion of practice scope by pharmacists and collaborative opportunities with other health professions, some Year 3 courses are designed to train students for interdisciplinary and advanced pharmacy practice. Critical Appraisal of Pharmacotherapy Literature 2 (PHMD3004, 2CH) will introduce students to pharmacoeconomics and pharmacoepidemiology. Concepts of Integrative Medicine (PHMD3008, 2CH) will teach students alternative approaches to managing medical conditions and using natural health products. Toxicology of Medications and Drugs of Abuse (PHMD3016, 2CH) will increase students' knowledge and understanding of drug toxicity and drugs of abuse. Pharmacy Management (PHMD3010, 4CH) will expose students to principles of operating a pharmacy, strategic planning, marketing services, and human resource management. Applied Professional Practice (PHMD3012, 3CH) will continue to reinforce professionalism and ethical conduct within the pharmacy profession. By the end of third year, students will have developed the knowledge, skills and attitudes to excel in their final year of the advanced pharmacy practice experiences.

Year 4

Fourth-year Pharm.D. students are considered "interns", and are allowed to practice in patient care settings with indirect supervision. The experiential placements of the program will begin in May, immediately following the conclusion of the third year. They include: Advanced Pharmacy Practice Experiences in Community (PHMD4020, 8CH, 8 weeks), in Hospital, (PHMD4030, 8CH, 8 weeks), and in Primary Care (PHMD4040, 8CH, 8 weeks), respectively. The longer experiential duration assigned to each practice setting will expose students to the breadth, depth, and volume of patient care, and instill confidence, competence, and a sense of responsibility that practicing pharmacists encounter in real life. In addition, the fourth-year students are provided with an opportunity to explore an area of their own interest in Advanced Pharmacy Practice Experience - Elective (PHMD4060, 8CH, 8 weeks). This elective program will facilitate students to explore career options and opportunities anywhere in the world, and gain diverse learning experiences that

are not available at the University of Manitoba. All fourth-year students will also be required to complete a Pharmacy Research Project (PHMD4000, 6CH) during the course of the year. Supervisors will be assigned to each intern from within or outside of the College, and students will have 12 months to complete an approved research project.

UM INTERNAL REQUIREMENT: please complete the chart below to provide an overview of suggested progression through the program (indicate pre-requisites and related credit hours). Outline options for specializations within this program [minor(s) and/or concentration(s)].

YEAR 1		
Course #	Course Name	Credit Hours
ANAT 1030	Human Anatomy	3
PHMD 1000	Introduction to Professional Practice	1
PHMD 1002	Applied Pharmacy Practice Lab 1	4
PHMD 1004	Introduction to Pharmacotherapy Literature	1
PHMD 1006	Pharmacy Informatics	1
PHMD 1008	Medicinal Chemistry	4
PHMD 1010	Applied Pathophysiology	4
PHMD 1012	Extemporaneous Pharmaceutical Compounding	3
PHMD 1014	Clinical Therapeutics 1	3
PHMD 1016	Pharmaceutics	3
PHAC 2100	Pharmacology	6
PHMD 1040	Service Learning / IPE 1	1
Total Credit Hours		34
Online immunization modules		n/a
Online Learning modules in jurisprudence - 10 hours		n/a
YEAR 2		
Course #	Course Name	Credit Hours
HNSC 2170	Nutrition for Health Professionals (online course)	2
PHMD 2000	Drug Delivery	3
PHMD 2002	Applied Pharmacy Practice Lab 2	4
PHMD 2004	Critical Appraisal of Pharmacotherapy Literature 1	4
PHMD 2006	Applied Biopharmaceutics and Pharmacokinetics	3
PHMD 2008	Pharmacy Law	1
PHMD 2010	Principles of Biotechnology	2
PHMD 2012	Pharmacogenetics	2
PHMD 2014	Clinical Therapeutics 2	8
PHMD 2016	Clinical Pharmacokinetics - Pharmacodynamics	3
PHMD 2020	Introductory Pharmacy Practice Experience - Community	4
PHMD 2030	Introductory Pharmacy Practice Experience - Hospital	4
PHMD 2040	Service Learning / IPE 2	1
Total Credit Hours		41

YEAR 3		
Course #	Course Name	Credit Hours
PHMD 3002	Applied Pharmacy Practice Lab 3	4
PHMD 3004	Critical Appraisal of Pharmacotherapy Literature 2	2
PHMD 3006	Advanced Clinical Therapeutics	6
PHMD 3008	Concepts of Integrative Medicine	2
PHMD 3010	Pharmacy Management	4
PHMD 3012	Applied Professional Practice	3
PHMD 3014	Clinical Therapeutics 3	8
PHMD 3016	Toxicology of Medications and Drugs of Abuse	2
Total Credit Hours		31
YEAR 4		
Course #	Course Name	Credit Hours
PHMD 4000	Pharmacy Research Project	6
PHMD 4020	Advanced Pharmacy Practice Experience - Community	8
PHMD 4030	Advanced Pharmacy Practice Experience - Hospital	8
PHMD 4040	Advanced Pharmacy Practice Experience - Primary Care	8
PHMD 4060	Advanced Pharmacy Practice Experience - Elective	8
Total Credit Hours		38
Total Hours in all Four Years		144

B-6 Will the program be available for part-time study?

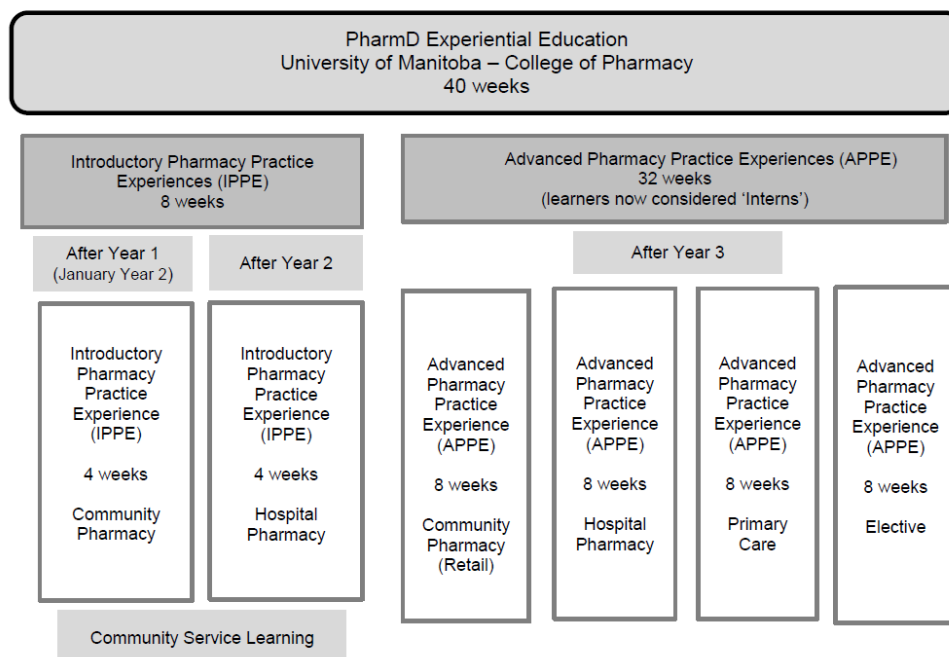
No, the undergraduate Pharm.D. program is not available for part-time study.

B-7 Indicate if this program will have a cooperative education, work placement, internship or practicum component and provide any relevant details:

Pharmacy Practice Experiences

Experiential education components in the Pharm.D. curriculum have been significantly expanded to emphasize the importance of learning experience by the pharmacy students. CCAPP requires 1600 hours (40 weeks) of experiential learning throughout the Pharm.D. program. This is an increase of 960 experiential hours from the current B.Sc. (Pharmacy) program of 640 hours. Based on this accreditation requirement, the College of Pharmacy has designed an 8-week "Introductory Pharmacy Practice Experiences" within years 1-3 and a 32-week "Advanced Pharmacy Practice Experiences" in the last year of the program. Within the advanced experiential components, 24 weeks must involve direct patient care while the remaining 8 weeks are incorporated into an elective rotation. These experiential education components are designed to support learning in practice environments such as community pharmacy, acute care hospitals, and primary care clinics, residential and long-term care. They will engage students in patient-centered care, collaboration with interprofessional colleagues, and collective team contributions to healthcare services. The Pharm.D. students will develop essential practice skills and competencies to apply their knowledge in making evidence-based patient care decisions.

CCAPP Standard 28 advocates inclusion of service-learning and other forms of community-engaged learning, through early and mid-program practice experiences. The introductory experiential components will introduce students to patient advocacy, social determinants of health, cultural diversity and health literacy while providing patient-centred care in a variety of community-based settings. Students will be required to complete 40 hours of community service learning along with interprofessional colleagues, in each of the first 2 years of the Pharm.D. program (see diagram below).



The introductory and advanced experiential placements will be composed of both community pharmacy and hospital pharmacy learning experiences. Community pharmacists have expanded their clinical services, and this provides Pharm.D. students and interns the opportunities to learn the value of pharmacists' contributions to health promotion, disease management and drug use assessment in community settings. During hospital pharmacy experience, in addition to traditional inpatient hospital rotations in internal medicine and critical care, the students and interns will be exposed to enhanced models of experiential education in Surgery and Preadmission Clinics, Rehabilitation, Ambulatory Chemotherapy Day Care, and Palliative Care. The Pharm.D. program has also assigned one of the four 8-week placements in the fourth-year curriculum to primary care, providing a practice setting for pharmacy interns to contribute to patient safety, health promotion, and risk assessment at the points of care transitions. Offering this experiential learning environment to pharmacy interns will enhance their skills and competency in providing medication therapy and management, such as managing complex medication regimens, immunizations, tobacco prevention programs, medication education and adherence coaching, health risk and disease prevention, and overall management of significant risk factors for chronic and/or complex diseases. These same primary care principles and initiatives will also support and contribute to Indigenous health. Opportunities will be given to students for placements in large First Nations communities or northern Manitoba in consort with other RFHS students. Partnerships with organizations such as Healthier Together will provide training for students to work along with other health professions within the Indigenous communities. The College of Pharmacy will continue collaborative efforts with all other RFHS Colleges, in pursuit of interprofessional collaborative team opportunities in all health regions of Manitoba.

Office of Experiential Education (OEE)

CCAPP Accreditation Standards 30 and 31 describe specific quality assurance requirements for recruitment and retention of experiential education preceptors, and development of experiential sites to support substantial expansion of the experiential components in a Pharm.D. program. In order to meet the essential accreditation standards, the College of Pharmacy is proposing to establish an Office of Experiential Education for the implementation of the Pharm.D. program. Establishment of this Office is consistent with other Pharmacy schools across Canada as well as other RFHS

Colleges, and it will support the successful implementation and sustainable operation of the experiential learning program.

It is anticipated that experiential rotations in the Pharm.D. program will need year-round placement recruitment and support to ensure the availability and quality of experiential sites and preceptors. CCAPP Criterion 29.3 also requires that “the Faculty must establish criteria and training for preceptors and the preceptors must be committed to supporting the teaching process”. To comply with this specific standard, the Office of Experiential Education will develop and deliver a formalized program to recruit preceptors, develop quality assurance criteria and evaluate site/preceptor retention. This Office will ensure that proper policies and procedures are in place to address and resolve potential problems. It will also implement a Preceptorship Development Program that can formalize initial training, provide ongoing support throughout student placements, and facilitate continuing professional development for the preceptors. This provision of increased support and guidance from this Office will help standardize the student learning experience and assessment process by the experiential preceptors.

Experiential Education Facilitators (EEF)

A number of Faculties of Pharmacy across Canada including UBC, Waterloo, Toronto and Alberta have created formalized University positions, often linked with the Health Authorities, to support active practice and the needs of the preceptors “in the field”. These appointments are known as “Experiential Education Facilitators” (EEFs), and are typically filled by pharmacists who have active patient care practices, and who also serve as liaisons between the university and the practice sites. These facilitators are familiar with university policies, Pharm.D. curriculum, expected learning outcomes, and assessment requirements of the students and interns. They also have the knowledge and expertise in the policies, practices and culture of the health regions and practice sites.

The College of Pharmacy is proposing to hire 8 EEFs for the Pharm.D. program. They will facilitate communication, clarify expectations of the learners and the preceptors, ensure timely feedback and assessment, and identify and manage issues of concern. It is believed that regular communication and continuing support from the OEE and the EEFs will be critical to the operating of the Pharm.D. program.

B-8 Intake Information

B-8.1 Projected enrolment for the first intake: 55 students

B-8.2 Maximum seat capacity (*Defined as first-year enrolment capacity*): 55

B-8.3 Anticipated date of maturity: 2022-09-01

UM INTERNAL REQUIREMENT: please indicate the projected enrolment and graduates for the first 5 years of the program.

Program Year	Year 0 (2018/19)	Year 1 (2019/20)	Year 2 (2020/21)	Year 3 (2021/22)	Year 4 (2022/23)	Year 5 (2023/24)
Pharm.D. Program (incoming)						
First-Year Intake			55**	55	55	55
Total Enrolment		55*	110	165	220	220
Graduates					55	55
B.Sc. (Pharmacy) Program (outgoing)						
First-Year Intake	55*					
Total Enrolment	220	110	55			
Graduates	55	55	55	0***		
Total UG Students	220	165	165	165	220	220

Notes:

- * 1st Year B.Sc. (Pharmacy) students admitted in 2018/19 will transition to modified 1st Year Pharm.D. in 2019/20;
- ** First new intake of Pharm.D. students in 2020/21;
- *** The B.Sc. (Pharmacy) program is phased out as the Pharm.D. program begins. There is no graduating class in June 2022.

SECTION C – INFORMATION REGARDING PROGRAM DEVELOPMENT PHASE

C-1 Describe how this new program aligns with the strategic plans of your institution:

The University of Manitoba has proposed Strategic Priorities in “Taking Our Place: University of Manitoba Strategic Plan 2015-2020”. The College of Pharmacy has designed the Pharm.D. program to fully align with four of the University priority tasks. These priorities are also consistent with the newly developed RFHS Strategic Framework 2016-2021. The implementation of this program will provide opportunities for the College of Pharmacy to fulfill our commitments to teaching excellence and to contribute to healthy and productive growth of the University community.

Inspiring Students’ Minds and Success

The University of Manitoba is committed to ensuring an outstanding educational experience for all students and providing nurturing and diverse learning programs and environments that will best contribute to students’ success. The Pharm.D. program is designed to embody best-practice principles of pharmacy curriculum, together with a variety of experiential learning opportunities for students to learn, to collaborate, to mature, and to become competent and professional in pharmacy practice.

The Pharm.D. program will provide multiple modes of learning for students including didactic lectures, independent study, large and small group discussion, practice simulation, experiential rotations, and interprofessional collaboration. As an outcome/competency-based program, the learning progression of all students will be assessed throughout different stages of study, and feedback will be regularly provided to students for them to improve and meet the educational outcomes. This can also serve as an efficient platform for identifying students in need of additional academic support and providing relevant and timely supports for learning success.

The College of Pharmacy has been ranked as one of the top pharmacy schools in Canada for decades, and we have a dedicated and united teaching team that contributes to teaching excellence and inspiring students’ learning and success. We look forward to meeting the new opportunities and challenges, and striving to provide the best educational experiences to students at the University of Manitoba.

Creating Pathways to Indigenous Achievement

As the Canadian province with the largest indigenous population, the Government of Manitoba emphasizes the importance of Indigenous knowledge, cultures and traditions, and the impact of easy access to the healthcare system by Indigenous peoples. The University of Manitoba is committed to providing an inclusive and supportive learning environment that will promote and facilitate success and career advancement by Indigenous students. The Pharm.D. program will offer a variety of learning opportunities including placements for experiential training in First Nations communities and northern Manitoba, not only for Indigenous students but also for all other students in the program, so that they will be able to understand the intercultural knowledge, tradition and diversity, and create pathways for the development of the next generation of Indigenous leaders in pharmacy practice.

The University of Manitoba has always reserved 5 enrollment positions for qualified Indigenous student applicants in the Pharmacy program, and in the Pharm.D. program, we will continue this practice to attract qualified Indigenous applicants and train Indigenous Pharmacy students. The University, RFHS and the College of Pharmacy recognize and respect the need to work collaboratively with Indigenous communities and offer special academic supports to all Indigenous students.

In addition, establishing a culture of inclusiveness and respect is important to supporting Indigenous achievement. For students enrolled in the Pharm.D. program, they will receive mandatory training in intercultural competency, conflict resolution, human rights, and antiracism within Pharm.D. curriculum and through interprofessional education programs organized by the RFHS. They will also participate in initiatives embracing cultural differences, cultural safety, mutual understanding and respect of other cultures, and are expected to become culturally knowledgeable and

competent in serving all walks of people in communities. RFHS is also expanding experiential education programs for all Colleges to serve rural Indigenous communities. We will participate in these programs and encourage our Pharm.D. students to experience these invaluable learning opportunities.

Building Community

The University of Manitoba is committed to creating academic programs and working environments that foster interchange and creation of knowledge, ideas and opinions in respect, trust, and collegiality. Faculty, staff and students all contribute to the collective growth of our community and the Province of Manitoba. For the Pharm.D. program, the College of Pharmacy will provide numerous collaborative and cooperative training opportunities for students and faculty alike. The interprofessional education programs are coordinated by all five founding Colleges of the Faculty. Some of the interdisciplinary programs such as immunization clinics have been in place for several years, and students from the College of Pharmacy are actively engaged in these activities. The Pharm.D. program also includes two years of service learning requirements, and the students will provide direct services to the community.

Outside the University community, the College of Pharmacy has maintained collaborative relationships with all professional organizations including the College of Pharmacists of Manitoba, Pharmacists Manitoba, Manitoba Institute for Patient Safety, and Canadian Society of Hospital Pharmacists. We have also established relationships with the College of Physicians and Surgeons of Manitoba, College of Registered Nurses of Manitoba, and regional hospital authorities, through our student placements and experiential rotations. We will continue to maintain and further develop these partnerships through collaborative work with other healthcare providers and the general public to better serve the Province.

Forging Connections

The University of Manitoba is fully committed to engaging with communities beyond the University and fostering collaborative and productive connections and integration with others. In the College of Pharmacy, we also realize the importance of connectedness with our students, graduates, alumni, and all other stakeholders, and appreciate the sense of belonging for all of us to maintain and expand friendships and partnerships.

The development of this Pharm.D. proposal has involved consultation with many individuals and organizations, and we have received tremendous support from all parties including students, regulatory bodies, and other pharmacy schools across the country. In particular, the proposed Pharm.D. curriculum has been designed after extensive and comprehensive consultations with outside parties, and it now reflects the collective contributions by the faculty, students, preceptors, pharmacists, and colleagues in other University departments. While the College of Pharmacy will be responsible for implementing the Pharm.D. program, we do recognize that this will be a collective effort by all parties, within and outside the University communities, to move forward with this new program of study for the Province. We are also relying on the financial and resource support from the University of Manitoba, the Province of Manitoba, and all other stakeholders.

Students currently enrolled in the B.Sc. (Pharmacy) program have participated and engaged through their experiential rotations and elective programs in many community and hospital pharmacies, across the Province, in northern regions, and even in international sites across the globe. We intend to continue and expand these connections for the Pharm.D. program. In particular, expansion into rural and northern First Nations communities under the broader RFHS outreach initiatives will provide training and career opportunities for students in the program and also attract potential students from those communities. These external connections and outreach activities are particularly important for the operating of the Pharm.D. program, the College of Pharmacy, and the University of Manitoba, and we strongly believe that this Pharm.D. program can fulfill the priorities identified by both the RFHS and the University of Manitoba.

C-2 Outline the internal approval process (i.e. committees, governing bodies) for approving this new program of study within your institution and indicate any dates of decision. *(Governing Council, Board of Governors, Board of Regents, Senate, other)*

Development of the Pharm.D. proposal has been guided by the national Pharmacy accreditation requirements and pharmacist licensure standards from AFPC, CCAPP, NAPRA, and PEBC. The proposed Pharm.D. curriculum is aligned with

the current education directions and recommendations from these organizations, and the training of future Pharm.D. students will be sustainable and responsive to the healthcare needs of Manitobans.

To facilitate the development and communication of a new program of study, the College of Pharmacy has established various work groups and an Advisory Council that consisted of representatives of faculty and staff, students, community and hospital pharmacists, alumni, and identified key stakeholders (Health Sciences Colleges, Pharmacy Regulatory, Pharmacy Advocacy, and Manitoba Health, etc.). These groups had met regularly to develop the proposal, the curriculum and all relevant policies. The Pharm.D. proposal was presented to the College of Pharmacy Council for approval, and forwarded to the University of Manitoba governance bodies for review and approval as follows:

Pharm.D. Proposal	Internal consultation/approval dates
• Pre-Requisite recommendations	September 15, 2015
• Curriculum recommendations	November 23, 2015
• Admissions recommendations	January 19, 2016
• Interprofessional Education recommendations	January 19, 2016
• Experiential Education recommendations	March 15, 2016
• Program Evaluation recommendations	March 15, 2016
College of Pharmacy Curriculum Management Committee	May 30, 2016
Approval and Support: College of Pharmacists of Manitoba	June 15, 2016
Pharmacy College Council	July 13, 2016
Rady Faculty of Health Sciences Faculty Council	January 24, 2017

UM INTERNAL REQUIREMENTS: Please note date(s) of Faculty/College/School Approval. Approval dates through the governing bodies will be inserted by the Provost's Office prior to submission to government.

UM Undergraduate Programs:

<u>Decision-Making Body</u>	<u>Date of Approval</u>		<u>Date of Approval</u>
Faculty/College/School	_____	SCCCC	_____
SPPC	_____	SCADM (<i>if applicable</i>)	_____
SCIE (<i>if applicable</i>)	_____	Senate Executive	_____
Senate	_____	Board of Governors	_____

C-3 Responsibility to consult

C-3.1 If this program subject to mandatory review or approval by organizations external to the institution (*such as regulatory bodies, Apprenticeship Manitoba, etc.*), please describe any consultation processes and provide copies of reports or letter from these organizations providing support:

Stakeholder Organization	Consultation Only	Letter of Support
Accreditation and Professional Associations		
Canadian Council for Accreditation of Pharmacy Programs		√
Association of Faculties of Pharmacy of Canada	√	
Canadian Pharmacists Association	√	
Canadian Society of Hospital Pharmacists		√
Pharmacists Manitoba		√
Regulatory Bodies		
College of Pharmacists of Manitoba		√
College of Physicians and Surgeons of Manitoba		√
College of Registered Nurses of Manitoba		√
Provincial Health Departments		
Manitoba Health	√	
Provincial HR Leadership Council	√	
Northern Regional Health Authority		√
Provincial Pharmacy Directors (WRHA & Southern Health)		√
University of Manitoba Units and Departments		
Provost Office	√	
Faculty of Science		√
Faculty of Arts		√
Faculty of Law		√
I.H. Asper School of Business		√
Rady Faculty of Health Sciences		√
Dept. of Human Anatomy and Cell Science		√
Dept. of Human Nutritional Sciences		√
Dept. of Pharmacology and Therapeutics		√
Dept. of Biochemistry and Medical Genetics		√

c-3.2 What agencies, groups, or institutions have been consulted regarding the development of this program?

- Manitoba Health, Healthy Living and Seniors and Health Human Resource Planning, Health Workforce Secretariat;
- WRHA: Senior Leadership (Vice President and Chief Operating Officer, Vice President, Chief Nursing Officer & Interprofessional Practice), Leaders of specific programs (Surgery, Emergency, Primary Care, MyHealthTeams, Mental Health, Long Term Care);
- Regulatory bodies including Medicine, Pharmacy and Nursing;
- Advocacy bodies for Pharmacy and Family Medicine;
- Canadian Society of Hospital Pharmacists, Manitoba Branch;
- Pharmacists Manitoba (rural and urban community pharmacists, leaders of corporate pharmacies).

C-3.3 How have students and faculty been informed of the intent to establish this program?

Students:

- All Work Groups and the Advisory Council have student members;
- Lectures have been included in “Current Topics” course for the past four years, and continue for 2016-17 academic year;
- Exit surveys and interviews are administered to the graduating year, offering opportunity for reflection and feedback from graduating students;
- A Town Hall was held on March 1, 2016 to share recommendations, and to provide feedback for questions;
- Communications have been sent out via emails when significant information is available, and where specific student feedback is sought;
- A draft of the proposal has been shared with student leaders, and a letter of support has been received.

Faculty:

- The Faculty (now College) of Pharmacy Council had passed a motion on June 18, 2014 to develop the Pharm.D. program;
- Every faculty and staff member has had a role in one or more Work Group(s) and/or Advisory Council. All groups met regularly throughout the past 18 months, and produced meeting notes easily accessible to all College members. Work Group leads often coordinated collaborative meetings with colleagues, and fostered a highly functioning, productive environment;
- An update report regarding the progress and state of the Pharm.D. planning is provided monthly at the staff meetings;
- Two all-staff retreats were held in September 2015 and February 2016. This offered excellent opportunity for staff to participate in all elements of the planning, providing feedback, suggestions, and support;
- All Faculty and staff received preliminary draft(s) of the proposal for review and feedback;
- The Pharm.D. Proposal document was considered at the Pharmacy College Council meeting on June 29, 2016 and was unanimously endorsed by those in attendance. Final approval was given on July 13, 2016;
- Approval from the Rady Faculty of Health Sciences Faculty Council on January 24, 2017.

C-4 List any similar programs offered in Manitoba: *(Provide such information as institution, programs, and credentials offered in addition to any impacts on these programs, explain rationale for duplication.)*

The University of Manitoba is the sole accredited undergraduate Pharmacy program provider in Manitoba. This Pharm.D. program is to replace the current B.Sc. (Pharmacy) program, in order to meet the national accreditation standards in Pharmacy education. The prerequisite courses required for admission to the Pharm.D. program may be delivered by other Manitoban universities. Both the University of Winnipeg and Brandon University have been notified of changes in prerequisite courses for the proposed Pharm.D. admission.

C-4.1 Describe any specific laddering, articulation and/or credit transfer options for students that are anticipated in this program in Manitoba.

There are no laddering opportunities with this degree.

C-5 List any similar programs offered in Canada: *(Provide such information as institution, programs, and credentials offered in addition to any impacts on these programs, explain rationale for duplication.)*

Current Status of Pharm.D. Programs across Canada (October 2016)			
University	Current Status	Start Date	Comments
Dalhousie	Proposal approved	Fall 2018 (projected)	
Memorial	Proposal approved	Fall 2017	Program will proceed in Fall 2017.
Toronto	Program implemented	Fall 2011	First graduating class in 2015.
Waterloo	Program implemented	Winter 2014	First graduating class in 2015 (2012 and 2013 classes elected modified program).
Montréal	Program implemented	Fall 2007	First graduating class in 2011.
Laval	Program implemented	Fall 2011	First graduating class in 2015.
Manitoba	Proposal approval pending	TBD	Letter of intent approved by UM Senate and MB government Council on Post-Secondary Education on March 28, 2014. Formal proposal approval is pending.
Saskatchewan	Proposal approved	Fall 2017	Program will proceed in Fall 2017.
Alberta	Proposal Approved	Fall 2018 (projected)	
British Columbia	Program implemented	Fall 2015	First graduating class in 2019.

c-5.1 Describe any specific laddering, articulation and/or credit transfer options for students that are anticipated in this program in Manitoba.

There are no laddering opportunities with this degree, as it is intended to replace what will be the “former” B.Sc. (Pharmacy) program.

C-6 Describe the current and projected labour market demands in Manitoba for graduates of this Program:

(Provide such information as probable employment destinations or further educational opportunities available to graduates of this new program of study. Attach any formal reports such as those from Associations, Statistics Canada, Sector Councils, Industry or Regulators.)

The University of Manitoba is the sole institution in Manitoba offering a Pharmacy program, and the College of Pharmacy admits 55 students into the program each year. Pharmacy is an attractive professional career and competition for admission has always been intense. The application numbers for the past 10 years ranged from 232 to 320, and have remained relatively constant. Enrolment data across Canada, specifically for years following the implementation of the Pharm.D. program, has not indicated significant changes in volume of the applications. The College of Pharmacy plans to maintain the current enrolment number of 55 students each year in the Pharm.D. program.

Overall national employment rates for pharmacists are very positive. From 2010-2014 93-95% of practicing pharmacists were employed across Canada and 3-6% of pharmacists were actively seeking employment. There is a reasonable balance between pharmacist supply and employment demand nation-wide. The overall supply of pharmacists in Manitoba meets the market demand and is comparable to that in most of other provinces. Considering the fact that the Province has a growing and aging population, and that regional imbalances and job vacancies do still exist, particularly in rural and northern regions, demand for practicing pharmacists will remain strong in the Province.

An exit survey of the 2016 graduating class indicated that 70% of the class had secured employment by March 2016, 30% of the graduates accepted positions 'outside of Winnipeg' while 65% accepted positions within Winnipeg. At present, approximately 25% of the first-year class are from rural Manitoba. Survey data has also indicated that almost 90% of pharmacy graduates remained in the Province for their employment. With expanded experiential training in the Pharm.D. program, Pharm.D. graduates will meet the healthcare needs for practicing pharmacists in Manitoba in the future. More importantly, both the Government and the University could dedicate more resources to encourage Pharm.D. students to practice in underserved areas such as rural and northern communities. This may also in turn attract potential students from those communities to earn a Pharm.D. degree and return back to serve their communities. Through extensive internship training and interprofessional education programs in the Pharm.D. curriculum, Pharm.D. graduates will be able to work independently and collaboratively to manage drug therapy for patients with chronic illness. This approach will become more efficient and cost-effective in supporting the healthcare system in both urban and rural settings where pharmacists can make collective contributions to the health and well-being of all Manitobans.

The College of Pharmacy has full accreditation status for B.Sc. (Pharmacy) Program until 2019. If an accredited Pharm.D. program were not implemented in time, the College would be in jeopardy not to be reaccredited by the CCAPP. Should the University of Manitoba lose its accredited Pharmacy program, pharmacy graduates would not be regarded at the same competency level as graduates from other Canadian schools, and their eligibility to write the national licensure PEBC exams would be essentially equivalent to that of foreign trained pharmacy graduates. In addition, their mobility would be significantly compromised, because the Province would not be in compliance with the signed Mobility Agreement for Canadian Pharmacists.

