Senate
Senate Chamber
Room E3-262 Engineering Building
WEDNESDAY, December 2, 2009
1:30 p.m.
Regrets call 474-6892

AGENDA

I MATTERS TO BE CONSIDERED IN CLOSED SESSION

1. Report of the Senate Committee on Honorary Degrees

This report will be distributed at the Senate meeting. Copies will be available for inspection by members of Senate in the Office of the University Secretary on the day preceding the Senate meeting.

II MATTERS RECOMMENDED FOR CONCURRENCE WITHOUT DEBATE

III MATTERS FORWARDED FOR INFORMATION

V QUESTION PERIOD

Senators are reminded that questions shall normally be submitted in writing to the University Secretary no later than 10:00 a.m. of the day preceding the meeting.

VI CONSIDERATION OF THE MINUTES OF THE MEETING OF NOVEMBER 4, 2009

CONSIDERATION OF THE MINUTES
OF THE MEETING OF JUNE 24, 2009

VII BUSINESS ARISING FROM THE MINUTES

VIII REPORTS OF THE SENATE EXECUTIVE COMMITTEE AND THE SENATE PLANNING AND PRIORITIES COMMITTEE

1. **Report of the Senate Executive Committee** — **Page 146**

2. **Report of the Senate Planning and Priorities Committee**

   The Chair will make an oral report on the Committee's activities.

IX REPORTS OF OTHER COMMITTEES OF SENATE, FACULTY AND SCHOOL COUNCILS

1. **Report of the Faculty Council of Graduate Studies on Regulation Changes to Master's Program Admission** — **Page 148**

2. **Report of the Faculty Council of Graduate Studies on Regulation Changes regarding electronic thesis submissions** — **Page 151**

3. **Report of the Senate Committee on University Research RE: Proposal to establish an Endowed Chair in Surgical Research** — **Page 155**

4. a) **Proposal from the Faculty of Graduate Studies RE: DMD/PhD Dental Medicine and Research** — **Page 159**

   b) **Report of the Senate Planning & Priorities Committee** — **Page 195**

5. **Correspondence from Faculty of Arts RE: Change in Program Name to Judaic Studies Program** — **Page 197**

X ADDITIONAL BUSINESS

1. **Report of the University Discipline Committee RE: Revision of the Student Discipline Bylaw and Related Procedures** — **Page 199**

2. **Committee of Election regarding the Election of the Chancellor**

This meeting will be held on Tuesday, December 8, 2009, at 3:30 p.m. in the Senate Chambers.

XI ADJOURNMENT

Please call regrets to 474-6892 or meg_brolley@umanitoba.ca

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Oct. 28, 2009

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 a proposal from the Dept. of Curriculum, Teaching and Learning, Faculty of Education.

Observations

1. The Dept. of Curriculum, Teaching and Learning, Faculty of Education proposes the modification of one course, EDUB 7560 Theory and Practice of Curriculum Design and Development (3), to eliminate the prerequisite for this course.

Recommendations

The Faculty of Graduate Studies Executive recommends THAT:

Senate approve the course and curriculum changes from the unit(s) listed below:

Department of Curriculum, Teaching and Learning, Faculty of Education

Respectfully submitted,
Dean J. Doering, Chair
Graduate Studies Executive Committee

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

Department of Curriculum, Teaching and Learning, Faculty of Education

Course Modification:

EDUB 7560 Theory and Practice of Curriculum Design and Development (3) +0

An examination of the theory and practice of the design, development, implementation and evaluation of curricula for K-12 and adult/post-secondary levels.

NET CHANGE IN CREDIT HOURS: +0

November 2, 2009

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 October 5, 14, 26, 28 and November 2, 2009, to consider curriculum and course changes from Faculties and Schools.

Observations:

1. **General**
   In keeping with past practice, most changes for departments totaling 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 noted that some course proposals came forward without labs due to lack of resources within the department or faculty to offer the labs. The Committee expressed concern about a resource argument driving pedagogy in the inclusion or dismantling of lab sections in courses.

3. **Faculty of Agricultural and Food Sciences**

   Biosystems Engineering

   The department is proposing the following changes in courses offered in this faculty: the deletion of four courses: **BIOE 2080 Agricultural Survey Systems** (3), **BIOE 4340 Animal Production Environment** (3), **BIOE 4450 Radiation Processing of Foods and Other Agricultural Commodities** (3), and **BIOE 4510 Agricultural Waste Management** (3); and the introduction of two courses: **BIOE 0222 Precision Agriculture** (4), and **BIOE 2222 Precision Agriculture Concepts and Applications** (4).

   The Faculty is proposing a revision to undergraduate degree programs. The Faculty core will include a reduction in the mathematics requirement from six credit hours to three credit hours and will limit the economics requirement to the course ECON 1200 only. Minor changes are being proposed for the B.Sc. (Agriculture) to reorganize the restricted electives. In addition to the faculty core changes, the B.Sc. (Food Science) is introducing two new options: science and business. For the B.Sc. (Agribusiness) modifications were

made to the courses which would fulfill the biology requirement, the addition of 3 credit hours of mathematics to the degree core (in response to the reduction in the faculty core), and movement of a required degree course requirement to a group of restricted electives.

4. **Faculty of Architecture**

The faculty proposes the modification of **EVAR 3014 Drawing: Freehand/Digital** (3), and **EVLU 3006 Studio 3: Dwelling / Precinct / Everyday Life** (9) to correct prerequisites. The faculty is also proposing a second degree program which will replace the current pre-Master's program. Students will be admitted to the faculty in stream one as undergraduate students and will complete two years of study and be eligible to receive a B.Env.D. degree. Students admitted to the faculty in stream two will be considered as undergraduate students not seeking a degree, will complete one year of study, and will not be eligible for a B.Env.D. degree.

5. **School of Art**

The school is proposing the modification of one course: **FAAH 3590 Islamic Art and Architecture** (3) to correct prerequisites; and the deletion of one course: **FAAH 2100 Survey of Asian Art** (3).

6. **Faculty of Arts**

Asian Studies

The department is proposing a change to delete one course: **ASIA 3650 Masterpieces of Asian Literature** (6), and introduce one course: **ASIA 3560 Themes and Genres in Asian Literature** (3). In addition, a modification to the List A Courses Acceptable for Asian Studies Credit is proposed.

Canadian Studies

The program is proposing a modification to the List of Approved Courses.

Central and East European Studies

The program is proposing a modification to the List of Approved Courses.

Economics

The department is proposing the modification of two courses: **ECON 2550 Political Economy 2: Economic Growth and Fluctuations in Global Economic Environment** (3) and **ECON 3180 Introduction to Econometrics** (3).

French, Spanish and Italian

The department is proposing the introduction of one course: **PORT 1170 Introductory Portuguese** (6); and the modification of four courses: **SPAN 1180 Introductory Spanish** (6), **SPAN 1190 Introductory Spanish 2** (3), **SPAN 1260 Intermediate Spanish Language Review** (3), and **SPAN 1280 Spanish for Native Speakers** (3).

German and Slavic Studies – German

The program is proposing the deletion of one course: **GRMN 2370 Modern German Literature in Translation** (6), the introduction of one course **GRMN 1310 Love in German Culture in English Translation** (3), and the modification of one course **GRMN 2100 Intermediate German** (6). In addition, modification to the General Major, Honours Single and Honours Double Programs, are proposed.

History

The department is proposing the deletion of four courses: **HIST 1310 Canada-United States: Contemporary Problems in Perspective: Initial Problems (C)**(3), **HIST 1320 Canada-United States: Contemporary Problems in Perspective: Current Problems (C)**(3), **HIST 2950 Early Canada: from the Earliest Settlement to 1867 (C)**(6) and **HIST 2960 The New Dominion: 1867 to 1921 (C)**(6); the introduction of seven courses: **HIST 2282 Inventing Canada (C)**(3), **HIST 2284 Democracy and Dissent: Contesting Canada (C)**(3), **HIST 2286 Modern Canada (C)**(3), **HIST 3052 Canada since the 1960s (C)**(3), **HIST 3054 Canada and the United States (C)**(3), **HIST 3260 Commerce, Rights and Empire in European Thought, 500-2000 (M)**(3), and **HIST 4500 Jewish and European History and Historiography (E)**(6); and the modification of four courses: **HIST 2240 History of Antisemitism and the Holocaust (E)**(6), **HIST 2970 Modern Canada: 1921 to the Present (C)**(6), **HIST 3050 Canada since 1945 (C)**(6), and **HIST 3220 The History of Canadian-American Relations (A,C)**(6). In addition, a modification to the honours program information is proposed.

Labour Studies

The program is proposing the modification of seven courses: **LABR 3010 Labour Law** (3), **LABR 3060 Workplace Health and Safety** (3), **LABR 3070 Labour Relations and Occupational Health and Safety Law** (3), **LABR 3130 Employment Legislation and the Protection of Workers** (3), **LABR 3140 Pensions and Benefits** (3), **LABR 4510 Labour Studies Field Placement Seminar** (3), and **LABR 4520 Labour Studies Field Placement** (6). Modifications to the advanced major program and list of electives are also proposed.

Native Studies

The program is proposing the introduction of one course: **NATV 3150 Residential School Literature** (3).

Near Eastern and Judaic Studies

The program is proposing the deletion of four courses: **JUD 2330 Patterns in Jewish Life** (6), **JUD 2940 Antisemitism: A Social History from the Crusades to the Holocaust** (6), **JUD 3390 Jewish Mysticism** (6), and **JUD 3410 The Holocaust** (6). A modification to the Near Eastern and Judaic Studies Minor program is also proposed.

Philosophy

The department is proposing the modification of two courses in response to changes at CUSB: **PHIL 1290 Critical Thinking** (3), and **PHIL 1320** Introductory Logic (6).

Psychology

The department is proposing the deletion of six courses: **PSYC 2300 Advanced General Psychology** (6), **PSYC 3420 Learning** (6), **PSYC 3510 Organizational Psychology** (3), **PSYC 3600 Environmental Psychology** (3), **PSYC 4530 Sleep and Dream Research** (3), and **PSYC 4550 Stress and Adjustment** (3); the introduction of ten courses: **PSYC 4400 Theories of Close Relationships** (3), **PSYC 4410 Cross-cultural Social Psychology** (3), **PSYC 4420 Neuroimaging: Imaging Thoughts** (3), **PSYC 4430 Vision: Perception and Action** (3), **PSYC 4440 Readings in Autism Spectrum Disorders** (3), **PSYC 4510 Applied Behaviour Analysis in Developmental Disabilities** (3), **PSYC 4562 Social Psychology and Health** (3), **PSYC 4564 Self-regulation and Health** (3), **PSYC 4566 Psychology of Health and Aging** (3), and **PSYC 4640 Person X Situation Interactionism** (3); and the modification of five courses: **PSYC 3200 Thinking Critically About Psychological Research** (3), **PSYC 3340 Design and Analysis for Psychological Experiments** (3), **PSYC 3520 Independent Research in Psychology 1** (3), **PSYC 3590 Independent Research in Psychology 2** (3), and **PSYC 3630 Psychological Measurement and Assessment** (3). In addition, modifications to the honours single and honours double and to the program notes are proposed.

Religion

The department is proposing the deletion of one course: **RLGN 3840 The Bible as Story** (A)(6); and the introduction of four courses: **RLGN 2600 Critical Animal Studies: An Introduction (B)**(3), **RLGN 3266 Readings in Buddhist Text (B)**(3), **RLGN 3824 Kabbalah (A)**(3), and **RLGN 3830 The Bible as Story (A)**(3).

Sociology

The department is proposing the modification of three courses: **SOC 3390 Contemporary Sociological Theory** (3), **SOC 2260 Cities and Urban Life** (3), and **SOC 3580 Media, Culture and Society** (3).

Women's and Gender Studies

The program is proposing the deletion of seven courses: **WOMN 1530 Introduction to Women's Studies in the Humanities** (3), **WOMN 1540 Introduction to Women's Studies in the Social Sciences** (3), **WOMN 2520 Introduction to Feminist Theory** (3), **WOMN 2550 Women in Nicaragua/Women in Canada** (6), **WOMN 3570 Feminist Cultural Studies** (3), **WOMN 3580 Feminist Approaches to Research** (6), **WOMN 4110 Advanced Feminist Theory** (3); the introduction of five courses: **WOMN 1500 Introduction to Women's and Gender Studies in the Humanities** (3), **WOMN 1600 Introduction to Women's and Gender Studies in the Social Sciences** (3), **WOMN 2000 Feminist Thought** (3), **WOMN 3000 Interdisciplinary Research in Women's and Gender Studies** (3), and **WOMN 4200 Seminar in Women's and Gender Studies** (3). In addition, the program proposes modifications to the General Major, Advanced Major, Minor, Honours Single and Honours Double Programs.

Option in Aging

Proposed is a modification to the option in aging concentration.

Interdisciplinary Courses

One course introduction is proposed: **ARTS 1160 Leadership: An Interdisciplinary Approach** (3).

Other Faculties and Schools – Mathematics

A modification to the advanced major program is proposed.

7. **Faculty of Education**

Department of Curriculum, Teaching and Learning

The faculty is proposing the introduction of four courses: **EDUB 1608 Assessment and Testing of EAL/ESL Learners** (3), **EDUB 1604 Academic and Professional English for Multilingual Teachers** (3), **EDUB 1606 Teaching EAL Literacy, Academics and Language** (3), **EDUB 5512 Teacher Development and Leadership in Second Language Education** (3); and the deletion of one course **EDUB 1606 English for NNS (non-Native Speakers) Teachers of ESL** (3). The list of B.Ed. complementary courses will be modified to reflect these course changes.

8. **Faculty of Engineering**

Department of Biosystems Engineering

The department is proposing the introduction of five courses: **BIOE 2000 Coop Work Study 1** (1), **BIOE 3000 Coop Work Study 2** (1), **BIOE Coop Work Study 3** (1), **BIOE 4440 Bioprocessing for Biorefining** (4), and **BIOE 4700 Alternative Building Design** (4); the deletion of two courses: **BIOE 3550 Cooperative Work Study 1** (1), and **BIOE 4550 Cooperative Work Study 2** (1); and the modification of five courses: **BIOE 3320 Engineering Properties of Biological Materials** (4), **BIOE 4460 Air Pollution Assessment and Management** (4), **BIOE 4590 Management of By-Products from Animal Production** (4), **BIOE 4620 Remediation Engineering** (4), and **BIOE 4630 Pollution Prevention Practices** (4).

Department of Electrical and Computer Engineering

The department is proposing the deletion of one course **ECE 3680 Introduction to Digital Systems** (4); and the modification of six courses: **ECE 3590 Electromagnetic Theory** (4), **ECE 3650 Electric Machines** (4), **ECE 4200 Electric Filter Design** (4), **ECE 4370 Power Electronics** (4), **ECE 4390 Engineering Computations** (4), and **ECE 4610 Biomedical Instrumentation and Signal Processing** (4). The department is proposing a program modification which involves increasing the required number of technical electives, dropping three core courses and adding one core course.

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

Department of Environment and Geography

The department is proposing the deletion of three courses: **GEOG 2460 Geography of Africa** (6), **GEOG 4600 Cognitive-Behaviour Geography** (3), and **GEOG 4610**

Techniques in Historical Geography (3); and the introduction of three courses: **GEOG 3860 Animal Geographies** (3), **GEOG 3870 Food Geographies** (3), and **GEOG 4280 Gender and the Human Environment** (3).

10. **Faculty of Human Ecology**

Interdisciplinary Health

A modification is proposed to **HEAL 4610 Health Studies Capstone** (3) to correct the prerequisite.

11. **Faculty of Law**

The faculty is proposing the deletion of three courses: **LAW 3270 Clinical Family Law** (6), **LAW 3060 Transportation Law** (3), and **LAW 3280 Limits of Law** (3); and the introduction of four courses: **LAW 3012 International Business Law** (3), **LAW 3014 International Trade Law** (3), **LAW 3016 Corporations II** (3), and **LAW 3018 Human Rights Law** (3).

12. **I.H. Asper School of Business – Faculty of Management**

Department of Accounting and Finance

The department is proposing the modification of nine courses: **FIN 2200 Corporate Finance** (3), **FIN 3410 Investments** (3), **FIN 3420 Security Analysis** (3), **FIN 3440 Real Estate Finance** (3), **FIN 3450 International Finance** (3), **FIN 3460 Financial Markets and Institutions** (3), **FIN 3480 Corporate Finance Theory and Practice** (3), **FIN 4270 Derivatives** (3), and **FIN 4400 Strategic Financial Management** (3).

13. **Faculty of Medicine**

School of Medical Rehabilitation

The school is proposing a program change to the first year of the Respiratory Therapy program by deleting REHB 1200 and adding PHYS 1030 as a required course.

14. **Faculty of Pharmacy**

The faculty is proposing the deletion of one course: **PHRM 1100 Pharmacy Skills Laboratory** (5); the introduction of one course: **PHRM 1110 Pharmacy Skills Laboratory** (3); and a program modification to reflect these course changes.

15. **Faculty of Science**

Note: Modifications to course descriptions resulting from changes in course numbers at CUSB in response to the amalgamation of Zoology and Botany courses into BIOL courses will be handled in an editorial fashion as occurred with the renumbering of courses in the Biological Sciences department as approved by Senate January 7, 2009.

Department of Microbiology

The department is proposing the deletion of two courses: **MBIO 2100 General Microbiology A** (3), and **MBIO 2110 General Microbiology B** (3); the introduction of five courses: **MBIO 1010 Microbiology I** (3), **MBIO 2020 Microbiology II** (3), **MBIO 3030 Microbiology III** (3), **MBIO 4602 Molecular Genetics of Prokaryotes – Lectures** (3), and **MBIO 4612 Molecular Genetics of Eukaryotes – Lectures** (3); and the modification of fifteen courses: **MBIO 2280 Microbial Ecology (3), MBIO 3000 Applied Biological Safety** (3), **MBIO 3010 Mechanisms of Microbial Disease** (3), **MBIO 3410 Molecular Biology** (3), **MBIO 3430 Molecular Evolution** (3), **MBIO 3440 Microbial Physiology** (3), **MBIO 3450 Regulation of Biochemical Processes** (3), **MBIO 3460 Membrane and Cellular Biochemistry** (3), **MBIO 3470 Microbial Systematics** (3), **MBIO 3480 Microbial Diversity** (3), **MBIO 4470 Fermentations** (3), **MBIO 4510 Industrial Microbiology** (3), **MBIO 4540 Biological Energy Transduction** (3), **MBIO 4600 Molecular Genetics of Prokaryotes** (3), and **MBIO 4610 Molecular Genetics of Eukaryotes** (3).

Department of Biological Sciences

The department is proposing the deletion of five courses: **BIOL 3240 Biodiversity: Mosses** (3), **BIOL 3260 Biology of Algae** (3), **BIOL 4244 Advanced Mycology** (3), **BIOL 4246 Lichen Symbiosis** (3), and **BIOL 4550 Molecular Biology for Plants and Fungi** (3); the introduction of three courses: **BIOL 2262 Biology of Algae** (3), **BIOL 3250 Lichens and Bryophytes** (3), and **BIOL 4552 Molecular Biology Techniques for Eukaryotes** (3); and the modification of five courses **BIOL 2242 The Flowering Plants** (3), **BIOL 3450 Plant Physiology** (3), **BIOL 4312 Analysis of Biological Communities** (3), **BIOL 4330 Plant Ecology** (3), and **BIOL 4460 Comparative Animal Energetics** (3). In addition, the department is proposing program modifications. In addition, with the recent movement from BOTN and ZOOL courses to BIOL courses, one course was reported incorrectly and should be BIOL 3242 ~~Biodiversity~~: Vascular Flora of Manitoba.

Biochemistry Program

The program is proposing modifications to the Joint Honours and Joint Four Year Major programs (including cooperative options) to modernize the program, open up more options for sub-specialization (organic synthesis, medical chemistry, molecular biology) and reduce the current heavy second year course load.

Biotechnology Program

The program is proposing modifications to the program to accommodate course changes in the Department of Microbiology.

Department of Chemistry

The department is proposing the introduction of two courses: **CHEM 3570 Biophysical Chemistry** (3), and **CHEM 4660 Computational Chemistry** (3); and program modifications for a chemistry option for students registered in the Faculty of Science 3-Year General degree and modifications to the Bioanalytical Chemistry Focus Area in response to changes in the Microbiology course offerings.

Department of Computer Science

The department is proposing a cooperative option in the Joint Honours Program in Computer Science – Physics and Astronomy.

Genetics Program

The program is proposing modifications to accommodate Microbiology course changes and to expand the list of required options.

Department of Physics and Astronomy

The department is proposing the deletion of one course **PHYS 2200 Electricity and Magnetism** (6); the introduction of one course: **PHYS 2210 Understanding Electricity and Magnetism** (3); the modification of six courses **PHYS 1020 General Physics 1** (3), **PHYS 1030 General Physics 2** (3), **PHYS 1050 Physics 1: Mechanics** (3), **PHYS 1070 Physics 2: Waves and Modern Physics** (3), **PHYS 2250 Introductory Modern Physics** (3), and **PHYS 2650 Classical Mechanics I** (3); and a program modification in response to course changes.

Psychology program

The program is proposing modifications in response to course changes by the Department of Psychology.

16. **Collège universitaire de Saint-Boniface**

Sociology

The department is proposing the deletion of two courses: **SOC 2271 Sociologie urbaine** (3), and **SOC 3591 Les communications de masse** (3).

Philosophy

The department is proposing the introduction of one course **PHIL 1291 Pensée critique** (3).

Spanish

The department is proposing four new courses: **SPAN 1191 Introduction à l'espagnol II** (3), **SPAN 2591 Femmes et culture en Espagne et en Amérique latine** (3), SPAN **2671 Espagnol sujet spécial I** (3), and **SPAN 3271 Espagnol sujet spécial II** (3).

Sociology & Criminology

The department is proposing the introduction of two courses: **SOC 2261 Sociologie de la ville et du milieu urbain** (3), and **SOC 3581 Culture, medias et société** (3); and the modification of two courses : **SOC 3331 Origines de la pensée sociologique** (3), and **SOC 3391 Théories sociologiques contemporaines** (3).

Social Work

The department is proposing the modification of two courses: **SWRK 3151 Formation à la pratique du terrain 1** (6), and **SWRK 4121 Formation à la pratique du terrain 2** (6).

Recommendations

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

Faculty of Agricultural and Food Sciences
Faculty of Architecture
School of Art
Faculty of Arts
Faculty of Education
Faculty of Engineering
Clayton H. Riddell Faculty of Environment, Earth and Resouces
Faculty of Human Ecology
Faculty of Law
I.H. Asper School of Business – Faculty of Management
Faculty of Medicine
Faculty of Pharmacy
Faculty of Science
Collège universitaire de Saint-Boniface

Respectfully submitted,

Professor H. Frankel, Chair
Senate Committee on Curriculum and Course Changes

/mb

Faculty of Agricultural and Food Sciences

Department of Biosystems Engineering

Deletions:

BIOE 2080 Agricultural Survey Systems Cr.Hrs. 3	-3
BIOE 4340 Animal Production Environnent Cr.Hrs. 3	-3
BIOE 4450 Radiation Processing of Foods and Other Agricultural Commodities Cr.Hrs. 3	-3
BIOE 4510 Agricultural Waste Management Cr.Hrs. 3	-3

Introductions:

BIOE 0222 Precision Agriculture Cr.Hrs. 4 +4
Precision agriculture is a philosophy of agricultural management that has been enabled by modern technology. This course will examine both the technology and the techniques that can be used to improve the efficiency of agricultural operations by decreasing costs, increasing profits, and decreasing hazards to the environment.

BIOE 2222 Precision Agriculture Concepts and Applications Cr.Hrs. 4 +4
Precision agriculture is a philosophy of agricultural management that has been enabled by modern technology. This course examines the technology and the techniques of precision agriculture including GPS, GIS, variable rate technologies, and yield monitoring that can be used to improve the efficiency of agricultural operating by decreasing costs, increasing profits, and decreasing hazards to the environment.

NET CHANGE IN CREDIT HOURS: -4

Program Modifications:

Faculty Core Course No.		Credit Hours
ABIZ 1000	Introduction to Agribusiness Management (see Note 1)	3
AGRI 1500	Natural Resources and Primary Agricultural Production	3
AGRI 1510	Production, Distribution and Utilization of Agricultural Products	3
AGRI 2030	Technical Communications	3
BIOL 1020	Biology 1: Principles and Themes (see Note 2)	3
BIOL 1030	Biology 2: Biological Diversity, Function and Interactions (see Note 2)	3
CHEM 1300	University 1 Chemistry: Structure and Modelling in Chemistry (see Notes ~~1 &~~ 3)	3
	~~and~~ **AND** one of the following two courses:	
CHEM 1310	University 1 Chemistry: An Introduction to Physical Chemistry (see Note ~~1 &~~ 3)	3
	~~Or~~ **OR**	
CHEM 1320	University 1 Chemistry: An Introduction to Organic Chemistry (see Note ~~1 &~~ 3)	3
ECON 1200	Principles of Economics ~~or ECON 1210 and ECON 1220~~	6
MATH 1200	**Elements of Discrete Mathematics**	
OR		
MATH 1210	**Techniques of Classical and Linear Algebra**	
OR		
MATH 1300	Vector Geometry and Linear Algebra ~~(see Note 3)~~	
OR		
MATH 1310	Matrices for Management and Social Sciences	
AND		
MATH 1500	Introduction to Calculus (see Note ~~3~~4)	
OR		
MATH 1520	Introduction to Calculus for Management and Social Sciences **(see Note 4)**	**3**
STAT 1000	Basic Statistical Analysis 1	3
Three credit hours from the following:		3
PHIL 1290	Critical Thinking ~~(3)~~	
PHIL 2740	Ethics and Biomedicine ~~(3)~~	
PHIL 2750	Ethics and the Environment ~~(3)~~	
PHIL 2830	Business Ethics ~~(3)~~	3
Total credit hours		~~36-42~~ 33-39

NOTES:

1) ~~Students planning to enter into the B.Sc. (Agribusiness) degree program are not required to take chemistry at the university level.~~ .
   ABIZ 1000 is not required for B.Sc. (Food Science) Science Option.
2) ~~Both CHEM 1310 and CHEM 1320 are required for the B. Sc. (Food Science) program.~~
   Students planning to enter the B.Sc. (Agribusiness) degree program are recommended to take BIOL 1020 and BIOL 1030 but may substitute BIOL 1000 and BIOL 1010.
3) ~~MATH 1300 Vector Geometry and Linear Algebra and MATH 1500 Introduction to Calculus are recommended for the B. Sc. (Agroecology) and the B. Sc. (Food Science) programs.~~

   Students planning to enter into the B.Sc. (Agribusiness) degree program are not required to take chemistry at the university level.
4) ~~MKT 2210 Fundamentals of Marketing should be substituted for ABIZ 1000 in the B. Sc. (Food Science) degree program.~~
   6CH of Math courses including MATH 1500 Introduction to Calculus or MATH 1520 Introduction to Calculus for Management and Social Sciences are required for the B.Sc. (Agribusiness) and B,Sc. (Food Science) programs.