C-7 If copies of any internal or peer evaluations with respect to this new program of study are being provided with this proposal, please indicated how any issues identified by these evaluations have been addressed and attach any relevant documents as available:

Internal and peer evaluations of the Pharm.D. proposal have been invited, and recommendations from all parties have been discussed and integrated where applicable and/or appropriate on a concurrent basis:

- Work Groups and the Advisory Council represent a broad spectrum of internal and peer stakeholders, regular meetings are held to update the proposal;
- Regularly scheduled meetings, accountability reporting through meeting notes and progress reports, evaluations were incorporated into the proposal on a continuum;
- Consultations as described in *Sections C-2 and C-3* were frequent, productive and valuable, keeping all internal and peer groups well informed, and allowing for up-to-date feedback.

All issues identified were taken to various committees, discussed and voted on as necessary. No formal internal or peer evaluations were therefore necessary as feedback was sought, vetted and incorporated continuously during the development of the proposal.

SECTION D – REQUIRED RESOURCES AND FINANCIAL IMPLICATIONS

D-1 If one-time or pilot funding are being requested to support this new program of study, please identify the amount of funding being requested:

One-time funding in the amount of \$4,540,837 is being requested from the Government of Manitoba to support this new program of study. These funds will be allocated as follows:

- 1.6 million for the establishment of a primary care simulation laboratory at the College of Pharmacy;
- \$210,000 for renovating telehealth and audiovisual needs in three lecture theatres at the Apotex Centre;
- \$2,730,837 for up-front staff hiring requirements, beginning prior to Year 1 and staggered over three years.

Please see the attached Manitoba Education and Advanced Learning Division Program Proposal Financial Form (*Appendix A*) for detailed reference to the proposed program financial requests.

Funding requested per year

\$2,034,202 in funding in 2018/19

\$ 688,792 in funding in 2019/20

\$1,179,762 in funding in 2020/21

\$ 638,081 in funding in 2021/22

Total funding request \$4,540,837

As the scope of Pharmacy practice is constantly changing, it is essential that dedicated space be available to provide an appropriate teaching and learning environment. The existing skills laboratory space at the Apotex Centre, together with the shared Clinical Learning and Simulation Facility (CLSF) located in the Max Rady College of Medicine, will no longer meet instructional needs of the Pharm.D. program. CCAPP Standard 28 also guides the practice experiences for the Pharm.D. program. Pharm.D. students must develop appropriate clinical skills to assist a variety of patients in managing acute illnesses and/or chronic conditions in primary care, long-term care, and critical or emergency care. To address this standard and to prepare students adequately, a new primary care simulation lab is proposed, which will build a practice-learning environment for students to develop these essential skills and competencies. Throughout the Pharm.D. curriculum there will be a total of over 228 hours of clinical skill training including an increase of approximately 60 hours of simulation lab time in Year 3. Together with the existing CLSF, the new Pharmacy simulation lab will offer complimentary interprofessional learning experiences for all students of the RFHS. It is estimated that the addition of this new simulation laboratory will cost \$3 million in total. The College of Pharmacy has allocated \$1.4 million, and requests the balance of \$1.6 million in this proposal.

Telehealth and audiovisual needs in the amount of \$210,000 will enable the College of Pharmacy to extend modern communication support and services to students and preceptors in rural and northern experiential training sites. Advanced communication technology was not available at the time the Apotex Centre was built in 2008. The renovation of the three lecture theatres is necessary for the Pharm.D. program, and it will also provide shared teaching space and communication technology to other Colleges within the RFHS.

The request for up-front staff hiring, \$2,730,837 will be staggered, beginning with the date of program proposal approval. This staggered hiring process will reduce the financial burden to the Government for immediate up-front support, and provide the University of Manitoba with resources for the gradual implementation of the Pharm.D. curriculum.

D-2 If ongoing funding being requested to support this new program of study, please identify the amount of funding being requested:

There will be no ongoing funding required from the Government of Manitoba.

D-3 If new funding is not being requested, how will the program be funded?

The Pharm.D. program will be funded by tuition fees and the existing EAL grant.

D-4 List any external sources of funding that will be used to support the implementation or delivery of this new program of study: *(Provide such information as agreements for funding from industry or external grants and indicate the anticipated length of time for each agreement.)*

No other external sources of funding are anticipated at this time. The College of Pharmacy has allocated \$1.4 million for capital investment to the addition of the new primary care simulation lab.

D-5 What are the resource implications to the institution (budget, IT, library, laboratory, computer, space, practicum liability insurance, student services, etc) in delivering this new program of study?

To support the Pharm.D. program, 16 new positions are required. These include: 6 academic appointments (4 tenure-track faculty, and 2 instructors) and 2 support staff, to be based at the College of Pharmacy Apotex Centre, and 8 Experiential Education Facilitators, who will be located within the Regional Health Authorities across the Province. These new appointments are essential for the University of Manitoba to successfully implement the Pharm.D. program.

The College of Pharmacy does not anticipate major impact on IT, computer, office space or liability insurance costs in accommodating 8 new faculty/staff that will be based within the Apotex Centre. A space allocation inventory for the new faculty/staff has been undertaken, and these appointments can be accommodated into the existing space in Apotex Centre. Resource availability for the remaining 8 positions to be located across the provincial RHA's will be included in considerations during the hiring process.

The existing student laboratory and clinical skills facility within the Apotex Centre can only partially fulfill the accreditation standards for the Pharm.D. program. Hence \$3 million is needed (\$1.6 million from the Province and \$1.4 million from the College of Pharmacy) to add a primary care simulation facility. This is a critical infrastructure requirement, to provide the training environment and to comply with the CCAPP Standards.

The University of Manitoba has established student support services at the Bannatyne Campus, which, along with existing student services previously available to the Max Rady College of Medicine, will now be available to Pharmacy students through the RFHS affiliation. The Neal John Maclean Health Sciences Library, together with University online library resources, is capable of supporting all library needs for both faculty and students. Considering the above information, the University of Manitoba is confident that this proposal is able to meet the financial and academic requirements, upon government approval of the budget application.

D-6 Please describe new and existing staffing resources needed to provide this new program of study. *Include reallocation of existing faculty, hiring of new faculty, administrative and support services and any other considerations.*

Currently, the College of Pharmacy has 19 tenured and/or tenure-track faculty positions (including three academic administrators), 7.6 FTE instructor positions and 6 support staff positions. All academic members of the College including the Dean and Associate Deans, participate in teaching activities within the Pharmacy program. All faculty and staff will continue their teaching commitments in the Pharm.D. curriculum. CCAPP Standard 27 directs the Pharm.D. curriculum to include balanced coursework in biomedical sciences, pharmaceutical sciences, behavioural, social and administrative sciences, and clinical sciences and practice skills. Compliance with this comprehensive accreditation standard will result in a revised and enhanced Pharm.D. curriculum that is substantially increased in credit hours, learning scope and depth different from the existing B.Sc. (Pharmacy) program.

Course content in the Pharm.D. program has increased by 30% compared to that of the B.Sc. (Pharmacy) program, and this increase results in new pharmacy courses throughout the entire curriculum. Therefore, 4 new faculty

appointments are required in the following specialties: pharmacogenetics (Year 2), scientific literature evaluation, including pharmacoeconomics/pharmacoepidemiology (Year 3), and clinical therapeutics (2 positions, Year 2 and Year 3). Pharmacogenetics is a new course added to Year 2 of the Pharm.D. curriculum. Pharmacogenetics is a rapidly evolving pharmacy focused science, which combines pharmacokinetics and genomics to facilitate the delivery of effective, safe medications tailored to each patient's genetic makeup. A new tenure-track faculty member will be recruited to deliver this new course. Consultation with the Department of Pharmacology and Therapeutics has also indicated a strong interest and support of future research collaboration with this hire.

Clinical practice skills must be developed through comprehensive and extensive training. Critical Appraisal of Pharmacotherapy Literature 2, with emphasis on pharmacoeconomics and pharmacoepidemiology (Year 3) will facilitate students' understanding of drug-use in populations and application of economic principles to healthcare decisions such as medication coverage. Evidence-based evaluation of pharmacotherapy literature is increasing from one course (4 credit hours) in the B.Sc. (Pharmacy) program to 3 courses (7 credit hours) in the Pharm.D. program. A professor with expertise in pharmacoeconomics and pharmacoepidemiology is needed to facilitate this expansion.

Content of clinical therapeutics has been significantly increased, driven by accreditation requirements (CCAPP Criterion 27.4) and the increasing healthcare needs of Canadians. Pharm.D. graduates must have competence and confidence to deal with advanced, problem-based, clinical cases. This is one of the major expansions (an increase of 6 credit hours) in the Pharm.D. curriculum. Students receive enhanced training to solve medication-related issues that have been identified, such as increased geriatric and pediatric pharmacotherapy, mental health, pain and palliative care, pharmacotherapeutics and medication safety initiatives. These components of patient care have been recognized within the expanded scope of pharmacy practice and students will graduate better prepared to manage these issues. Because the curriculum is diverse and comprehensive, the College of Pharmacy requests 2 tenure-track faculty positions to meet the course development and instruction demands.

Accreditation Standard 28, Criteria 28d, 28e, 28f impose a substantial curriculum increase to experiential learning. The Pharm.D. experiential education components will require 40 weeks of experiential placements, translating to 2,200 placements or 88,000 hours of experiential time for Pharmacy students each academic year, a significant increase from the current 16 weeks required of the B.Sc. (Pharmacy) program (880 placements or 35,200 hours). CCAPP Standard 30 also requires the College of Pharmacy to acquire sufficient human resources in support of the design, coordination, implementation, operation, ongoing quality assurance and further development of the program. At present, one instructor coordinates the experiential program for the B.Sc. (Pharmacy) program. Additional support is essential to develop and implement the significantly expanded experiential components in the Pharm.D. program. An instructor will be recruited to work with the existing Experiential Coordinator and a new administrative support staff in the Office of Experiential Education (OEE). This will be consistent with other Pharmacy schools across Canada, and will facilitate developing and sustaining quality experiential education in the Pharm.D. program to meet the minimal accreditation standards.

CCAPP Accreditation Standard 30 requires the Office of Experiential Education to focus on developing and maintaining all experiential preceptors and sites, including preceptor orientation and continuing development, standards for selection and evaluation of preceptors and practice sites, assessment of student performance, and quality assurance of the practice experiences component of the curriculum, etc. This Office will support the College of Pharmacy to remain compliant with the CCAPP accreditation standards in terms of policies, privileges, obligations, and responsibilities. Establishing experiential sites that meet accreditation standards will create proper practice learning environments, facilitate reasonable student/intern independence, and provide essential physical infrastructure to optimize patient care and professional development consistent with the expectations of an accredited Pharm.D. program.

An additional instructor is required in the expanding Skills Lab program, in order to develop patient care skills and prepare students to become competent practitioners. Because the proposed Pharm.D. curriculum has increased the time in developing students' skills from 141 contact hours to 228 contact hours, both in the skills lab courses and through simulation opportunities in the third-year Advanced Clinical Therapeutics course, this instructor must be a registered pharmacist with a strong working knowledge of pharmacy practice.

The eight "in the field" Experiential Education Facilitators (hired as instructors, see *Appendix H* for sample job description) will be positioned throughout the provincial regional health regions to coordinate the experiential program, providing support to preceptors, students and sites for proper learning and training of the Pharm.D. students and interns. Research has described best practices of experiential education, with unequivocal evidence demonstrating the

value of appropriate support for preceptors and training sites. The College of Pharmacy has initiated discussions with Manitoba Health Regions' pharmacy programs (Provincial Pharmacy Working Group, of the MB Government Acute and Specialty Health Care Collaborative), and is engaging with relevant stakeholders in the discussion for developing a model of preceptor facilitation, using elements from experiences of other Canadian Pharm.D. programs, to operate a sustainable and robust experiential education program. These education facilitators communicate between the University and the clinical settings, and support all practice sites, the preceptors and the students. Many areas of practice will benefit from the facilitators through coordinating multi-learner models, recruiting new clinical areas and practice educators, and identifying interprofessional learning opportunities, facilitating opportunities for participation. All above instructor appointments are essential to meet the accreditation requirements and to deliver the experiential education components of the Pharm.D. curriculum. Furthermore, with the establishment of an expanded experiential network across the Province, learners and preceptors in all Manitoba's health regions, hospital pharmacies, community pharmacies, and primary care practice sites will benefit from the support of this liaison partnership. The proposed increase in experiential education strategy will support compliance with all criteria of CCAPP Standards 29 and 30. Education outcomes will be clearly defined, learners and preceptors will be consistently assessed and provided feedback, sites will meet required standards, and capacity for learning opportunities will be enhanced.

In order to support the smooth implementation and operation of the Pharm.D. program, the College of Pharmacy also requires two support staff positions. The Office of Experiential Education requires one support position to maintain clinical placement agreements, pre-requisite certifications, student/intern access to IT/facilities, preceptor recruitment, recognition, and communication. Another support position is required to provide lab and simulation coordination and set up, since there will be a 60% increase in skills lab instruction and contact hours.

The College of Pharmacy has maintained its excellent program outcomes for years with efficiency and diligence. However, implementing the Pharm.D. program, with its expanded accreditation requirements, will need significant investment in human resources and facility infrastructure. We therefore request that the Government of Manitoba consider this application and approve the funding request, so that the University of Manitoba can implement and deliver the required accredited Pharm.D. program as all other Pharmacy schools across the country.

D-7 Provide a program implementation plan for the new program of study by academic year (start to maturity) that includes any elements to be phased in (e.g., new faculty hires, distribution of existing faculty and support staff) from launch to maturity:

Current College of Pharmacy faculty and staff will continue with their teaching and other responsibilities within the College of Pharmacy. New hires will be implemented as follows:

	Prior to Pharm.D. Year 0 (2018/19)	Pharm.D. Year 1 (2019/20)	Pharm.D. Year 2 (2020/21)
Subject Area Human Resource Space Requirement	Office of Experiential Ed. 1 Instructor Office space	Ex. Ed. Facilitator (EEF) 4 Instructors Off campus	Ex. Ed. Facilitator (EEF) 4 Instructors Off campus
Subject Area Human Resource Space Requirement	Experiential program/ IPE etc. 1 Support staff Office space	Pharmacogenetics 1 Tenure track faculty Office / research space	Pharmacoeconomics/Pharmacoepidemiology 1 Tenure track faculty Office / research space
Subject Area Human Resource Space Requirement	Skills Lab Stream 1 Pharmacy technician Skills lab	Skills Lab Stream 1 Instructor Office space	Advanced Therapeutics 2 Tenure track faculty Office / research space

D-8 Please describe the effect of this new program on existing capital infrastructure and equipment:

The Apotex Centre, home of the College of Pharmacy, was built in 2008, and has relatively up-to-date infrastructure and equipment for the proposed Pharm.D. program. As described in *Section D1*, the financial request for capital infrastructure for the Pharm.D. program is to add a primary care simulation laboratory and to provide needed telehealth and audiovisual equipment in the three lecture theaters inside the Apotex Centre.

D-9 If capital funding is being requested to support additional specialized program materials such as infrastructure or equipment required to provide this new program of study, please provide a detailed description of the use of this capital:

The primary care simulation laboratory will provide the appropriate environment to facilitate the students' development of clinical practice skills required to practice in primary care, and community patient care environments. Such skills include collaborative care with other health care providers, diagnostic and point-of-care testing, disease state management, patient assessment and outcomes monitoring, patient and professional communications, and drug therapy management by pharmacists. The availability of the facility will promote further interprofessional education collaboration and cooperation among all Colleges of the RFHS.

The proposed telehealth and audiovisual equipment will allow connectivity to various experiential learning sites off the Bannatyne Campus and outside of Winnipeg, for communicating with both the preceptors and the students, and for training/briefing preceptors and students whenever needed. In addition, the three lecture theaters in the Apotex Center have been utilized by all other Colleges for teaching and learning purposes on a regular basis. The availability of modern audiovisual technology will help improve the teaching quality and expand the accessibility by students/staff at remote or rural sites.

We have included the budget details in the proposal (*Appendix A*), and we believe that the funding request is well justified. Our proposal includes a \$1.4 million dollar capital investment from the College of Pharmacy.

SECTION E– TUITION**E-1 What are the proposed tuition fees?**

The proposed annual tuition is \$14,500 per student per annum. This figure is based on the costs of delivering the Pharm.D. program, and is comparable to 2016 data in national comparisons of Pharm.D. tuition fees. In the Program Proposal and Financial Form, the starting date for the new tuition is for the 2019/2020 fiscal year.

E-2 Please provide a rationale for the tuition fee proposed. (*For example, are these tuition fees comparable to tuition for existing programs within the academic unit or to tuition for similar programs offered at other institutions?*)

The College of Pharmacy has carefully examined the resources required for offering an accredited and sustainable Pharm.D. program, and thus established a tuition level that is realistic and competitive. The proposed tuition, as detailed in the ALD Financial Support Form, will ensure the availability of essential resources for the College of Pharmacy to deliver the new program of study at the University of Manitoba.

The proposed tuition for the Pharm.D. program at the University of Manitoba (\$14,500 tuition plus fees = \$18,688 cost/student) will be comparable to those of other Canadian entry-to-practice Pharm.D. programs (based on data already available or in projection). This level of tuition reflects the cost of the new program of study, which has made significant changes and additions in new pharmacy-specific courses, expanded experiential education, simulation and interprofessional training in order to develop and improve professional and practice skills of pharmacy students and address the requirements of an accredited program for Manitoba. These changes and additions will require essential

investments in infrastructure and human resources for the College of Pharmacy to develop appropriate course content, to recruit new and dedicated teaching staff, to expand experiential sites, and to train, develop, support and retain qualified preceptors. Without sufficient support of the program by the Government and incoming tuition fees, it would be impossible for the College of Pharmacy to implement a Pharm.D. program.

University	Year	Average Pharm.D. Tuition	Pharm.D. Program Fees	Other University Fees	Total Annual Tuition
Universities currently offering Pharm.D. program					
Waterloo	16/17	\$18,548		\$1,739	\$20,287.00
Toronto	16/17	\$18,210	\$160.36	\$1,350	\$19,720.36
UBC	16/17	\$17,011		\$2,025	\$19,036.00
Universities with approval, and implementing Pharm.D. program in the future					
Saskatchewan (Proposed)	17/18	\$17,000		\$805.89	\$17,805.89
Alberta (Proposed)	18/19	\$11,000	\$4,000	\$874.24	\$15,874.24
Dalhousie	18/19	Not available			
Memorial	17/18	Not available			
University of Manitoba – Pharm.D. Proposal					
Manitoba	19/20	\$14,500	\$3,600	\$ 588	\$18,688.00

The data in the above table compares Pharm.D. tuition for all English-teaching Pharmacy schools across Canada. Tuitions for Pharm.D. programs at the two French-teaching Pharmacy schools in Quebec are highly subsidized by the provincial government, therefore they are not relevant for comparison. Tuition for Pharm.D. programs in the USA are much higher than those of Canadian schools. For example, North Dakota State University and the University of Minnesota will charge non-residents \$49,698USD and \$35,900USD for their Pharm.D. program per year, respectively.

E-3 What course-related fees would apply to a student in this program?

Students enrolled in the Pharm.D. program will pay a clinical fee of \$3,600 per annum (see Table above).

E-4 Please provide a rationale for the course-related fee(s) proposed. *(For example, are these fees comparable to fees for existing programs within the academic unit or for similar programs offered at other institutions?)*

The tuition and course-related fee structure proposed by the University of Manitoba is comparable to that of other Pharm.D. programs in the prairie provinces, and lower than that of Pharm.D. programs in Ontario and British Columbia. Overall, this proposed tuition level by the University of Manitoba is mid-range, and competitive with the eight pharmacy schools listed above. It will allow the College of Pharmacy to recruit new and dedicated teaching staff, to develop and deliver the enhanced new curriculum, including the significantly expanded experiential learning components, and to train, support and retain qualified preceptors. We strongly believe that the proposed tuition is

reasonable, comparable and justified for the College of Pharmacy at the University of Manitoba to continue offering one of the highest-quality, entry-level Pharm.D. programs in Canada into the future.

E-5 Please describe any specific supports to encourage affordability and accessibility to the program:

The University of Manitoba has always recognized the challenges in affordability and accessibility that may be encountered by Indigenous peoples or low-income families seeking a degree in the health sciences, including the pharmacy program. In particular, the College of Pharmacy has utilized a Special Consideration Category within the admissions requirements for Indigenous applicants. This category would accommodate Indigenous candidates who are Manitoba residents and have met the minimum requirements for admission to the pharmacy program. The College allocates up to 5 positions to this Special Considerations Category among the 55 admissions available each year, and any Indigenous applications will be considered for competitive prioritization to encourage students from the Indigenous population to apply. In addition, the College of Pharmacy has an Accessibility Advisory Committee to guide the proper administration processes in the College. The Pharmacy program strictly follows all University policies on “Accessibility for Students with Disabilities”, and provides appropriate accommodation to admitted students with documented disabilities. These practices will be continued in the Pharm.D. program.

The College of Pharmacy is also committed to affordability and accessibility by providing a total of 80 awards, bursaries and entrance scholarships for Pharmacy students. They are valued at approximately \$75,000 per year in total, with a range of \$25-\$3,000 for individual awards. Furthermore, the University of Manitoba offers various bursaries and awards that Pharmacy students can apply. This would provide students with adequate financial support to allow maximal accessibility for everyone who wishes to apply for the Pharmacy program. It is worth noting that the average starting annual salary for a new pharmacy graduate at present is approximately \$100,000. Considering this earning potential, the current tuition fees for the College of Pharmacy in Manitoba is affordable and competitive when comparing with other Canadian pharmacy schools and the US universities.

SECTION F – SIGNATURES

(A second signature section is provided for joint programs only)

SUBMITTED BY:

President:

Name:

Signature:

Date: Click here to enter a date.

Vice-President/Academic:

Name:

Signature:

Date: Click here to enter a date.

For use by joint programs only:

President:

Name:

Signature:

Date: Click here to enter a date.

Vice-President/Academic:

Name:

Signature:

Date: Click here to enter a date.

SUBMIT COMPLETED FORM

PROVOST'S OFFICE ONLY: Once completed and signed, please submit this application form to the Advanced Learning Division at ald@gov.mb.ca with the following attachments (*double-click to engage check box*):

☐

Cover letter

☐

Advanced Learning Division Financial Form

☐

Any supporting documentation (*reviews, letters of support, etc.*)

If you have any questions or require further information, please contact:

Advanced Learning Division
Manitoba Education and Advanced Learning
608-330 Portage Avenue Winnipeg MB R3C 0C4
(204) 945-1833
ald@gov.mb.ca



Appendix	Description
Appendix A	ALD Financial Support Form
Appendix B	Admission Criteria for Entry to Practice Pharm.D. Program
Appendix C	Pharm.D. Course Descriptions and Course Introduction forms
Appendix D	Academic Regulations
Appendix E	Letters of Support from Internal Units Impacted, and External Stakeholders
Appendix F	Library Statement of Support
Appendix G	Pharm.D. Program Transition Plan
Appendix H	Experiential Education Facilitator sample job description



ADVANCED LEARNING DIVISION
Program Proposal Financial Form

Form Instructions:

- 1. When proposing a new program *Current Fiscal Year* (the first column) should be left blank, with the first year of the program starting in year 1.
- 2. When proposing a program expansion *Current Fiscal* should be entered in the first column.
- 3. If a program reaches maturity prior to *Fiscal Year 4* , remaining fiscal year columns must still be completed so that *Ongoing Program Funding* can be calculated.
- 4. Fill in line items for revenue, expenditure, and capital as these pertain to the program. Examples are correspondently listed to the right of the table.
- 5. Ensure that line items account for overhead. For example, include the amount of tuition that the program will receive after administrative overhead.
- 6. Only fill out areas shaded in green, using cash accounting. The increment, on-going and total will self-populate accordingly.

Overview											
Institution:		College of Pharmacy, Rady Faculty of Health Sciences, The University of Manitoba									
Program Name:		Pharm.D. Program									
Contact Information:		Amanda Kinnell, Senior Financial Officer, Phone 204-474-9669									
Date:		31-Jan-17									
	Fiscal Year 2017/18	Fiscal Year 2018/19	Start of Intake - Fiscal Year 2019/2020	Increment	Fiscal Year 2020/21	Increment	Fiscal Year 2021/22	Increment	Fiscal Year 2022/23	Increment	Ongoing Program Funding
	2 Years Prior to Intake	1 Year Prior to Intake	Year 1	(change from previous year to year 1)	Year 2	(change from year 1 to year 2)	Year 3	(change from year 2 to year 3)	Year 4	(change from year 3 to year 4)	
REVENUE INFORMATION											
Tuition	\$ -	\$ -	\$ 485,100	\$ 485,100	\$ 970,200	\$ 485,100	\$ 1,455,300	\$ 485,100	\$ 1,940,400	\$ 485,100	\$ 1,940,400
College of Pharmacy contribution									\$ 52,976	\$ 52,976	\$ 52,976
Clinical Lab Fee Existing	590,000	590,000	295,000	-295,000	147,500	-147,500	0	-147,500		0	\$ -
Clinical Lab Fee New			\$ 198,000	\$ 198,000	\$ 396,000	\$ 198,000	\$ 594,000	\$ 198,000	\$ 792,000	\$ 198,000	\$ 792,000
Existing Undergrad Baseline UofM	\$ 3,860,000	\$ 4,014,400	\$ 4,174,976	\$ 160,576	\$ 4,341,975	\$ 166,999	\$ 4,515,654	\$ 173,679	\$ 4,696,280	\$ 180,626	\$ 4,696,280
Total Revenue (A)	\$ 4,450,000	\$ 4,604,400	\$ 5,153,076	\$ 548,676	\$ 5,855,675	\$ 702,599	\$ 6,564,954	\$ 709,279	\$ 7,481,656	\$ 916,702	\$ 7,481,656

NOTES
Incremental tuition increase of \$9,800 (\$14,500-\$4700) 90%

Clinical Fee - Phased out old fee based on Targeted Tuition Budget 16/17
Clinical Fee - Will charge \$1,800 per term x 2 terms for students entering Pharm.D. for covering the Pharm.D. program costs.
Increase by 4% per year

	Fiscal Year 2017/18	Fiscal Year 2018/19	Start of Intake - Fiscal Year 2019/2020	Increment	Fiscal Year 2020/21	Increment	Fiscal Year 2021/22	Increment	Fiscal Year 2022/23	Increment	Ongoing Program Funding
	2 Years Prior to Intake	1 Year Prior to Intake	Year 1	(change from previous year to year 1)	Year 2	(change from year 1 to year 2)	Year 3	(change from year 2 to year 3)	Year 4	(change from year 3 to year 4)	
EXPENDITURE INFORMATION											
New Academic Salaries & Benefits		\$ 128,258	\$ 909,040	\$ 780,782	\$ 1,861,527	\$ 952,487	\$ 1,935,988	\$ 74,461	\$ 2,013,428	\$ 77,440	\$ 2,013,428
New Support Staff Salaries & Benefits		\$ 109,935	\$ 114,332	\$ 4,397	\$ 118,906	\$ 4,574	\$ 123,662	\$ 4,756	\$ 128,608	\$ 4,946	\$ 128,608
Existing Academic Salaries & Benefits	\$ 3,783,788	\$ 3,935,140	\$ 4,092,545	\$ 157,405	\$ 4,256,247	\$ 163,702	\$ 4,426,497	\$ 170,250	\$ 4,603,557	\$ 177,060	\$ 4,603,557
Existing Support Staff Salaries & Benefits	\$ 302,932	\$ 315,049	\$ 327,651	\$ 12,602	\$ 340,757	\$ 13,106	\$ 354,388	\$ 13,631	\$ 368,563	\$ 14,175	\$ 368,563
Annual Telehealth Contract		\$ 12,000	\$ 12,000	\$ -	\$ 12,000	\$ -	\$ 12,000	\$ -	\$ 12,000	\$ -	\$ 12,000
Travel & Hospitality	\$ 42,500	\$ 42,500	\$ 47,500	\$ 5,000	\$ 47,500	\$ -	\$ 52,500	\$ 5,000	\$ 57,500	\$ 5,000	\$ 57,500
Printing	\$ 10,000	\$ 10,000	\$ 10,000	\$ -	\$ 10,000	\$ -	\$ 10,000	\$ -	\$ 10,000	\$ -	\$ 10,000
Consummable Materials	\$ 75,000	\$ 75,000	\$ 75,000	\$ -	\$ 75,000	\$ -	\$ 75,000	\$ -	\$ 75,000	\$ -	\$ 75,000
Telecommunications	\$ 25,000	\$ 26,000	\$ 26,800	\$ 800	\$ 28,000	\$ 1,200	\$ 28,000	\$ -	\$ 28,000	\$ -	\$ 28,000
Other Expenses	\$ 150,000	\$ 150,000	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ 150,000
Professional Fees	\$ 10,000	\$ 10,000	\$ 10,000	\$ -	\$ 10,000	\$ -	\$ 10,000	\$ -	\$ 10,000	\$ -	\$ 10,000
Repairs & Maintenance	\$ 25,000	\$ 25,000	\$ 25,000	\$ -	\$ 25,000	\$ 25,000	\$ 25,000	\$ -	\$ 25,000	\$ -	\$ 25,000
Recruitment/Start Up		\$ 5,000	\$ 35,000	\$ 30,000	\$ 90,000	\$ 60,000	\$ -	\$ (90,000)	\$ -	\$ -	\$ -
		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenditures (B)	\$ 4,424,220	\$ 4,843,882	\$ 5,834,868	\$ 990,986	\$ 7,024,937	\$ 1,220,069	\$ 7,203,035	\$ 178,098	\$ 7,481,656	\$ 278,621	\$ 7,481,656

NOTES

1 instructor hired 18/19 1 prof & 5 instructor hired in 19/20 3 prof & 4 instructor hired 20/21 + 4% increases per year

4% increase each year

current staff @ 4% increase per year

current staff @ 4% increase per year

increased travel costs with additional staff

Additional phone lines for new hires

4 x \$25,000 start-up, \$30000 recruitment

	Fiscal Year 2017/18	Fiscal Year 2018/19	Start of Intake - Fiscal Year 2019/2020	Increment	Fiscal Year 2020/21	Increment	Fiscal Year 2021/22	Increment	Fiscal Year 2022/23	Increment	Ongoing Program Funding
	2 Years Prior to Intake	1 Year Prior to Intake	Year 1	(change from previous year to year 1)	Year 2	(change from year 1 to year 2)	Year 3	(change from year 2 to year 3)	Year 4	(change from year 3 to year 4)	
CAPITAL INFORMATION											
Telehealth & AV (3 theatres)		\$ 210,000		\$ (210,000)		\$ -		\$ -		\$ -	\$ -
Renovations Simulation Lab		\$ 1,600,000		\$ (1,600,000)		\$ -		\$ -		\$ -	\$ -
Furniture/Computers one-time		\$ 10,500	\$ 7,000	\$ (3,500)	\$ 10,500	\$ 3,500		\$ (10,500)		\$ -	\$ -
				\$ -		\$ -		\$ -		\$ -	\$ -
Total Capital (C)	\$ -	\$ 1,820,500	\$ 7,000	\$ (1,813,500)	\$ 10,500	\$ 3,500	\$ -	\$ (10,500)	\$ -	\$ -	\$ -

NOTES

Technology Acquisition (received quotes from AV & MB Telehealth)

College of Pharmacy has \$1.4 million set aside - matching

Furniture \$2,500/Computer \$1,000

Revenues less Expenditures and Capital (A (B+C))	\$ 25,780	\$ (2,059,982)	\$ (688,792)	\$ 1,371,190	\$ (1,179,762)	\$ (520,970)	\$ (638,081)	\$ 541,681	\$ 0	\$ 638,081	\$ 0
Funding Request	\$ (25,780)	\$ 2,059,982	\$ 688,792	\$ (1,371,190)	\$ 1,179,762	\$ 520,970	\$ 638,081	\$ (541,681)	\$ (0)	\$ (638,081)	\$ (0)

Cumulative One-Time \$ (25,780) \$ 2,034,202 \$ 2,722,994 \$ 3,902,756 \$ 4,540,837

**ACADEMIC REQUIREMENTS**

All applicants must meet the following requirements:

- 1) Complete a minimum of 60 credit hours as listed in the table below (core courses and electives) with no grade less than a "C" by April of the year of application,
- 2) Complete a minimum of 2 Regular Fall/Winter sessions (Sept-April) where each Regular Fall/Winter session contains a minimum of 24 new credit hours,
- 3) Achieve an AGPA* of 3.50 or higher,
- 4) Achieve the minimum required essay score in the written critical skills essay,
- 5) Achieve the minimum required Pharmacy College Admission Test (PCAT) score. The PCAT must be written by January 15 of the year of application.