Bachelor of Science (Agribusiness)

BSc (Agribusiness) Degree Core

Course No.		Credit Hours
ABIZ 2510	Introduction to Agricultural and Food Marketing	3
ABIZ 2520	Introduction to Management Science	3
ABIZ 3080	Introduction to Econometrics	3
ABIZ 3500	Agricultural and Food Policy	3
~~ABIZ 3540~~	~~Financial Risk Management~~	~~3~~
ABIZ 4500	Agribusiness Strategies Seminar	3
ACC 1100	Introductory Financial Accounting	3
ECON 2450	Microeconomic Theory and Its Applications 1	3
ECON 2470	Macroeconomic Theory and Its Applications 1	3
HRIR 2440	Human Resource Management	3
MATH 1500	**Introduction to Calculus**	
OR		
MATH 1520	**Introduction to Calculus for Management and Social Sciences**	**3**
STAT 2000	Basic Statistical Analysis 2	3
Total credit hours		**33**

Restricted Electives

~~Three courses (nine credit hours) from the following:~~

~~PLNT 2500 Crop Production (3)~~

~~ANSC 2500 Animal Production (3)~~

~~AGEC 2370 Principles of Ecology (3)~~

~~(BOTN 2370~~

~~Or~~

~~ZOOL 2370)~~

~~ABIZ 2390 Introduction to Environmental Economics (3) 9~~

~~Total credit hours 42~~

Group 1

Three courses (nine credit hours) from the following:

ABIZ 2390	**Introduction to Environmental Economics**	**9**
AGEC 2370	**Principles of Ecology**	
(BIOL 2300)		
ANSC 2500	**Animal Production**	
PLNT 2500	**Crop Production**	

Group 2

Two courses (six credit hours) from the following:

ABIZ 3120	**Commodity Futures Markets**	
ABIZ 3530	**Farm Management**	
ABIZ 3540	**Financial Risk Management**	
ABIZ 4260	**Price Analysis**	**6**

Agribusiness Management Option

At least nine credit hours from the Faculty of Management 9

Agricultural Economics Option

At least nine credit hours from the Department of Economics, with three credit hours at the 3000 level 9

International Agribusiness Options

Minor in Asian Studies or Central and East European Studies or Latin American Studies as defined in the Faculty of Arts Chapter of this calendar under cross-disciplinary programs. 18

Free electives ~~24-33~~ **21-30**

Bachelor of Science (Agriculture)

B.Sc. (Agriculture) Degree Core

Course No.		
AGEC 2370	Principles of Ecology	3
~~(BOTN 2370)~~		
~~or~~		
~~ZOOL 2370)~~		
(BIOL 2300)		
CHEM 2770	Elements of Biochemistry 1	3
(MBIO 2770)		
PLNT 2520	Genetics	3
Total credit hours		9

Agronomy Program Core

Agronomy Core

Course No.		Credit Hours
ABIZ 2510	Introduction to Agricultural and Food Marketing	3
ANSC 2500	Animal Production	3
~~BOTN 2010~~	~~Plant Structure and Function 1~~	~~3~~
BIOL 2242	**The Flowering Plants**	**3**
PLNT 2500	Crop Production	3
PLNT 3500	Plant Physiology ~~(not required for students who have taken the former 001.230~~	3

PLNT 3510	Cropping Systems		3
PLNT 4590	Physiology of Crop Plants		3
SOIL 3600	Soils and Landscapes in our Environment		3
SOIL 4510	Soil and Water Management		3
SOIL 4520	Soil Fertility		3
	Total credit hours		30

Restricted Electives

Group 1

Two courses (six credit hours) from the following:

ENTM 3170	Crop Protection Entomology ~~(3)~~		6
PLNT 3540	Weed Science ~~(3)~~		
PLNT 4270	Plant Disease Control ~~(3)~~		

Group 2

One course (three credit hours) from the following:

PLNT 2510	Fundamentals of Horticulture ~~(3)~~		
PLNT 3520	Principles of Plant Improvement ~~(3)~~		3
PLNT 4410 (ANSC 4410)	Grassland Agriculture: Plant, Animal and Environment ~~(3)~~		

Group 3

One course (three credit hours) from the following:

SOIL 3060	Introduction to Agrometeorology ~~(3)~~		
SOIL 4060	Physical Properties of Soils ~~(3)~~		
SOIL 4130	Soil Chemistry and Mineralogy ~~(3)~~		
SOIL 4400	Soil Ecology ~~(3)~~		3

Group 4

One course (three credit hours) from the following:

BIOE 2090	Machinery for Agricultural Production ~~(3)~~		
BIOE 4500	Water Management ~~(3)~~		
BIOE 4520	Crop Preservation and Handling ~~(3)~~		
GEOG 2250	Introduction to Geographic Information Systems ~~(3)~~		3
Free Electives		~~24~~	**27**

Animal Systems Program Core

Course No.		Credit Hours
ANSC 2500	Animal Production	3
ANSC 2510	Anatomy and Physiology 1: Control Systems	3
ANSC 2520	Anatomy and Physiology 2: Nutrient Utilization	3
ANSC 3500	Principles of Animal Genetics	3
ANSC 3510	Feeds and Feeding	3
ANSC 3520	Animal Reproduction	3
ANSC 3530	The Animal and its Environment	3
ANSC 4560	Issues in Animal Agriculture	3
ABIZ 2510	Introduction to Agricultural and Food Marketing	3
CHEM 2780 (MBIO 2780)	Elements of Biochemistry 2	3
PLNT 2500	Crop Production	3
Total credit hours		33

Restricted Electives

Group 1

One course (three credit hours) from the following:

ANSC 4520	Ruminant Production Systems – Meat ~~(3)~~	
ANSC 4530	Ruminant Production Systems – Milk ~~(3)~~	3

Group 2

One course (three credit hours) from the following:

ANSC 4540	Monogastric Production Systems ~~(3)~~	
ANSC 4550	Avian Production Systems ~~(3)~~	3

Group 3

Two courses (six credit hours) from the following:

AGEC 4510	**Applications in Agroecology**	
ANSC 2530	**Nutritional Toxicology** (1.5) + AGRI 2190 Toxicology Principles (1.5)	
ANSC 2540	**Companion Animal Nutrition and Management**	
ANSC 4090	**Livestock Problems**	
ANSC 4220	**Animal Science Investigations**	
ANSC 4240	**Mathematical Modeling of Biological Systems**	
ANSC 4280	Applied Animal Genetics ~~(3)~~	
ANSC 4410 /PLNT 4410	Grassland Agriculture: Plant, Animal and Environment ~~(3)~~	
ANSC 4500	Animal Health ~~(3)~~	
ANSC 4510	Domesticated Animal Behaviour ~~(3)~~	
ANSC 4570	Advanced Applied Animal Nutrition	
~~BIOE 4510~~	~~Agricultural Waste Management (3)~~	
ENTM 3160	Veterinary and Wildlife Entomology ~~(3)~~	
FOOD 3500	Processing of Animal Food Products ~~(3)~~	
PLNT 2530	**Plant Biotechnology**	6

Group 4

One course (three credit hours) from the following:

GMGT 2070	**Introduction to Organizational Behaviour**	
GMGT 3120	**Regulation**	**3**
HRIR 2440	**Human Resource Management**	

Free electives	24

Plant Biotechnology Program Core

Course No.		Credit Hours
~~BOTN 2010~~	~~Plant Structure and Function 1~~	~~3~~
BIOL 2242	**The Flowering Plants**	**3**
~~BOTN 2210~~	~~Biology of Fungi and Lichens~~	~~3~~
BIOL 2260	**Biology of Fungi and Lichens**	**3**
~~ZOOL 2280~~	~~Cell Biology~~	~~3~~
BIOL 2520	**Cell Biology**	**3**
CHEM 2780 (MBIO 2780)	Elements of Biochemistry 2	3
MBIO 2100	General Microbiology A	3
PLNT 2530	Plant Biotechnology	3
PLNT 3500	Plant Physiology	3
PLNT 4600	Issues in Agricultural Biotechnology	3
Total credit hours		24

Restricted Electives

~~Group 1~~

~~Genetics, Physiology, and Pathology Group~~

~~Five courses (fifteen credit hours) of the following:~~

~~Genetics~~

~~PLNT 3520 Principles of Plant Improvement (3)~~

~~PLNT 4330 Intermediate Plant Genetics (3)~~

~~PLNT 4540 Plant Genomics (3)~~

~~Physiology~~

~~PLNT 4550 Developmental Plant Biology (3)~~

~~PLNT 4560 Secondary Plant Metabolism (3)~~

~~PLNT 4590 Physiology of Crop Plants (3)~~

~~Pathology~~

~~PLNT 3570 Fundamentals of Plant Pathology (3)~~

~~PLNT 4570 Research Methods in Plant Pathology (3)~~

~~PLNT 4580 Molecular Plant Microbe Interactions (3)~~ ~~15~~

~~Group 2~~

~~Applied Agriculture Group~~

~~Two courses (six credit hours) of the following:~~

~~ANSC 2500 Animal Production (3)~~

~~ENTM 3170 Crop Protection Entomology (3)~~

~~PLNT 2500 Crop Production (3)~~

~~PLNT 2510 Fundamentals of Horticulture (3)~~ ~~6~~

Group 1
Two courses (six credit hours) from the following:

ANSC 2500	**Animal Production**		
ENTM 3170	**Crop Protection Entomology**		
PLNT 2500	**Crop Production**		
PLNT 2510	**Fundamentals of Horticulture**		
PLNT 3540	**Weed Science**		
PLNT 4410 (ANSC 4410)	**Grassland Agriculture: Plant, Animal and Environment**		**6**

Group 2
Five courses (fifteen credit hours) from the following:

PLNT 3520	**Principles of Plant Improvement**		
PLNT 3570	**Fundamentals of Plant Pathology**		
PLNT 4310	**Introductory Plant Genomics**		
PLNT 4330	**Intermediate Plant Genetics**		
PLNT 4550	**Developmental Plant Biology**		
PLNT 4560	**Secondary Plant Metabolism**		
PLNT 4570	**Research Methods in Plant Pathology**		
PLNT 4580	**Molecular Plant Microbe Interactions**		
PLNT 4590	**Physiology of Crop Plants**		
PLNT 4610	**Bioinformatics**		**15**
Free Electives		~~24~~	27

Bachelor of Science (Agroecology)

B.Sc. (Agroecology) Degree Core

Course No.			Credit Hours
ABIZ 2390 (ECON 2390)	Introduction to Environmental Economics		3
~~ABIZ 3550~~	~~Environmental Policy~~		~~3~~
AGEC 2370 ~~(BOTN 2370~~ ~~ZOOL 2370)~~ **(BIOL 2300)**	Principles of Ecology		3
AGEC 3510	Agroecology		3
AGEC 4510	Applications in Agroecology		3
AGEC 4540	Agroecology Research Project		6
ANSC 2500	Animal Production		3
~~BOTN 3540~~	~~Community Ecology~~		~~3~~
BIOL 3312	**Community Ecology**		**3**
CHEM 2770 (MBIO 2770)	Elements of Biochemistry 1		3
~~STAT 2000~~	~~Basic Statistical Analysis 2~~		~~3~~
~~BIOE 3530~~	~~Engineering Fundamentals~~		~~3~~
PLNT 2500	Crop Production		3
~~AGEC 2500~~	~~Population Genetics~~		~~3~~
PLNT 2520	**Genetics**		**3**
SOIL 3600	Soils and Landscapes in our Environment		3
Total credit hours		~~42~~	**36**

Restricted Electives

~~Group 1~~

~~Two courses (six credit hours) of the following:~~

~~BOTN 2010 Plant Structure and Function 1 (3)~~

~~ENTM 2050 Introductory Entomology (3)~~

~~ANSC 2510 Anatomy and Physiology 1: Control Systems (3)~~

~~MBIO 2100 General Microbiology A (3)~~

~~Or~~

~~SOIL 4400 Soil Ecology (3)~~

~~Group 2 (6 CH required)~~

~~Two courses (six credit hours) of the following:~~

~~SOIL 3060 Introduction to Agrometeorology (3)~~

~~SOIL 4060 Physical Properties of Soils (3)~~

~~SOIL 4530 Land Use and Environment (3)~~

~~SOIL 4520 Soil Fertility (3)~~

~~Or~~

~~SOIL 4130 Soil Chemistry and Mineralogy (3)~~

~~Group 3~~

~~One course (three credit hours) of the following:~~

~~PHIL 1290 Critical Thinking (3)~~

~~PHIL 2740 Ethics and Biomedicine (3)~~

~~PHIL 2750 Ethics and the Environment (3)~~

~~PHIL 2830 Business Ethics (3)~~ ~~3~~

Group 1 – Agricultural Science

Three courses (nine credit hours) from the following:

From any 2000, 3000, or 4000 level course from -

ENTM

OR		
ANSC		
OR		
PLNT		**9**
Group 2 – Land Science		
Two courses (six credit hours) from the following:		
From any 3000 or 4000 level course from –		
SOIL		
OR		
GEOG 2250 – Introduction to Geographic Information Systems		**6**
Group 3 – Policy and Economics		
One course (three credit hours) from the following:		
From any 3000 or 4000 level course from		
ABIZ		**3**
Free Electives	~~24~~	27

Bachelor of Science (Food Science)

~~Second Year~~

~~Course No.~~		~~Credit hours~~
~~CHEM 1310~~	~~University 1 Chemistry IntrOduction to Physical Chemistry~~	~~3~~
	~~Or~~	
~~CHEM 1320~~	~~University 1 Chemistry: Introduction to Organic Chemistry~~	~~3~~
~~CHEM 2770~~	~~Elements of Biochemistry 1~~	~~3~~
~~(MBIO 2770)~~		
~~STAT 1000~~	~~Basic Statistical Analysis 1~~	~~3~~
~~STAT 2000~~	~~Basic Statistical Analysis 2~~	~~3~~
~~MBIO 2100~~	~~General Microbiology A~~	~~3~~
~~AGRI 2030~~	~~Technical Communications~~	~~3~~
~~FOOD 2500~~	~~Food Chemistry~~	~~3~~
	~~Restricted or Free Electives:~~	~~9~~
~~Total Credit Hours~~		~~30~~

~~Third Year~~

~~HNSC 1210~~	~~Nutrition for Health and Changing Lifestyles~~	~~3~~
~~BIOE 3530~~	~~Engineering Fundamentals~~	~~3~~
~~FOOD 3210~~	~~Food Engineering Fundamentals~~	~~3~~
~~FOOD 3010~~	~~Food Process 1~~	~~3~~
~~FOOD 4150~~	~~Food Microbiology 1~~	~~3~~
~~FOOD 4160~~	~~Food Analysis 1~~	~~3~~
~~FOOD 4250~~	~~Food Analysis 2~~	~~3~~

~~MKTG 2210 Fundamentals of Marketing 3~~
~~Restricted and/or Free Electives 6~~
~~Total Credit Hours 30~~

~~Fourth Year~~
~~FOOD 4010 Food Process 2 3~~
~~FOOD 4120 Food Science Seminar 3~~
~~FOOD 4200 Quality Control in Foods 3~~
~~FOOD 4510 Food Product Development 3~~
~~Restricted and/or Free Electives 18~~
~~Total credit hours 30~~

~~Restricted Electives~~
~~Group 1~~
~~Three credit hours from the following:~~
~~AGRI 2190 Toxicology Principles (1.5)~~
~~Plus~~
~~ANSC 2530 Nutritional Toxicology (1.5)~~
~~FOOD 1000 Food Safety Today and Tomorrow (3)~~
~~FOOD 4310 Introduction to HACCP (3)~~
~~FOOD 4500 Food Safety and Regulations (3) 3~~

~~Group 2~~
~~Two courses (six credit hours) from the following:~~
~~HNSC 4270 Applied Sensory Methods (3)~~
~~FOOD 3160 Frozen Dairy Products (3)~~
~~FOOD 3170 Cheese and Fermented Milk Products (3)~~
~~FOOD 3200 Baking Science and Technology (3)~~
~~FOOD 3500 Processing of Animal Food Products (3)~~
~~FOOD 4230 Food Research (3)~~
~~FOOD 4240 Analysis of Water and Waste (3)~~
~~FOOD 4540 Functional Foods and Nutraceuticals (3) 6~~

~~Group 3~~
~~One course (three credit hours) of the following:~~
~~PHIL 1290 Critical Thinking (3)~~
~~PHIL 2740 Ethics and Biomedicine (3)~~
~~PHIL 2750 Ethics and the Environment (3)~~
~~PHIL 2830 Business Ethics (3) 3~~

~~Free Electives 21~~

B. Sc. (Food Science) Degree Core

Course No.		Credit Hours
CHEM 2770 (MBIO 2770)	Elements of Biochemistry	3
FOOD 2500	Food Chemistry	3
FOOD 3010	Food Process 1	3

FOOD 4120	Food Science Seminar	3
FOOD 4150	Food Microbiology 1	3
FOOD 4160	Food Analysis 1	3
FOOD 4200	Quality Control	3
FOOD 4510	Food Product Development	3
HNSC 1210	Nutrition for Health and Changing Lifestyles	3
MATH 1500	Introduction to Calculus	
OR		
MATH 1520	Introduction to Calculus for Management and Social Sciences	3
STAT 2000	Basic Statistical Analysis 2	3
Total credit hours		33

Food Science – Science Option Core

BIOE 3530	Engineering Fundamentals	3
CHEM 1310	University 1 Chemistry – An Introduction to Physical Chemistry	3
OR		
CHEM 1320	University 1 Chemistry: Introduction to Organic Chemistry*	3
FOOD 3210	Food Engineering Fundamentals	3
FOOD 4010	Food Process 2	3
FOOD 4250	Food Analysis 2	3
MBIO 2100	General Microbiology A	3
MKT 2210	Fundamentals of Marketing	3

*Both CHEM 1310 and CHEM 1320 are required for the Food Science-Science program. One of these courses will be credited as part of the Faculty Core.

Total credit hours		21

Restricted Electives

Group 1 – Food Safety

One Course (three credit hours) from the following:

AGRI 2190	Toxicology Principles (1.5 CH)	
AND		
ANSC 2530	Nutritional Toxicology (1.5 CH)	
FOOD 1000	Food Safety, Today and Tomorrow	
FOOD 4310	Introduction to HACCP	
FOOD 4500	Food Safety and Regulations	3

Group 2 – General

Two Courses (six credit hours) from the following:

FOOD 3160	Frozen Dairy Products	
FOOD 3170	Cheese and Fermented Milk Products	
FOOD 3220	Grains for Food and Beverage	
FOOD 3500	Processing of Animal Food Products	
FOOD 4230	Food Research	
FOOD 4260	Water Management in Food Processing	
FOOD 4540	Functional Foods and Nutraceuticals	
HNSC 4270	Sensory Evaluation of Food	6

Science Option Free Electives		21
Food Science – Business Option Core		
ABIZ 3500	Agriculture and Food Policy	3
ACC 1100	Introductory Financial Accounting	3
ECON 2450	Microeconomics	3
ECON 2470	Macroeconomics	3
FOOD 4500	Food Safety and Regulations	3
HRIR 2440	Human Resource Management	3
Total credit hours		18
Restricted Electives		
Group 1		
Two courses (six credit hours) from the following:		
ABIZ 2510	Introduction to Agricultural and Food Marketing	
ABIZ 3520	Food Distribution and International Merchandising	
MKT 2210	Fundamentals of Marketing	6
Group 2		
One course (three credit hours) from the following:		
AGRI 2190	Toxicology Principles (1.5 CH)	
AND		
ANSC 2530	Nutritional Toxicology (1.5 CH)	
FOOD 1000	Food Safety, Today and Tomorrow	
FOOD 3160	Frozen Dairy Products	
FOOD 3170	Cheese and Fermented Milk Products	
FOOD 3220	Grains for Food and Beverage	
FOOD 3500	Processing of Animal Food Products	
FOOD 4250	Food Analysis 2	
FOOD 4260	Water Management in Food Processing	
FOOD 4310	Introduction to HACCP	
FOOD 4540	Functional Foods and Nutraceuticals	3
Business Option Free Electives		21

Faculty of Architecture

Modifications:

EVAR 3014 Drawing: Freehand / Digital Cr.Hrs. 3
An introduction to drawing skills that allows students to become articulate in proposing and studying architecture through drawing. The course covers a range of media. May not be held for credit with the former ARCH 6532 or ARCH 6370.

EVLU 3006 Studio 3: Dwelling / Precinct / Everyday Life Cr.Hrs. 9
A studio/lecture course that examines the notion of dwelling through spatial design with a concentration at the scale of the precinct in the private to semi-private realm focusing on the needs of the individual, on spatial qualities, materials, and site design detail. Theoretical, analytical, conceptual, design, planning and communication skills in landscape + urbanism will be developed and applied in distinct projects. Emphasis is on habitat by design, issues of contested space, ecological design, and sustainability. May include a mandatory field studies trip: location and cost to be determined on a yearly basis.

NET CHANGE IN CREDIT HOURS: 0

Second Degree, Environmental Design Program.

There are two different streams available:

Stream One: Architecture Masters Preparation 1 (AMP 1 – two years of study)
Available for those who have little or no formal design education and have a recognised undergraduate first degree (or are currently enrolled in the final year of a degree program) who wish to apply to the Master in Architecture Program. Students who have completed a first degree in any field of study may apply and be admitted through the Architecture Masters Preparation Program to the Department of Architecture Option in Environmental Design. This program introduces students to the field of architecture and all aspects of architectural thinking. Upon completion of all of the requirements for this two-year program (Environmental Design: Year 3 Architecture Option and Environmental Design: Year 4 Architecture Option), students will be eligible to receive an Environmental Design degree (B.Env.D).

Stream Two: Architecture Masters Preparation 2 (AMP 2 – one year of study)
Available for those who already have an undergraduate design degree (or are currently enrolled in the final year of a design degree program) in an allied design field such as interior design, landscape architecture or who have an architecture technical applied degree, and wish to apply to the Master in Architecture Program. These students may be considered on a case-by-case basis for placement into the Environmental Design: Year 4 Architecture Option, but will be ineligible to receive the Environmental Design degree.

School of Art

Modification:

FAAH 3590 Islamic Art and Architecture Cr.Hrs. 3
A contextual and thematic study of Islamic art and architecture beginning in the 7th century and continuing through the present. Prerequisites: [(FAAH 1030 or FAAH 1050) and (FAAH 1040 or FAAH 1060)] or [054.103 and 054.104] or [054.105 and 054.106] or [FAAH 1100] or [FAAH 2100 (054.210)].

Deletion:

FAAH 2100 Survey of Asian Art Cr.Hrs. 3 -3

NET CHANGE IN CREDIT HOURS: -3

Faculty of Arts

Asian Studies

Deletion:

ASIA 3650 Masterpieces of Asian Literature Cr.Hrs. 6 -6

Introduction:

ASIA 3560 Themes and Genres in Asian Literature Cr.Hrs. 3 +3
A study of selected works of Asian literature organized around specific themes or genres in English translation. Content may vary from year to year, but will include literary works from two or more regions and two or more historical periods. Prerequisite: [a grade of "C" or better in ASIA 1420 (or 150.142 or HIST 1420 or 011.142) or ASIA 1430 (or 150.143 or HIST 1430 or 011.143)] or written consent of instructor. As the course content will vary from year to year, students may take this course more than once for credit.

NET CHANGE IN CREDIT HOURS: +3

Program modification:

Modification to List A Courses Acceptable for Asian Studies Credit to add: ASIA 3560 Themes and Genres in Asian Literature (3), HIST 3440 Post-Colonial South Asian History (3), HIST 3670 Modern Indian History (3), HIST 4070 Issues in Modern Asian History 1: Selected Topics (3) and HIST 4080 Issues in Modern Asian History 2: Selected Topics (3); and to delete ASIA 3650 Masterpieces of Asian Literature (6).

Asian Studies
2009-2010 Undergraduate Calendar, pages 127/128

- **Revisions to List A Courses Acceptable for Asian Studies Credit**

Added material

List A	Courses Acceptable for Asian Studies Credit	
Course No.	Credit Hours	
Faculty of Arts		
Anthropology		
ANTH 2450	Ethnology of China	3
Asian Studies Asian Languages		
ASIA 1760	Introduction to Chinese (Mandarin)	6
ASIA 1770	Introduction to Japanese	6
ASIA 1780	Basic Sanskrit	6
ASIA 1790	Basic Hindi-Urdu	6
ASIA 2340	Special Studies in Epic and Pauranic Sanskrit 1	3
ASIA 2350	Special Studies in Epic and Pauranic Sanskrit 2	3
ASIA 2360	Mandarin Comprehension	6
ASIA 2760	Intermediate Chinese (Mandarin)	6
ASIA 2770	Intermediate Japanese	6
ASIA 2780	Intermediate Sanskrit	6
ASIA 2790	Intermediate Hindi-Urdu	6
ASIA 3660	Advanced Mandarin Comprehension	6
ASIA 3760	Advanced Chinese (Mandarin)	6
ASIA 3770	Advanced Japanese	6
ASIA 3790	Advanced Hindi-Urdu	6
Asian Studies Other Asian courses		
ASIA 1420	Asian Civilizations to 1500 (Same as HIST 1420)	3
ASIA 1430	Asian Civilizations from 1500 (Same as HIST 1430)	3
ASIA 2070*	South Asian Civilization	6
ASIA 2080	South Asian Civilization	3
ASIA 2570	History, Culture and Society in Chinese Film	3
ASIA 2580	Women in Chinese Film	3
ASIA 2600	Japanese Film	3
ASIA 2620	Japanese Civilization	3
ASIA 2630	Chinese Civilizatio	3
ASIA 2650	Premodern Chinese Literature in Translation	3
ASIA 2660	Modern Chinese Literature in Translation	6
ASIA 2670	Modern Japanese Literature in Translation	3
ASIA 3480	Selected Topics in Asian Studies 1	3
ASIA 3490	Selected Topics in Asian Studies 2	3
ASIA 3560	Themes and Genres in Asian Literature	3
ASIA 3600	Japanese Popular Culture	3
ASIA 3650*	Masterpieces of Asian Literature	6
150.141*	Asian Civilizations (Same as HIST 1410)	6
150.211*	East Asian Civilization	6
History		
HIST 1410*	Asian Civilizations (Same as the former 150.141)	6
HIST 1420	Asian Civilizations to 1500 (Same as ASIA 1420)	3
HIST 1430	Asian Civilizations from 1500 (Same as ASIA 1430)	3
HIST 2050	South Asia Since 1947	3
HIST 2130	Emergence of Modern South Asia: 1757-1947	3
HIST 2410	History of India	6
HIST 2650	Modern China and Japan	6
HIST 2654	History of the People's Republic of China, 1949-Present	3
HIST 3090	Studies in Asian History	3
HIST 3580	Topics in Recent World History 1 [Acceptable for credit only when the topic is Asia related]	3
HIST 3440	Post-Colonial South Asian History (B)	3
HIST 3670	Modern Indian History (B)	3
HIST 3960*	China, 1911 to the Present	3
HIST 3980	Nationalism on the Indian Sub-Continent in the Twentieth Century	3
HIST 4070	Issues in Modern Asian History 1: Selected Topics (M,B)	3
HIST 4080	Issues in Modern Asian History 2: Selected Topics (M,B)	3
HIST 4200	Modern South Asia: Colonialism, Nationalism, and Modernization	3
HIST 4940*	Revolutionary China: A Century of Upheaval, 1870 to Present	6
Political Studies		
POLS 2020	Asian Politics	6
Religion		
RLGN 1320	Introduction to World Religions	6

RLGN 1321	Introduction aux religion du monde	6
RLGN 2540	Modern Movements in World Religions	6
RLGN 2570	Indian Religious Art and Architecture	3
RLGN 2700	Religions of China and Japan	6
RLGN 3750	Topics in Indian Religious Art and Architecture	3
020.266*	Religions of Indian Origin	6
020.374*	Studies in Asian Religions	6
020.441*	Masters of Spiritual Life	6
020.445*	Topics in Comparative Religion	6
Sociology		
SOC 3690	Sociology of the Developing Societies	3
School of Art		
FAAH 2100*	Survey of Asian Art	3
FAAH 3230	Chinese Art and Architecture	3
FAAH 3240	Japanese Art and Architecture	3
FAAH 3590	Islamic Art and Architecture	3
Clayton H. Riddell Faculty of Environment, Earth, and Resources		
Geography		
GEOG 2490	Geography of Modern China	3
GEOG 3590	Geography of Developing Countries	6

*indicates course no longer offered.