*see Section B for calculation of Adjusted Grade Point Average (AGPA).

Applicants who have completed some of their core courses through an Advanced Placement (AP) or International Baccalaureate (IB) program must still complete two regular sessions (Sept-April) where each session contains a minimum of 24 new credit hours.

No credit will be given for any course which was completed more than ten years before the year of application.

Required Courses				Credit Hours
Core Courses				
	Manitoba	Winnipeg	Brandon	
Chemistry	CHEM 1300 And CHEM 1310	CHEM 1111 And CHEM 1112	18:160 And 18:170	6
	CHEM 2360 or MBIO 2360 And CHEM 2370 or MBIO 2370	CHEM 3502 And CHEM 3503	18:363 And 18:373	6
	CHEM 2210	CHEM 2202	18:261	3
Biology	BIOL 1020 And BIOL 1030	BIOL 1115 And BIOL 1116	15:162 And 15:163 or 94:162 And 94:163	6
	BIOL 2410 And BIOL 2420	--- ---	--- ---	6
	MBIO 1010	BIOL 2902	15:369	3
Math	MATH 1500 Or Math 1230	MATH 1101 (6) or MATH 1102 or MATH 1103	62:181	3
Statistics	STAT 1000	STAT 1501 or STAT 1301 And STAT 1302 (6)	62:171	3
Other Courses				
Electives must include a 3 credit hour course which meets the University's Written English (W) requirement.				
Humanities/Social Science Electives*				12
Open Electives (Any Faculty)				12
Total Credit				60
Hours				

*Acceptable subject fields can be found at the following link:

<http://umanitoba.ca/faculties/arts/student/requirements.html>

CATEGORIES OF APPLICANTS

1. Academic Category

All applicants will be automatically placed in this category unless they indicate that they qualify for inclusion in the Special Consideration Category as described below.

2. Special Consideration Category

All applicants considered in this category must have completed and passed the eligibility requirements described within this document. However, admission will be assessed on an individual basis:

- a. Indigenous Peoples residing in Manitoba including Manitobans who apply through the Health Careers ACCESS Program (HCAP) of the University of Manitoba.

A maximum number of five successful applicants will be admitted each year under the Special Consideration Category.

SELECTION PROCESS

A. Citizenship and Residency

For the purpose of admission to the College of Pharmacy, priority will be given to those applicants who are residents of Manitoba. Up to five spots may be held for competitive out-of-province candidates who are Canadian citizens or permanent residents.

A **Manitoba resident** shall be defined as a Canadian Citizen or Permanent Resident of Canada who, at the application deadline, meets any one of the following four descriptions:

1. Has graduated from a Manitoba high school.
2. Has a recognized degree from a university in Manitoba.
3. Has completed at least one consecutive year of full-time academic studies in a recognized program at a university in Manitoba, while physically residing in Manitoba.
4. Has resided continuously in Manitoba for any two year period following high school graduation. The two year residence period shall not be considered broken where the program's admission committee is satisfied that the applicant was temporarily out of the province on vacation, in short-term volunteer work or employment, or as a full-time student.

Note: *Active Canadian Armed Forces personnel and their direct dependants will be considered as residents of Manitoba, but must meet all normal academic requirements for entry, and take part in the competition with regular applicants for entry.*

B. Calculation of the Adjusted Grade Point Average (AGPA)

The Adjusted Grade Point Average (AGPA) will be calculated as follows:

$$(0.55 \times \text{Core GPA}) \text{ PLUS } (0.45 \times \text{Elective GPA}) = \text{AGPA}$$

Notes:

The **Core GPA** represents the mean grade for the 12 required core courses (36 credit hours).

- For a maximum of two repeated three credit hour core courses the higher grade(s) obtained will be used.
- If more than two core courses are repeated, the two repeated course grades chosen will be the ones giving the applicant the greatest advantage.
- In all other cases of repeated attempts of core courses, the grade obtained on the initial attempt will be used.

Appendix B : Admission Requirements for PharmD program

The **Elective GPA** represents the mean grade for all other courses (i.e. all courses except the core courses) completed at the university level in the past 10 years including the original grades of repeated courses.

C. Written Critical Skills Essay

The written critical skills essay must be completed by all applicants. This exercise involves using one's best English language skills, arguing for or against a selected proposition. The essay will be assessed on three criteria:

- 1) the precision of the response to the topic,
- 2) the focus, organization, and development of the argument,
- 3) the technical proficiency of language (the control of expression, grammar, and mechanics exhibited in the response).

The essay should be in the form of a formal, persuasive, academic essay. The time limit set for the essay is one hour. Candidates are only permitted to use a pen and the supplied essay book for writing the essay. No electronic devices are permitted.

The Admissions Committee establishes the minimum essay score required for an applicant to be eligible for admission each year, based on that year's applicant pool.

Only the students who meet the minimum essay score will be ranked for admission.

Essay scores are only valid for the application year in which they are written.

D. Pharmacy College Admission Test (PCAT)

The overall PCAT score will be calculated giving equal weighting to each of the following five categories:

Biological Processes, Critical Reading, Quantitative Reasoning, Chemical Processes, and Writing

If multiple test scores are received, the best single overall PCAT attempt obtained from the official submitted score reports within the last three years (until mid-January), will be used to calculate the overall score for admission.

The Admissions Committee establishes the minimum PCAT score each application year. The minimum required score may fluctuate from year to year based on the applicant pool.

E. OVERALL SCORE

All applicants are ranked for selection using an overall score according to the following criteria (subject to eligibility provisions):

- | | |
|--|-----|
| 1) Adjusted Grade Point Average (AGPA) | 60% |
| 2) A written critical skills essay | 10% |
| 3) PCAT | 30% |

REQUIRED APPLICATION DOCUMENTATION

The following documents will be required to complete the application, in addition to the general requirements (interim transcripts, final official transcripts, immigration documents, indigenous documentation, name change documentation, proof of proficiency in the use of the English language):

1. Academic Self-Declaration

All students applying to the College of Pharmacy will be required to complete a Self-Declaration of Records Form which declares current or previous: academic suspensions, disciplinary action, professional misconduct, record of criminal conviction, record on the Child Abuse Registry and record on the Adult Abuse Registry. The disclosure contained therein must be satisfactory to the College of Pharmacy.

2. Essential Skills and Abilities Requirements

The College of Pharmacy has identified the essential skills and abilities requirements for admission, promotion and graduation in the pharmacy program. These are identified in the policy document “**Essential Skills and Abilities Requirements for Pharmacy Students.**” All students must acknowledge they have read the document and anticipate they will be able to meet the listed requirements.

3. Pharmacy College Admission Test (PCAT)

Applicants are responsible for ensuring their score(s) are released to the University of Manitoba by March 15th of the year of application. If scores are not received by the deadline, the application will be considered incomplete and will be closed.

ADMISSION DOCUMENTATION

All successful applicants to the Pharmacy program are required to complete the following:

1. Criminal Record Check/Child Abuse Registry Check/Adult Abuse Registry Check

Many health care agencies where Pharmacy students are placed in a health care setting, including community pharmacies, require a criminal record check, child abuse registry check and adult abuse registry check. As a result of the above requirements, and in keeping with the requirements of the College of Pharmacists of Manitoba, all applicants offered a position in the College of Pharmacy are required to provide a self-declaration of a Criminal Record, Child Abuse Registry and Adult Abuse Registry listing following provisional admission, and subsequently provide a current, official Criminal Record Search, Child Abuse Registry Check and Adult Abuse Registry Check. All documents must be submitted to the College of Pharmacy Dean’s Office by the first day of classes in September of the year they are admitted.

Any applicant’s name appearing on the Adult or Child Abuse Registry will be denied admission. A criminal conviction will not necessarily result in denial of admission to the College of Pharmacy. Criminal offences will be reviewed by a sub-committee of the Pharmacy Admissions Committee for the implications of the conviction in view of the regulatory professional mandate to protect the public. Failure to disclose any adult criminal record or listing on the Child Abuse or Adult Abuse Registry will invalidate an application and shall result in the applicant being denied admission, or automatic expulsion from the College of Pharmacy if the applicant has been admitted.

In addition, all undergraduate professional students of the University of Manitoba, College of Pharmacy must be registered with the College of Pharmacists of Manitoba (CPhM). CPhM requires that all graduates of the College of Pharmacy who wish to obtain a license to practice pharmacy in this province, must disclose information about any conviction for an offence under the Criminal Code (Canada), the Controlled Drugs and Substances Act (Canada), or the Food and Drugs Act (Canada) in order to be considered for eligibility for registration with the College of Pharmacists of Manitoba. The review process conducted by the College of Pharmacy is independent of the review process conducted by the College of Pharmacists of Manitoba.

2. Immunization

Maintaining an up-to-date health record is an important responsibility of being a student, and serves to protect the health of vulnerable patients with whom students will be involved, as well as the health of students and their families. In general, immunizations and health screening tests are voluntary procedures; however, required immunizations and testing are also a condition of enrolment within The College of Pharmacy.

Appendix B : Admission Requirements for PharmD program

All students enrolled in the College of Pharmacy must be immunized against the following diseases:

diphtheria/tetanus/pertussis, polio, rubella, measles, mumps, chickenpox, Tuberculosis, hepatitis A and B and influenza.

Students admitted to first year Pharmacy will be provided with an Immunization package at the time of acceptance into the program. Students have the option to provide their immune status and complete their immunizations with their own healthcare provider or participate in the Faculty of Health Sciences Immunization Program on campus. Students will be required to complete their required immunizations by the end of their first year. Students will not be able to attend Introductory Pharmacy Practice Experiences or participate in any external outreach activities until all immunization requirements are up-to-date. Students are responsible for updating their immunizations as needed. Completion of the immunization schedule is required for course progression in Pharmacy.

PHARM D PREREQUISITE AND ADMISSIONS WORK GROUP PROCESS AND OBSERVATIONS:

The Work Group held mostly biweekly meetings between February and December 2015. In its search for required courses, the committee reviewed in excess of 20 course outlines including those for the current required courses and those not currently required such as physics (PHYS 1020, PHYS 1030), organic chemistry (CHEM 2220), philosophy (PHIL 1290), microbiology (MBIO 3010, MBIO 2020, MBIO 1010), english (ENGL 1200, ENGL 1300, ENGL 1340), statistics (STAT 1000, STAT 2000), human physiology (BIOL 2410, BIOL 2420), and other 'W' courses offered to University 1 students (ANTH 1520, CDN 1130, WOMN 1500, ARTS 1110).

The chair of the committee met with two groups of Pharmacy instructors (Drs Tranmer, Lakowski, Gong, Bugden, Burczynski, Cote, Ho, Gu) to review the course outlines of potential required courses of particular interest (CHEM 2370, STAT 1000, MATH 1230, MATH 1500) and to determine relevance to their subject area (medicinal chemistry, biotechnology, pharmaceuticals, pharmacokinetics, and literature review).

The Work Group needed to be in continuous communication with the Curriculum work group to ensure alignment of pre-requisites particularly with Pharmacy Year 1 (PY1) and the AFPC outcomes. Most notably, the co-requisite offering of anatomy (ANAT1030), physiology (PHGY1030), and applied pathophysiology (PHRM1430) was an item of significant discussion within and between the pre-requisite and curriculum work groups. After some deliberation, it was decided by both work groups to make the BIOL2410/20 pre-requisites as a replacement of PHGY1030 and keep the ANAT 1030 in PY1.

Table 1 - Relevance of Required Courses:

COURSE	DESCRIPTION	RELEVANCE
BIOL 1020 <i><u>Biology 1: Principles and Themes</u></i>	<ul style="list-style-type: none">A lab based course in unifying principles of biology including cell biology, bioenergetics, cell division, genetics and evolution	<ul style="list-style-type: none">Introduction to principles of BiologyCurrently a Pre-requisite for PharmacyPre-requisite for MBIO 1010Pre-requisite for BIOL 1030
CHEM 1300 <i><u>Structure and Modelling in Chemistry</u></i>	<ul style="list-style-type: none">Atomic and molecular models and their applications to chemistry, including a discussion of solid, liquid, and gaseous states, and of mixtures	<ul style="list-style-type: none">Introduction to Chemistry structure and modellingCurrently a Pre-requisite for PharmacyPre-requisite for CHEM 1310

Appendix B : Admission Requirements for PharmD program

STAT 1000 <i>Statistics 1</i>	<ul style="list-style-type: none"> • Intro to basic stats principles • Procedures used for data analysis • Data gathering, displaying and summarizing data • Examining relationships between variables • Sampling distributions • Significance tests • Inference for means 	<ul style="list-style-type: none"> • Intro to data manipulation • Building block for Scientific Literature Evaluation in 3rd year.
BIOL 1030 <u>Biology 2: Biological Diversity, Function & Interactions</u>	<ul style="list-style-type: none"> • A lab based course introducing biological diversity including prokaryotes, protists, fungi, plants and animals; the form and function of plants and animals and basic concepts of ecology 	<ul style="list-style-type: none"> • Introduction to biological diversity • Currently a Pre-requisite for Pharmacy • Pre-requisite for CHEM 2360 • Pre-requisite for BIOL 2410
CHEM 1310 <u>An Introduction to Physical Chemistry</u>	<ul style="list-style-type: none"> • Thermochemistry, chemical thermodynamics, and chemical kinetics 	<ul style="list-style-type: none"> • <u>Introduction to Physical Chemistry</u> • Currently a Pre-requisite for Pharmacy • Pre-requisite for CHEM 2360 • Pre-requisite for CHEM 2210
MBIO 1010 <i>Microbiology I</i>	<ul style="list-style-type: none"> • Microscopy, overview of bacterial, archaeal, eukaryote cell structure • Microbial nutrition and growth • Microbial genetics • Microbial metabolism • Applied microbiology and diversity (e.g., food spoilage, ethanol fermentation) • Medical microbiology (e.g., immunology, microbial interactions, pathogens, toxins, antibiotic resistance) 	<ul style="list-style-type: none"> • Building block and pre-requisite for Mechanisms of Microbial Diseases • Currently in year 1 of the pharmacy program
CHEM 2360 <u>Biochemistry 1: Biomolecules & Intro to Metabolic Energy</u>	<ul style="list-style-type: none"> • concept of metabolic energy as a product of catabolism and a requirement for biosynthesis • kinds of molecules encountered in biochemistry 	<ul style="list-style-type: none"> • Introductory Biochemistry course • Building block and pre-requisite for Medicinal Chemistry • Pre-requisite for CHEM 2370 • Currently in year 1 of the pharmacy program
CHEM 2210 <i>Intro to Organic Chemistry I</i>	<ul style="list-style-type: none"> • Structure and bonding of hydrocarbons (alkanes, alkenes, alkynes) • Functional groups • Conformational analysis and stereochemistry • Spectroscopy and mechanisms of organic reactions • Substitution reactions 	<ul style="list-style-type: none"> • Currently in year 1 of the pharmacy program • Pre-requisite for CHEM 2370 • Building block and pre-requisite for Medicinal Chemistry
BIOL 2410 <i>Human Physiology 1</i>	<ul style="list-style-type: none"> • Mechanism of body's major control systems (nervous, endocrine) and muscular and reproductive system 	<ul style="list-style-type: none"> • Pharmacy-related physiology course (PHGY 1030) currently in year 1 of the pharmacy program • Pre-requisite for BIOL 2420 • Building block for Pathophysiology
CHEM 2370 <u>Biochemistry 2: Catabolism, Synthesis & Information</u>	<ul style="list-style-type: none"> • Introduction to basic metabolic processes that occur in living cells, including the production and use of metabolic energy, the breakdown and synthesis of 	<ul style="list-style-type: none"> • Introduction to <u>Catabolism, Synthesis and Information Pathways</u> • Building block and pre-requisite for Medicinal Chemistry • Currently in year 1 of the pharmacy

Appendix B : Admission Requirements for PharmD program

<u>Pathways</u>	biomolecules; the synthesis of DNA, RNA and proteins; and the regulation of these processes	program
MATH 1500 or MATH 1230 <i>Calculus</i>	<ul style="list-style-type: none"> Exponential function, limit of a function, limit laws, continuity, limits at infinity, derivatives, rates of change, derivative as a function, derivatives of polynomials, product & quotient rules, the chain rule, derivatives of trigonometric functions, related rates, mean value theorem, curve sketching, antiderivatives, definite integral, areas and distances 	<ul style="list-style-type: none"> Potential building block for critical thinking, PK, pharmaceuticals Currently a Pre-requisite for Pharmacy and still students aren't very strong in simple (high school) math; but those who do well may do better in PK (anecdotally) Component in PCAT
BIOL 2420 <i>Human Physiology 2</i>	<ul style="list-style-type: none"> Homeostatic regulation by the body's major effector organ systems (cardiovascular, respiratory, digestive, renal, immune) 	<ul style="list-style-type: none"> Pharmacy-related physiology course (PHGY 1030) currently in year 1 of the pharmacy program Building block for Pathophysiology

The Admissions Work Group also collaborated closely with the Evaluation and Assessment Work Groups to generate the evidence (or lack thereof) to substantiate (or dispute) other admissions procedures as outlined below:

- There is no reliability or predictive validity for interviews, personal statements, autobiographical statements, or letters of recommendations on academic performance. (Prideaux D et al, 2011; Ottawa 2010 Conference Consensus statement and recommendations)
- The reliability and predictive validity is strong for MMI but is resource intensive. (Prideaux D et al, 2011; Ottawa 2010 Conference Consensus statement and recommendations) We are reminded that our Pharmacy graduates continue to do very well in their national qualifying (PEBC) exams, consistently ranking number one in the country each year. It is unlikely that the additional costs incurred by adopting the MMI will lead to a significant gain in the caliber of students we are graduating.
- Based on data from 107 pharmacy students in our current program, a regression analysis was conducted to examine the relationships between the independent variables: 'elective' GPA, core GPA (consisting of the mean grade across the 12 prerequisite courses for the PharmD program), and essay grade against the dependent variable representing the mean of PY2 and PY3 GPA.
- Of note, currently the 'electives' GPA is a misnomer as it is, in essence, the cumulative GPA including grades for all courses completed at the UofM including original grades of repeated courses in the past 10 years.
 - While the relationship between PY2 and PY3 GPA and incoming overall GPA was fairly strong, core GPA showed a slightly stronger relation to PY2 and PY3 GPA than elective GPA.
 - Controlling for GPA (Elective and Core) there was no correlation between essay scores and either PY2 or PY3 GPAs.
 - A separate regression analysis found a strong correlation between essay scores and PSL 1 performance (ie communication skills).
- Although the essay scores have virtually no predictability with performance in Pharmacy (as noted above), the essay is of great value to the admission process as it distinguishes between applicants whose communication abilities are far below the expected minimum level of proficiency needed to

succeed in the Pharmacy program, and other applicants whose communication skills are judged to be adequate.

- The committee thoughtfully deliberated on the value of the requiring the PCAT.
 - A review of the literature suggests that PCAT scores are a moderate to strong predictor of PY1 through to PY4 GPAs as well as licensing examination scores. (Meagher et al, Am J Pharm Ed, 2006)
 - One study involved multiple regression analysis on 899 students from 11 pharmacy schools. The analysis found that entering PCAT scores and cumulative GPA (combined) explained 37%-21% of the variance in first to fourth year pharmacy GPA and that about 1/3 of this variance was uniquely attributable to the PCAT scores. (Meagher et al, Am J Pharm Ed, 2006)
 - The essay writing component of the PCAT does not have the same depth (assessment of critical thinking) as the Entrance Essay.
 - Although the PCAT appears to be a 'low cost' source of information, it may not be so 'low cost' for students (as the cost burden of \$200 lies with the student).
 - Especially during our transition period (BScPharm to PharmD) with a potential dip in our applicant pool, the additional PCAT step may act as a deterrent to attracting students.
 - We reviewed over 20 College of Pharmacy websites to determine the weighting that other schools place on the PCAT. Most schools do not explicitly reveal this process. There doesn't appear to be an official weight placed on PCAT vs GPA. One site indicated 'Admission is holistic'.

Impact of proposed changes to Faculty of Science

A significant proportion of the required courses for Admission to Pharmacy are offered through the Faculty of Science. Consequently, the Work Group spent considerable time discussing the potential impact of our recommendations on the Faculty of Science.

Given that BIOL 1020, BIOL 1030, CHEM 1300, CHEM 1310, and MATH 1500 are current course requirements for Pharmacy Admission and remain so, our proposed changes should have no impact on student capacity for these courses.

Our proposed recommendations to move MBIO 1010, CHEM 2360, CHEM 2370, CHEM 2210 out of Pharmacy Year 1 (PY1) and to make them Pharmacy Admissions course requirements, as well as the requirement of 3 new Science courses (STAT1000, BIOL2410, BIOL 2420) and MATH 1230 as a new MATH option, raised a red flag.

The Work Group had concerns that this shift might exceed the student capacity of these Science courses given that the class size in PY1 is about 55 and our applicant pool ranged between 237 in 2009 to 323 in 2013. The Work Group examined several sources of data and has come to the conclusion that its recommendations will have minimal negative impact on course capacity.

Table 2 illustrates the % of students accepted to their respective Health Sciences academic unit (2011-2016) that had already taken BIOL 2410, BIOL 2420, CHEM 2360, CHEM 2370, CHEM 2210, MBIO 1010.

The pattern for Dentistry, Medicine (MD program) and Pharmacy are all very similar with high proportions of students accepted into these programs having already taken these courses. This data suggests there might be significant overlap in the applicant pool for these three degree programs and that a large proportion of the Pharmacy applicant pool has already taken these courses.

Appendix B : Admission Requirements for PharmD program

Based on this data our Work Group feels re-assured that moving the courses out of PY1 should not result in an absolute increase in numbers of students (equivalent to the applicant pool) needing to register for these courses to meet the new Pharmacy Admissions requirements.

Table 2 - Students Accepted into their respective Health Sciences academic unit that had previously (2011/12-2015/16) enrolled in the following Courses (incl Equivalents)

	Biol2410	Biol2420	CHEM2360	CHEM2370	CHEM2210	MBIO1010
Dentistry-DMD	35%	27%	68%	69%	68%	25%
Dentistry-IDDP	0%	0%	0%	0%	0%	0%
Medicine-BSc	28%	28%	39%	44%	44%	11%
Medicine-External	5%	4%	7%	7%	7%	3%
Medicine-Family Social Science	8%	0%	0%	0%	0%	0%
Medicine-MD	45%	41%	62%	62%	61%	26%
Nursing-Registered Nurse	0%	0%	1%	1%	1%	0%
Nursing-Regular BN	5%	4%	6%	3%	7%	5%
Nursing-UM/RRC Joint BN	0%	0%	0%	0%	0%	0%
Nursing-UM/UCN Joint BN	0%	0%	0%	0%	1%	1%
Pharmacy	22%	18%	44%	35%	52%	41%
Physical Therapy-BMR PT	38%	32%	19%	17%	21%	8%
Respiratory Therapy - BRT	38%	19%	31%	25%	38%	25%
Respiratory Therapy-BMR RT	19%	16%	29%	22%	28%	22%
Respiratory Ther-Deg Complete	0%	0%	0%	0%	0%	0%
Grand Total	15%	13%	22%	20%	23%	12%

The committee also examined the number of seats available and occupied 2015 (summer) - 2017 (winter) for the eight courses that could be potentially impacted by our recommendations. (**Table 3**)

For all courses total capacity exceeded the actual number of seats occupied, providing re-assurance that the Work Group's recommendations would not cause undue demand on capacity for these courses.

The Dean of Pharmacy presented the information to the Dean and Associate Deans of the Faculty of Science, who have agreed with the analysis, and provided a written letter of support for the recommendations. (*Appendix E*)

Appendix B : Admission Requirements for PharmD program

Table3 Number of seats available and seats taken*

	Summer 2015			Fall 2015			Winter 2016			2015-16	Summer 2016			Fall 2016			Winter 2017			2016-17
	Maximum Enrollment	After Revision Enrollment	Remaining	Maximum Enrollment	After Revision Enrollment	Remaining	Maximum Enrollment	After Revision Enrollment	Remaining	Summary Remaining Spaces	Maximum Enrollment	After Revision Enrollment	Remaining	Maximum Enrollment	After Revision Enrollment	Remaining	Maximum Enrollment	Enrollment as of Dec 8, 2016	Remaining	Summary Remaining Spaces
CHEM 2210	110	69	41	504	394	110	NA	NA	0	151	140	117	23	504	403	101	NA	NA	0	124
CHEM 2360	82	66	16	348	308	40	NA	NA	0	56	75	63	12	349	326	23	NA	NA	0	35
CHEM 2370	82	51	31	NA	NA	0	261	204	57	88	75	62	13	NA	NA	0	270	265	5	18
BIOL 2410	220	187	33	437	378	59	NA	NA	0	92	220	158	62	512	430	82	NA	NA	0	144
BIOL 2420	220	124	96	NA	NA	0	287	180	107	203	170	107	63	NA	NA	0	412	368	44	107
MBIO 1010	110	71	39	282	246	36	277	247	30	105	94	54	40	282	239	43	277	236	41	124
STAT 1000	630	397	233	2391	1760	631	1522	1220	302	1166	580	456	124	2450	1904	546	1597	1383	214	884
MATH 1230	NA	NA	0	105	28	77	NA	NA	0	77	NA	NA	0	70	45	25	NA	NA	0	25
MATH 1500	390	266	124	1390	1046	344	1055	719	336	804	426	277	149	1328	875	453	900	713	187	789

* Data provided by University of Manitoba Registrar's Office, Aurora Analyst



Course Descriptions:

ANAT 1030 Human Anatomy Cr.Hrs. 3 Existing Course

To present the essentials of the organization and structure of the human body. Surface, functional and applied anatomy will be taken into consideration. For Pharmacy students only.

HNSC 2170 Nutrition for Health Professionals Cr.Hrs. 2 Existing Course

An examination of the fundamentals of nutrition and the relationship between nutrition and health within the context of the health professions. The focus is on nutritional strategies used to promote health and in the treatment of common health conditions. May not be held with HYG 2370, or the former ORLB 2150, ORLB 2330, or the former PHRM 2420. This course is restricted to students registered in Nursing or Pharmacy.

PHAC 2100 Pharmacology Cr.Hrs. 6 Existing Course

General principles of pharmacology including consideration of the pharmacodynamics of important drugs and control and modification of drug action.

PHMD 1000 Introduction to Professional Practice Cr.Hrs. 1 New Course

This course provides an introduction to various aspects of professional practice with a focus on patient care and safety. The course will include discussion and activities that incorporate cultural diversity, determinants of health, health literacy and Indigenous health. Registration is normally restricted to students in Year 1 of the program. Students will be graded on a pass/fail basis.

PHMD 1002 Applied Pharmacy Practice Lab 1 Cr.Hrs. 4 New Course

(Lab required) This course is an introduction to community pharmacy practice with a focus on communication skills that are patient centered. The course provides opportunities to apply knowledge when completing patient assessments that will ensure positive patient outcomes. The process of prescription filling includes ensuring the legal requirements are met, minimizing errors, calculations and adverse drug reactions. Students will be introduced to drug information resources, adherence aids and physical assessment. May not be held with PHRM 1110 or the former PHRM 1100. Registration is normally restricted to students in Year 1 of the program.

PHMD 1004 Introduction to Pharmacotherapy Literature Cr.Hrs. 1 New Course

An introduction to the concepts of evidence-based medicine and applied medical/biostatistics in the evaluation of relevant pharmacotherapy literature. Registration is normally restricted to students in Year 1 of the program.

PHMD 1006 Pharmacy Informatics Cr.Hrs. 1 New Course

This course will introduce students to the use of information and communication technologies for delivering patient care and fostering collaboration between healthcare providers. Students will also be introduced to the professional, ethical, and legal implications of using such technologies for communicating health information. Registration is normally restricted to students in Year 1 of the program.