Canadian Studies

Program modification:

Modification to List of Approved Courses in Canadian Studies to add five courses: HIST 2282 Inventing Canada (3), HIST 2284 Democracy and Dissent: Contesting Canada (3), HIST 2286 Modern Canada (3), HIST 3052 Canada since the 1960s (3), and HIST 3054 Canada and the United States (3); and to delete four courses: HIST 2950 Early Canada: From Earliest Settlement to 1867 (6), HIST 2960 The New Dominion: 1867 to 1921 (6), HIST 2970 Modern Canada: 1921 to the Present (6), and HIST 3220 The History of Canadian-American Relations (6).

Canadian Studies
2009-2010 Undergraduate Calendar, pages 130-132

- Revisions to the List of Approved Courses in Canadian Studies

Added material
~~Deleted material~~

List of Approved Courses in Canadian Studies

In the following list of approved courses the designation (H) indicates an Honours course. Courses designated (CUSB) are offered in French at Collège universitaire de Saint-Boniface.

* In the list below indicates courses no longer offered.

Faculty of Arts

Canadian Studies

CDN 1130	Introduction to Canadian Studies	6
CDN 3730	Canadian Identity: An Interdisciplinary Approach	3
CDN 4410	Seminar in Canadian Studies (H)	6

Anthropology

ANTH 2040	Native North America: A Sociocultural Survey (B)	3
ANTH 2041	Les Amérindiens de l'Amérique du nord: une étude socioculturelle (B) (CUSB)	3
ANTH 2640	Manitoba Prehistory	3
ANTH 3460	Native North American Ethnology (B)	3
ANTH 3461	Ethnologie des Amérindiens de l'Amérique du Nord (B) (CUSB)	3
ANTH 3500	Peoples of the Arctic (B)	3
ANTH 3501	Peuples de l'Arctique (B) (CUSB)	3
ANTH 3550	Canadian Subcultures	3
ANTH 3551	Sous-cultures canadiennes (CUSB)	3
ANTH 3910	Archaeological Field Training (D,E)	6

Economics

ECON 1210	Introduction to Canadian Economic Issues and Policies	3
ECON 1211	Introduction aux politiques et aux problèmes économiques canadiens (CUSB)	3
ECON 2280	Social Welfare and Human Resources	6
ECON 2310	Canadian Economic Problems	6
ECON 2311	Les problèmes économiques du Canada (CUSB)	6
ECON 2350	Community Economic Development	3
ECON 2360	Women in the Canadian Economy	6
ECON 3300	Canadian Economic History	6
ECON 3301	Histoire économique du Canada (CUSB)	6
ECON 3510	Industrial Relations (Cross-listed with Labour Studies LABR 3510)	6
ECON 3690	Economic Issues of Health Policy	3
ECON 3720	Urban and Regional Economics and Policies	3
018.352*	Introductory Regional Economics	3
018.353*	Intermediate Regional Economics	3
018.357*	Health Economics	3
018.360*	Workshop in the Economy of Canada	6

English, Film, and Theatre

ENGL 2270	Canadian Literature	6
ENGL 3270	Studies in Canadian Literature	3
ENGL 3271	Studies in Canadian Literature	3
004.275*	Canadian Literature (H)	6
004.288*	Canadian Literature to 1967	3
004.289*	Canadian Literature after 1967	3
004.377*	Canadian Poetry	6
004.378*	The Canadian Novel	6
004.388*	Studies in Canadian Literature	6
FILM 2430	The Canadian Film	3

Francais (CUSB)

FRAN 2831	L'individu et le pays (CUSB)	3
FRAN 2881	Civilisation canadienne-française (CUSB)	3
FRAN 3531	Le théâtre québécois (CUSB)	3
FRAN 3541	Le théâtre de l'Ouest (CUSB)	3
FRAN 3831	L'époque de la contestation (CUSB)	3
FRAN 3841	La révolution tranquille et le roman (CUSB)	3
FRAN 3851	Le théâtre de l'Ouest: poésie, nouvelles (CUSB)	3
FRAN 3861	Le théâtre de l'Ouest: romans (CUSB)	3
FRAN 4831	Littérature de l'Acadie et des Cajuns (CUSB)	3

French, Spanish and Italian

FREN 2700	Poésie et théâtre canadiens-français (B)	3
FREN 3140	Roman canadien-français (B)	3
FREN 3850	Civilisation canadienne-française (C)	3

044.247*	French-Canadian Literature in Translation	6
044.348*	Littérature canadienne-française (H)	3
044.353*	Littérature canadienne-française (B)	3
History		
HIST 1390	History of Colonial Canada: 1500-1885 (C)	3
HIST 1400	History of the Canadian Nation Since 1867 (C)	3
HIST 1440	History of Canada (C)	6
HIST 1441	Histoire du Canada (CUSB)	6
HIST 2191	Histoire économique et sociale canadienne du XIXe siècle (CUSB)	6
HIST 2280	Aboriginal History of Canada (C)	6
HIST 2282	Inventing Canada (C)	3
HIST 2284	Democracy and Dissent: Contesting Canada (C)	3
HIST 2286	Modern Canada (C)	3
HIST 2950*	Early Canada: from the Earliest Settlement to 1867 (C)	6
HIST 2951	Les origines du Canada: depuis la première colonie jusqu'en 1867 (CUSB)	6
HIST 2960*	The New Dominion: 1867 to 1921 (C)	6
HIST 2961	Le nouveau Dominion: de 1867 à 1921 (CUSB)	6
HIST 2970*	Modern Canada: 1921 to the Present (C)	6
HIST 2971	Le Canada moderne: de 1921 à nos jours (CUSB)	6
HIST 3050	Canada since 1945 (C)	6
HIST 3052	Canada since the 1960s (C)	3
HIST 3054	Canada and the United States (C)	3
HIST 3220*	The History of Canadian-American Relations (A,C)	6
HIST 3250	Canada and the World, 1867 to the Present (C)	6
HIST 3690	History of Northern Canada (C)	6
HIST 3721	Histoire du Manitoba (C) (CUSB)	6
HIST 3730	A History of Western Canada (C)	6
HIST 3780	Studies in Canadian History 1 (C)	3
HIST 3781	Études choisies en histoire du Canada 1 (CUSB)	3
HIST 3790	Studies in Canadian History 2 (C)	3
HIST 3791	Études choisies en histoire du Canada 2 (CUSB)	3
HIST 3910	The Ukrainians in Canada (C)	3
HIST 4060	Gender History in Canada (C) (H)	6
HIST 4280	Topics in the Cultural History of Canada (C)	6
HIST 4340	Introduction to Archival Science (G)	6
HIST 4390	The History of White Attitudes and Policies towards Native Peoples in North America (C) (H)	6
HIST 4680	Social History of Health and Disease in Modern Canada (C) (H)	6
HIST 4700	Canada, 1896 to the Present (C) (H)	6
HIST 4720	History of Manitoba (C) (H)	6
HIST 4890	Canadian Social History (C) (H)	6
HIST 4900	The Hudson's Bay Company and British North America (C) (H)	6
HIST 4950	History of Quebec (C) (H)	6
011.133*	History of Canada from 1534 (C)	6
011.133F*	Histoire du Canada (CUSB)	6
011.254*	North American Indian (A,C,S)	6
011.324*	Protestantism and the Development of the Canadian Community, 1749-1970 (C,S)	6
011.438*	Intellectual History of Canada (C) (H)	3
011.449*	The New Canada, 1867-96 (S) (H)	6
Icelandic		
ICEL 2230	Contemporary Icelandic-Canadian Literature	3
ICEL 2300*	Icelandic-Canadian Literature (H)	6
ICEL 3460*	Laura Goodman Salverson	3
ICEL 4440	The Icelanders in Canada (H)	3
012.445*	Stephan G. Stephansson (H)	3
Labour Studies		
LABR 3510	Industrial Relations (Cross-listed with Economics ECON 3510)	6
Native Studies		
NATV 1200	The Native Peoples of Canada	6
NATV 1220	The Native Peoples of Canada, Part 1	3
NATV 1240	The Native Peoples of Canada, Part 2	3
NATV 1250	Introductory Cree 1	3
NATV 1260	Introductory Cree 2	3
NATV 1270	Introductory Ojibway 1	3
NATV 1280	Introductory Ojibway 2	3
NATV 1290	Introductory Inuktitut	3
NATV 2020	The Métis of Canada	3
NATV 2040	Native Peoples of the Northern Plains	3
NATV 2060	The Native Peoples of the Eastern Woodlands	3
NATV 2070	The Native Peoples of the Subarctic	3
NATV 2080	Inuit Society and Culture	3
NATV 2220	Native Societies and the Political Process	3
NATV 2250	Intermediate Cree	6
NATV 2270	Intermediate Ojibway	6
NATV 2300	Cree Literature	3
NATV 2320	Structure of the Cree Language	3
NATV 2410	Canadian Native Literature	3
NATV 2420	Inuit Literature in Translation	3
NATV 2450	Images of Indians in North American Society	3
NATV 3000	Selected Topics	3

NATV 3240	Native Medicine and Health	3
NATV 3270	The Métis Nation	3
NATV 3280	Aboriginal Peoples and the Canadian Justice System	3
NATV 3300	Native Language Planning and Development	3
NATV 3310	Canadian Law and Aboriginal Peoples	3
NATV 3320*	Aboriginal Organizations	3
NATV 3340*	Circumpolar Cultures and Lifestyles	3
NATV 3370	Political Development in the North	3
NATV 3380	Cultural Constructions of Gender in Canadian Aboriginal Societies	3
NATV 4200	First Nations Government	3
NATV 4210	Seminar in Contemporary and Historical Métis Issues	3
NATV 4220	Environment, Economy and Aboriginal People	3
NATV 4230	Traditional Knowledge and Native Studies Research	3
NATV 4240	Arctic Lifestyles	3
NATV 4250	Topics on Aboriginal Identities	3
NATV 4260*	Sacred Lands and Sacred Spaces of Indigenous Peoples	3
NATV 4280	Missionaries, Colonialism and Aboriginal Peoples	3
032.090*	Introductory Cree	6
032.091*	Introductory Ojibway	6
032.121*	Intermediate Ojibway	6
032.130*	Intermediate Cree	6
032.205*	Coastal Indians of Canada	3
032.220*	Native Societies and the Political Process	3
032.321*	The Native Identity	6
032.323*	Native Peoples and the Law 2	3
032.325*	Native Peoples and the Law 1	6
032.373*	Art of the North American Native Peoples	3
Political Studies		
POLS 1070	Law, Politics and Power in Canada	3
POLS 2070	Introduction to Canadian Government	6
POLS 2071	Introduction au système gouvernemental Canadien	6
POLS 2561	Questions d'actualité en politique Canadienne (CUSB)	6
POLS 2570*	Introduction to Public Administration	6
POLS 2571	Initiation à l'administration publique (CUSB)	6
POLS 3100	Gender and Politics in Canada	3
POLS 3170	The Canadian Charter of Rights and Freedoms	3
POLS 3470	Canadian Public Management	3
POLS 3520	Canadian Foreign and Defence Policy	6
POLS 3561	Politique étrangère Canadienne (CUSB)	6
POLS 3670	Canadian Political Parties	3
POLS 3860	Canadian Federalism	3
POLS 3960	Canadian Politics	6
POLS 4140	Canadian Political Ideas (H)	3
POLS 4150	Indigenous Governance (H)	3
POLS 4180	Provincial Politics in Canada (H)	3
POLS 4190	Manitoba Politics and Government (H)	3
POLS 4660	The State in the Economy (H)	6
POLS 4860	The Canadian Policy Process (H)	6
019.156*	Introduction to Canadian Government	6
019.156F*	Introduction au système gouvernemental Canadienne (CUSB)	6
019.206*	Urban and Local Politics	6
019.256*	Issues of Canadian Politics	6
019.266*	Human Rights and Civil Liberties	6
019.286*	Canadian Political Parties	6
019.356*	Canadian Foreign Policy	6
019.366*	Quebec and the Canadian Political System (H)	3
019.368*	Canadian Defense Policy	3
019.476*	Manitoba Politics and Voting Behaviour	6
019.487*	Government and Public Sector Unionism (H)	6
Religion		
RLGN 2410	Religion in Canada (C)	6
RLGN 2411	Les religions au Canada (CUSB)	6
RLGN 2590	Religion and Social Issues (C)	3
RLGN 2591	La religion et les problèmes sociaux (CUSB)	3
020.272*	Dimensions of Religiosity in Contemporary Canadian Literature	6
Slavic Studies		
UKRN 2420	Ukrainian Canadian Literature	3
UKRN 2430	Ukrainian Canadian Folklore	3
Sociology		
SOC 2320	Canadian Society and Culture	3
SOC 2321	La société Canadienne et sa culture (CUSB)	3
SOC 2370	Ethnic Relations	3
SOC 2371	Rapports ethniques (CUSB)	3
SOC 2531	Sociologie du Manitoba (CUSB)	6
SOC 2610	Sociology of Criminal Justice and Corrections	3
SOC 2620	The Sociology of Aging	3
SOC 3380	Power, Politics and the Welfare State	3
SOC 3470*	Political Sociology	3
SOC 3471	Sociologie politique (CUSB)	3
SOC 3700	Sociology of Law	3
Ukrainian Canadian Heritage Studies		
UCHS 3100	The Ukrainian Arts in Canada	3

School of Art

FAAH 3260	Canadian Art and Architecture to World War II	3
FAAH 3270	Canadian Art Since World War II	3
FAAH 3430	Inuit Art	3
054.358*	Inuit Culture and Art	3
054.375*	Canadian Art 1	3
054.376*	Canadian Art 2	3

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

Geography

GEOG 2450	The Making of the Prairie Landscape (A)	6
GEOG 2570	Geography of Canada (A)	3
GEOG 3431	Géographie du Canada (CUSB)	3
GEOG 3480	Canadian Problems	3
GEOG 3481	Particularités de la géographie du Canada (CUSB)	3
GEOG 3700	Canada: The Making of the Human Landscape (A)	6
GEOG 3701	Canada: évolution de l'écoumène (CUSB)	6
053.369*	Historical Geography of Indian Peoples in the Canadian Fur Trade	6
053.378*	Historical Geography of Canadian Indians (A)	6
053.470*	Historical Geography of the Ojibway Indians (H)	3

For course descriptions, see departmental listings.

NOTE: Courses annotated by appearing in the various departmental course listings, may be used toward partial fulfilment of the requirements for Canadian Studies.

Central and East European Studies

The program is proposing a modification to the List of Approved Courses to add one course: GRMN 1310 Love in German Culture in English Translation (3).

Central and East European Studies
2009-2010 Undergraduate Calendar, page 134

- **Revisions to the List of Approved Courses in Central and East European Studies**

Added material

List of Approved Courses in Central and East European Studies

Faculty of Arts

Economics

ECON 2270	European Economic History	6
ECON 2510	The Economy of Ukraine	3
ECON 4450	Comparative Economic Systems	6

German and Slavic Studies

GRMN 1300	Masterpieces of German Literature in English Translation	3
GRMN 1310	Love in German Culture in English Translation	3
GRMN 2120	Introduction to German Culture 1	3
GRMN 2130	Introduction to German Culture 2	3
GRMN 3260	Representations of the Holocaust	3
GRMN 3262	Representations of the Holocaust in English Translation	3
GRMN 3270	Studies in Contemporary German Cinema	3
GRMN 3280	Sex, Gender and Cultural Politics in the German-Speaking World	3
GRMN 3282	Sex, Gender and Cultural Politics in the German-Speaking World in English Translation	3
GRMN 3290	History in Literature in German-Speaking Countries	3
GRMN 3390	German Representations of War	3
GRMN 3392	German Representations of War	3
GRMN 3520	Special Topics in Comparative German and Slavic Studies	6
RUSN 1400	Masterpieces of Russian Literature in Translation	3
RUSN 2280	Russian Culture 1	3
RUSN 2290	Russian Culture 2	3
RUSN 2740	Literature and Revolution	3
RUSN 2750	Contemporary Russian Literature and Film	3
RUSN 2770*	Masterpieces of Russian Literature in Translation	3
SLAV 2240	East European Literature 1	3
SLAV 2250	East European Literature 2	3
SLAV 2260	Russia, Ukraine and Poland Cultures in Dialogue 1	3
SLAV 2270	Russia, Ukraine and Poland Cultures in Dialogue 2	3
SLAV 3520	Special Topics in Comparative German and Slavic Studies	6
UKRN 2770	Ukrainian Culture 1	3
UKRN 2780	Ukrainian Culture 2	3
UKRN 3670	Contemporary Ukrainian Literature	3
UKRN 3850	Ukrainian Short Story	3

History

HIST 2490	History of Russia	6
HIST 2600	Introduction to Ukraine	3
HIST 2610	Making of Modern Ukraine	3
HIST 2660	History of the Soviet Union (E)	3
HIST 2661	Histoire de l'Union soviétique (E)	3
HIST 2840	A History of Russia to 1917	3
HIST 2841	Histoire de la Russie jusqu'en 1917 (E)	3
HIST 3030	Issues in Ukrainian History	3
HIST 3060*	German and German Jewish History, 1780-1933 (E)	3
HIST 3062	German and German-Jewish History, 1618 to the Present (E)	6
HIST 3064	German and German-Jewish History, 1618-1900 (E)	3
HIST 3066	German and German-Jewish History, 1900 to the Present (E)	3
HIST 3180	Modern Russian: The Soviet Era and Beyond	6
HIST 4300	Problems in Modern Russian and Soviet History	6
011.255*	History of Ukraine	6

Political Studies

POLS 3720	Politics, Government and Society in Ukraine	3
POLS 3810	Introduction to Marxism	3
POLS 2920*	Government, Politics and Society in Ukraine	6
POLS 4810*	Seminar in Marxist-Leninist and Contemporary Marxist Political Theory	6

Religion

RLGN 1350	The History of Eastern Christianity (A)	6

School of Art

FAAH 3160	Topics in 20th Century Art (only when topic focuses on	3

	Central and Eastern Europe)	
FAAH 3280	Early Byzantine Art and Architecture	3
FAAH 3290	Later Byzantine Art and Architecture	3
FAAH 4070	Seminar in Art History 1 (when its focus is on Central and Eastern Europe	3
FAAH 4080	Seminar in Art History 2 (when its focus is on Central and Eastern Europe)	3

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

Geography

GEOG 3600*	Geography of Ukraine	3

*indicates course no longer offered.

Students are advised to consult the respective departmental *Calendar* entries for specific information on prerequisites and restrictions.

Economics

Modifications:

ECON 2550 Political Economy 2: Economic Growth and Fluctuations in Global Economic Environment Cr.Hrs. 3
(formerly 018.255) A study of the theories, institutions, policies and relations of power in national and global economic society with reference to economic growth, international trade and finance, economic fluctuations, inflation and unemployment. Particular attention will be given to the role of the state in the regulations of macroeconomic activity. Prerequisite: a grade of "C" or better in ECON 2540 (018.254).

ECON 3180 Introduction to Econometrics Cr. Hrs. 3
(formerly 018.318) The application of statistical tools, especially regression analysis for estimating economic relationship and testing economic hypotheses. Also offered as ABIZ 3080 by Agricultural Economics. May not hold for credit with ABIZ 3080 (061.308). Prerequisite: [a grade of "C" or better in ECON 3170 (018.317)] or [a grade of "C" or better in each of STAT 2000 (005.200) and six credit hours of 1000 level economics].

NET CHANGE IN CREDIT HOURS: 0

French, Spanish and Italian

Introduction:

PORT 1170 Introductory Portuguese Cr.Hrs. 6 (lab required) +6
A course designed for those with little or no previous knowledge of Portuguese. The course includes grammar, reading and oral practice, with language laboratory exercises. An oral approach is utilized. The student is given glimpses of cultural aspects of Portugal and Brazil. Students with high school Portuguese or its equivalent may not normally take the course for credit.

Modifications:

SPAN 1180 Introductory Spanish Cr.Hrs. 6
(formerly 044.118) A course designed for those with little or no previous knowledge of Spanish. The course includes grammar, reading and oral practice, with language laboratory exercises. An

oral approach is utilized. The student is given glimpses of cultural aspects of Spain and Spanish America. Students with Senior 4 Spanish may not normally take the course for credit. Not open to students with native oral fluency. Students may not hold credit for SPAN 1180 and any of: SPAN 1181 (former TRAD 1181 or former 122.118) or SPAN 1190 or SPAN 1191 or SPAN 1280. Not open to students who have previously obtained credit in SPAN 1260 (044.126) or SPAN 1261 (former TRAD 1261 or former 122.126) or SPAN 1270 (044.127) or SPAN 1271 (former TRAD 1271 or former 122.127) or SPAN 1290.

SPAN 1190 Introductory Spanish 2 Cr.Hrs. 3
The second term of SPAN 1180 Introductory Spanish. This course is intended for students who have already knowledge of the alphabet and the sound system, as well as elementary comprehension, communication and writing skills equivalent to those that would be achieved in the first term of SPAN 1180. Student may not hold credit for SPAN 1190 and any of: SPAN 1191 or SPAN 1180 (044.118) or SPAN 1181(former TRAD 1181 or former 122.118) or SPAN 1290. Not open to students who have previously obtained credit in SPAN 1260 (044.126) or SPAN 1261 (former TRAD 1261 or former 122.126) or SPAN 1270 (044.127) or SPAN 1271 (former TRAD 1271 or former 122.127) or SPAN 1290. Prerequisite: [Senior 4 Spanish] or written consent of instructor or department head.

SPAN 1260 Intermediate Spanish Language Review Cr.Hrs. 3
(formerly 044.126) Intensive language review for students who have completed SPAN 1180 (044.118) (SPAN 1181 or the former TRAD 1181 or the former 122.118) or SPAN 1190 or SPAN 1191 or who have been granted prerequisite standing in SPAN 1180 (044.118)(SPAN 1181 or the former TRAD 1181 or the former 122.118). Language study and practice in the classroom and language laboratory. Not open to students with native oral fluency. Students may not hold credit for SPAN 1260 (044.126) and any of: SPAN 1261 (former TRAD 1261 or former 122.126) or SPAN 1280 or SPAN 1290. Prerequisite: [a grade of "C" or better in SPAN 1180 (044.118)(SPAN 1181 or the former TRAD 1181 or the former 122.118) or SPAN 1190 or SPAN 1191] or written consent of instructor of department head.

SPAN 1280 Spanish for Native Speakers Cr.Hrs. 3
A survey of grammar and writing for people with an advanced level of oral Spanish. All the class exercises, readings, activities and examinations will be in Spanish. Students may not hold credit for SPAN 1280 and any of: SPAN 1180 (044.118) or SPAN 1181 (former TRAD 1181 or former 122.118) or SPAN 1190 or SPAN 1191 or SPAN 1260 (044.126) or SPAN 1261 (former TRAD 1261 or former 122.126) or SPAN 1270 (044.127) or SPAN 1271 (former TRAD 122.127 or former 122.127) or SPAN 1290. Prerequisite: written consent of instructor or department head.

NET CHANGE IN CREDIT HOURS: +6

German and Slavic Studies – German

Deletion:

GRMN 2370 Modern German Literature in Translation Cr.Hrs. 6 -6

Introduction:

GRMN 1310 Love in German Culture in English Translation Cr.Hrs. 3 +3
Language of instruction: English. An introduction to the discourse and meaning of love through German culture from the Middle Ages to the present; analyzes the expression of different concepts of love (spiritual, courtly, erotic, romantic, sexual, free, same-sex, familial, virtual) in literature and other cultural forms. Stresses the development of English reading and writing skills. The course is designed for students who have little or no prior knowledge of German culture.

Modification:

GRMN 2100 Intermediate German Cr.Hrs. 6
(formerly 008.210) Grammar review, exercises, development of practical oral skills, conversation and modern usage. Introduction to German poetry and prose. Students may not hold credit for both GRMN 2100 (008.210) and GRMN 2101 (008.210). Prerequisite: [German 40S] or [a grade of "C" or better in GRMN 1120 (008.112) or GRMN 1121 (008.112)] or written consent of department head.

NET CHANGE IN CREDIT HOURS: -3

Program modifications:

For the General Major, Honours Single and Honours Double Programs, to increase flexibility, there will be an option to substitute GRMN 4600 with GRMN 4200 and GRMN 1120 or GRMN 2100 with "6 credit hours in German".

German
2009-2010 Undergraduate Calendar, pages 164-165

- **Revisions to the General Major, Honours Single and Honours Double Programs**

Added material
~~Deleted material~~

General Major Program

For entry to the Major, the prerequisite is a grade of "C" or better in 6 credit hours in German courses at any level. ~~GRMN 1120 or GRMN 2100.~~ For students who have taken additional courses toward the Major, then a minimum cumulative GPA of 2.00 is required on all courses including the higher grade of repeated courses and excluding failed courses.

A minimum cumulative GPA of 2.00 in all courses that comprise the Major is required to graduate, including the higher grade of repeated courses and excluding failed courses.

Minor Program

For entry to the Minor, the prerequisite is a grade of "C" or better in 6 credit hours in German.

Honours Program

For entry to the Honours program, see Section 4: Basic Faculty Regulations for the Three Programs Leading to a B.A.