PHMD 1008 Medicinal Chemistry Cr.Hrs. 4 New Course

This course explores the physicochemical aspects of drug structure in absorption, distribution, metabolism, and excretion and the interaction between drugs and their receptors as they relate to the biochemical, pharmacological, and therapeutic actions of medicinal compounds. Students will learn the fundamental relationships between the structures of drugs and the resulting activity. May not be held with PHRM 2222 or the former PHRM 2220 or PHRM 3220. Registration is normally restricted to students in Year 1 of the program. Prerequisite: CHEM 2370 or MBIO 2370

PHMD 1010 Applied Pathophysiology Cr.Hrs. 4 New Course

A comprehensive foundation of the underlying patho-physiological mechanisms associated with various types of human disease. Course content will serve as an essential requirement to prepare students for subsequent advanced clinical courses related to diagnosis and medical management (pharmacological and non-pharmacological approaches) of the disease(s). May not be held with PHRM 1430. Registration is normally restricted to students in Year 1 of the program. Prerequisite: BIOL 2420 (the former ZOOL 2540)

PHMD 1012 Extemporaneous Pharmaceutical Compounding Cr.Hrs. 3 New Course

(Lab required) In a classroom and laboratory setting, this course provides an introduction to the compounding of pharmaceutical products and the physiochemical basis of product formulation. Practical aspects of formulation and patient counselling regarding the products is also explored. May not be held with PHRM 1300. Registration is normally restricted to students in Year 1 of the program.

PHMD 1014 Clinical Therapeutics 1 Cr.Hrs. 3 New Course

This course introduces principles of drug therapy for the management of both self-care conditions and ambulatory ailments, with an additional focus on health promotion. Within the conditions covered, identifying signs and symptoms to complete a differential diagnosis, development of treatment plans and follow-up monitoring will be emphasized. Treatment approaches discussed will include non-pharmacological options, non-prescription options and some prescription treatments. May not be held with PHRM 2320 or the former PHRM 2310. Registration is normally restricted to students in Year 1 of the program.

PHMD 1016 Pharmaceutics Cr.Hrs. 3 New Course

(Lab required) This course introduces principles of formulation and good pharmaceutical manufacturing practice, including aspects of product development and assessment, stability testing, and quality control. It also explores the application of dosage forms to clinical situations. May not be held with PHRM 2270. Registration is normally restricted to students in Year 1 of the program. Prerequisite: PHMD 1012

PHMD 1040 Service Learning / IPE 1 Cr. Hrs. 1 New Course

The course is a service-learning experience that provides students an opportunity to work in community-based patient or client centered settings. The course will focus on developing communication skills, interprofessional collaboration with other healthcare students and patient advocacy while working with patients or clients from diverse backgrounds. The course also includes an opportunity for students to experience various pharmacy practice environments through a job shadowing experience under the supervision of practicing pharmacists and senior pharmacy students. Registration is normally restricted to students in Year 1 of the program. Students will be graded on a pass/fail basis.

PHMD 2000 Drug Delivery Cr.Hrs. 3 New Course

(Lab required) This course discusses the concepts and application of various drug delivery and drug administration routes to improve therapeutic outcomes. The course is a continuation of PHMD 1012 and PHMD 1016, and is directly associated to drug dosage forms and preparations. May not be held with PHRM 3320. Registration is normally restricted to students in Year 2 of the program. Prerequisite: PHMD 1016

PHMD 2002 Applied Pharmacy Practice Lab 2 Cr.Hrs. 4 New Course

(Lab required) This course develops essential skills required for pharmacy practice. Focus is on patient assessment and education, effective communication, care plan development and documentation, clinical reasoning, working within a health care team, immunization and lab ordering and interpretation. May not be held with PHRM 2100. Registration is normally restricted to students in Year 2 of the program. Prerequisites: PHMD 1002 and PHMD 1014

PHMD 2004 Critical Appraisal of Pharmacotherapy Literature 1 Cr.Hrs. 4 New Course

This course develops skills in the critical appraisal of common research designs used in the pharmacotherapy literature with emphasis on the evaluation of research to inform practice. Registration is normally restricted to students in Year 2 of the program. Prerequisite: PHMD 1004

PHMD 2006 Applied Biopharmaceutics and Pharmacokinetics Cr.Hrs. 3 New Course

This course introduces the principles of Biopharmaceutics and Pharmacokinetics to understand and predict how drugs are absorbed, distributed, metabolized and eliminated from the body. Students will apply these principles to the practical application of dosage calculations using various scenarios. May not be held with PHRM 2280. Registration is normally restricted to students in Year 2 of the program. Prerequisite: PHMD 1016

PHMD 2008 Pharmacy Law Cr.Hrs. 1 New Course

In this course Federal and Provincial Legislation as well as the ethical and professional standards that govern the profession of pharmacy and how they apply to practice will be discussed. Successful completion of this course meets the Jurisprudence Examination requirement for licensure. Registration is normally restricted to students in Year 2 of the program. The Pharmacy Law online learning modules must be successfully completed prior to starting this course.

PHMD 2010 Principles of Biotechnology Cr.Hrs. 2 New Course

Introduction of biotechnology in pharmaceutical science and pharmacy. Students will learn the concepts and technologies used in production of biologics and will understand pharmaceutical considerations of biotech products. May not be held with PHRM 3640. Registration is normally restricted to students in Year 2 of the program. Prerequisite: CHEM 2370 or MBIO 2370

PHMD 2012 Pharmacogenetics Cr.Hrs. 2 New Course

This course examines the influence of genetic variation in the population on the pharmacodynamics and pharmacokinetics of drugs. A general introduction to pharmacogenetics will cover basic genetics necessary to understand the course material. Selected drugs will be examined in depth showing how genetic variation alters an individual's pharmacodynamic and pharmacokinetic response. Based on the individual's genetic variation, dose adjustments or alternative therapies will be recommended. Registration is normally restricted to students in Year 2 of the program. Prerequisite: CHEM 2370 or MBIO 2370

PHMD 2014 Clinical Therapeutics 2 Cr.Hrs. 8 New Course

This course builds on principles of pharmacotherapy introduced in PHMD 1014. Aspects of providing direct patient care are covered to identify, solve and prevent actual or potential drug-related problems. Emphasis is placed on the evaluation, selection and monitoring of drug therapy. May not be held with PHRM 3310. Registration is normally restricted to students in Year 2 of the program. Prerequisite: PHMD 1014

PHMD 2016 Clinical Pharmacokinetics - Pharmacodynamics Cr.Hrs. 3 New Course

This course is designed to develop and integrate the advanced knowledge and skills required to apply pharmacokinetics-pharmacodynamics (PK-PD) to therapeutic drug management and patient care.

Emphasis is on (1) demonstrating the value of PK-PD in selecting and monitoring drug therapies that maximize efficacy and minimize toxicity, and (2) appropriately using PK-PD formulae and models that account for factors such as patient demographics, organ function, disease states and drug interactions. May not be held with PHRM 3550 or the former PHRM 3500. Registration is normally restricted to students in Year 2 of the program. Prerequisite: PHMD 2006

PHMD 2020 Introductory Pharmacy Practice Experience–Community Cr.Hrs. 4 New Course

This four week introductory rotation provides pharmacy students with an opportunity to contribute to patient care in a community pharmacy setting. Pharmacy students will build upon the knowledge, skills

and abilities they have developed during the first year and a half of the PharmD program. Opportunity will be provided to help pharmacy students cultivate their patient care skills and begin to gain personal clinical experiences working with a variety of patients and other members of the healthcare team encountered in a community pharmacy. Students will begin to make health care decisions with the help and guidance of a pharmacist preceptor. Pharmaceutical care, pharmacy law and ethics, the operation of a community pharmacy, formal presentations, drug information, patient safety and interprofessional practice are key areas of this rotation. Registration is normally restricted to students in Year 2 of the program. Prerequisite: PHMD 1014. Students will be graded on a pass/fail basis.

PHMD 2030 Introductory Pharmacy Practice Experience – Hospital Cr.Hrs. 4 New Course

This four week introductory rotation provides students with an opportunity to actively participate in patient care within a hospital pharmacy practice setting. Pharmacy students will build upon the knowledge, skills and abilities they have developed during the first two years of the PharmD program. Opportunity will be provided to allow pharmacy students to continue to cultivate their patient care skills and gain personal clinical experiences working with a variety of patients and other members of the healthcare team within a hospital setting. Students will begin to make healthcare decisions with the help and guidance of a pharmacist preceptor. Areas of focus include: the role of the hospital pharmacist as part of the healthcare team; understanding the patient chart; documentation of patient care; pharmaceutical care; ordering and interpreting lab values as required for the management of drug therapy; case presentations; drug information; patient/medication safety; and interprofessional practice. Registration is normally restricted to students in Year 2 of the program. Prerequisite: PHMD 2014. Students will be graded on a pass/fail basis.

PHMD 2040 Service Learning / IPE 2 Cr. Hrs. 1 New Course

This course is a continuation of PHMD 1040 and is an opportunity for students to further develop skills related to communication with a focus on patient advocacy and interprofessional collaboration. Registration is normally restricted to students in Year 2 of the program. Prerequisite: PHMD 1040. Students will be graded on a pass/fail basis.

PHMD 3002 Applied Pharmacy Practice Lab 3 Cr.Hrs. 4 New Course

(Lab required) The course develops advanced skills required for pharmacy practice in all settings (ie. community, hospital, and primary care). The focus is on interaction with patients and other health care professionals and the application of advanced knowledge, skills and values required for the provision of exemplary pharmaceutical care. May not be held with PHRM 3110 or the former PHRM 3100. Registration is normally restricted to students in Year 3 of the program. Prerequisites: PHMD 2002 and PHMD 2014

PHMD 3004 Critical Appraisal of Pharmacotherapy Literature 2 Cr.Hrs. 2 New Course

This course develops skills in the critical appraisal of research in the fields of pharmacoepidemiology and pharmacoconomics with emphasis on how this research may inform decisions regarding medication safety, drug approval, and drug evaluation. May not be held with PHRM 3520 or the former PHRM 3510. Registration is normally restricted to students in Year 3 of the program. Prerequisite: PHMD 2004

PHMD 3006 Advanced Clinical Therapeutics Cr.Hrs. 6 New Course

A problem-based clinical therapeutics course that builds on PHMD 1014, PHMD 2014 and PHMD 3014. The emphasis is on the provision of pharmaceutical care to enhance students' ability to identify, resolve and prevent drug-related problems in advanced clinical scenarios. Registration is normally restricted to students in Year 3 of the program. Prerequisite: PHMD 2014

PHMD 3008 Concepts of Integrative Medicine Cr.Hrs. 2 New Course

Introduction to the integrative medicine paradigm of health care. Systems of complementary and alternative medicine as well as utilization of natural health products are emphasized. May not be held

with PHRM 3430. Registration is normally restricted to students in Year 3 of the program. Prerequisite: PHMD 2014

PHMD 3010 Pharmacy Management Cr.Hrs. 4 New Course

The course introduces basic business management concepts with a focus on pharmacy practice. The course will provide an introduction to strategic planning, marketing principles, human resource management and operational and financial management of different pharmacy practice areas. May not be held with PHRM 4230. Registration is normally restricted to students in Year 3 of the program. Prerequisites: PHMD 2020 and PHMD 2030

PHMD 3012 Applied Professional Practice Cr.Hrs. 3 New Course

This course offers the opportunity to explore professionalism, ethics and contemporary issues of the health care system. May not be held with PHRM 3230 or the former PHRM 3210. Registration is normally restricted to students in Year 3 of the program. Prerequisite: PHMD 1000

PHMD 3014 Clinical Therapeutics 3 Cr.Hrs. 8 New Course

A case-based therapeutics course that builds on PHMD 2014. The course will integrate knowledge from previous pharmacy courses with newly acquired therapeutic knowledge, incorporating critical evaluation skills and clinical judgment into clinical case topic discussions in order to enhance students' ability to identify, resolve and prevent drug-related problems for individual patients. Not to be held with PHRM 4310. Registration is normally restricted to students in Year 3 of the program. Prerequisite: PHMD 2014

PHMD 3016 Toxicology of Medications and Drugs of Abuse Cr.Hrs. 2 New Course

Toxicology of prescription and non-prescription medications and drugs of abuse. The emphasis is on the study of emergency treatments of the overdosed patient. Forensic aspects of common poisonings and drug overdoses are also discussed. May not be held with PHRM 4450. Registration is normally restricted to students in Year 3 of the program. Prerequisites: PHMD 2014 and PHMD 2016

PHMD 4000 Pharmacy Research Project Cr.Hrs. 6 New Course

This course is designed to give students experience in scientific research. Each student will select an advisor from the Rady Faculty of Health Sciences and define a pharmacy or pharmacy practice based problem to research. Students are then required to complete their research and present their findings to an Advisory Committee in both oral and written format. Registration is normally restricted to students in Year 4 of the program. Prerequisite: PHMD 3004

PHMD 4020 Advanced Pharmacy Practice Experience - Community Cr.Hrs. 8 New Course

This eight week rotation focuses on the provision of patient focused pharmacy care in a community pharmacy practice setting. Pharmacy students will complete rotations at community pharmacy practice sites offering an expanded scope of pharmacy practice. Pharmacy students will build upon the knowledge, skills and abilities they have developed during the first three years of the PharmD curriculum to further refine their clinical skills in preparation to enter independent practice. As Pharmacy Interns students will serve as an active member of the healthcare team and provide safe and effective care under the indirect supervision of a pharmacist preceptor to a variety of patients presenting with chronic and acute conditions. Registration is normally restricted to students in Year 4 of the program. Prerequisites: PHMD 2020 and PHMD 3006 and PHMD 3014. Students will be graded on a pass/fail basis.

PHMD 4030 Advanced Pharmacy Practice Experience - Hospital Cr.Hrs. 8 New Course

This eight week clinical rotation focuses on the provision of patient focused pharmacy care in a collaborative healthcare practice setting e.g. hospital, long-term care, and ambulatory. Pharmacy students will apply the knowledge, skills and abilities they have developed during the previous three years of the PharmD program to further refine their clinical skills in preparation to enter independent practice. Students will serve as an active member of the healthcare team incorporating professional, legal and ethical principles; identifying and

resolving drug therapy problems; providing drug information and patient education. As Pharmacy Interns students will gain clinical experience providing safe and effective, patient focused and evidence-informed care to a variety of patients (under the indirect supervision of a pharmacist preceptor) with acute and chronic conditions and across all levels of care offered within the institution as well as for patients in the transitions between levels of care. Registration is normally restricted to students in Year 4 of the program. Prerequisites: PHMD 2030 and PHMD 3006 and PHMD 3014. Students will be graded on a pass/fail basis.

PHMD 4040 Advanced Pharmacy Practice Experience – Primary Care Cr.Hrs. 8 New Course

This eight week clinical rotation focuses on the provision of patient focused pharmacy care in a primary care site. Pharmacy students will apply the knowledge, skills and abilities they have developed during the previous three years of the PharmD program to further refine their clinical skills in preparation to enter independent practice. Students will serve as an active member of the interprofessional healthcare team incorporating professional, legal and ethical principles; identifying and resolving drug therapy problems; providing drug information and patient education. As Pharmacy Interns students will gain clinical experience providing safe and effective, patient focused and evidence-informed care to a variety of patients collaboratively with the interprofessional team under the indirect supervision of a pharmacist preceptor. Registration is normally restricted to students in Year 4 of the program. Prerequisites: PHMD 2020 and PHMD 3006 and PHMD 3014. Students will be graded on a pass/fail basis.

PHMD 4060 Advanced Pharmacy Practice Experience - Elective Cr.Hrs. 8 New Course

Project-based course offering students opportunities for experiential learning in specialty areas of professional practice, in advocacy activities, and in health-related community service. Students have the option of applying to conduct projects at sites pre-approved by the College or to propose alternative avenues for self-directed learning. All project proposals need to obtain final approval from the College of Pharmacy, which facilitates students' placement. Assessment will be based on written reports submitted by individual students and evaluations by preceptors. Registration is normally restricted to students in Year 4 of the program. Prerequisites: PHMD 3006 and PHMD 3014. Students will be graded on a pass/fail basis.

Transition Year Course Descriptions:

PHRM 1310 Fundamentals of Pharmaceutics Cr.Hrs. 3 New Course

(Lab required) In a classroom and laboratory setting, this course provides an introduction to the compounding of pharmaceutical products and the physiochemical basis of product formulation. Practical aspects of formulation and patient counselling regarding the products is also explored. May not be held with PHRM 1300. Registration is normally restricted to students in Year 1 of the program.

PHRM 1440 Applied Pathophysiology Cr.Hrs. 4 New Course

A comprehensive foundation of the underlying patho-physiological mechanisms associated with various types of human disease. Course content will serve as an essential pre-requisite required to prepare students for subsequent advanced clinical courses related to diagnosis and medical management (pharmacological and non-pharmacological approaches) of the disease(s). May not be held with PHRM 1430. Registration is normally restricted to students in Year 1 of the program.



1. Criminal Record Check, Child Abuse Registry Check and Adult Abuse Registry Check

Many health care agencies where Pharmacy students are placed in a health care setting, including community pharmacies, require a criminal record check, child abuse registry check and adult abuse registry check. As a result of the above requirements, and in keeping with the future requirements of the College of Pharmacists of Manitoba, all applicants offered a position in the College of Pharmacy are required to provide a self-declaration of a Criminal Record, Child Abuse Registry and Adult Abuse Registry listing following provisional admission, and subsequently provide a current, official Criminal Record Search, Child Abuse Registry Check and Adult Abuse Registry Check. All documents must be submitted to the College of Pharmacy Dean's Office by the first day of classes in September of the year they are admitted.

Any applicant's name appearing on the Adult or Child Abuse Registry will be denied admission. A criminal conviction will not necessarily result in denial of admission to the College of Pharmacy. Criminal offences will be reviewed by a sub-committee of the Pharmacy Admissions Committee for the implications of the conviction in view of the regulatory professional mandate to protect the public. Failure to disclose any adult criminal record or listing on the Child Abuse or Adult Abuse Registry will invalidate an application and shall result in the applicant being denied admission, or automatic expulsion from the College of Pharmacy if the applicant has been admitted.

In addition, all undergraduate professional students of the University of Manitoba, College of Pharmacy must be registered with the College of Pharmacists of Manitoba (CPhM). CPhM requires that all graduates of the College of Pharmacy who wish to obtain a license to practice pharmacy in this province, must disclose information about any conviction for an offence under the Criminal Code (Canada), the Controlled Drugs and Substances Act (Canada), or the Food and Drugs Act (Canada) in order to be considered for eligibility for registration with the College of Pharmacists of Manitoba. The review process conducted by the College of Pharmacy is independent of the review process conducted by the College of Pharmacists of Manitoba.

2. Academic Self-Declaration

All students applying to the College of Pharmacy will be required to complete a Self-Declaration of Records Form which declares current or previous: academic suspensions, disciplinary action, professional misconduct, record of criminal conviction, record on the Child Abuse Registry and record on the Adult Abuse Registry. The disclosure contained therein must be satisfactory to the College of Pharmacy.

3. Transfer of Credit Earned Elsewhere

The College of Pharmacy will transfer in external grades in a manner that is consistent with the University of Manitoba policy on the transference of external grades. The relevance of courses completed to the student's educational objective at the University of Manitoba and the quality of academic achievement as evidenced by the student's grades will be determining factors in assessing acceptability of credits earned elsewhere. No transfer of credit will be given for courses taken ten years or more prior to the application date. No transfer of credit will be permitted for courses where a "D" grade (or its percentage equivalent) has been awarded.

4. Residence Requirements

Students are required to complete all years of the Pharm.D. degree program with the College of Pharmacy, Faculty of Health Sciences, University of Manitoba. Under exceptional circumstances, residence requirements may be altered with permission from the Dean of Pharmacy.

5. Immunization

Maintaining an up-to-date health record is an important responsibility of being a student, and serves to protect the health of vulnerable patients with whom students will be involved, as well as the health of students and their families. In general, immunizations and health screening tests are voluntary procedures; however, required immunizations and testing are also a condition of enrolment within The College of Pharmacy. All students enrolled in the College of Pharmacy must be immunized against the following diseases: diphtheria/tetanus/pertussis, polio, rubella, measles, mumps, chickenpox, Tuberculosis, hepatitis A and B and influenza. Students admitted to first year Pharmacy will be provided with an Immunization package at the time of acceptance into the program. Students have the option to provide their immune status and complete their immunizations with their own healthcare provider or participate in the Faculty of Health Sciences Immunization Program on campus. Students will be required to complete their required immunizations by the end of their first year. Students will not be able to attend Introductory Pharmacy Practice Experiences or participate in any external outreach activities until all immunization requirements are up-to-date. Students are responsible for updating their immunizations as needed. Completion of the immunization schedule is required for course progression in Pharmacy. [This regulation should be cross referenced to the following relevant Governing Documents, legislation and/or forms: University of Manitoba policy, *Health and Safety*; University of Manitoba procedure, *Immunization Standard*].

6. CPR / First Aid Requirements

All students in the Pharmacy program are required to have valid Standard First Aid and CPR - Health Care Provider training. The Standard First Aid course is valid for 3 years and the CPR (HCP) course is valid for one year. It is the academic and financial responsibility of the student to ensure that current certification in both CPR (HCP) and

Standard First Aid is maintained throughout the program and a copy of the current certificate is submitted to the Dean's Office.

7. Registration with the College of Pharmacists of Manitoba

Students who are accepted for admission to the College of Pharmacy shall file an application for registration as a student with the College of Pharmacists of Manitoba, prior to the start of classes in September of the year they are admitted. Information will be included in the admission package sent to each student, and can also be obtained from The College of Pharmacists of Manitoba. Failure to complete this requirement will result in students being unable to participate in the Introductory / Advanced Pharmacy Practice Experiences. Full information on the requirements for licensure in the Province of Manitoba is available from the Registrar of The College of Pharmacists of Manitoba.

If students have a change in their academic status (e.g. on leave, exit the program) the College of Pharmacists will be notified by the College of Pharmacy, Faculty of Health Sciences, University of Manitoba.

8. Attendance at Class

Regular attendance is required and expected of all students in all courses. Students who are absent from class for a period of three days or more due to illness must present a certificate from a physician or other suitable documentation determined by the College of Pharmacy to the Dean's Office upon their return. An instructor may initiate procedures to debar a student from attending classes and from final examinations where unexcused absences exceed three continuous sessions. Students must obtain prior approval from the Associate Dean (Academic) for an absence exceeding two days for reasons other than illness.

9. Introductory / Advanced Pharmacy Practice Experience (IPPE / APPE)

Approved Introductory / Advanced Pharmacy Practice Experiences are limited and the University cannot guarantee that it will be able to find sufficient suitable placement sites in convenient locations for all students, in a timely manner. Students are expected to participate in rural practice experiences. Students are responsible for all costs associated with Pharmacy Practice Experiences, including travel and living expenses where placements are outside Winnipeg.

Under The Workers Compensation Act (Manitoba), students of the University of Manitoba who are engaged in a field practicum as a required part of their program are generally covered for injuries sustained in the course of and arising out of the practice experience. However, where the practicum takes place outside of Manitoba, and the student is not a Manitoba resident, workers compensation coverage may not be extended, based on the provisions of The Workers Compensation Act. However, other insurance coverage may be available to registered students. Students are

encouraged to contact the Coordinator of the Pharmacy Practice Experience Program at the earliest opportunity to determine if any such alternative arrangements are possible.

10. Liability

The University's insurer, The Canadian Universities Reciprocal Insurance Exchange (CURIE), includes malpractice coverage for pharmacy students, in respect of activities related to their Pharmacy studies, whether conducted on or off campus. The limiting factor is that the students must be doing the activity in furtherance of their education or training while a registered student of the University of Manitoba.

11. Mask Fit Testing

Introductory and Advanced Pharmacy Practice Experiences are subject to certain requirements intended to protect the health and well-being of learners, staff and patients. One such requirement is that learners provide documentation of current (i.e., within 2 years) N95 mask fit testing. Official proof of the mask-fit test must be submitted to the College of Pharmacy Dean's office by April 30th of the second year of the Pharmacy program.

Some learners may be unable to provide the Documentation due to religious reasons, as the N95 mask fit testing requires the absence of facial hair. In such situations, the College will work with the learner and the experiential site to accommodate the learner and make alternate arrangements that comply with human rights laws and policies, bona fide program requirements, and the health and safety requirements of the College and the experiential placement site.

The affected learner must advise the College and the experiential site of the need for alternate arrangements well in advance of the learner's experiential rotation. If adequate notice is not provided, the learner may be reassigned to an area of perceived lower risk (recognizing that zero risk of exposure in the area of reassignment cannot be guaranteed).

In the unlikely event of an outbreak of some infectious entity that requires use of N95 masks more broadly in a facility (such as a viral outbreak or epidemic), learners without the appropriate N95 mask fit (or accepted alternate arrangements) will not be allowed on site. In such a case, the requirements for fulfillment of the experiential program will be reviewed as required and may include delayed completion of the experiential rotation, or change in location.

12. Academic Honesty

Many courses in the College of Pharmacy require group projects and students should be aware that these are subject to the same rules regarding academic honesty as individual projects. Due to the unique nature of group work, all members of the group should exercise special care to insure that work completed does not violate academic integrity. Should a violation occur, group members will be held jointly accountable

unless the violation can be attributed to a specified individual, or group of individuals. In the College of Pharmacy, all suspected cases of academic dishonesty will be passed to the Dean's Office for evaluation.

13. Professional Unsuitability By-Law

The Senate has approved a by-law granting authority to the College of Pharmacy to require a student to withdraw for reasons of professional unsuitability.

14. Deferred Final Examinations

Students may request a deferred final examination from the Dean of the College of Pharmacy for reasons of illness or other disability, for bereavement or for compassionate reasons. The request should typically be communicated before the final exam is written, but must normally be filed within forty-eight (48) hours of the scheduled date of the missed examination or, in a case where more than one examination was missed, within forty-eight (48) hours of the scheduled date of the last examination missed. The application must be accompanied by a medical certificate or other appropriate documentation certifying the reason for the deferral, the inability of the student to write the examination at the regular scheduled time and, where possible, indicating the period of incapacity. Based on the evidence provided, the Dean shall decide whether the application is approved. Students who, for medical reasons receive deferred examination privileges for all final examinations may not re-register until they have established, through proper medical consultation, their fitness to resume studies.

Students may also request a deferred examination(s) on the grounds that they are unable to write said examination(s) due to:

- (a) participation in an inter-university, provincial, inter-provincial, national or international scholastic or athletic event; or
- (b) religious observance.

Students requesting a deferred examination due to a known situation as listed above must file an application normally twenty (20) working days prior to the day of the scheduled examination.

Any student requesting deferred examination(s) will be required to sign an undertaking that the student has not discussed, reviewed, had access to, or otherwise become aware of the contents of the deferred examination except as expressly authorized by the instructor or professor for the course in which the deferred examination is being undertaken.

15. Incomplete Courses

A student who is unable to complete the term work prescribed in a course may apply to the course instructor 5 working days prior to the end of lectures for consideration of a grade classification of 'incomplete', and a time extension to complete the work.

Should an 'incomplete' be granted the student will still be required to write the final examination if one is scheduled for the course. Taking into account the results of the final examination, the value of the term work completed, and the extent of the incomplete term work, the course instructor shall calculate the temporary grade using a zero value for incomplete work. Incomplete final grades are entered with the grade code and the letter 'I'. In addition to the grade, the recommendation for an 'incomplete' should indicate the reason(s) for consideration being given, a description of the outstanding work to be completed, and the date by which the work must be submitted. If a final grade is not reported by the extension deadline, the letter "I" will be dropped, and the grade will remain as awarded. The student's opportunity to improve the grade will have lapsed, unless where specific circumstances warrant, the Associate Dean (Academic) extends the date by which an incomplete must be cleared.

16. Voluntary Withdrawals

Any student seeking to withdraw from a portion of, or all of their courses must provide written notification to the Dean's Office outlining the reasons for this request. Re-entry to the College of Pharmacy by students who voluntarily withdraw, will be dependent on the availability of space and external rotation facilities. Any student who has voluntarily withdrawn from a portion of, or all of their courses in Pharmacy on more than one occasion will not be permitted re-entry into the program. Withdrawals for medical or compassionate reasons will not contribute toward this maximum. Students who, for medical reasons, withdraw from the program may not re-register until they have established, through proper medical consultation and documentation, their fitness to resume studies.

Reinstatement following a voluntary withdrawal will be subject to current and satisfactory:

1. Criminal Records, Child Abuse Registry and Adult Abuse Registry Search results;
2. College of Pharmacists (CPhM) Registration;
3. Immunization, Standard First Aid and CPR (HCP) certification;
4. Reinstatement may also be subject to the student signing an undertaking to either or both of the College of Pharmacy and CPhM of certain terms and conditions.

[This regulation should be cross referenced to the following relevant Governing Documents, legislation and/or forms: University of Manitoba policy, *Voluntary Withdrawal*; University of Manitoba policy and procedure, *Authorized Withdrawal*].

17. Leave of Absence

Any student seeking a leave of absence must submit a written request to The Dean of The College of Pharmacy normally by June 1st. The request for the leave of absence must clearly outline the reasons for the request and the Dean may require further supporting documentation to support the request. The duration of a leave of absence is typically one year and will count towards the maximum number of years to complete the pharmacy program. Students who wish to be reinstated after the leave must contact the Dean's office by May 1st for the upcoming academic year and request reinstatement. At the point of reinstatement for students on leave for an academic year, students must provide a current, official Criminal Record Search, Child Abuse Registry Check and Adult Abuse Registry Check.

Reinstatement following a leave of absence will be subject to current and satisfactory:

1. Criminal Records, Child Abuse Registry and Adult Abuse Registry Search results;
2. CPhM Registration;
3. Immunization, Standard First Aid and CPR (HCP) certification;
4. Reinstatement may also be subject to the student signing an undertaking to either or both of the College of Pharmacy and CPhM of certain terms and conditions.

18. Scholastic Progress

The University of Manitoba Academic Calendar and Catalog applies to all students. In addition, the College of Pharmacy has regulations and requirements, published within the Academic Calendar in the College of Pharmacy section and yearly in the College of Pharmacy Student Handbook that apply specifically to its students.

For course progression in the College of Pharmacy students must achieve a minimum combined fall and winter term GPA of 2.00, and attain the minimum passing grade of "C" in each course, except where the course evaluation is in a "pass/fail" format, where "pass" is required, or as otherwise described in the course outline.

A student in Year 1-4 of the pharmacy program who records no more than one grade of "D" during the academic session, and who achieves a minimum combined fall and winter term GPA of 2.00, may at the discretion of the Dean of the College of Pharmacy be permitted to write a supplementary examination in that course.

Supplementary Exams will not be granted if a student records more than one grade of "D" during the academic session within any year or if a student records a grade of "F" during the academic session within any year. No more than two supplemental exams will be offered to any student throughout the Pharmacy program. Supplementary Exams are not available in most courses and are at the discretion of the Dean of the College of Pharmacy. Please refer to the current College of Pharmacy Student Handbook for specific details.