8.11.4 German, Department Code: 008

UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
GENERAL MAJOR TOTAL: 30 CREDIT HOURS			
~~GRMN 1120 or GRMN 2100[1]~~	~~• GRMN 2120 or GRMN 2130 or GRMN 2140~~ ~~• GRMN 3200~~ ~~• 15 additional credit hours in German~~		
30 credit hours of German to include: GRMN 1120[1] GRMN 2100[2] GRMN 2120 or GRMN 2130 or GRMN 2140 GRMN 3200			
HONOURS SINGLE			
~~GRMN 1120 or GRMN 2100[1]~~	~~• GRMN 2120 or GRMN 2130~~ ~~• GRMN 2140~~ ~~• GRMN 3200~~ ~~• 18 additional credit hours in German courses numbered at the 2000, 3000 or 4000 level~~ ~~• 30 credit hours in ancillary options~~		~~• GRMN 4600~~ ~~• GRMN 4570~~ ~~• 6 additional credit hours in German courses numbered at the 4000 level[2]~~ ~~• 6 additional credit hours in German courses numbered at the 3000 or 4000 level~~ ~~• 6 credit hours in ancillary options~~
• 36 credit hours of German (of which at least 24 credit hours must be German courses numbered at the 2000, 3000 or 4000 level) to include: GRMN 1120[1] GRMN 2100[2] GRMN 2120 or GRMN 2130 GRMN 2140 GRMN 3200 • In years 2 and 3 students must also complete 30 credit hours in ancillary options.			• GRMN 4600[3] • GRMN 4570 • 6 additional credit hours in German courses numbered at the 4000 level[2,1] • 6 additional credit hours in German courses numbered at the 3000 or 4000 level • 6 credit hours in ancillary options

HONOURS DOUBLE		
~~GRMN 1120 or GRMN 2100[1]~~	~~• GRMN 2120 or GRMN 2130~~ ~~• GRMN 2140~~ ~~• GRMN 3200~~ ~~• 12 additional credit hours in German courses numbered at the 2000, 3000 or 4000 level~~ ~~• 24 credit hours in other honours field~~ ~~• 6 credit hours in ancillary options~~	~~• GRMN 4600~~ ~~• GRMN 4570~~ ~~• 3 additional credit hours in German courses numbered at the 4000 level[2]~~ ~~• 3 additional credit hours in German courses numbered at the 3000 or 4000 level~~ ~~• 12 credit hours in other honours field~~
• 30 credit hours of German (of which at least 18 credit hours must be German courses numbered at the 2000, 3000 or 4000 level) to include: GRMN 1120[1] GRMN 2100[2] GRMN 2120 or GRMN 2130 GRMN 2140 GRMN 3200 • In years 2 and 3 students must also complete 6 credit hours in ancillary options and 24 credit hours in second Honours field.		• GRMN 4600[3] • GRMN 4570 • 3 additional credit hours in German courses numbered at the 4000 level[2a] • 3 additional credit hours in German courses numbered at the 3000 or 4000 level • 12 credit hours in other Honours field
SPECIAL COURSE		
GRMN 1240~~, GRMN 2370~~ (No knowledge of the German language is required. May not be used for Major, Minor or Honours credit in German).		

NOTES:

~~[1] In exceptional circumstances (with written consent of department head), students with superior language ability may replace GRMN 1120 or GRMN 2100 with GRMN 3200. In this case, GRMN 3200 listed under Year 2 or 3 of each program must be replaced with 6 credit hours in German in order to complete requirements.~~

[1] Students with superior language ability will not be required to complete GRMN 1120 if they complete either GRMN 2100 or GRMN 3200 with a minimum grade of "C".

[2] Students with superior language ability will not be required to complete GRMN 2100 if they complete GRMN 3200 with a minimum grade of "C"

[3] With written consent of department head, students may substitute GRMN 4600 with GRMN 4200.

[2a] Students enrolled in the fourth year of the Honours program may be permitted to substitute up to 6 credit hours of graduate level courses.

History

Deletions:

HIST 1310 Canada-United States: Contemporary Problems in Perspective: Initial Problems (C) Cr.Hrs. 3 -3
HIST 1320 Canada-United States: Contemporary Problems in Perspective: Current Problems (C) Cr.Hrs. 3 -3
HIST 2950 Early Canada: from the Earliest Settlement to 1867 (C) Cr.Hrs. 6 -6
HIST 2960 The New Dominion: 1867 to 1921 (C) Cr.Hrs. 6 -6

Introductions:

HIST 2282 Inventing Canada (C) Cr.Hrs. 3 +3
This course examines the "invention" and "reinvention" of Canada both before and after Confederation. It examines the process of invention from a range of different perspectives: political, cultural, economic, and social.

HIST 2284 Democracy and Dissent: Contesting Canada (C) Cr.Hrs. 3 +3
This course examines how Canadian democracy (in its broadest meaning) has been contested, debated, and challenged. The history of dissent and citizen engagement is key to the democratic evolution of Canada. The course will evaluate the impact of dissenting voices in Canadian society, such as those of workers, the poor, women, indigenous peoples, and racial and ethnic minorities.

HIST 2286 Modern Canada (C) Cr.Hrs. 3 +3
This course addresses the history of Canada since the First World War with attention to social, political, economic, diplomatic and cultural topics such as: interwar and postwar life, struggles for equality, international and internal conflict, immigration, new technologies, nationalism, aboriginal affairs, the arts and Canada's role in the world. Students may not hold credit for HIST 2286 and any of: HIST 2970 (011.297), HIST 2971 (011.297) or HIST 3050 (011.305).

HIST 3052 Canada since the 1960s (C) Cr.Hrs. 3 +3
Examines fundamental topics and themes in Canada's politics, economy and society from 1960s to the present, including: Quebec nationalism after 1960; western regionalism and the reassertion of provincial rights since the 1970s; the women's movement and first nations' activism since the 1960s; constitutional reform, patriation and the Charter of Rights & Freedoms in the 1980s and 1990s; free trade and globalization since the 1980s. Prerequisite: [A grade of "C" or better in six credit hours of history] or written consent of department head.

HIST 3054 Canada and the United States (C) Cr.Hrs. 3 +3
This course will undertake a detailed and comprehensive study of Canada's relationship with its neighbour from the eighteenth century to the present. Students may not hold credit for both HIST 3054 and HIST 3220 (011.322). Prerequisite: [A grade of "C" or better in six credit hours of history] or written consent of department head.

HIST 3260 Commerce, Rights and Empire in European Thought,
500-2000 (M) Cr.Hrs. 3 +3
This course will scrutinize the intersection of commerce and governance in Europe from c.500 to the present, paying particular attention to the way that debates about commerce, war and peace have generated notions of human rights over the past three centuries. We will explore whether and how debates about the proper way to govern trade played important roles not only in the creation of the modern categories of the "state" and the "economy", but also in understandings of the person as a rational actor of politics with substantial rights. Prerequisite: [A grade of "C" or better in six credit hours of history] or written consent of department head.

HIST 4500 Jewish and European History and Historiography (E) Cr.Hrs. 6 +6
This seminar examines issues relating to Jewish history and historiography in the context of European history and historiography. Prerequisite: written consent of department head.

Modifications:

HIST 2240 History of Antisemitism and the Holocaust (E) Cr.Hrs. 6
(formerly 011.224) A survey of the role of the Jewish minority in Christian Europe over the past two thousand years. First term will focus on the evolution of anti-Jewish ideas and policies. Second term will be a study of the Nazi German Holocaust and, in particular, the role of anti-Semitism as a causal factor therein. Students may not hold credit for both HIST 2240 (011.224) and the former JUD 2940 (055.294).

HIST 2970 Modern Canada: 1921 to the Present (C) Cr.Hrs. 6
(formerly 011.297) An intensive examination of the building of modern Canada, as a nation state and as a social, cultural, economic and political entity. Student may not hold credit for HIST 2970 and any of: HIST 2971 (011.297) or HIST 2286.

HIST 3050 Canada since 1945 (C) Cr.Hrs. 6
(formerly 011.305) A problems approach to recent Canadian history involving lectures and seminars. Emphasis will be placed on political, social and economic issues of national interest during the last 40 years. Students may not hold credit for both HIST 3050 (011.305) and HIST 2286. Prerequisite: [A grade of "C" or better in six credit hours of history] or written consent of department head.

HIST 3220 The History of Canadian-American Relations (A,C) Cr.Hrs. 6
(formerly 011.322) A detailed and comprehensive study of the diplomatic relations between Canada and the United States from 1783 to the Present. Students may not hold credit for both HIST 3220 (011.322) and HIST 3054. Prerequisite: [A grade of "C" or better in six credit hours of history] or written consent of department head.

NET CHANGE IN CREDIT HOURS: +6

Program modification:

Modifications to the honours program to permit students who have a strong overall GPA in history but who may have a grade below B in one of their 1000 or 2000 level history courses, to still be eligible for admission to or continuation in Honours.

History
2009-2010 Undergraduate Calendar, page 172

- **Revisions to the Honours Program Information**

Added material
~~Deleted material~~

8.13.2 Program Information
Honours Program
For entry to the Honours Program, see Section 4: Basic Faculty Regulations for the Three Programs Leading to a B.A.

~~Normally, to continue in Honours, a minimum grade of "B" must be obtained in all History courses.~~ In addition, students are to have a Grade Point Average of 3.0 or better in all History courses completedbefore admission.

To continue in the Honours program a 3.0 Grade Point Average, with minimum grades of "B" in all 3000- and 4000-level History courses, must be maintained. Normally, students who fail to maintain a minimum grade of "B" in all 3000- and 4000- level courses will be required to withdraw from the Honours program.

It is recommended that students complete History HIST 4400 or HIST 4580 ~~is recommended~~ ic n Year 4 if they intend ~~for students intending~~ to do graduate work.

Labour Studies

Modifications:

LABR 3010 Labour Law Cr.Hrs. 3
(formerly 153.301) An introduction to legislation and interpretation, legal procedures, and quasi-judicial boards as they concern the organization of trade unions, collective bargaining, settlement of disputes, labour standards, workers' compensation, unemployment insurance and human rights. Prerequisite: [a grade of "C" or better in both LABR 1260 (the former LABR 1270 or 153.127) and LABR 1290 (153.129 or the former 153.128)] or [a grade of "C" or better in both HRIR 3450 (027.345) and 6 credit hours of other HRIR courses] or written consent of the Labour Studies coordinator.

LABR 3060 Workplace Health and Safety Cr.Hrs. 3
(formerly 153.306) An introduction to occupational health, industrial hygiene and industrial safety emphasizing the impact of chemical hazards on the body, the measure and control of hazards and the causes and prevention of industrial accidents. Prerequisite: [a grade of "C" or better in both LABR 1260 (the former LABR 1270 or 153.127) and LABR 1290 (153.129 or the former 153.128)] or [a grade of "C" or better in both HRIR 3450 (027.345) and 6 credit hours of other HRIR courses] or written consent of the Labour Studies coordinator.

LABR 3070 Labour Relations and Occupational Health and Safety Law Cr.Hrs. 3
(formerly 153.307) The economic costs of workplace injuries and sickness; the history of occupational health and safety laws and their implementation; the history and functions of workers compensation; collective bargaining on health and safety. Prerequisite: [a grade of "C" or better in both LABR 1260 (the former LABR 1270 or 153.127) and LABR 1290 (153.129 or the former 153.128)] or [a grade of "C" or better in both HRIR 3450 (027.345) and 6 credit hours of other HRIR courses] or written consent of the Labour Studies coordinator.

LABR 3130 Employment Legislation and the Protection of Workers Cr.Hrs. 3
(formerly 153.313) An examination of the legal rights and obligations of workers and employers, and the enforcement mechanisms for the non-unionized workplace, over the course of the employment relationship from hiring through to termination or retirement. Special emphasis will be placed on statutory and common law, personal employment contracts, wrongful and constructive dismissal, human rights legislation and jurisprudence. Prerequisite: [a grade of "C" or better in both LABR 1260 (the former LABR 1270 or 153.127) and LABR 1290 (153.129 or the former 153.128)] or [a grade of "C" or better in both HRIR 3450 (027.345) and 6 credit hours of other HRIR courses] or written consent of the Labour Studies coordinator.

LABR 3140 Pensions and Benefits Cr.Hrs. 3
(formerly 153.314) The nature and role of pensions in the life cycle of workers and the issue of pension funds control distribution. The role of non-wage benefits in the labour compensation package. Prerequisite: [a grade of "C" or better in both LABR 1260 (the former LABR 1270 or 153.127) and LABR 1290 (153.129 or the former 153.128)] or [a grade of "C" or better in both HRIR 3450 (027.345) and 6 credit hours of other HRIR courses] or written consent of the Labour Studies coordinator.

LABR 4510 Labour Studies Field Placement Seminar Cr.Hrs. 3
(formerly 153.451) A seminar to be taken concurrently with LABR 4520 in which each student will relate theory and practice. Students may not hold credit for both LABR 4510 (153.451) and either the former 153.481 or 153.482. Corequisite: LABR 4520. Prerequisite: formal declaration of the Labour Studies Advanced Major and written consent of the Labour Studies coordinator.

LABR 4520 Labour Studies Field Placement Cr.Hrs. 6
(formerly 153.452) An educationally directed field experience in which the student will undertake specific tasks and assignments in some aspects of labour relations. Field placement options include a labour union, professional association, employer, provincial department of labour, public archives. Students may not hold credit for both LABR 4520 (153.452) and either the former 153.481 or 153.482. Corequisite: LABR 4510. Prerequisite: formal declaration of the Labour Studies Advanced Major and written consent of the Labour Studies coordinator.