Application forms for supplementary examinations are available in the College of Pharmacy Dean's Office, and the examination is subject to a prescribed fee. Supplementary exams, if granted, will normally take place in mid-summer, following the academic session. Students may not be awarded a grade higher than "C" in a course for which a supplementary exam is written.

The grade achieved following supplementary examination will replace the grade originally recorded on the student's academic record.

A student who fails to achieve a passing grade of "C" in one course, following supplementary examination if that option is offered, and who achieves a minimum combined fall and winter term GPA of 2.00, will be considered to have failed that year, and will be required to repeat that course and may at the discretion of the Dean of the College of Pharmacy be required to repeat all, or a number of courses in the following academic year.

A student who fails to achieve a minimum passing grade of "C" in two courses, and whose combined fall and winter term GPA remains above 1.75, will be considered to have failed that year, and will be required to repeat those courses and may at the discretion of the Dean of the College of Pharmacy be required to repeat all, or a number of courses in the following academic year.

The records of all students who fail a year, and the disposition of the cases, shall be reported to the Pharmacy College Council for information, but not for debate. Students who have cause to disagree with the disposition may file an appeal against the decision according to University of Manitoba Student policies and procedures.

A student who fails more than one year in the program, or who fails the same year twice, shall be required to withdraw from the Pharmacy program.

A student who fails to achieve a passing grade in more than two courses in the academic session, or whose combined fall and winter term GPA falls below 1.75, or who fails to achieve a passing grade in a repeated year, will be required to withdraw from the Pharmacy program.

19. Appeals Concerning Scholastic Progress

Should a student wish to appeal against any decision concerning scholastic progress, the following procedures should be followed:

Appeals of Term Work

Term Work refers to anything for which marks or grades are assigned and which have been returned or made available to students prior to the close of the last day of classes. This may include such things as tests, essays, class presentations, class participation, assignments, laboratory and other reports, preceptor evaluations and any other component of a final grade completed and evaluated during the term. Any student who is dissatisfied with a grade on term work has the right to appeal that

grade. Students should recognize, however, that term work grade appeals are only upheld when there are good reasons to support the student's request for an elevated grade.

Reasons for submitting a Term Work Grade Appeal may include; miscalculation of marks, misgrading of a paper/exam, application of an evaluation or grading system which was not included in the course outline, and unfair or inequitable processes in determining the final grade.

Procedure:

- i. A student may formally appeal a grade received for term work provided that the matter has been discussed with the instructor in the first instance in an attempt to resolve the issue without the need for a formal appeal. If the grade discrepancy cannot be resolved, the student should make an appointment with the Associate Dean (Academic) who will provide information about the appeals procedure, academic regulations and related matters.
- ii. A formal appeal of the grade(s) for term work may be made on an "Application for Appealing a Grade Given for Term Work" form and is to be submitted to the Cashier's Office with the appropriate fee payment. The time limit for submission of this appeal is ten working days following communication of the grade to the student. Once paid, the form should be submitted to the academic unit offering the course. Subsequent processing of the appeal and communication of the disposition of the appeal is the responsibility of the Associate Dean (Academic) responsible for that academic unit. The result of the appeal will be forwarded in writing to the student and the instructor not later than fifteen working days after the formal appeal has been lodged.
- iii. Normally the re-evaluation of a grade shall be undertaken by the instructor(s) responsible for the particular course (section) in consultation with at least one other instructor, in the same or related subject area.
- iv. The fee charged for each term work grade appeal will be refunded for any grade which is changed (increased) as a result of the appeal.
- v. Should a student not be satisfied with the decision, he/she may wish to seek advice from The Office of Student Advocacy, University of Manitoba.

Appeals of Course Final Grades

The appeal of a final grade should be discussed with the Associate Dean (Academic) of Pharmacy, who will supply information about the appeals procedure, academic regulations and related matters.

Students who still wish to proceed with an appeal should consult the office of Student Advocacy for advice and assistance, and a letter of appeal must be sent to the Dean

of the College of Pharmacy within 21 days of receiving notification of the decision. The letter should state the nature of the decision being appealed and the alternative that is being requested.

The Dean will respond in writing to notify the appellant of the date and time the student should attend a meeting of the College Appeals Committee.

The Appeals Committee will comprise: the Dean of the College of Pharmacy (or designate) as chair; one senior support staff member as secretary; three members of the full-time faculty; and a representative of the Pharmacy profession appointed by the College of Pharmacists of Manitoba. The senior support staff member is a non-voting member. The Chair shall only vote in the event of a tie.

Appellants have the right to attend the hearing of their appeal and may have a representative to assist them at the appeal hearing. This representative may be the Student Advocate or a fellow student or other full-time member of the university community not receiving payment for appearing or working for Legal Aid. In addition, if the student wishes, one member of his or her immediate family, and also if desired a lawyer, may be present, but as observers who do not participate and have no speaking privileges. The decision of the Appeals Committee will be conveyed to the student as soon as possible after the hearing.

If the appellant is still dissatisfied they may wish to discuss the issue further with the office of Student Advocacy. Student appellants should not expect a favorable decision when their appeal is based on grounds related to external factors such as employment, sports, or hobbies, etc.

20. Dean's Honour List

Eligible students who achieve a combined fall and winter sessional GPA of 4.00 or higher will be placed on the Dean's Honour List. Eligible students must have completed a minimum of 13 credit hours in each of the fall and winter terms in years 1-3 of the program. Fourth year students' eligibility for the Dean's Honour List will be based on graded courses (i.e. vs pass / fail grading during Advanced Pharmacy Practice Experiences or the Electives program). The Dean's Honour List designation is not applied until the end of the winter term.

21. Completion of the PharmD Program

The maximum time allowable for completion of the Entry to Practice PharmD degree is seven years after admission into the College of Pharmacy. Students must successfully complete all of the course work associated with a year in the program prior to being allowed to register for courses in the next year. In exceptional cases, the Dean of the College of Pharmacy may grant exceptions to this requirement.

**C-3 Responsibility to consult**

C-3.1 If this program subject to mandatory review or approval by organizations external to the institution (*such as regulatory bodies, Apprenticeship Manitoba, etc.*), please describe any consultation processes and provide copies of reports or letter from these organizations providing support:

The following letters of support are attached (description of consultation appears in the body of the proposal document):

Stakeholder Consultation and Feedback:	Letter of support (Appendix E)
University of Manitoba (UM) <ul style="list-style-type: none"> o College of Pharmacy faculty, staff, Students, Alumni o Faculty of Science o Faculty of Arts o Faculty of Law o Max Rady Faculty of Medicine, Department of Human Anatomy and Cell Science o Max Rady Faculty of Medicine, Department Biochemistry and Medical Genetics o Max Rady Faculty of Medicine, Department of Pharmacology o Faculty of Agricultural and Food Sciences, Department of Human Nutritional Sciences o Rady Faculty of Health Sciences o I.H.Asper School of Business 	✓ students ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
Professional Associations : <ul style="list-style-type: none"> o Canadian Pharmacists Association (CPhA) o Association of Faculties of Pharmacy of Canada (AFPC) o Pharmacists Manitoba o Canadian Society of Hospital Pharmacists (CSHP) 	✓ ✓
Regulatory Bodies: <ul style="list-style-type: none"> o College of Pharmacists of Manitoba (CPhM) o College of Physicians and Surgeons of Manitoba (CPSM) o College of Registered Nurses of Manitoba (CRNM) 	✓ ✓ ✓
Accrediting Bodies : Canadian Council for Accreditation of Pharmacy Programs (CCAPP)	✓
Provincial Health Regions: <ul style="list-style-type: none"> o MB Provincial Pharmacy Directors: WRHA o Southern Health o Northern Health 	✓ ✓ ✓



Maira Ahmed and Harris Sohail
Senior and Junior Co-Stick, UMPHSA
College of Pharmacy
University of Manitoba
750 McDermot Ave

Jan Coates
Director, PharmD Development
College of Pharmacy
Apotex Centre
750 McDermot Avenue
Winnipeg, Manitoba R3E 0T5

Re: PharmD Proposal Draft and Student Support

Dear Ms. Coates,

I would like to thank you for providing the students the opportunity to review and provide feedback on the revolutionary change taking place at the College of Pharmacy with the new PharmD program.

The proposal very accurately reflects the current need in the healthcare system for more involvement of pharmacists, more specifically medication therapy experts, and effectively addresses this need. The proposal provides an eloquent and effective means of meeting the objectives set forth and agrees with the thoughts and comments of current and past pharmacy students.

On behalf of the student body, Harris and I are pleased to put forth our support in this ground breaking document which will pave the way for a brighter future in which pharmacists are using and applying their full potential.

Sincerely,

Maira Ahmed

Maira Ahmed
B.Sc Pharmacy 2016
Senior Co-Stick, UMPHSA
College of Pharmacy
University of Manitoba

Harris Sohail

Harris Sohail
B.Sc Pharmacy candidate 2017
Junior Co-Stick, UMPHSA
College of Pharmacy
University of Manitoba

Support Letter for Pharm D Program

The Faculty of Science was approached by the College of Pharmacy to evaluate the potential impact on Science courses with the introduction of the Pharm D program. We note that any potential impact would be felt in the following courses: BIOL 2410, BIOL 2420, CHEM 2360, CHEM 2370, CHEM 2210, MBIO 1010, and STAT 1000. Currently, applicants are not required to have completed these courses at the time of applying to enter the Pharmacy program. However, under the proposed Pharm D program, these courses must be completed by the time a student applies to enter Pharm D program.

For the 2014-2015 academic year, there were approximately 300 applicants and 56 of them were admitted into the Pharmacy program. Historically, the Pharmacy program usually accepts between 50-60 students each year. We expect similar number of applicants in future years. Based on these numbers, the worst-case scenario for Science is that there would be approximately 240 additional students in each of the courses BIOL 2410, BIOL 2420, CHEM 2360, CHEM 2370, CHEM 2210, MBIO 1010, and STAT 1000 because of the proposed Pharm D program. However, we do not believe that the worst-case scenario will happen. Under the current Pharmacy program, the following scenarios do occur.

1. There are subsets of applicants that have some or all of these courses. For example, students applying to both Medicine and Pharmacy will have already taken some or all of the courses listed.
2. There are some applicants applying to enter Pharmacy that have completed two or more years of schooling. These students would likely have taken some or all of the courses listed.
3. Some of the students accepted into the Pharmacy program will have already completed some of these courses, even if they are applying after finishing 1 year of university studies. For example, STAT 1000 is quite popular amongst year 1 students.

Unfortunately, we do not have data on courses taken by students that apply to Pharmacy. Currently, the courses in question have available space ranging from 33 to 440 spots, depending on the course (see Table 1, provided by the College of Pharmacy). Based on the space available in these courses as stated in Table 1, the impact of the proposed Pharm D program may be manageable. However, it should be pointed out that, future students who are thinking of applying to Pharmacy, but are not enrolled in a Science Major/Honours program may not be able to register for certain classes. This is because students in Science Major/Honours programs typically register ahead of general Science students. In addition, as enrollment in Science courses and programs continues to increase, space availability in certain courses may become an issue. This is something that needs to be monitored once the Pharm D program is approved. Should the need arise, the Faculty of Science will only be able to offer additional space or sections of existing courses with the provision of additional resources. Currently, the cost per credit hour per student is approximately \$125. Any additional budget required can be calculated in this way at the time of the increase.

2015-16	Fall and Winter			Summer 2015			TOTAL Capacity with summer	Total Remaining
	Capacity	Actual	Remaining	Capacity	Actual	Remaining		
CHEM 2210	504	459	45	110	69	41	614	86
CHEM 2360	464	443	21	194	147	47	658	68
CHEM 2370	391	364	27	194	147	47	585	74
BIOL 2410	437	437	0	220	187	33	657	33
BIOL 2420	387	354	33	220	138	82	607	115
MBIO 1010	559	520	39	110	71	39	669	78
STAT 1000**	3883	3696	187	600	467	133	4483	320
MATH 1500	2250	1932	318	390	268	122	2640	440
MATH 1230	105	42	63	0	0	0	105	63

Table 1- Number of seats available and seats taken

Potentially, a positive consequence of this proposal is the number of Science graduates may actually increase. The main reason for this is that students that apply to the Pharm D program but is not accepted will be one year away from a B.Sc. General degree and two years from a B.Sc. Major/Honours degree.

In summary, we support the College of Pharmacy's proposed Pharm D program noting that impact will probably be manageable but needs to be monitored. If we see that our classes become over-subscribed, then we will act so that students enrolled in Science Major/Honours programs are given priority over all other students, above and beyond what is currently already done.

Sincerely,



Ben Pak Ching Li,
Associate Dean of Science (Undergraduate Programs)



UNIVERSITY
OF MANITOBA

Faculty of Arts

Dean's Office
3rd Floor Fletcher Argue Building
University of Manitoba
Winnipeg, Manitoba
Canada R3T 5V5
Telephone (204) 474-9100
Fax (204) 474-7590
Email arts_inquiry@umanitoba.ca

June 13, 2016

Dr. Jan Coates
Director, PharmD Development
College of Pharmacy
Apotex Centre
750 McDermot Ave.
Winnipeg, MB
R3E 0T5

Dear Dr. Coates:

I am writing to indicate the Faculty of Arts' general support for the admission requirements for the proposed new PharmD program. The Faculty of Arts can accommodate the potential increased enrolment that may be experienced as a result of the Humanities and Social Science requirements increasing from six (6) credit hours to 12 credit hours.

This accommodation, however, would be based upon students being free to take courses from the broad offerings of the Faculty. No reserves in specific courses or timeslots can be accommodated without separate funding arrangements being established. A similar concern applies to the proposed removal of ARTS 1110 as an acceptable option for students to complete the "W" (written English) requirement for admission to the PharmD program. The removal of this option will require students to complete an alternate "W" course and will result in increased pressure on other Faculty of Arts courses that meet the "W" requirement. As part of the information directed at pre-PharmD students, we would encourage the inclusion of a statement indicating the breadth of choice students have when selecting their "W" course. It is our hope that the inclusion of a statement such as this would help to mitigate further bottlenecks already experienced in many of the first and second year "W" courses offered by the Faculty of Arts.

Please let us know if there is any other information we can provide in support of this proposal.

Sincerely,

Dr. Jeffery Taylor
Dean, Faculty of Arts



UNIVERSITY
OF MANITOBA

Faculty of Law
Robson Hall
Winnipeg, Manitoba
Canada, R3T 2N2
Fax (204) 474-7580

June 22, 2016

Lavern M. Vercaigne, BSc. (Pharm), Pharm.D.
Professor and Associate Dean (Academic)
College of Pharmacy,
Rady Faculty of Health Sciences

Dear Associate Dean Vercaigne,

Thank you for your letter in which you notify us that the College of Pharmacy is submitting a proposal to switch from a BSc (Pharm) degree to an entry-level PharmD. This letter is written in support of your submission. I have had an opportunity to review the two page outline you provided as part of your proposal describing a course called "Pharmacy Law" that teaches students about the regulatory requirements of being a pharmacist in Manitoba and Canada.

This letter confirms that the course "Pharmacy Law" does not duplicate any course currently offered at the faculty of law.

We wish you all the best with your proposal and if you should have any questions please do not hesitate to contact me.

Yours truly,

Lisa Fainstein
Associate Dean Academic, JD Program
Ph: 204-474-6133
Email: Lisa.Fainstein@umantioba.ca



UNIVERSITY
OF MANITOBA

Faculty of
Health Sciences

College of Medicine

Department of
Human Anatomy & Cell Science
130 - 745 Bannatyne Avenue
Winnipeg, Manitoba R3E 0J9
Phone: 204-789-3411
Fax: 204-789-3920

Lavern M. Vercaigne, Pharm.D.
Professor and Associate Dean, Academic
College of Pharmacy, Rady Faculty of Health Studies
University of Manitoba
146 Apotex Centre
750 McDermot Avenue
Winnipeg, Manitoba
R3E 0T5

June 10, 2016

Dear Dr. Vercaigne,

The Department of Human Anatomy and Cell Science is pleased to offer its support for the development of the Doctor of Pharmacy (Pharm.D.) program in the College of Pharmacy. Our department has offered ANAT 1030, Human Anatomy for Pharmacy Students, as a core course in the current BSc (Pharm) program for many years, and we will be happy to continue to teach this course to students in the Pharm.D. program. This course provides a comprehensive overview of human gross anatomy that is well-suited for Pharmacy students, and the content of the course will remain unchanged from what is currently offered.

We look forward to continuing our association with the College of Pharmacy, and we wish you every success with this new program.

Sincerely,

Thomas Klonisch, MD, PhD
Professor and Head
Department of Human Anatomy and Cell Science
Max Rady College of Medicine
Rady Faculty of Health Sciences
University of Manitoba



UNIVERSITY
OF MANITOBA

Rady Faculty of Health Sciences
Max Rady College of Medicine
Biochemistry and Medical Genetics

336 – 745 Bannatyne Avenue
Winnipeg, Manitoba
Canada R3E 0J9
Telephone (204) 789-3593
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bmgadmin@umanitoba.ca

January 9, 2017

Dr. Xiaochen Gu
Acting Dean, College of Pharmacy
Apotex Centre
750 McDermot Avenue
Winnipeg, Manitoba
R3E 0T5

Re: Pharmacogenetic and Pharmacology and Therapeutics Teaching Needs

Dear Dr. Gu,

The discussion revolving around Pharmacogenetics teaching needs brought to light existing expertise in the Faculty of Health Sciences (College of Medicine) regarding the provision of relevant lecture material with regards to basic genetics, omics and associated technologies and how these are implemented to reveal DNA variation relevant to precision medicine (both topics could be delivered by Faculty from Biochemistry and Medical Genetics) as well as material in drug metabolism, pharmacokinetics and drug efficacy monitoring (Donald Miller in Pharmacology and Therapeutics). We would like to formally express our willingness to partner with Pharmacy to meeting these needs and ensuring that any lectures taught are done so with the appropriate "Pharmacy" lens. That being said, pharmacogenomics is a rapidly evolving field and should you be successful in recruiting a Pharmacogeneticist, we could revisit our engagement at that time.

In addition, the faculty within the department of Pharmacology and Therapeutics is keen to continue with delivery of PHAC2100, in the future this will be part of the 1st year of your PharmD program.

Yours truly,

Louise R. Simard
Professor, Head
Biochemistry & Medical Genetics
Tel: (204) 977-5689
Louise.Simard@umanitoba.ca

Paul Fernyhough
Professor, Acting Head
Pharmacology & Therapeutics
Tel: (204) 235-3692
pfernough@sbrc.ca

cc. Joan Coates, Director, Pharm. D. Development



UNIVERSITY
OF MANITOBA

Faculty of Agricultural
and Food Sciences
Human Nutritional Sciences

208A Human Ecology
Winnipeg, Manitoba
Canada R3T 2N2
Tel 204-474-6837
Fax 204-474-7593
James.House@umanitoba.ca

June 15, 2016

Dr. Lavern Vercaigne
Associate Dean – Academic
College of Pharmacy, Rady Faculty of Health Sciences

Dear Dr. Vercaigne:

On behalf of the Department of Human Nutritional Sciences, Faculty of Agricultural and Food Sciences, we are fully supportive the College of Pharmacy's proposal to establish a PharmD. Specifically, we will continue to support the Pharmacy program through the provision of HNSC 2170 – Nutritional for Health Professionals, a 2 CH on-line course designed to provide foundational nutrition knowledge for health profession programs. This course will provide students within the PharmD program the opportunity to integrate principles of nutrition within the context of the pharmacy profession, as well as serving as a platform to engage with students from other health professions. Should you have further questions, please do not hesitate to contact me at james.house@umanitoba.ca

Sincerely,

James D. House,
Professor and Head,
Department of Human Nutritional Sciences
208A Human Ecology,
University of Manitoba,
Winnipeg, MB,
R3T 2N2.



UNIVERSITY
OF MANITOBA

Rady Faculty of
Health Sciences

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Office of the Dean
230 Basic Medical Sciences
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745 Bannatyne Avenue
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Canada R3E 0J9
Phone: 204-789-3485
Fax: 204-789-3661

June 17, 2016

Dr. Neal Davies
Dean, College of Pharmacy

Through my own experience as a Physician, an Academic, and a Leader within the Healthcare environment, it has become increasingly obvious the substantive changes that have occurred within the profession of pharmacy. The complex world of biotechnology-derived drugs and the explosive growth in the development and use of pharmaceuticals in recent years, particularly drugs with narrow safety and therapeutic profiles, has raised the public health protection responsibility role for pharmacists to a level that was never contemplated when the current academic program for pharmacy was originally conceived.

Added skills in the documentation of care (especially in electronic health records); prescribing skills and the monitoring of drug therapy outcomes; greater proficiency in drug therapy management of chronic diseases; new skills in the technique of vaccine immunization; and more. It is no surprise that finally, there must be an impactful change in the education of pharmacists to keep up with this rapidly changing environment. The significance of the role of the pharmacist on the healthcare team, therefore, is unequivocal. Together with my colleagues, we have long depended on the pharmacist as the Medication Therapy Experts, to support the care of our patients, and improve outcomes.

The College of Pharmacy accreditation requirements for a PharmD, substantially increase Experiential Education time for pharmacy students and interns, which closely resembles that of their Nursing, Medicine and other Health Sciences colleagues, and provides a sound basis for enhanced inter-professional collaboration, and quality of care.

By designating 8 of 32 required credit hours for advanced practice experiential education into Primary Care, it is evident the College of Pharmacy recognizes the opportunities to support the healthcare of Manitobans, and improve outcomes. The College acknowledges this is the future for responsible delivery of healthcare. Students will add recognized value to patient care by monitoring and assessing risk for chronic and complex disease, and provide education to both patients and healthcare team members. It will be opportune for the member Colleges of the Faculty of Health sciences to as a team, attend underserved areas of Manitoba as a team, provide this important and meaningful contribution to patient care, and contribute to the resolution of issues such as accessibility.

The increased level of education required, will not be without financial commitment. The College of Pharmacy will require an increased operational budget, and potentially incur once-time costs to deliver and sustain the high quality program that has, in the past, produced highly successful students and earned recognition across Canada as a leading pharmacy educational institution. This investment of funds will be critical to provide the

increased instruction required through classroom and laboratory (including simulation) mode of deliver, and as well to create a sustainable expanded experiential program.

All Schools of Pharmacy across Canada (except Manitoba) have had programs approved to offer the PharmD credential, with the most recent approvals planned for implementation in 2017. On behalf of the Rady Faculty of Health Sciences I encourage the approval of the proposal from the University of Manitoba, College of Pharmacy to implement a contemporary program of study that will meet the knowledge and skills of the continuously evolving profession, and offer a degree reflective of the capacity of education this will require, an entry to practice doctorate degree, with the credential, PharmD.

Yours sincerely,

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

Brian Postl, MD, FRCPC
Dean, Faculty of Health Sciences & Vice-Provost (Health Sciences)

Cc: Jan Coates



UNIVERSITY
OF MANITOBA

Asper School of Business

Associate Dean
316 Drake
181 Freedman Crescent
Winnipeg, Manitoba
Canada R3T 5V4
(204) 474-8437
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December 16, 2016

Dr. Lavern M. Vercaigne
Associate Dean (Academic)
College of Pharmacy, Rady Faculty of Health Sciences
University of Manitoba.

Dr. Dear Vercaigne,

Re: College of Pharmacy, Doctor of Pharmacy (Pharm.D.) Proposal

This is pertaining to your request for a review of the proposed Pharmacy Management course within the Doctor of Pharmacy proposal to assess the extent of duplication, if any, with Asper School of Business courses.

I have consulted with the five department heads in the Asper School, our Undergraduate Program Manager, and the Executive Director of MBA Program. All of them concur in saying that although there is some overlap with current business courses offered by the Asper School, it is not significant enough to be considered a duplication, given that the context focus of the course is on pharmacy.

On behalf of the Asper School, I have no objection in the College of Pharmacy offering a Pharmacy Management course. Should the course later evolve into a context-independent business course, we will appreciate being consulted at that point.

Thanks.

Sincerely,

Subbu Sivaramakrishnan
Associate Dean (Undergraduate and MBA Programs)





June 14, 2016

Office of the Dean
College of Pharmacy
Faculty of Health Sciences
750 McDermot Avenue
Winnipeg, Manitoba
Canada R3E 0T5

Dear Dr. Davies,

Re: College of Pharmacy PharmD Program Proposal Letter of Support

On behalf of Pharmacists Manitoba Board of Directors, it is my pleasure to write this letter of support for the Professional Doctoral Degree in Pharmacy (PharmD) Program Application by the College of Pharmacy, Faculty of Health Sciences, University of Manitoba. The Vision of Pharmacists Manitoba is to unify and advance the pharmacy profession. To achieve our Vision, it is of great importance the post-secondary, formal professional training program evolves to ensure our pharmacists graduate with the most advanced skill levels.

Following the legislation of the *Pharmaceutical Act* in January 2014, the profession of pharmacy collaborated to provide advanced education for licensed, practicing pharmacists enabling new scope of practice application at the front lines of health care. During the time that the Act and Regulations were being developed and considered, post-secondary Pharmacy professional training programs across Canada evolved the education curriculum and program of study from Baccalaureate prepared entry to practice to PharmD prepared entry to practice. The educational transition ensures graduating pharmacist's education and skill matched the level of authority and responsibility expected in the practice of pharmacy. It is now critical the University of Manitoba provide the same quality and scope of professional education as has been and will be implemented across the country.

It is imperative the credential for pharmacists in training at the University of Manitoba change to a PharmD to ensure our Manitoba graduates receive the most up to date and comprehensive professional pharmacy education. The PharmD program proposal represents a direct and effective approach to ensure our graduates have the required skills to practice in our province and in any province across the country.

On behalf of Pharmacists Manitoba's Board of Directors, I wholeheartedly support this application.

Sincerely yours,

Sharon Smith
President, Pharmacists Manitoba

C: Board of Directors, Pharmacists Manitoba
Jan Coates, Director – PharmD Development



Canadian Society of Hospital Pharmacists
Manitoba Branch



Canadian Society of Hospital Pharmacists
Société canadienne des pharmaciens d'hôpitaux

June 10, 2016

Jan Coates
Director, Pharm D Development
University of Manitoba
Faculty of Health Sciences
College of Pharmacy

Dear Jan

Thank you for requesting feedback from the Canadian Society of Hospital Pharmacists-Manitoba Branch (CSHP-Manitoba) on the first round draft of the University of Manitoba entry level Pharm D proposal. The proposal was discussed at length by our Council at our meeting on May 31, 2016 and generated good discussion around the table.

CSHP-MB is committed, in principle, as a group in supporting the implementation of an entry level Pharm D program at the University of Manitoba. We feel this is an important step forward for the University of Manitoba as we take our place alongside other schools of pharmacy across Canada in advancing our profession.

However, as a voluntary organization, CSHP-MB is unable to commit to the resources required for preceptor allocation in our hospital practice settings pertaining to the entry level Pharm D program. We look forward to your continued discussions with the Regional Pharmacy Programs to determine how best to implement this new program within our current practice settings.

On behalf of our entire council, we wish you much success as the approval process moves forward.

Warmest regards

Grazia Prochazka BSc Pharm, ACPR
President, CSHP-MB



COLLEGE OF PHARMACISTS OF MANITOBA

200 TACHÉ AVENUE, WINNIPEG, MANITOBA R2H 1A7

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EMAIL: INFO@CPHM.CA • WWW.CPHM.CA

June 10, 2016

Dr. Neal Davies
Dean and Professor of Pharmacy
College of Pharmacy, Faculty of Health Sciences
University of Manitoba
Apotex Centre
750 McDermot Avenue
Winnipeg, Manitoba R3E 0T5

Dear Dr. Davies:

On behalf of the College of Pharmacists of Manitoba (“CPhM”), thank you for the opportunity to provide the College of Pharmacy with this official letter of support for the development of an entry-level PharmD program at the University of Manitoba.

For many years, the CPhM has been interested in and supportive of the development of an entry-to-practice PharmD program for Manitoba graduates. After several years of contemplation and consideration, on June 24, 2013, the Council of the CPhM made its first official motion to “support the movement towards an entry-level PharmD” degree. Subsequent to that, in October 2014, Council participated in a Strategic Planning Session which would set the priority initiatives for the next two year period. A key outcome of this session was that the College of Pharmacists would support the College of Pharmacy in the PharmD program development. Since that time, the College of Pharmacists has advocated with government, with the members of the College of Pharmacists, and with other stakeholders for support of the PharmD program.

Since day one of the project, the CPhM has been privileged to be invited as a participant in many aspects of the program development including participation on the advisory committee, the sub-committee for experiential education, and others. Participants from the CPhM have included the Registrar, the Deputy Registrar, Council members, and former Council members. The University has engaged a thorough consultation audience, and they are to be commended for their forethought in that regard.

All provinces across the country have been proactive in their approach to implementation of a PharmD program. It is our understanding that Manitoba may be the last province to secure approval for a PharmD program. From the perspective of a regulatory body, it will be critical for Manitoba to implement an entry-level PharmD in the very near future in order to maintain its high level standing among provincial pharmacy programs and fulfill its obligations with respect to the Agreement on Internal Trade.

Dr. Neal Davies

June 10, 2016


re: Support for proposal for entry-level PharmD program

Page Two of Two

Over the years, what started as an idea for an entry-level PharmD program has developed into a robust, well-planned program proposal that will provide pharmacists with the knowledge, skills and confidence to improve patient care and safety. The proposed PharmD program at the College of Pharmacy will raise the standard of pharmacy practice in this province, permit pharmacists to practice to the full extent of their scope of practice and ensure better health outcomes for Manitobans.

On behalf of the CPhM, thank you for consideration of this letter of support for the College of Pharmacy's proposal for an entry-level PharmD program at the University of Manitoba.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Susan Lessard-Friesen".

Susan Lessard-Friesen, B.Sc.(Pharm), ACPR
Registrar

cc: Ms. Janice Coates, Director, PharmD Development, College of Pharmacy



1000 - 1661 PORTAGE AVENUE, WINNIPEG, MANITOBA R3J 3T7
TEL.: (204) 774-4344 FAX: (204) 774-0750
WEBSITE: www.cpsm.mb.ca

June 8, 2016

PERSONAL AND CONFIDENTIAL

Dr. Neal Davies
Faculty of Pharmacy
University of Manitoba
750 McDermot Avenue
Winnipeg MB R3E 0T5

Dear Dr. Davies

Thank you for including the College of Physicians and Surgeons of Manitoba in the discussions regarding the new innovative program leading to a Professional Doctoral Degree in Pharmacy (PharmD).

I am writing to advise the College of Physicians and Surgeons of Manitoba is in support of this program going forward. We are pleased that the University of Manitoba is following in the national direction.

Sincerely

**COLLEGE OF PHYSICIANS &
SURGEONS OF MANITOBA**

Per:

Anna Ziomek, MD
Registrar/CEO

/ks

Cc Ms Jan Coates
Director of PharmD Development



June 1, 2016

Dr. Neal Davies
Dean, College of Pharmacy
Apotex Centre
750 McDermot Avenue
Winnipeg MB R3E 0T5

VIA EMAIL

Neal.Davies@umanitoba.ca

Dear Dr. Davies,

I am writing to provide a letter of support from the College of Registered Nurses of Manitoba with regards to the new Doctor of Pharmacy entry to practice program (PharmD) proposed by the University of Manitoba's College of Pharmacy.

I had the opportunity to participate in a discussion led by Jan Coates, Director, PharmD Development, College of Pharmacy, which outlined the purposes and processes for the PharmD entry to practice doctoral degree. This was an extremely informative session and a testament of how our professions are collaboratively discussing how we together can meet the healthcare needs for Manitobans.

The College of Registered Nurses of Manitoba supports the new PharmD doctoral degree and considers this to be a significant asset to the continued and collaborative interprofessional participation on patient care teams to ensure effective healthcare for Manitobans.

Sincerely,

Katherine Stansfield RN MN
Executive Director

Cc: Jan Coates, Director, Pharm D Development, College of Pharmacy, University of Manitoba
Jan.Coates@umanitoba.ca

**The Canadian Council for Accreditation of Pharmacy Programs
Le Conseil canadien de l'agrément des programmes de pharmacie**

Leslie Dan Faculty of Pharmacy, University of Toronto, 1207 – 144 College St., Toronto, ON, Canada M5S 3M2
Phone (416) 946-5055 • Fax (416) 978-8511 • Website: www.ccapp-accredit.ca

June 15, 2016

Dr. Neal Davies
Dean, College of Pharmacy
Apotex Centre
University of Manitoba
Winnipeg, Manitoba
R3E 0T5

Dr. Dean Davies:

The Canadian Council for Accreditation of Pharmacy Programs (CCAPP) was established to assess the quality of pharmacy professional degree programs in Canadian universities and to promote continued improvement in such programs.

In keeping with its responsibilities, CCAPP acknowledges the comments within the *Moving Forward: Pharmacy Human Resources for the Future (2008)* concluding that “the emergence of the PharmD degree as the first professional degree is one example of universities responding to recognized needs at the entry-to-practice level (in this case, increased experiential learning in a clinical setting). Universities should continue modifying their curricula over time to ensure that students develop the skills and knowledge they will need to practice at the level required by the health system. Such curricular change must reflect ongoing evolution in the delivery of health care and in entry-level practice requirements.”

Through this acknowledgment, CCAPP after agreement of the Association of Faculties of Pharmacy in Canada (AFPC) has been encouraged to determine a timeline for the PharmD curriculum to be in place in all pharmacy schools across Canada, by 2020, given the baccalaureate professional program at Canadian pharmacy schools can no longer effectively accommodate the proposed added depth and breadth to curricular content knowledge in the pharmaceutical sciences nor provide graduates with the enhanced clinical skills and education that the profession and the health care system will expect from pharmacists going forward.

Accreditation reviews at the University of Manitoba's Faculty (now College) of Pharmacy in 2006, and more recently 2012, highlighted a number of strengths of the pharmacy program, specifically noting the improvements in curriculum, skills labs, the curricular mapping process engaging faculty and ensuring that AFPC outcomes are met. Certainly the identified enthusiasm of students, engaged faculty and preceptors, and recognized support from the Interprofessional collaborative align well with the future requirements for the success of a new entry to practice PharmD program, and the phasing out of the Baccalaureate professional program.

Of concern, however, is the fragility of the operating budget that were identified in the 2006 accreditation review, and again in 2012. In particular, there is a need to continue to increase the faculty complement, as specifically stated in the 2012 report. There is little capacity to

cover leaves, plan for a new curriculum (i.e. PharmD), and meet the strategic initiatives related to enhancing the research and graduate student initiatives of Pharmacy at the University of Manitoba. Additional resources will, with no doubt, be needed to support the current and future needs of the Experiential program. An investment in the Office of Experiential Education is pivotal to facilitate the growth and sustainability of this significantly enhanced component of the PharmD program.

In addition, the call for changes in the education of pharmacy students to include: more interprofessional experiences; greater attention to the AFPC general attributes and outcomes; more “leadership” and management training; enhanced readiness to handle the clinical use of complex biotechnology-derived drugs; added skills in the documentation of care (especially in electronic health records); prescribing skills and the monitoring of drug therapy outcomes; greater proficiency in drug therapy management of chronic diseases; new skills in the technique of vaccine immunization; and several other curricular enhancements, will require additional Pharmacy faculty with skills and expertise in specific new, contemporary subject areas not previously offered.

Having identified these strengths of the University of Manitoba, College of Pharmacy’s program current program, and its firm commitment to innovation and continuous quality improvement, it is without hesitation that as the Executive Director of the Canadian Council for Accreditation of Pharmacy Programs, I strongly support the University of Manitoba, College of Pharmacy’s request for approval for the new entry to practice PharmD program to replace the baccalaureate program as described in the AFPC resolution statement, [http://www.afpc.info/sites/default/files/AFPC ADPC PharmD Position Statement Resolution Sept 2010.pdf](http://www.afpc.info/sites/default/files/AFPC_ADPC_PharmD_Position_Statement_Resolution_Sept_2010.pdf) and that the required resources to sustain the program at standards required by CCAPP for continued accreditation be part of the approval process.

Sincerely,



K. Wayne Hindmarsh, Ph.D., FCSFS, FCAHS, FFIP
Executive Director, CCAPP
Dean Emeritus, University of Toronto

cc: J. Coates, Director, Pharm.D. Development



Winnipeg Regional
Health Authority
Caring for Health

Office régional de la
santé de Winnipeg
À l'écoute de notre santé

WRHA Pharmacy Program

Ron Eros, Regional Pharmacy Director
Deer Lodge Centre
N246, 2nd Floor, North Pavilion
2109 Portage Avenue
Winnipeg, Manitoba Canada
R3J 0L3

May 24, 2016

Ms. Janice Coates
Director, PharmD Development
College of Pharmacy
University of Manitoba
Apotex Centre
750 McDermot Avenue
Winnipeg, Manitoba R3E 0T5

Dear Ms. Coates,

Thank you for providing an update to the development of the Pharm. D. Program which is approaching the final stages prior to moving through your approval processes within the University of Manitoba. We continue to welcome the College of Pharmacy's inclusive involvement of pharmacists from across the province during the development phase. I have represented the WRHA Pharmacy Program on the PharmD Advisory Committee and support the change to the PharmD Program and its required curriculum as Manitoba will be one of the last provinces in Canada to do so.

Though the changes do put added pressures to provide the required clinical placements, I believe the College's strategy to have the students as contributing practitioners to our healthcare system and to have additional supports in place to manage the placement process will lessen the impact on our minimal educational resources within the WRHA Pharmacy Program. I appreciate the continued dialogue which will need to take place prior to implementation of the curriculum.

Best regards,

Ron Eros, WRHA Regional Pharmacy Director



SOUTHERN HEALTH SANTÉ SUD
Regional Pharmacy Program
100 St. James Street
Winnipeg, MB R2G 1A9
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www.southernhealth.ca

June 13, 2016

Ms. Janice Coates
Director, PharmD Development
College of Pharmacy
University of Manitoba
Apotex Centre

Dear Ms. Coates,

I would like to provide this letter of support for the implementation of the Entry to Practice PharmD program at the University of Manitoba College Of Pharmacy. The implementation of the PharmD as the entry to practice degree will have a positive impact on our current workforce, and will enhance the role pharmacists can play within our healthcare system, ultimately benefitting the health outcomes of Manitobans. I appreciate the effort that the College of Pharmacy, and you personally, has made to keep the Pharmacy Directors of all the Regions apprised of the project proposal and the impacts that the PharmD implementation will ultimately have on our Programs.

The introduction of the PharmD program will put added pressure on our Region to provide the required clinical placements; however, I believe the College's strategy to have the students as contributing practitioners to our healthcare system and to have additional supports in place to manage the placement process will lessen the impact on our minimal education resources within the Southern Health – Santé Sud Pharmacy Program. I look forward to continued dialogue with yourself and the College as you move to the implementation of the new program.

Yours Truly,

A handwritten signature in black ink, appearing to read "Kyle MacNair".

Kyle MacNair BSc.Pharm, ACPR
Southern Health – Santé Sud Regional Pharmacy Director

January 2, 2017

Dr. Xiaochen Gu
Acting Dean, College of Pharmacy
Rady Faculty of Health Sciences
Apotex Centre
750 McDermot Avenue
Winnipeg MB R3E 0T5

VIA EMAIL:
Xiaochen.Gu@umanitoba.ca

Dear Dr. Gu

I am writing to you to provide a letter of support from the Northern Regional Health Authority with regard to the new Doctor of Pharmacy (PharmD) program proposed by the University of Manitoba's College of Pharmacy.

I have had the opportunity to participate in a discussion led by Jan Coates, Director PharmD Development, which outlined the purpose and process for the PharmD 'entry to practice' doctoral degree. The discussion was most informative, and a testament of how health professions are collaboratively discussing how to learn and work together, actively participating on patient care teams to provide effective healthcare for Manitobans.

Our discussion highlighted the value the opportunity of hosting students and interns will have for facilities within the Northern Regional Health Authority, operationalizing the vision of providing a meaningful contribution to patient care, and perhaps provide some health care services that may not currently be possible. We realize too, that added value may include the increased exposure of opportunity within our Region to attract and recruit pharmacists.

With the additional supports provided by the College of Pharmacy (Experiential Education Facilitators) to enable and support a robust experiential program such as described, we believe the program will be an asset to our Health Region with minimal impact on existing resources.

Sincerely,



Wanda Reader
VP Human Resources & CHRO
Northern Regional Health Authority

cc: Ms. Jan Coates
Director, PharmD Development, College of Pharmacy
jan.coates@umanitoba.ca
Derrick Sanderson, Director of Pharmacy NRHA

Northern Regional Health Authority Regional Offices

84 Church Street
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UNIVERSITY
OF MANITOBA

Libraries

University of Manitoba Libraries
Statement for New Programme

Faculty	Faculty of Health Sciences
Department	College of Pharmacy
Program Name	Professional Doctoral Degree in Pharmacy (Pharm.D.)

Statement

The Libraries' collection can support this new programme, as described in the documentation provided to UML.


A transition from the BScPharm to a Pharm.D. program requires no significant changes to the collection as it exists presently. A review of the proposed course statements shows that the UofM Libraries has all required and recommended texts, and over half of these titles are available online with unrestricted simultaneous user access. The Pharmacy collection overall is in very good standing. A recent (2013) Graduate Program Review found that the journal collection is at "at a very high/comprehensive graduate level," and that the monographic collection is suited to Master's-level education and scholarship.

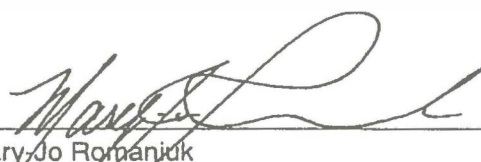
The Pharmacy Librarian will continue to look for opportunities to acquire online options for required and recommended course texts as they become available.

Continuing support may be affected by inflationary increases to subscriptions, a weak Canadian dollar, and reductions to the Libraries' acquisitions budget. Library staff costs are also incurred in supporting and providing services for programs and courses.

Sherri Vokey
Head, Neil John Maclean Health Sciences
Library

Ada Ducas
Head, Health Sciences Libraries


Kristen Kruse
Acting Coordinator, Collections Management


Mary Jo Romanjuk
University Librarian

2016-06-15
Date



BSc. (Pharm) to Doctor of Pharmacy (PharmD) Transition Plan:

The College of Pharmacy currently offers a BSc (Pharm) degree as the first professional degree for licensure in Canada. In this proposal, the BSc (Pharm) degree would be replaced by a new Doctor of Pharmacy (PharmD) degree.

A transition plan has been designed by the College of Pharmacy with the following goals in mind:

1. Implement an efficient transition plan to facilitate more timely graduation of PharmD practitioners.
2. BSc (Pharm) students, after completing their first year of the BSc (Pharm) program, once approval to offer the degree is granted, would transition into the PharmD program. This will allow them to earn the PharmD credential upon graduation, instead of completing three additional years of a BSc (Pharm) program and earning a degree that would be obsolete in North America.
3. Double Teaching is not feasible for the College of Pharmacy, therefore the following proposed transition plan is essential to reduce the requirement for double teaching within the College. Because the PharmD program has two years of prerequisites, (whereas the BSc (Pharm) degree only has one) several courses in the first year of the BSc (Pharm) program (e.g. Organic Chemistry, Biochemistry) will now be completed as pre-requisites before entering the proposed PharmD program.

This opens up room in the first year of the PharmD program, which allows many of the former second year BSc (Pharm) courses to be offered in the first year of the PharmD program, and by extension, third year courses into second year, and fourth into third.

For example, in the second year of the BSc (Pharm) program students are taught Medicinal Chemistry. In the proposed PharmD program, Medicinal Chemistry will be taught in first year of the program, which, in that academic year, would require Medicinal Chemistry to be double taught. This same issue occurs extensively for other courses as well.

If the transition plan is not implemented as outlined in *Implementation Matrix Figure and Table below*, we estimate 674 contact hours of double teaching. Courses delivered via lecture, could theoretically be accommodated in the larger theatres, however several lab courses would be impacted: simulations, Objective Structured Clinical Exams (OSCE), small group discussions, analytical Labs, etc., which have a distinct restricted capacity. With the proposed transition plan, double teaching is reduced to approximately 25 contact hours.

In transitioning from the BSc. (Pharm) to the PharmD degree, the college wants to ensure that:

1. **Students involved in a transitioning year are aware of the transition and its implications**, this would include potential tuition changes, and an additional year of study added to the program. Students will be provided details of this information before they accept an offer of admission into the BSc (Pharm) program.

2. Students involved in a transition year would receive similar / comparable educational opportunities and training as students subsequently admitted directly into the PharmD program.

The transition plan from the BSc (Pharm) to the PharmD program only applies to one cohort of students. In all subsequent years, students would be admitted into the PharmD program in accordance with admission requirements described in *Appendix B*.

As outlined in the Figure below, after completing the required one year of pre-requisites, once final approvals for the PharmD program are in place, students applying for admission to the BSc (Pharm) program would be offered the opportunity to enter into the transition year. That year, the first year of the BSc. (Pharm) program, would be slightly modified (*Table*) from a typical first year. It would have three changes including:

1. One extra credit hour added to PHRM 1430 (Applied Pathophysiology) from 3 credit hours to 4 credit hours
2. One extra credit hour added to PHRM 1300 (Fundamentals of Pharmaceutics) from 2 credit hours to 3 credit hours.
3. Removal of PHRM 1110 (Pharmacy Skills Lab); these skills are introduced in the next year (see *Table below*, PHMD 1002).

After completing this slightly modified BSc (Pharm) first year, students will be transitioned into a modified PharmD first year. This year would have 4 changes from the proposed PharmD program first year including:

1. ANAT 1030 (Anatomy) would not be required because it was already completed in the BSc (Pharm) first year.
2. PHMD 1010 (Applied Pathophysiology) would not be required because it was already completed in the BSc (PHRM) first year (PHRM 1440).
3. PHMD 1012 (Extemporaneous Pharmaceutical Compounding) would not be required, as it was already completed in the BSc (Pharm) first year, formerly called PHRM 1310 (Fundamentals of Pharmaceutics).
4. Three courses that will be required as pre-requisites for the PharmD program (STAT 1000 and 6 credit hours of Humanities/Social Sciences electives) will be added to the modified PharmD Year 1.

Of note, although there are 9 credit hours of pre-requisite Humanities/Social Sciences electives for the PharmD program, we have included 6 credit hours in the modified PharmD Year 1 academic year because the first year of the BSc.(Pharm) program already includes an experiential program that involves service learning and discussion / reflection on social determinants of health.

These modifications help to balance course loads between the two years, and will improve the students' learning experience.

With this proposed transition plan, students with one year of pre-requisites and one year of a slightly modified BSc (Pharm) program, transitioning to a modified first year of a PharmD program will graduate with 203 credit hours.

The PharmD program, moving forward, which includes two years of pre-requisites and four years within the College of Pharmacy program, will graduate students with 204 credit hours.

Thus, the transition plan provides an essentially equal education and training for students in the transition year compared to the PharmD program moving into the future.

Students in the “transition year” cohort would be able to complete the program requirements in 6 years (i.e. one pre-requisite year, one modified BSc (Pharm) year, one modified PharmD first year, and subsequently the proposed second, third and fourth PharmD years). Six years is the same length of time the PharmD program will be completed moving forward (i.e. 2 pre-requisite years followed by 4 years in the College of Pharmacy).

Figure: B.Sc.(Pharm.) transition to Pharm.D. Implementation Matrix


Program	BScPharm	PharmD Year 1	PharmD Year 2	PharmD Year 3	PharmD Year 4				
BSc (Pharm)	4th year								
BSc (Pharm)	3rd year	4th year							
BSc (Pharm)	2nd year	3rd year	4th year						
BSc (Pharm)	1st year								
									
PharmD		1st year	2nd year	3rd year	4th year				
PharmD			1st year	2nd year	3rd year	4th year			
PharmD				1st year	2nd year	3rd year	4th year		
PharmD					1st year	2nd year	3rd year	4th year	



Table: Implementation Matrix: BSc (Pharm) transition to PharmD

YEAR 1 BScPharm Modified (one year only)			YEAR 1 PharmD Modified (one year only)			YEAR 2 Pharm.D			YEAR 3 Pharm.D			YEAR 4 Pharm.D		
Course #	Course Name	Cr Hrs	Course #	Course Name	Cr Hrs	Course #	Course Name	Cr Hrs	Course #	Course Name	Cr Hrs	Course #	Course Name	Cr Hrs
ANAT 1030	Human Anatomy	3	PHMD 1000	Introduction to Professional Practice	1	HNSC 2170	Nutrition for Health Professionals	2	PHMD 3002	Applied Pharmacy Practice Lab 3	4	PHMD 4000	Pharmacy Research Project	6
CHEM 2230	Organic Chemistry	3				PHMD 2000	Drug Delivery	3	PHMD 3004	Critical Appraisal of Pharmacotherapy Literature 2	2			
CHEM 2360	Intermediate Biochemistry I	3	PHMD 1002	Applied Pharmacy Practice Lab 1	4	PHMD 2002	Applied Pharmacy Practice Lab 2	4	PHMD 3006	Advanced Clinical Therapeutics	6	PHMD 4030	Advanced Pharmacy Practice Experience-Hospital	8
CHEM 2370	Intermediate Biochemistry II	3	PHMD 1004	Introduction to Pharmacotherapy Literature	1	PHMD 2004	Critical Appraisal of Pharmacotherapy Literature 1	4	PHMD 3008	Concepts of Integrative Medicine	2			
MBIO 1010	Microbiology (or MBIO 2100)	3	PHMD 1006	Pharmacy Informatics	1	PHMD 2006	Applied Biopharmaceutics & Pharmacokinetics	3	PHMD 3010	Pharmacy Management	4	PHMD 4060	Advanced Pharmacy Practice Electives Program	8
PHGY 1030	Fundamentals of Medical Physiology	6	PHMD 1008	Medicinal Chemistry	4	PHMD 2008	Pharmacy Law	1	PHMD 3012	Applied Professional Practice	3			
PHRM 1000	Introduction to Pharmacy	1	PHMD 1014	Clinical Therapeutics 1	3	PHMD 2010	Principles of Biotechnology	2	PHMD 3014	Clinical Therapeutics 3	8			
PHRM 1310	Fundamentals of Pharmaceutics	3	PHMD 1016	Pharmaceutics	3	PHMD 2012	Pharmacogenetics	2	PHMD 3016	Toxicology of Medications and Drugs of Abuse	2			
PHRM 1440	Applied Pathophysiology	4	PHAC 2100	Pharmacology	6	PHMD 2014	Clinical Therapeutics 2	8						
PHRM 1700	Structured Experiential Program (SPEP)	1	PHMD 1040	Service Learning / IPE 1	1	PHMD 2016	Clinical Pharmacokinetics - Pharmacodynamics	3						
				Humanities/ Social Sciences Elective	6	PHMD 2020	Introductory Pharmacy Practice Experience - Community	4						
						PHMD 2030	Introductory Pharmacy Practice Experience - Hospital	4						
						PHMD 2040	Service Learning / IPE 2	1						
No electives			See above re: Humanities			No electives			No Electives			Elective program as described Section B2		
TOTAL CR. HRS: 30			TOTAL Credit. Hours: 33			TOTAL Credit Hours: 41			TOTAL Credit Hours: 31			TOTAL Credit Hours: 38		
			Implementation Matrix - BScPharm transition to PharmD including PreRequisites: 203 credit hours						PharmD 4 Year program including PreRequisites: 204 credit hours					



Remediation during transition to the Pharm.D. program

During the transition from the current B.Sc. (Pharm) to the new Pharm.D. program, there could be students that encounter academic difficulty. The College is committed to offering students remediation and support to complete the B.Sc. (Pharm) program while maintaining academic standards.

Failures in the College of Pharmacy are infrequent, as students have already demonstrated strong academic abilities to be admitted. However, there are times when students experience academic difficulties. The College has a policy in place to allow for supplemental exams for students that have received one grade of "D" in any academic year. Some courses do not currently have supplemental exam options. The supplemental exam policy may need to be adjusted during the transition period.

In the event the student fails the supplemental exam, he/she would be required to undergo remediation in the subject area. This would require the student to meet with the instructor, review areas of weakness, and develop a plan to improve. After a period of remediation, the student must achieve a 60% grade on a remediation exam to pass the course and progress in the program. Failure of the remediation exam would result in the student failing the year. The student would be required to meet with the Associate Dean (Academic) to formulate a plan to repeat the course. Included in the financials accompanying this proposal, the College has asked for audiovisual funding to video lectures in Apotex Centre lecture theatres. This would allow students access to course lectures that were previously provided. Another option includes repeating the course in the Pharm.D. curriculum. Some courses in the Pharm.D. program have similar content to the B.Sc. (Pharm) program and the student could be allowed access to those courses.

In the event that a student performs very poorly with multiple academic difficulties, our academic regulations outline the criteria by which he/she would be required to withdraw from the program. The College is committed to working with students in a fair manner, while also maintaining academic standards.

**Example of:****THE ROLE OF THE EXPERIENTIAL EDUCATOR FACILITATOR¹****(University of British Columbia, Faculty of Pharmaceutical Sciences)**

The EEF will work closely with the Lecturer and Coordinator responsible for inpatient practice at the Office of Experiential Education (OEE) to design and execute a support strategy for student pharmacist learners and practice educators involved in inpatient practicum placements in British Columbia.

Facilitation is a '**goal-orientated dynamic process** in which participants work together in an atmosphere of genuine mutual respect in order to learn through critical reflection.'¹

The role as an EEF is divided into 4 main goals:

- A) Facilitating transition
- B) Maximizing learning opportunities
- C) Preparing the learning environment
- D) Providing support to practice educators and learners

The key **roles and responsibilities** of an EEF are:

1. Providing a positive environment in which learners are encouraged to be actively engaged in learning and service activities at the site
2. Serving as a liaison between OEE, practice educators and learners
 - a. Maintains a familiarity with the goals and objectives, practicum course policies and procedures of the OEE and emerging experiential education initiatives
 - b. Abides by OEE practicum course policies and procedures
 - c. Participates in regular meetings involving other EEFs and OEE
 - d. Maintains a familiarity with University resources available to support students
3. Providing site support to practice educators and pharmacy learners including:
 - a. facilitation of group orientations for learners
 - b. facilitation of peer learning and patient care discussions
 - c. on-site practice educator training
 - d. helping learners achieve educational outcomes and develop as professionals
 - e. individualized support for learners who need it
4. Establishing multi-learner models such as peer-assisted or near-peer learning
5. Participating in other student learning activities and progress, and providing feedback to students and other stakeholders as necessary
6. Coordinating preceptor input for in-field summative evaluation of pharmacy learners
7. Identifying interprofessional learning opportunities
8. Recruiting new clinical areas and practice educators for practicum EEF Guidebook
9. Contributing to scholarship and research activities in relation to experiential education

Although each EEF may need to align his/her duties to complement the needs of an individual site, there are core components of this position that need to be fulfilled in order to achieve the main goals.

¹ Legal, M: A guidebook for Experiential Education Facilitators; AGILE, University of British Columbia Faculty of Pharmaceutical Sciences. 2015

Report of the Senate Committee on Course and Curriculum Changes RE: Proposal for a Doctor of Pharmacy (Pharm.D.), College of Pharmacy, Rady Faculty of Health Sciences

Preamble

1. The terms of reference for the Senate Committee on Curriculum and Course Changes (SCCCC) are found on the website at:
http://www.umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/497.htm.
2. At its meetings on October 20, 2016 and February 22, 2017, the SCCC considered a proposal from the College of Pharmacy, Rady Faculty of Health Sciences, to establish a Doctor of Pharmacy (Pharm.D.).
3. The proposed Pharm.D. program would replace the Bachelor of Science in Pharmacy (B.Sc.Pharm.) degree that is currently offered by the College of Pharmacy.

Observations

1. The purpose of the proposed Doctor of Pharmacy (Pharm.D.) would be "...to [provide] an undergraduate pharmacy education that is comprehensive, balanced, up-to-date, and in support of contemporary pharmacy practice." It would meet the current entry-to-practice standard for Pharmacy education and the current accreditation standards set by the Canadian Council for Accreditation of Pharmacy Programs (CCAPP). The CCAPP has indicated that, by December 31, 2020, it would no longer reaccredit B.Sc.Pharm. degree programs. It is imperative that the Pharm.D. program be implemented by this date, to ensure that the College and the University could continue to offer an accredited pharmacy program that would allow graduates to write the national certification examination administered by the Pharmacy Examining Board of Canada (PEBC).
2. The proposed Pharm.D. would be a four-year degree program that would require students to complete 144 credit hours of course work, including forty weeks (1,600 hours) of experiential learning, as outlined in section B-5 of the proposal.

The curriculum would provide balanced education in the fields of biomedical, pharmaceutical, behavioural, and social pharmacy. It would include increased content in the areas of clinical and advanced therapeutics, scientific literature evaluation, pharmacogenetics, pharmacoeconomics, and Indigenous health. Also, it would significantly expand experiential training in contemporary pharmacy practice, including clinical knowledge, practice competence, collaborative professionalism, and clinical judgement required to work as part of inter-professional healthcare teams, to make and implement evidence-based therapeutic decisions concerning patient-care.
3. Establishment of the Pharm.D. program would require the introduction of thirty-seven (37) courses (140 credit hours), including two (2) courses (3 credit hours each) that would be used for one year, as students transitioned from the B.Sc.Pharm. to the Pharm.D. program (see observation 5).
4. A maximum of fifty-five (55) students would be admitted to the program annually.

5. The College of Pharmacy has developed a transition plan, to transition students from the B.Sc.(Pharm.) to the Pharm.D. program, as outlined in Appendix G of the proposal. The transition would impact only one cohort of students, who would complete one year of study in the B.Sc.(Pharm.) before transitioning to the Pharm.D. The transition would require that these students complete an additional year of study, as the B.Sc.(Pharm.) is a three-year program and the Pharm.D. would be a four-year program. Students would be informed of the transition plan, including the potential for additional tuition fees, prior to their admission to the B.Sc.Pharm.
6. The SCCCC was concerned that the transition from the B.Sc.Pharm. to the Pharm.D. would result in one year in which there would be no graduates from either the B.Sc.Pharm. or the Pharm.D. program. The College subsequently consulted with the Winnipeg Regional Health Authority (WHRA) on this matter and communicated with other regional health authorities through their Provincial HR Leadership Council Representatives and Pharmacy Directors, to ensure that they would be prepared for this transition year.
7. The SCCCC requested that the College obtain a letter of support from the Winnipeg Regional Health Authority (WHRA) confirming that the WHRA would provide resources to support the Experiential Education component of the program, including Preceptors and placement sites. The Chief Operational Officer subsequently replied that the WHRA could not provide a letter of support at this time, due to ongoing changes in the health care system by the provincial government. It would be necessary for the WHRA to provide an indication of its support before the program could be implemented.

Recommendation

The Senate Committee on Curriculum and Course Changes recommends:

THAT Senate approve and recommend to the Board of Governors that it approve the establishment of a Doctor of Pharmacy, in the College of Pharmacy, Rady Faculty of Health Sciences.

Respectfully submitted,

Professor Greg Smith, Chair
Senate Committee on Curriculum and Course Changes

Report of the Senate Planning and Priorities Committee RE: Proposal for a Doctor of Pharmacy (Pharm.D.)

Preamble:

1. The terms of reference of the Senate Planning and Priorities Committee (SPPC) are found on the website at http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/510.html wherein the SPPC is charged with making recommendations to Senate regarding proposed academic programs.
2. The Faculty Council of the Rady Faculty of Health Sciences (January 24, 2017) has endorsed, and recommends that Senate approve, a proposal to establish a Doctor of Pharmacy (Pharm.D.) in the College of Pharmacy.
3. The SPPC considered the program proposal at its meetings in August 29, 2016 and February 26, 2017.
4. The proposed Pharm.D. program would replace the Bachelor of Science in Pharmacy (B.Sc.Pharm.) degree that is currently offered by the College of Pharmacy.

Observations:

1. The purpose of the proposed Doctor of Pharmacy (Pharm.D.) would be "...to [provide] an undergraduate pharmacy education that is comprehensive, balanced, up-to-date, and in support of contemporary pharmacy practice." The curriculum for the Pharm.D. would provide balanced education in the fields of biomedical, pharmaceutical, behavioural, and social pharmacy. In addition, it would significantly expand experiential training in contemporary pharmacy practice including clinical knowledge, practice competence, collaborative professionalism, and clinical judgement required to work as part of inter-professional healthcare teams, to make and implement evidence-based therapeutic decisions concerning patient-care.
2. The Canadian Council for Accreditation of Pharmacy Programs (CCAPP) will cease reaccrediting B.Sc.Pharm. programs by December 31, 2020. It is, therefore, imperative that a Pharm.D. program be established and implemented by this date, to ensure that the College and the University could continue to offer an accredited pharmacy-training program that would allow graduates to write the national certification examination administered by the Pharmacy Examining Board of Canada (PEBC).
3. The four-year program would require that students complete 144 credit hours of course work, including forty weeks (1,600 hours) of experiential learning.
4. A maximum of fifty-five (55) students would be admitted to the program each year, for a total enrolment of 220 students by Year 5.
5. The total cost of delivering the program would be \$7,481,656 by Year 5. Resources to support the program would be derived from the following sources¹:
 - tuition fees (\$1,949,400)
 - clinical lab fees (\$792,000)

¹ All figures are for Year 5.

- existing undergraduate baseline funding (\$4,696,280; currently used to offer the B.Sc.Pharm.)
 - contribution from the College of Pharmacy (\$52,976)
6. The proposal includes a request to the Province for \$4,540,837 of one-time funding, to be allocated over a period of five years, to fund (i) the establishment of a primary care simulation laboratory (\$1.6 million), (ii) renovations in three lecture theatres in the Apotex Centre, to upgrade telehealth and audiovisual technologies (\$210,000), and (iii) up-front hiring of staff required to develop new course content over the first three years (\$2,730,837). There would be no request for ongoing funds from the Province.
 7. A significant number of new faculty and staff positions would be required to deliver the program, including four tenure-track faculty, two instructors, two support staff, and eight Experiential Education Facilitators. Additional staff would be required for the successful implementation and delivery of the experiential education component of the proposed program, which would be significantly expanded relative to the experiential education requirements of the B.Sc.Pharm. (640 credit hours), in order to meet an accreditation standard. New faculty appointments would also be required in the speciality areas of pharmacogenetics, scientific literature evaluation in the areas of pharmacoeconomics / pharmacoepidemiology, and clinical therapeutics.
 8. Implementation of the Pharm.D. program would require the introduction of thirty-seven (37) courses (140 credit hours), including two (2) courses (3 credit hours each) that would be used for one year, in supporting the transition of B.Sc.Pharm. students to the Pharm.D. program.
 9. The College indicated that it has sufficient office and research space to accommodate the new faculty and staff appointments, as well as requisite information technology and computer resources. The Rady Faculty of Health Sciences offers sufficient student-support services to support students in the Pharm.D. program.
 10. The Library has indicated that it has sufficient resources to support the proposed program.
 11. At its meeting on March 27th, the SPPC was informed that the Senate Committee on Curriculum Course Changes (February 22, 2017) had asked that the College request a letter of support from the Winnipeg Regional Health Authority (WHRA) confirming that the WHRA would provide resources to support the Experiential Education component of the program, including Preceptors and placement sites. The SPPC was also informed that the Chief Operational Officer of the WHRA had subsequently replied that the WHRA could not provide a letter of support at this time, due to ongoing changes in the health care system by the provincial government. The SPPC observed that, if the program was approved, it would be necessary to obtain a letter of support from the WHRA prior to the program being implemented.
 12. On the basis of the SPPC's criteria for assigning priority to new programs / initiatives,² the Committee recommends that a high level of priority be assigned to the proposal for a Doctor of Pharmacy degree, as the proposed program is consistent with the strategic academic and/or research plans of the unit making the proposal and is consistent with the objectives of a major, medical-doctoral research University. Also, approval and implementation of the program will be necessary to meet the accreditation requirements of the Council for Accreditation of Pharmacy Programs, which will not reaccredit Bachelor of Science in Pharmacy programs by December 31, 2020.

² http://umanitoba.ca/admin/governance/media/SPPC_Assigning_Priorities_to_New_Programs-Initiatives.pdf

Recommendation

The Senate Planning and Priorities Committee recommends:

THAT Senate recommend that the Board of Governors approve a proposal to establish a Doctor of Pharmacy (Pharm.D.) in the College of Pharmacy, Rady Faculty of Health Sciences. The Senate Committee on Planning and Priorities recommends that the Provost and Vice-President (Academic) not implement the program until satisfied that there would be sufficient existing space and sufficient existing resources in the budget of the Faculty of Health Sciences to support the ongoing operation of the program.

Respectfully submitted,

Ada Ducas, Chair
Senate Planning and Priorities Committee

Report of the Senate Committee on Admissions concerning a proposal from the Rady Faculty of Health Sciences and the College of Pharmacy to create a Doctor of Pharmacy program (2017.03.21)

Preamble:

1. The terms of reference for this committee can be found at: http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/490.htm.
2. The Rady Faculty of Health Sciences and the College of Pharmacy are proposing the creation of a Doctor of Pharmacy (Pharm.D.) program. SCADM reviewed the sections of the proposal that contain information on admission requirements for the program.
3. All changes were approved by the Rady Faculty of Health Sciences Faculty Council on January 24th, 2017 and were endorsed by SCADM on March 21st, 2017.

Observations:

1. The University of Manitoba is the last Pharmacy School in North America without a Pharm.D. program.
2. The final B.Sc. (Pharmacy) intake would be in 2018, these students would transfer into the Pharm.D. program in 2019, and would ultimately graduate with a Pharm.D. degree. As a result of this transition year, there would not be an intake into either the B.Sc. (Pharmacy) program or the Pharm. D. program in 2019.
3. The current B.Sc. (Pharmacy) program requires that students complete one year (30 credit hours) of prerequisite courses prior to being eligible for admission. The proposed requirements for the Pharm. D. requires that students complete two years (60 credit hours) of prerequisite courses prior to being eligible for admission.
4. The calculation of the adjusted grade point average has been adjusted slightly from the current B.Sc. (Pharmacy) calculation in an effort to avoid double counting courses in the calculation.
5. The Pharmacy College Admission Test (PCAT) is being introduced into the admissions process and will be included in the calculation of the overall admission score used to rank all applicants.
6. The written critical skills essay will continue to be part of the admissions process; however, the minimum required score may fluctuate from year to year based on the applicant pool.

Recommendation:

The Senate Committee on Admissions recommends that the proposal to create a Pharm.D. program be approved effective for the September, 2020 intake.

Respectfully submitted

Susan Gottheil, Chair, Senate Committee on Admissions

Report of the Senate Committee on Instruction and Evaluation RE: Proposal for a Doctorate of Pharmacy (Pharm.D.), College of Pharmacy, Rady Faculty of Health Sciences

Preamble

1. The terms of reference for the Senate Committee on Instruction and Evaluation (SCIE) are found at:
http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/502.html.
2. At its meeting of September 22, 2016, SCIE considered a proposal from the College of Pharmacy, Rady Faculty of Health Sciences, to establish academic regulations for the proposed Doctorate of Pharmacy (Pharm.D.).

Observations

1. The College of Pharmacy is proposing to establish a Doctorate of Pharmacy (Pharm.D.), which, if it were to be implemented, would replace the Bachelor of Science in Pharmacy (B.Sc.Pharm.) that is currently offered by the College.
2. The various academic regulations proposed for the Pharm.D. program correspond to existing regulations for the B.Sc.Pharm. degree, with the exception of regulations on Immunization and Mask-Fit-Testing. The College has reviewed the regulations to ensure that they would be appropriate for the Pharm.D. program and that they are in keeping with University regulations, where corresponding policies exist at this level.
3. The committee reviewed thirteen (13) Academic Regulations for the Pharm.D. program, as listed below.
 - Criminal Record Check, Child Abuse Registry Check, and Adult Abuse Registry Check
 - Transfer of Credit Earned Elsewhere
 - Residence Requirements
 - Immunization*
 - CPR / First Aid Requirements
 - Registration with the College of Pharmacists of Manitoba
 - Mask Fit Testing
 - Deferred Final Examinations
 - Incomplete Courses
 - Voluntary Withdrawals*
 - Scholastic Progress
 - Dean's Honour List
 - Completion of the Pharm.D. Program

Recommendation

The Senate Committee on Instruction and Evaluation recommends:

THAT Senate approve and recommend to the Board of Governors that it approve the establishment of a Doctorate of Pharmacy (Pharm.D.) program in the College of Pharmacy, Rady Faculty of Health Sciences.

Respectfully submitted,

Dr. Diane Hiebert-Murphy, Chair
Senate Committee on Instruction and Evaluation

Report of the Senate Committee on Admissions concerning a proposal from the Faculty of Kinesiology and Recreation Management to modify the admission requirements for four degree programs within the faculty (2017.04.10)

Preamble:

1. The terms of reference for this committee can be found at: http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/490.htm.
2. The Faculty of Kinesiology and Recreation Management is proposing amendments to the advanced entry admission requirements for the Bachelor of Physical Education (BPE) degree program, the Bachelor of Kinesiology (BKin) degree program, the Bachelor of Kinesiology – Athletic Therapy (BKin-AT) degree program, and the Bachelor of Recreation Management and Community Development (BRMCD) degree program.
3. All changes were approved by the Faculty of Kinesiology and Recreation Management Faculty Council on March 22nd, 2017 and were endorsed by SCADM on April 10th, 2017.

Observations:

1. The current advanced entry admission requirements to all four of the degree programs in question are quite flexible. With the exception of the BKin-AT program, there are no required courses that must be taken for a student to be eligible to apply to the four programs. Under the current model, as long as students meet the minimum credit hour requirement, they are eligible to apply.
2. In January 2017 Senate approved a number of curriculum changes in the faculty. The proposed changes to the admission requirements relate to two specific curriculum changes:
 - i. *Streamlining year 1 biological science program requirements*
This change applies to students enrolled in the BKin, BKin-AT, and the BPE degree programs. The biology program requirements are being modified and this change will ensure that the biology courses being considered as part of the admission requirements are aligned with the program requirements.
 - ii. *Ensuring students entering year 2 in the faculty are sufficiently prepared for year 2 required and elective courses*
Under this proposed change, each degree program will have a list of required courses that must be taken prior to being eligible to apply (See appendix I).
3. The changes to the admission requirements will help ensure that students admitted to the programs have the knowledge and skills required to be successful in the program.

Recommendation:

The Senate Committee on Admissions recommends that:

- i. The proposal to modify the advanced entry admission requirements for the Bachelor of Physical Education degree program be approved effective for the September, 2018 intake.
- ii. The proposal to modify the advanced entry admission requirements for the Bachelor of Kinesiology degree program be approved effective for the September, 2018 intake.
- iii. The proposal to modify the advanced entry admission requirements for the Bachelor of Kinesiology – Athletic Therapy degree program be approved effective for the September, 2018 intake.
- iv. The proposal to modify the advanced entry admission requirements for the Bachelor of Recreation Management and Community Development degree program be approved effective for the September, 2018 intake.

Respectfully submitted

Susan Gottheil, Chair, Senate Committee on Admissions

Comments of the Senate Executive Committee:

The Senate Executive Committee endorses the report to Senate.

Appendix I – Revised advanced entry admission requirements

BPE:

- BIOL 1410 Anatomy of the Human Body (minimum grade “C”),
- BIOL 1412 Physiology of the Human Body (minimum grade “C”),
- KPER 1500 Foundations of Physical Education and Kinesiology (minimum grade “C”), and
- An additional 15 credit hours of elective courses

BKin:

- BIOL 1410 Anatomy of the Human Body (minimum grade “C”),
- BIOL 1412 Physiology of the Human Body (minimum grade “C”),
- KPER 1500 Foundations of Physical Education and Kinesiology (minimum grade “C”), and
- An additional 15 credit hours of elective courses

BKin-AT:

- BIOL 1410 Anatomy of the Human Body (minimum grade “C”),
- BIOL 1412 Physiology of the Human Body (minimum grade “C”),
- KPER 1500 Foundations of Physical Education and Kinesiology (minimum grade “C”), and
- An additional 15 credit hours of elective courses

BRMCD:

- KPER 1400 Concepts of Recreation and Leisure (minimum grade “C”), and
- An additional 21 credit hours of elective courses

March 28, 2017

TO: Mr. Jeff Leclerc, University Secretary

FROM: Dr. Douglas A. Brown, Dean

RE: A Proposal to the Senate Committee on Admissions from the Faculty of Kinesiology and Recreation Management Recommending Revised Admissions Criteria for the BKin, BKin-AT, BPE, and BRMCD Degrees

As outlined in the attached Summary of Proposal – Faculty of Kinesiology and Recreation Management Revised Admissions Criteria, the Faculty of Kinesiology and Recreation Management is requesting admissions requirement changes to the following degrees:

Bachelor of Kinesiology

Bachelor of Kinesiology – Athletic Therapy

Bachelor of Physical Education

Bachelor of Recreation Management and Community Development

All changes were unanimously approved at Faculty Council on March 22, 2017.

Summary of Proposal – Faculty of Kinesiology and Recreation Management

Preamble

The Faculty of Kinesiology and Recreation Management (FKRM)'s last curriculum review occurred in 2005 with implementation in the 2007-2008 academic year. Since the implementation of the revised curriculum, several institutional changes transpired, which highlight the need for the FKRM to engage in a curriculum review, alignment, and renewal process. These changes include: 1) the release of the University of Manitoba's Strategic Plan (*Taking Our Place*, 2015-2020) in 2015 with clearly articulated objectives for increasing experiential education; 2) the arrival of a new Dean of the FKRM, Dr. Douglas A. Brown and the creation of a FKRM Strategic Plan (2015-2020) in 2015; and 3) a large turnover in the professoriate with 17 of 24 professors starting their positions in the FKRM since the implementation of the 2007 curriculum. Given these changes, the Dean empowered the Associate Dean (Undergraduate Education) to form a Steering Committee to begin a curriculum review with a mandate to review, align, and renew the FKRM undergraduate curriculum with a view to producing knowledgeable and informed graduates who are prepared to contribute to creating, translating, and mobilizing knowledge related to physical activity, human movement, sport, and leisure.

The Faculty of Kinesiology and Recreation Management's Faculty Council voted to accept 62 curriculum change motions in August 2016. Senate approval for the curricular changes followed in January 2017 after endorsement from the Senate Committee on Curriculum and Course Changes, the Senate Planning and Priorities Committee, and the Senate Executive Committee. (See Appendix 1 for the revised curriculum summary for each degree.)

The revised admissions motions that follow relate to two specific areas of change:

- 1) Streamlining Year 1 Biological Science Program Requirements
- 2) Ensuring students entering Year 2 in the Faculty of Kinesiology and Recreation Management are sufficiently prepared for Year 2 required and elective courses

1) Streamlined Year 1 Biological Science Program Requirements

Included among the approved changes was a modification to the BKin, BKin-AT, and the BPE degrees to add BIOL 1410 (Anatomy of the Human Body) and BIOL 1412 (Physiology of the Human Body) as program requirements and remove BIOL 1000 (Foundations of Life) and BIOL 1010 (Biological Diversity and Interaction) or BIOL 1020 (Biology 1: Principles and Themes) and BIOL 1030 (Biology 2: Biological Diversity, Function, and Interaction) as program requirements. This change served to streamline the BKin, BKin-AT, and BPE degree program requirements, and to ensure students in the BPE, BKin, and BKin-AT degrees are similarly prepared for required courses in all 3 programs in year 2 (i.e. KIN 2320 Human Anatomy; required for all 3 degrees). This change received support from the Department of Biological Sciences and Faculty of Science.

Prior to the 2015-16 curriculum review, the biological sciences program requirements in KRM differed for the BKin, BKin-AT, and BPE degrees as follow:

Degree	Prior BIOL Program Requirements	Current BIOL Program Requirements (as of Sept 2017) – see Appendix 1
BKin	BIOL 1020 <u>and</u> BIOL 1030 (C) <i>or</i> BIOL 1000 <u>and</u> BIOL 1010 (C+)	BIOL 1410 and BIOL 1412 (C)
BKin-AT	BIOL 1020 <u>and</u> BIOL 1030 (C) <i>or</i> BIOL 1000 <u>and</u> BIOL 1010 (C+)	BIOL 1410 and BIOL 1412 (C)
BPE	BIOL 1410 and BIOL 1412 (C)	BIOL 1410 and BIOL 1412 (C)
BRMCD	--	--

2) Ensuring students entering Year 2 in the Faculty of Kinesiology and Recreation Management are sufficiently prepared for Year 2 required and elective courses

Currently, there are very minimal admissions requirements for the BKin, BKin-AT, BPE and BRMCD degree programs:

Degree	Current Admissions Requirements
BPE	24 CH completed
BKin	24 CH completed
BKin-AT	BIOL 1000 (C+) and BIOL 1010 (C+) <i>or</i> BIOL 1020 (C) and BIOL 1030 (C) plus an additional 18 CH completed
BRMCD	24 CH completed

As noted at our yearly Strategic Enrollment Management (SEM) meetings, the BKin and BKin-AT remain highly competitive Advanced Entry programs. On average, these degrees receive approximately 3 applications for every seat available. The BPE and BRMCD also almost always meet the targeted number of seats. However, for all degree programs, the minimal admissions requirements in place means that many students apply and gain acceptance into these degrees prior to taking the Year 1 program requirements approved as part of the 2015-16 curriculum review. There is consensus among faculty members that students entering Year 2 in the Faculty of Kinesiology and Recreation Management should have completed the prerequisites to Fall term Year 2 courses in Year 1.

It was thus recommended that the Faculty's undergraduate curriculum committee develop a proposal for revising the admissions requirements for the BKin, BKin-AT, BPE, and BRMCD degree programs. To ensure that students entering year 2 in the Faculty of Kinesiology and Recreation Management have the background knowledge, skills, and attributes required for successful progression, the committee created the following four proposals.

Given that the current Admission Requirements are very flexible, a cautious approach to tightening the admission requirements is sought. The new proposed admission requirements are not identical to the Year 1 requirements as the Faculty seeks to implement a slower transition to the full Year 1 requirements to ensure that our admissions numbers do not drop by becoming too restrictive too quickly. The admissions requirements proposed below are the courses that are prerequisites for Kinesiology and Recreation Management year 2 courses.

The BPE degree requires STAT 1000 and PSYC 1200 as program requirements to ensure all BPE graduates meet the B.Ed. admissions requirements, so Advanced Entry students can pick these up along the way if they do not have them prior to starting year 2. We recommend students take these courses in year 1 in the degree brochure because the 3 year degree is quite packed and there's little time to fit them after (except in summer session). All students will be advised to take the proposed courses in their August Kinesiology and Recreation Management orientation session if they have not taken them already.

Current Admissions Requirements Summary

Kinesiology/Physical Education Admission Requirements (Direct Entry: Category 2)

English 40S

Applied Mathematics 40S or Pre-Calculus Mathematics 40S

One of Biology 40S (recommended for BKin) Chemistry 40S, Physics 40S, or Computer Science 40S

Recreation Management and Community Development Admission Requirements (Direct Entry: Category 3)

English 40S

Applied Mathematics 40S or Pre-Calculus 40S

A third 40S course.

Please note that due to limited space students may require a higher average than stipulated. Any student applying for Direct Entry admission to this faculty will automatically be considered for admission to University 1, should they not be granted Direct Entry admission.

Regular Admission (from U1 or another academic program)

The general admission requirement for all degrees except Bachelor of Kinesiology – Athletic Therapy is completion of any 24 credit hours of University coursework. However, in order to complete the degree in the shortest time possible it is recommended that students take the required Year 1 courses before applying to the Faculty. Entering students who have completed all of the required Year 1 courses must complete them during their program. Equivalent academic course work completed from other recognized post secondary institutions will be considered.

Proposal

At this time, the Faculty of Kinesiology and Recreation Management's Faculty Council is proposing amendments to the existing Advanced Entry admissions policies as follows:

1. Change the BPE admissions requirements from 24 CH to:

- BIOL 1410 Anatomy of the Human Body (minimum grade "C"),
- BIOL 1412 Physiology of the Human Body (minimum grade "C"),
- KPER 1500 Foundations of Physical Education and Kinesiology (minimum grade "C"), and
- An additional 15 CH

2. Change the BKin admissions requirements from 24 CH to:

- BIOL 1410 Anatomy of the Human Body (minimum grade "C"),
- BIOL 1412 Physiology of the Human Body (minimum grade "C"),
- KPER 1500 Foundations of Physical Education and Kinesiology (minimum grade "C"), and
- An additional 15 CH

3. Change the BKin-AT admissions requirements from BIOL 1000 (C+) and BIOL 1010 (C+) or BIOL 1020 and BIOL 1030 (C) plus 18 CH to:

- BIOL 1410 Anatomy of the Human Body (minimum grade "C"),
- BIOL 1412 Physiology of the Human Body (minimum grade "C"),
- KPER 1500 Foundations of Physical Education and Kinesiology (minimum grade "C"), and
- An additional 15 CH

4. Change the BRMCD admissions requirements from 24 CH to:

- KPER 1400 Concepts of Recreation and Leisure (minimum grade "C"), and
- An additional 21 CH

The above four motions were accepted unanimously by the Faculty of Kinesiology and Recreation Management's Academic Council (consisting of UMFA members) on January 13, 2017. The four motions were then accepted unanimously at Faculty Council on March 22, 2017.

Appendix 1: Revised Curriculum Summary: Overviews by Year (Approved by Senate in January 2017)

Bachelor of Kinesiology (120 CH)

COURSE CODE	<u>YEAR 1</u>	CH	TERM
BIOL 1410	Anatomy of the Human Body (min. C)	3	1
KPER 1200	Physical Activity, Health, and Wellness	3	1
STAT1000 (M)	Basic Statistical Analysis 1	3	1
	Science elective with lab from list A	3	1
PSYC 1200	Introduction to Psychology	6	1 & 2
BIOL 1412	Physiology of Human Body (min. C)	3	2
KPER 1500	Foundations of Physical Ed. & Kin.	3	2
	Science elective with lab from list A	3	2
	Elective	3	2
YEAR 1 TOTAL CH		30	

COURSE CODE	<u>YEAR 2</u>	CH	TERM
KPER 2120	Academic Skills in Kin & Rec Mgmt	3	1
KPER 2200	Planning Principles	3	1
KPER 2320	Human Anatomy	3	1
KPER 2540	Psychology of Sport and Physical Activity	3	1
	Elective	3	1
KPER 2170 (W)	History of Physical Activity & Leisure	3	2
KPER 2330	Biomechanics	3	2
KPER 2350	Introduction to Research	3	2
KPER 2700	Motor Control and Learning	3	2
	Elective	3	2
YEAR 2 TOTAL CH		30	

COURSE CODE	<u>YEAR 3</u>	CH	TERM
KPER 3460	Sociology of Physical Activity & Leisure	3	1
KPER 3470	Exercise Physiology	3	1
	Elective - Faculty	3	1
	Elective	3	1
	Elective	3	1
KIN 3510	Physical Activity and Aging	3	2
KPER 3100	Inclusive Physical Activity and Leisure	3	2
KPER 3512	Principles of Fitness Training	3	2
	Elective - Faculty	3	2
	Elective	3	2

YEAR 3 TOTAL CH	30
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COURSE CODE	<u>YEAR 4</u>	CH	TERM
KPER 4020	Philosophy of PA and Leisure	3	1
KPER 4630	Fieldwork / Elective-Faculty	3	1
	Fieldwork / Elective-Faculty	3	1
	Fieldwork / Elective-Faculty	3	1
	Fieldwork / Elective-Faculty	3	1
PERS 4100	Current Issues	3	2
	Elective – Faculty	3	2
	Elective	3	2
	Elective	3	2
	Elective	3	2
YEAR 4 TOTAL CH		30	

Bachelor of Kinesiology – Athletic Therapy (120 credit hours)

COURSE CODE	<u>YEAR 1</u>	CH	TERM
BIOL 1410	Anatomy of the Human Body	3	1
KPER 1200	Physical Activity, Health, and Wellness	3	1
STAT1000 (M)	Basic Statistical Analysis 1	3	1
	Science elective with lab from list A	3	1
PSYC 1200	Introduction to Psychology	6	1 & 2
BIOL 1412	Physiology of Human Body	3	2
KPER 1500	Foundations of Physical Ed. & Kin.	3	2
HNSC 1210	Nutrition for Health & Changing Lifestyles	3	2
	Science elective with lab from list A	3	2
YEAR 1 TOTAL CH		30	

COURSE CODE	<u>YEAR 2</u>	CH	TERM
KIN 2200	Basic Trauma and Life Support	3	1
KIN 2750	Athletic Therapy Skills	3	1
KPER 2120	Academic Skills	3	1
KPER 2200	Planning Principles	3	1
KPER 2320	Human Anatomy	3	1
KPER 2170 (W)	History of Physical Activity & Leisure	3	2
KIN 3320	Advanced Human Anatomy	3	2
KPER 2330	Biomechanics	3	2
KPER 2350	Introduction to Research	3	2
KPER 2700	Motor Control and Learning	3	2
YEAR 2 TOTAL CH		30	

COURSE CODE	<u>YEAR 3</u>	CH	TERM
KIN 3160	Pathology and Sports Medicine	3	1
KIN 3330	Functional Assessment & Restoration A	3	1
KIN 3400	Therapeutic Modalities	3	1
KPER 3460	Sociology of PA and Leisure	3	1
KPER 3470	Exercise Physiology	3	1
KIN 3332	Functional Assessment & Restoration B	3	2
KIN 3912	Athletic Therapy Practicum	4	2
KIN 3914	Clinical Block Placement	2	2
KPER 3100	Inclusive Physical Activity and Leisure	3	2
KPER 3512	Principles of Fitness Training	3	2
YEAR 3 TOTAL CH		30	

COURSE CODE	<u>YEAR 4</u>	CH	TERM
KIN 4330	Advanced Biomechanics	3	1
KPER 2540	Psychology of Sport and Physical Activity	3	1
KPER 4020	Philosophy of PA and Leisure	3	1
	Elective	3	1
KIN 4910	AT4 Practicum	6	1&2
KIN 3510	Physical Activity and Aging	3	2
KIN 4160	Advanced Pathology and Sports Medicine	3	2
KIN 4400	Therapeutic Exercise Rehabilitation	3	2
KPER 4100	Current Issues	3	2
	YEAR 4 TOTAL CH	30	

Bachelor of Physical Education (102 credit hours)

COURSE CODE	YEAR 1	CH	TERM
BIOL 1410	Anatomy of the Human Body	3	1
KPER 1200	Physical Activity, Health and Wellness	3	1
M Req.	MATH 1XXX or STAT 1XXX	3	1
	Teaching Minor	3	1
ENGL 1XXX (W)	English (1200 or 1300)	6	1 & 2
BIOL 1412	Physiology of the Human Body	3	2
KPER 1500	Foundations of Physical Ed. & Kin.	3	2
	Elective	3	2
	Teaching Minor	3	2
YEAR 1 TOTAL CH		30	

COURSE CODE	YEAR 2	CH	TERM
KPER 2120	Academic Skills in Kin & Rec Mgmt	3	1
KPER 2200	Planning Principles	3	1
KPER 2320	Human Anatomy	3	1
KPER 2540	Psychology of Sport & Physical Activity	3	1
PHED 2710	Human Movement Principles	3	1
	Teaching Minor	3	1
KPER 2170 (W)	History of Physical Activity and Leisure	3	2
KPER 2330	Biomechanics	3	2
KPER 2700	Motor Control and Learning	3	2
PHED 2442	Health Education	3	2
PHED 2742	Group Fitness and Leadership	3	2
	Teaching Minor	3	2
YEAR 2 TOTAL CH		36	

COURSE CODE	YEAR 3	CH	TERM
KPER 3460	Sociology of Physical Activity & Leisure	3	1
KPER 3470	Exercise Physiology	3	1
KPER 3550	Growth and Motor Development	3	1
PHED 3122	Developmental Games and Activities	3	1
PHED 3362	Culturally Relevant Pedagogies	3	1
	Teaching Minor	3	1
KPER 3100	Inclusive Physical Activity and Leisure	3	2
KPER 3512	Principles of Fitness Training	3	2
PHED 3722	Coaching Theory and Practice	3	2
PHED 3732	Dance and Rhythmic Activities	3	2
	Elective	3	2
	Teaching Minor	3	2
YEAR 3 TOTAL CH		36	

Bachelor of Recreation Management & Community Development (120 CH)

COURSE CODE	<u>YEAR 1 / U1</u>	CH	TERM
KPER 1200	Physical Activity, Health, and Wellness	3	1
STAT 1000 (M)	Basic Statistical Analysis 1	3	1
	Elective	3	1
PSYC 1200	Introduction to Psychology	6	1 & 2
SOC 1200	Introduction to Sociology	6	1 & 2
KPER 1400	Concepts of Recreation and Leisure	3	2
	Elective	3	2
	Elective	3	2
YEAR 1 TOTAL CH		30	

COURSE CODE	<u>YEAR 2</u>	CH	TERM
KPER 2120	Academic Skills in Kin & Rec Mgmt	3	1
KPER 2200	Planning Principles	3	1
REC 2400	Management & Marketing of Leisure Services	3	1
	Elective	3	1
	Elective	3	1
KPER 2170 (W)	History of Physical Activity and Leisure	3	2
KPER 2350	Introduction to Research	3	2
	<i>3 of the following 4:</i>		
REC 2100	Introduction to Leisure Travel	3	2
REC 2130	Intro. to Outdoor & Land-Based Recreation	3	2
REC 2170	Introduction to Sport Management	3	2
REC 2150	Introduction to Therapeutic Recreation	3	2
YEAR 2 TOTAL CH		30	

COURSE CODE	<u>YEAR 3</u>	CH	TERM
KPER 3460	Sociology of Physical Activity & Leisure	3	1
REC 3072	Principles of Community Development	3	1
REC 3180	Social Psychology of Leisure	3	1
REC 4XXX	Advanced REC Elective from List B	3	1
	Elective	3	1
KPER 3100	Inclusive Physical Activity and Leisure	3	2
REC 3220	Program Planning and Evaluation	3	2
REC 3630	Service and Experiential Learning	3	2
REC 3850	Planning of Recreation Areas & Facilities	3	2
	Elective	3	2
YEAR 3 TOTAL CH		30	

COURSE CODE	YEAR 4	CH	TERM
KPER 4020	Philosophy of Physical Activity & Leisure	3	1
*KPER 4632	Supervised Fieldwork Experience A	6	1
REC 4XXX	Advanced REC Elective from List B	3	1
	Elective	3	1
KPER 4100	Current Issues	3	2
*KPER 4634	Supervised Fieldwork Experience B	6	2
REC 4070	Advanced Community Development	3	2
	Elective	3	2
YEAR 4 TOTAL CH		30	

*BRMCD students can take KPER 4630 (Supervised Fieldwork Experience) (12 CH) in Fall term in lieu of KPER 4631(Supervised Fieldwork Experience A) (6 CH) and KPER 4632 (Supervised Fieldwork Experience B) (6 CH).

List A: List of Approved Faculty of Science Electives.

BIOL 1020 Biology1: Principles and Themes (3)
BIOL 1030 Biology 2: Biological Diversity and Interactions (3)
CHEM 1300 University 1 Chemistry: Structure and Modelling in Chemistry (3)
CHEM 1310 University 1 Chemistry: An Introduction to Physical Chemistry (3)
CHEM 1320 University 1 Chemistry: An Introduction to Organic Chemistry (3)
COMP 1010 Introductory Computer Science (3)
COMP 1020 Introductory Computer Science 2 (3)
MATH 1200 Elements of Discrete Mathematics (3)
MATH 1300 Vector Geometry and Linear Algebra (or equivalent) (3)
MATH 1500 Introduction to Calculus (or equivalent) (3)
MATH 1700 Calculus 2 (or equivalent) (3)
MBIO 1010 Microbiology 1 (3)
PHYS 1810 General Astronomy 1: Lights, Stars and Planets (3)
PHYS 1820 General Astronomy 2: Exotic Stars, Galaxies and Cosmology (3)
PHYS 1830 Perspective on the Universe (3)
PHYS 1020 General Physics 1 (or equivalent) (3)
PHYS 1030 General Physics 2 (or equivalent) (3)

List B: List of Approved Advanced Recreation Electives.

REC 3090 Sustainable Nature-Based Tourism (3)
REC 3170 Sport and Development in Community (3)
REC 3310 Cultural Tourism (3)
REC 3770 Indigenous Perspectives on Land-Based Education (3)
REC 4060 Person Centred Leisure Education (3)

REC 4072 Advanced Marketing of Leisure Services (3)
REC 4120 Recreational Travel and Tourism (3)
REC 4250 Leisure and Aging (3)
REC 4350 Parks and Protected Areas Planning, Management: Field Studies (6)
REC 4400 The Administration of Special Events (3)
REC 4720 Wilderness Adventures (3)
REC 4770 Indigenous Recreation and Wellbeing (3)
KPER 4000 Special Topics (3)
KPER 4110 The Olympics and the Global Sporting Event (3)
KPER 4310 Physical Activity Counselling
KPER 4320 Sport and the Body (3)
KPER 4340 Sport, Film and Society (3)
PHED 4710 Outdoor Education (3)

Report of the Senate Committee on Curriculum and Course Changes, Part B - Submitted to Senate for Ordinary Debate RE: Department of Supply Chain Management

Preamble:

1. The terms of reference for the Senate Committee on Curriculum and Course Changes (SCCCC) are found on the website at:
http://www.umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/497.html.
2. This part of the report contains observations and recommendations on curriculum and course change proposals for units where the net increase is more than nine credit hours.
3. The Senate Planning and Priorities Committee also considered the proposal from the Department of Supply Chain Management, I.H. Asper School of Business, at its meeting on March 27, 2017.

Observations

1. The Department of Supply Chain Management is proposing to introduce four courses, SCM 2250 Transportation Infrastructure Planning and Management (3), SCM 2260 Transportation Strategy and Policy (3), SCM 3250 Airline Business (3), and SCM 3260 Supply Chain Sustainability (3). The overall number of credit hours offered by the faculty would increase by twelve (12) credit hours.
2. The department is also proposing a program modification to the Major in Logistics and Supply Chain Management, in the B.Comm.(Hons.) program, to add the four proposed courses to the list of courses that could be counted toward the Major.
3. All four courses were previously offered as topics courses, with strong enrolment. The Department is proposing to introduce the courses as regular course offerings in order to expand the breadth of course offerings available to students in the Major.

Recommendation

The Senate Committee on Curriculum and Course Changes recommends:

THAT Senate approve curriculum and course changes proposed by the Department of Supply Chain Management, I.H. Asper School of Business, effective September 1, 2017.

Respectfully submitted,

Professor G. Smith, Chair
Senate Committee on Curriculum and Course Changes

Comments of the Senate Executive Committee:

The Senate Executive Committee endorses the report to Senate.

Report of the Senate Planning and Priorities Committee RE: Undergraduate Course Changes Beyond Nine Credit Hours, Department of Supply Chain Management, I.H. Asper School of Business

Preamble:

1. The Senate Planning and Priorities Committee (SPPC) has the responsibility to report to Senate on curriculum changes with significant resource implications, including additions to departmental curricula of more than nine (9) credit hours.
2. At its meeting on March 27, 2017, the SPPC considered course and curriculum changes proposed by the Department of Supply Chain Management, I.H. Asper School of Business.
3. The Senate Committee on Curriculum and Course Changes also considered the curriculum and course changes proposed by the Department (March 21, 2017).

Observations:

1. The Department of Supply Chain Management is proposing to introduce four courses, SCM 2250 Transportation Infrastructure Planning and Management (3), SCM 2260 Transportation Strategy and Policy (3), SCM 3250 Airline Business (3), and SCM 3260 Supply Chain Sustainability (3). The overall number of credit hours offered by the faculty would increase by twelve (12) credit hours.
2. The department is also proposing a program modification to the Major in Logistics and Supply Chain Management, in the B.Comm.(Hons.) program, to add the four proposed courses to the list of courses that could be counted toward the Major.
3. The Asper School of Business indicated that no additional resources would be required to support the courses, which had previously been offered as topics courses. The Department had appointed four new faculty members over the previous three years, to replace faculty who had retired. Also, it was not anticipated that it would be necessary to offer a larger number of course sections now that these courses would be introduced as regular course offerings.
4. The objectives for introducing the courses are to reflect growth in the discipline and to offer a broader range of course topics to students in the Major.
5. The University Library has indicated that it can support the course introductions.

Recommendation:

The Senate Planning and Priorities Committee recommends:

THAT Senate approve the Report of the Senate Planning and Priorities Committee concerning undergraduate course changes beyond nine credit hours for the Department of Supply Chain Management, I.H. Asper School of Business, effective September 1, 2017.

Respectfully submitted,
Ada Ducas, Chair
Senate Planning and Priorities Committee

Faculty of Management (I.H. Asper School of Business)

Supply Chain Management

Introductions:

SCM 2250 Transportation Infrastructure Planning and Management Cr.Hrs. 3 +3.0

This course introduces students to the basic principles and practices of transportation infrastructure planning and management, providing students with adequate knowledge on the nature of transportation infrastructure, its development, management structures, and policies. Through different teaching methods, it aims to enable students to understand the major issues and challenges that transport planners, managers and policy makers are facing, and enable them to develop the ability of applying theoretical knowledge into practice. May not be held with SCM 2220 when titled "Transportation Infrastructure Planning and Management".

SCM 2260 Transportation Strategy and Policy Cr.Hrs. 3 +3.0

This course provides students relevant fundamental knowledge on the major concepts of competitive strategies, governance and policies, as well as their application in the transportation sector. Through different teaching methods, this course aims to enable students to develop the ability to put strategic theories and policy concepts into practice within the transportation sector, both in Canada and the world. May not be held with SCM 2220 when titled "Transportation Strategy and Policy".

SCM 3250 Airline Business Cr.Hrs. 3 +3.0

This course provides a practical overview of the modern airline business from a global perspective. Topics such as airline pricing, airline alliance and airline-airport interaction will be included. May not be held with SCM 2220 when titled "Topics in Airline Business". Prerequisite: SCM 2230 (D) or consent of instructor.

SCM 3260 Supply Chain Sustainability Cr.Hrs. 3 +3.0

This course covers supply chain sustainability. From a functional viewpoint, supply chain management (SCM) includes logistics/transportation, purchasing and certain elements of marketing. Sustainability is a multi-dimensional concept, spanning ecological, social, cultural and economic issues. The course includes a special focus on sustainable transportation. May not be held with SCM 2220 when titled "Supply Chain Sustainability". Prerequisite: GMGT 2010 (D) or consent of instructor.

NET CHANGE IN CREDIT HOURS: +12.0

Program modification:

Modifications to the **Major in Supply Chain Management**, in the **Bachelor of Commerce (Honours)** program are outline on the next page.

Part 2: The Calendar Entry

LOGISTICS AND SUPPLY CHAIN MANAGEMENT PROGRAM MODIFICATIONS EFFECTIVE 2017 FALL TERM

Current Logistics and Supply Chain Management Major Calendar Description:

The Major consists of: SCM 2210, SCM 2230, SCM 3360 plus one of the following: SCM 2220, SCM 2240, SCM 3230, SCM 3630, SCM 4250 (not to be held with the former SCM 4240).

Recommended Business Options/Electives in this area include: MIS 3500, MIS 3510, INTB 2200, HRIR 3450, GMGT 3160, GMGT 4160, MSCI 3400, IDM 4050, IDM 4070, IDM 4080, MKT 3220, MKT 3340, GEOG 3800, ECON 2450, ECON 2460.

Proposed Logistics and Supply Chain Management Major Calendar Description:

The Major consists of: SCM 2210, SCM 2230, SCM 3360 plus one of the following: SCM 2220, SCM 2240, SCM 2250, SCM 2260, SCM 3230, SCM 3630, SCM 3250, SCM 3260, SCM 4250 (not to be held with the former SCM 4240).

Recommended Business Options/Electives in this area include: MIS 3500, MIS 3510, INTB 2200, HRIR 3450, GMGT 3160, GMGT 4160, MSCI 3400, IDM 4050, IDM 4070, IDM 4080, MKT 3220, MKT 3340, GEOG 3800, ECON 2010, ECON 3010.

Report of the Senate Committee on Nominations

Preamble

The terms of reference for the Senate Committee on Nominations may be found on the University Governance website at:

http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/507.html

The Committee met on April 17, 2017 to consider nominations to fill vacancies on the standing committees of Senate.

Observation

Listed below are Senate committees with vacancies to be filled, along with the names of the nominees being proposed, their faculty/school, and the expiry date of their terms. Following the list is the membership list for each of those committees, including the names of the nominees, which have been highlighted.

Recommendations

The Committee recommends to Senate the following list of faculty nominees:

COMMITTEE	NOMINEE(S)	FACULTY/ SCHOOL	TERM END DATE
Senate Committee on Academic Freedom	Prof. Ryan Cardwell (R)*	Agricultural and Food Sciences	2020.05.31
	Prof. Richard Hechter (S)** (R)	Education	2020.05.31
Senate Committee on Admissions	Prof. Robert Biscontri (S)(R)	Management	2020.05.31
	Prof. Derek Brewin (R)	Agricultural and Food Sciences	2020.05.31
	Prof. Bonnie Hallman (S)	Environment, Earth, and Resources	2020.05.31
	Dean David Mandzuk (S)(R)	Education	2020.05.31

Senate Committee on Admission Appeals	Prof. Jitendra Paliwal (S)(R)	Agricultural and Food Sciences	2020.05.31
	Prof. Kumar Sharma (R)	Science	2020.05.31
	Prof. Subbu Sivaramakrishnan (R)	Management	2020.05.31
Senate Committee on Appeals	Prof. Christine Van Winkle (S)	Kinesiology and Recreation Management	2020.05.31
Senate Committee on Awards	Prof. Philip Hultin (R)	Science	2020.05.31
	Prof. Darcy MacPherson (R)	Law	2020.05.31
Senate Committee on Curriculum and Course Changes	Prof. Ben Li	Science	2020.05.31
Joint Senate Committee on Masters Programs	Prof. Andrea Rounce (R)	Arts	2020.05.31
Senate Committee on Libraries	Dean James Mulvale (S)(R)	Social Work	2020.05.31
	Prof. Mirosław Pawlak	Engineering	2020.05.31
Senate Committee on Medical Qualifications	Prof. Helmut Unruh	Health Sciences	2020.05.31
Senate Committee on Rules and Procedures	Prof. John Anderson (S)(R)	Science	2020.05.31
	Prof. Thomas Booth (S)	Science	2018.05.31
	Dean Reg Urbanowski (S)	Health Sciences	2020.05.31
Senate Committee on University Research	Prof. Anita Brûlé-Babel (R)	Agricultural and Food Sciences	2020.05.31
	Prof. Peter Nickerson	Health Sciences	2020.05.31
	Dr. Michelle Porter	Kinesiology and Recreation Management	2020.05.31

The Committee also recommends to Senate the following list of student nominees:

COMMITTEE	NOMINEE(S)	FACULTY/ SCHOOL	TERM END DATE
Joint Senate Committee on Masters Programs	Mr. Albert Boakye (R)	Graduate Studies	2018.05.31
Senate Planning and Priorities Committee	Mr. Carl Neumann	Graduate Studies	2018.05.31

* (R) indicates re-appointment

** (S) indicates a member of Senate

Respectfully submitted,

Professor M. Edwards, Chair
Senate Committee on Nominations

SENATE COMMITTEE ON ACADEMIC FREEDOM

as of June 1, 2017

Composition	Incumbents	Faculty/School	Term
Five members of academic staff, at least three of whom shall be Senators. At least one of the five shall be from among those excluded from collective bargaining units	Prof. Cam Morrill	Management	2018.05.31
	Prof. Raj Bhullar (S) <i>(leave replacement for Dean Jeffery Taylor)</i>	Health Sciences (Arts)	2017.08.31 (2018.05.31)
	Prof. Robert Tate (S)	Health Sciences	2019.05.31
	Prof. Ryan Cardwell	Agricultural and Food Sciences	2020.05.31
	Prof. Richard Hechter (S)	Education	2020.05.31
Two students, at least one of whom shall be a student Senator	TBD		2018.05.31
	TBD		2018.05.31
Resource: Shannon Coyston 474-6892 Terms of Office: three-year terms; students = one-year terms			

SENATE COMMITTEE ON ADMISSIONS

As of June 1, 2017

Composition	Incumbents	Faculty/School	Term
Provost and Vice-President (Academic) (or designate), Chair	Ms Susan Gottheil, designate		<i>Ex-officio</i>
Vice-Provost (Students) (or designate)	Ms Erin Stone, designate		<i>Ex-officio</i>
Executive Director, Enrolment Services	Mr. Jeff Adams		<i>Ex-officio</i>
Dean, Faculty of Arts (or designate)	Prof. Jason Leboe-McGowan, designate		<i>Ex-officio</i>
Dean, Faculty of Science (or designate)	Prof. Ben Li, designate Prof. Peter Loewen (alternate)		<i>Ex-officio</i>
Dean, Rady Faculty of Health Sciences (or designate)	Prof. John Perry, designate		<i>Ex-officio</i>
Two Deans of Faculties or Directors of Schools from faculties or schools other than the Faculties of Arts, Science or Health Sciences	Dean Michael Benarroch	Management	2018.05.31
	Dean David Mandzuk (S)	Education	2020.05.31
Six members of the academic staff, at least three shall be Senators, with no two from the same faculty or school	Dr. Jerome Cranston	Student Academic Success	2018.05.31
	Prof. Sarah Teetzel (on leave)	Kinesiology and Recreation Management	2018.05.31
	Prof. Gary Anderson (S)	Science	2019.05.31
	Prof. Robert Biscontri (S)	Management	2020.05.31
	Prof. Derek Brewin	Agricultural and Food Sciences	2020.05.31
	Prof. Bonnie Hallman (S)	Environment, Earth, and Resources	2020.05.31
Three students	TBD		2018.05.31
	TBD		2018.05.31
	TBD		2018.05.31
Deputy Minister of Education and Advanced Learning (or designate)	DECLINED		<i>Ex-officio</i>
One Counsellor from a High School to be nominated by the Manitoba School Counsellors' Association	Ms Kelly Teixeira	St. John's-Ravenscourt School	2018.05.31
Resource: Breanne Mitenko 474-8820 Terms of Office: three-year terms; students = one-year terms			

SENATE COMMITTEE ON ADMISSION APPEALS

as of June 1, 2017

Composition	Incumbents	Faculty/School	Term
One member holding academic appointment in the University appointed as Chair of the Committee for a three year term by the Senate Executive Committee*	Dean David Mandzuk, Chair	Education	2018.05.31
One member holding academic appointment in the University appointed as Vice-Chair of the Committee for a three year term by the Senate Executive Committee.* The Vice-Chair shall not be from the same Faculty/School/College as the Chair	Prof. Brenda Hann, Vice-Chair	Science	2018.05.31
Eight members with broad representation across Faculties/Schools/Colleges holding academic appointments in the University	Prof. Ryan Cardwell	Agricultural and Food Sciences	2018.05.31
	Prof. Lorna Guse	Health Sciences	2018.05.31
	Prof. Lucas Tromly	Arts	2018.05.31
	Prof. Mike Domaratzki	Science	2019.05.31
	Prof. Jennifer Schulz	Law	2019.05.31
	Prof. Jitendra Paliwal (S)	Engineering	2020.05.31
	Prof. Kumar Sharma	Science	2020.05.31
	Prof. Subbu Sivaramakrishnan	Management	2020.05.31
Two students	TBD		2018.05.31
	TBD		2018.05.31
President of UMSU (or designate)	Ms Tanjit Nagra		<i>Ex-officio</i>
Director (Admissions), Enrolment Services (non-voting)	Ms Erin Stone		<i>Ex-officio</i>
Resource: Marcia Yoshida 474-6166 Terms of Office: three-year terms; students = one-year terms			

* the Chair and Vice-Chair shall not be members of a Faculty/School/College admission selection committee

SENATE COMMITTEE ON APPEALS

As of June 1, 2017

Composition	Incumbents	Faculty/School	Term
One academic member appointed as Chair by Senate Executive	Prof. Sharon Alward	School of Art	2018.05.31
Two elected academic members appointed as Vice-Chairs by Senate Executive (not from same faculty/school as Chair or each other)	Prof. Charlotte Enns	Education	2019.05.31
	TBD		2020.05.31
Three members from among Deans of Faculties or Colleges and Directors of Schools appointed by the President	Dean Edmund Dawe	Music	2019.05.31
	Dean Beverly O'Connell	Health Sciences	2019.05.31
	Dean Douglas Brown	Kinesiology and Recreation Management	2020.05.31
Five academic members of Senate	Prof. Peter Blunden (S)	Science	2018.05.31
	Prof. Michael Campbell (S)	Environment	2019.05.31
	Prof. Derek Oliver (S)	Engineering	2019.05.31
	Prof. David Churchill (S)	Arts	2019.05.31
	Prof. Christine Van Winkle (S)	Kinesiology and Recreation Management	2020.05.31
Six academic members	Prof. Charlotte Enns	Education	2018.05.31
	Prof. Vanessa Swain	Health Sciences	2018.05.31
	Prof. Douglas Ruth	Engineering	2019.05.31
	Prof. Melanie Soderstrom	Arts	2019.05.31
	TBD		2019.05.31
	TBD		2020.05.31
President of UMSU (or designate)	Ms Tanjit Nagra		<i>Ex-officio</i>
Six students (four undergrads from different Faculties or Schools, and two grads)	TBD		2018.05.31
	TBD		2018.05.31
	TBD		2018.05.31
	TBD		2018.05.31
	TBD		2018.05.31
	TBD		2018.05.31
One member appointed by Université de Saint- Boniface	TBD		2019.05.31
One student appointed by Université de Saint- Boniface	TBD		2018.05.31
Resource: Marcia Yoshida 474-6166 Terms of Office: three-year terms; students = one-year terms			

SENATE COMMITTEE ON AWARDS

As of June 1, 2017

Composition	Incumbents	Faculty/School	Term
Six members of the academic staff (at least one shall be a Senator) These six shall include at least two from professional faculties/schools, at least one from Arts and one from Science.	Prof. Jared Carlberg (S)	Agricultural and Food Sciences	2019.05.31
	Prof. Laura Loewen	Music	2019.05.31
	Prof. Greg Smith	Arts	2019.05.31
	Prof. Peter Cattini	Health Sciences	2019.05.31
	Prof. Philip Hultin	Science	2020.05.31
	Prof. Darcy MacPherson	Law	2020.05.31
Two students	TBD		2018.05.31
	TBD		2018.05.31
Director, Financial Aid and Awards Office	Ms Jane Lastra, designate Ms Lesli Lucas-Aseltine		<i>Ex-officio</i>
Vice-Provost (Graduate Education) and Dean, Faculty of Graduate Studies (or designate)	Ms Sara Sealey, designate		<i>Ex-officio</i>
Resource: Adrienne Domingo 474-7257 Terms of Office: three-year terms; students = one-year terms			

SENATE COMMITTEE ON CURRICULUM AND COURSE CHANGES

As of June 1, 2017

Composition	Incumbents	Faculty/School	Term
Seven members of the academic staff	Prof. Dean McNeill, Vice-Chair	Engineering	2018.05.31
	Ms Joanne Hamilton	Health Sciences	2019.05.31
	Prof. Sarah Teetzel	Kinesiology and Recreation Management	2019.05.31
	Prof. Greg Smith, Chair	Arts	2019.05.31
	Prof. Ben Li	Science	2020.05.31
	TBD		2020.05.31
	TBD		2020.05.31
Three students	TBD		2018.05.31
	TBD		2018.05.31
	TBD		2018.05.31
One representative from the Université de Saint-Boniface named by the Recteur	Dr. Peter Dorrington		<i>Ex-officio</i>
One librarian named by the University Librarian	Ms Donna Breyfogle		<i>Ex-officio</i>
Vice-Provost (Integrated Planning and Academic Programs)(and/or delegate)	Dr. David Collins and Ms Cassandra Davidson, designate		<i>Ex-officio (non-voting)</i>
Registrar (or delegate)	Mr. Neil Marnoch		<i>Ex-officio (non-voting)</i>
Resource: Shannon Coyston 474-6892 Terms of Office: three-year terms; students = one-year terms			

JOINT SENATE COMMITTEE ON MASTERS PROGRAMS

As of June 1, 2017

Composition	Incumbents	Faculty/School	Term
Three members of the academic staff, of whom one shall be from outside the departments or disciplines participating in JMPs, and the Vice-Provost (Graduate Education) and Dean, Faculty of Graduate Studies as a voting member [University of Manitoba]	Prof. Brooke Milne, designate	Graduate Studies	<i>Ex-officio</i>
	Prof. Sean Byrne	Graduate Studies	2019.05.31
	Prof. Mark Libin	Arts	2019.05.31
	Prof. Andrea Rounce	Arts	2020.05.31
Three members of the academic staff, of whom one shall be from outside the departments or disciplines participating in JMPs, and the Dean of Graduate Studies as a voting member [University of Winnipeg]	Dr. Mavis Reimer	Graduate Studies	<i>Ex-officio</i>
	Dr. Malcolm Bird	Political Science	2018.06.30
	Dr. Andrew Burke	English	2018.06.30
	TBD		2019.06.30
Chair to be named by the Presidents of the U of M and U of W with a tie casting vote only	Professor Zana Lutfiyya	Education	2018.05.31
One graduate student enrolled in a JMP to be proposed by the GSA [U of M]	Mr. Albert Boakye	Graduate Studies	2018.05.31
One graduate student enrolled in a JMP to be proposed by the Chairs of the Joint Masters Programs [U of W]	TBD	Graduate Studies	2018.05.31
Resource: Deanna England U of W 786-9093 Andrea Kailer U of M 474-7298 Terms of Office: three-year terms; students = one-year terms			

SENATE COMMITTEE ON LIBRARIES

as of June 1, 2017

Composition	Incumbents	Faculty/School	Term
Provost and Vice-President (Academic) (or designate), Chair	Dr. Mary-Jo Romaniuk, designate		<i>Ex-officio</i>
Vice-President (Research and International) (or designate)	Dr. Jay Doering, designate		<i>Ex-officio</i>
University Librarian (or designate)	Ms Lisa O'Hara, designate		<i>Ex-officio</i>
Vice-Provost (Graduate Education) and Dean, Faculty of Graduate Studies (or designate)	Dr. Xikui Wang, designate		<i>Ex-officio</i>
Two Deans of Faculties or Colleges or Directors of Schools	Dean Douglas Brown	Kinesiology and Recreation Management	2019.05.31
	Dean James Mulvale	Social Work	2020.05.31
Six academic members - at least two shall be Senators. Of the six, at least one each shall be from the Faculty of Arts, the Faculty of Science and the Bannatyne Campus	Prof. Thomas Booth (S)	Science	2018.05.31
	Prof. James Gilchrist (S)	Health Sciences	2018.05.31
	Ms Afra Bolefski (leave replacement for Prof. Danielle Dubois)	Libraries (Arts)	2017.11.28 (2019.05.31)
	Prof. Pam Perkins	Arts	2019.05.31
	Ms Janet Rothney	Libraries	2019.05.31
	Prof. Miroslaw Pawlak	Engineering	2020.05.31
Four students (two graduate, two undergraduate)	Mr. Carl Neumann	Graduate Studies	2018.05.31
	TBD	Graduate Studies	2018.05.31
	Mr. Mitchell Chu	Science	2018.05.31
	Ms Maya Goldberg	University 1	2018.05.31
Resource: Shannon Coyston 474-6892 Terms of Office: three-year terms; students = two-year terms			

SENATE COMMITTEE ON MEDICAL QUALIFICATIONS

As of June 1, 2017

Composition	Incumbents	Faculty/School	Term
Dean, Max Rady College of Medicine (or designate), Chair	Prof. Sara Israels, designate	Health Sciences	<i>Ex-officio</i>
Provost and Vice-President (Academic) (or designate)	Dr. David Collins, designate		<i>Ex-officio</i>
Three academic members from the Max Rady College of Medicine	Prof. Elizabeth Cowden	Health Sciences	2019.05.31
	Prof. Michael Moffatt	Health Sciences	2019.05.31
	Prof. Helmut Unruh	Health Sciences	2020.05.31
One member appointed by the College of Physicians and Surgeons of Manitoba	Dr. Anna Ziomek	Registrar, College of Physicians and Surgeons	2018.05.31
Resource: Christina Kulbaba 977-5647 Terms of Office: three-year terms			

SENATE PLANNING AND PRIORITIES COMMITTEE

last updated October 21, 2016

Composition	Incumbents	Faculty/School	Term
Provost and Vice-President (Academic) (or designate)	Dr. David Collins, designate		<i>Ex-officio</i>
Vice-President (Administration) (or designate)	Mr. Andrew Konowalchuk, designate		<i>Ex-officio</i>
Vice-President (Research and International) (or designate)	Dr. Jay Doering, designate		<i>Ex-officio</i>
Ten members of academic staff (excluding Deans, Directors and Associate/Assistant Deans or Directors), three must be members of Senate, one of whom must be from Bannatyne	Prof. Judith Anderson (S)	Science	2018.05.31
	Prof. Michael Campbell (S)	Environment, Earth and Resources	2018.05.31
	Ms Ada Ducas, Chair	Libraries	2018.05.31
	Prof. Feiyue Wang	Environment, Earth and Resources	2018.05.31
	Prof. David Watt	Arts	2018.05.31
	Prof. Richard Perron	Architecture	2018.05.31
	Prof. Ahmed Shalaby	Engineering	2018.05.31
	Prof. Mark Gabbert (S)	Arts	2019.05.31
	Prof. Kelley Main	Management	2019.05.31
	Prof. Janice Dodd	Health Sciences	2020.05.31
Three students, one graduate, one undergraduate and the President of UMSU or designate	Mr. Carl Neumann	Graduate Studies	2018.05.31
	Ms Dara Hallock	Science	2018.05.31
	Ms Tanjit Nagra	UMSU President	2018.04.30
President	Dr. Janice Ristock, designate		<i>Ex-officio</i>
Vice-Provost (Students)	Ms Susan Gottheil		<i>Ex-officio</i>
Resource: Shannon Coyston 474-6892 Terms of Office: four-year terms; students = two-year terms			

SENATE COMMITTEE ON RULES AND PROCEDURES

as of June 1, 2017

Composition	Incumbents	Faculty/School	Term
Four members of the academic staff who, at time of appointment/re-appointment, are members of Senate	Acting Dean Robert Hoppa (S) <i>(leave replacement for Dean Jeffery Taylor)</i>	Arts (Arts)	2017.08.31 (2019.05.31)
	Prof. Thomas Booth (S)	Science	2018.05.31
	Prof. John Anderson (S)	Science	2020.05.31
	Dean Reg Urbanowski (S)	Health Sciences	2020.05.31
One student who, at time of appointment/re-appointment, is a member of Senate	TBD (S)		2018.05.31
Resource: Sandi Utsunomiya 474-8174 Terms of Office: three-year terms; students = one-year terms			

SENATE COMMITTEE ON UNIVERSITY RESEARCH

as of June 1, 2017

Composition	Incumbents	Faculty/School	Term
Vice-President (Research and International), Chair	Dr. Digvir Jayas		<i>Ex-officio</i>
President	Dr. David Barnard		<i>Ex-officio</i>
Provost and Vice-President (Academic)	Dr. Diane Hiebert-Murphy, designate		<i>Ex-officio</i>
Associate Vice-President (Research) Associate Vice-President (Partnerships)	Dr. Gary Glavin Dr. Jay Doering		<i>Ex-officio</i>
Vice-Provost (Graduate Education) and Dean, Faculty of Graduate Studies	Dr. Todd Mondor		<i>Ex-officio</i>
Research Grants Officer	Ms Kerrie Hayes, Director of Research Contracts		<i>Ex-officio (non-voting)</i>
Four Deans or Directors representing a range of research activities	Dean Stefi Baum	Science	2018.05.31
	Dean Jonathan Beddoes	Engineering	2018.05.31
	Dean Anthony Iacopino	Health Sciences	2019.05.31
	TBD		2020.05.31
Eight faculty members actively engaged in research and representing a range of research activities, at least two of whom are from the Bannatyne Campus	Prof. Gordon Fitzell	Music	2018.05.31
	Prof. Liqun Wang	Science	2018.05.31
	Prof. Andrew Halayko	Health Sciences	2019.05.31
	Dr. Peter Jones	Agricultural and Food Sciences	2019.05.31
	Prof. Jason Leboe-McGowan	Arts	2019.05.31
	Prof. Anita Brûlé-Babel	Agricultural and Food Sciences	2020.05.31
	Prof. Peter Nickerson	Health Sciences	2020.05.31
	Dr. Michelle Porter	Kinesiology and Recreation Management	2020.05.31
Two graduate students selected by GSA	Ms Kathryn Marcynuk	Graduate Studies	2018.05.31
	Ms Karalyn Dokurno	Graduate Studies	2018.05.31
Resource: Lindsey Troschuk 789-3493 Terms of Office: three-year terms; students = two-year terms			