NET CHANGE IN CREDIT HOURS: 0

Program modifications:

Labour Studies
2009-2010 Undergraduate Calendar, page 181

- **Revisions to the Advanced Major Program**
- **Revisions to the List of Electives**

Added material
~~Deleted material~~

8.16.3 Labour Studies, Program Code: 153

UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
ADVANCED MAJOR TOTAL: 54 CREDIT HOURS			
LABR 1260 and LABR 1290	• 6 credit hours of LABR courses at the 2000 level • 21 credit hours of LABR courses at the 3000 level • ~~LABR 4510 and LABR 4520~~ • 9 credit hours of LABR courses at the 4000 level • 12 credit hours from LABR courses and/or the list of electives below		

List of Electives

The following courses may be selected to fulfill the requirements for a degree in Labour Studies (see the table above for details). Other courses might be chosen for this purpose, in accordance with students' individual interests, but require advance permission from the Labour Studies coordinator. Students are responsible for ensuring that all prerequisites have been met. In the following list (H) indicates an Honours course.

Faculty of Arts

Economics

ECON 2280	Social Welfare and Human Resources	6
ECON 2350	Community Economic Development	3
ECON 2360	Women in the Canadian Economy	6
ECON 2500	Labour and Technology (same as Labour Studies LABR 2450)	3
ECON 3170	Introduction to Quantitative Methods in Economics	3
ECON 3300	Canadian Economic History	6
ECON 3360	Labour Economics	6
ECON 3510	Industrial Relations (same as Labour Studies LABR 3510)	6
ECON 3660	Economic Ideas and Social Institutions	6

History

HIST 2670	History of Capitalism (M)	3
HIST 2671	Histoire du capitalisme (M)	3
HIST 2680	A History of Socialism from the French Revolution to the Present (M)	3
HIST 2690*	The Common People in Industrial Society (G)	6
HIST 2710	Women in History (G)	6
HIST 2720	The World Since 1945 (G,M)	6
HIST 2282	Inventing Canada (C)	3
HIST 2284	Democracy and Dissent: Contesting Canada (C)	3
HIST 2286	Modern Canada (C)	3
HIST 2970	Modern Canada: 1921 to the Present (C)	6
HIST 2971	Le Canada moderne: de 1921 à nos jours (C) (CUSB)	6
HIST 3050	Canada since 1945 (C)	6
HIST 3210	The History of Popular Radicalism in the Twentieth Century (M)	6
HIST 3570	History of Women in Canada (C)	6
HIST 3700	History of Working People and Labour Movements 1700 to the Present (G) (same as Labour Studies LABR 3700)	6
HIST 3730	A History of Western Canada (C)	6
HIST 3800	History of Winnipeg from 1870-2000 (C)	3
HIST 4030	The History of Communism and Socialism since 1945 (M) (H)	6

Native Studies

NATV 3320*	Aboriginal Organizations	3

Philosophy

PHIL 2290	Ethics and Society	6
PHIL 2830	Business Ethics	3
PHIL 3710	Critiques of Contemporary Society	6

Political Studies		
POLS 3470	Canadian Public Management	3
POLS 3570	Administrative Theory in the Public Sector	3
POLS 3810	Introduction to Marxism	3
POLS 4370	Comparative Public Administration (H)	
POLS 4570*	Public Organizational Management (H)	6
POLS 4660	The State in the Economy (H)	6
019.487*	Government and Public Sector Unionism (H)	3
Psychology		
PSYC 3510*	Organizational Psychology	3
PSYC 3600*	Environmental Psychology	3
Sociology		
SOC 2290	Introduction to Research Methods	6
SOC 3370	Sociology of Work	3
SOC 3371	Sociologie du travail (CUSB)	3
SOC 3380	Power, Politics and the Welfare State	3
SOC 3470*	Political Sociology	3
SOC 3471	Sociologie politique (CUSB)	3
SOC 3820	Qualitative and Historical Methods in Sociology	3
SOC 3870	Social Inequality	3
SOC 3871	Inégalités sociales (CUSB)	3
Women's and Gender Studies		
WOMN 2500	Race, Class and Sexuality	3
WOMN 3550	Feminist Community Organizing: Theories and Practices	3
I.H. Asper School of Business (Faculty of Management)		
Business Administration		
GMGT 2030	Administrative Theory	3
GMGT 2080	Introduction to Management and Organization Theory	3
GMGT 3030	Contemporary Social Issues in Business	3
HRIR 2440	Human Resource Management	3
HRIR 3430	Selected Topics in Industrial Relations	3
HRIR 3450	Labour and Employment Relations (or the former 027.341)	3
HRIR 4420	Compensation	3
HRIR 4480	Collective Bargaining and Administration	3
HRIR 4520	Comparative Industrial Relations and Human Resource Management	3
Interdepartmental Courses		
IDM 3000	Aboriginal Business Context: Influences and Impacts	3
IDM 4090	Aboriginal Business Leadership	3

* No longer offered

For course descriptions, see departmental listings.

Native Studies

Introduction:

NATV 3150 Residential School Literature Cr.Hrs. 3 +3
This course focuses on the analysis of literary responses to Residential Schools in the form of memoirs, fiction, poetry, and plays; it will also include aesthetic representations of school experiences through other media like film and art. Prerequisite: [a grade of "C" or better in NATV 1200 (032.120)] or [a grade of "C" or better in both NATV 1220 (032.122) and NATV 1240 (032.124] or written consent of instructor of department head.

NET CHANGE IN CREDIT HOURS: +3

Near Eastern and Judaic Studies

Deletions:

JUD 2330 Patterns in Jewish Life Cr.Hrs. 6 -6
JUD 2940 Antisemitism: A Social History from the Crusades to the Holocaust Cr.Hrs. 6 -6
JUD 3390 Jewish Mysticism Cr.Hrs. 6 -6
JUD 3410 The Holocaust Cr.Hrs. 6 -6

NET CHANGE IN CREDIT HOURS: -24

Program modification:

Modification to the minor to add courses accepted for credit.

Near Eastern and Judaic Studies
2009-2010 Undergraduate Calendar, pages 190-191

- Revisions to the Near Eastern and Judaic Studies Minor Program

Added material
~~Deleted material~~

8.21.1 Program Information

For entry, continuation and graduation requirements for the General Degree, Advanced Degree and Honours Degree, see Section 4: Basic Faculty Regulations for the Three Programs Leading to a B.A.

Major Program

Effective the 1989-1990 Regular Session, the General Major and Advanced Major in Near Eastern and Judaic Studies will not be offered until further notice.

Minor Program

A) Near Eastern and Judaic Studies

For entry to the Minor, the prerequisite is a grade of "C" or better in the first six credit hours of Near Eastern and Judaic Studies or List A courses.

B) Yiddish

Effective with the 1989-1990 Regular Session, the Minor in Yiddish will not be offered until further notice.

8.21.2 Near Eastern and Judaic Studies, Program Code: 055

UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
GENERAL MAJOR NEAR EASTERN AND JUDAIC STUDIES [NOT CURRENTLY OFFERED] TOTAL: 30 CREDIT HOURS			
• 6 credit hours in Language and Literature (Hebrew[1], Yiddish, or Arabic[2])			
• 6 credit hours in Judaic Civilization or Near Eastern Studies			
• 18 credit hours in Near Eastern and Judaic Studies			
ADVANCED MAJOR NEAR EASTERN AND JUDAIC STUDIES [NOT CURRENTLY OFFERED] TOTAL: 48 CREDIT HOURS			
• 12 credit hours in Language and Literature (Hebrew[1], Yiddish, or Arabic[2])			
• 12 credit hours in Judaic Civilization or Near Eastern Studies			
• 24 credit hours in Near Eastern and Judaic Studies			
MINOR NEAR EASTERN AND JUDAIC STUDIES TOTAL: 18 CREDIT HOURS			
18 credit hours in Near Eastern and Judaic Studies or List A			
MINOR YIDDISH [NOT CURRENTLY OFFERED] TOTAL: 18 CREDIT HOURS			
YDSH 1220	YDSH 2320	6 credit hours in Hebrew Language and Literature or Near Eastern and Judaic Civilization	

NOTES:

[1] A language-placement interview is required before registration. Normally, elementary Hebrew day school graduates begin with SEM 1260 while secondary Hebrew day school graduates begin with language courses numbered at the 2000 or 3000 level.

[2] A language-placement interview is required before registration.

List A **Courses Acceptable for Judaic Studies Credit**

With written consent of Program Coordinator courses not on this list may be taken for credit if they include sufficient Judaic Studies content.

Course No.	Credit Hours
Faculty of Arts	
Classics	
CLAS 3260 Hellenistic Civilization: History and Archaeology	3
GRK 2810 Prose Writings of the Hellenistic and Greco-Roman Periods	3
German and Slavic Studies	
GRMN 3260 Representations of the Holocaust	3
GRMN 3262 Representations of the Holocaust in English Translation	3
History	
HIST 2240 History of Antisemitism and the Holocaust (E)	6
HIST 2250 Social History of the Jews: Antiquity to Present (G)	6

HIST 3062	German and German-Jewish History, 1618 to the Present (E)	6
HIST 3064	German and German-Jewish History, 1618-1900 (E)	3
HIST 3066	German and German-Jewish History, 1900 to the Present (E)	3
HIST 4500	Jewish and European History and Historiography (E)	6
Political Studies		
POLS 3340	Middle East Politics	3
Religion		
RLGN 1120	Biblical Hebrew (A)	6
RLGN 1390	Readings in Biblical Hebrew 1 (A)	3
RLGN 1400	Readings in Biblical Hebrew 2 (A)	3
RLGN 2150	The Talmud (A)	3
RLGN 2160	Introduction to Hebrew Scriptures (A)	3
RLGN 2231	Étude de l'Ancien Testament (A)	6
RLGN 2760	Rabbinic Judaism (A)	3
RLGN 2770	Contemporary Judaism (A)	3
RLGN 3280	Hasidism (A)	3
RLGN 3790	Prophets of Ancient Israel (A)	6
RLGN 3800	Selected Old Testament Literature and Themes (A)	6
RLGN 3824	Kabbalah (A)	3
RLGN 3830	The Bible as Story (A)	3

Philosophy

Modifications:

PHIL 1290 Critical Thinking Cr. Hrs. 3
(formerly 015.129) A course which helps students to think clearly and critically, and to present, defend, and evaluate arguments. The instructor will discuss good and bad reasoning, everyday fallacies, some specific argument forms such as the categorical syllogism, and ways and means of defining words. Students may not hold credit for PHIL 1290 (015.129) and any of: PHIL 1291 or PHIL 1320 (015.132) or PHIL 1321 (015.132).

PHIL 1320 Introductory Logic Cr.Hrs. 6
(formerly 015.132) A course which helps students to think clearly and critically, and to present, defend and evaluate arguments. The course deals with categorical logic, non-formal fallacies, definition, modern symbolic logic and scientific method. Not open to students who have previously obtained credit for PHIL 2430 (015.243) or the former PHIL 3750 (015.375). Students may not hold credit for PHIL 1320 (015.132) and any of: PHIL 1321 (015.132) or PHIL 1290 (015.129) or PHIL 1291 or the former PHIL 1330 (015.133).

NET CHANGE IN CREDIT HOURS: 0

Psychology

Deletions:

PSYC 2300 Advanced General Psychology Cr.Hrs. 6	-6
PSYC 3420 Learning Cr.Hrs. 6	-6
PSYC 3510 Organizational Psychology Cr.Hrs. 3	-3
PSYC 3600 Environmental Psychology Cr.Hrs. 3	-3
PSYC 4530 Sleep and Dream Research Cr.Hrs. 3	-3

PSYC 4550 Stress and Adjustment Cr.Hrs. 3 -3

Introductions:

PSYC 4400 Theories of Close Relationships Cr.Hrs. 3 +3
Students will be exposed to the theories that apply to the initiation, development, maintenance, and dissolution of relationships. The primary focus will be on evolutionary theory, attachment styles, communal and exchange relationships, equity theory, interdependence theory and the investment model, attributional theories, and theories of love. Students may not hold credit for both PSYC 4400 and PSYC 4540 (017.454) with the topic "Theories of Close Relationships". Prerequisite: written consent of Department Head.

PSYC 4410 Cross-cultural Social Psychology Cr.Hrs. 3 +3
Cross-cultural psychology is the critical and comparative study of the linkages between cultural norms and thoughts, feeling and behaviour. This course focuses on Cross-cultural Social Psychology. Therefore, the assigned readings deal with topics that Social Psychology, in general, examines. Students may not hold credit for both PSYC 4410 and PSYC 4540 (017.454) with the topic "Cross-cultural Social Psychology". Prerequisite: written consent of Department Head.

PSYC 4420 Neuroimaging: Imaging Thoughts Cr.Hrs. 3 +3
This course will explore how neuroimaging can illuminate our models of various aspects of cognition, including attention, vision, language, memory and learning, executive functions, emotion and various neuropathologies. Students may not hold credit for both PSYC 4420 and PSYC 4540 (017.454) with the topic "Imaging Thoughts". Prerequisite: written consent of Department Head.

PSYC 4430 Vision: Perception and Action Cr.Hrs. 3 +3
An intensive review of current research and theories in visual processes. Both behavioural and physiological aspects of vision will be considered. Course goals are directed at offering a better understanding of visual perception and the visual control of action. Students may not hold credit for both PSYC 4430 and PSYC 4540 (017.454) with the topic "Vision Science". Prerequisite: written consent of Department Head.

PSYC 4440 Readings in Autism Spectrum Disorders Cr.Hrs. 3 +3
Students will read recent research in Autism Spectrum Disorders, acquire skills to critically evaluate empirical evidence, and examine implications for practice. Among the topics covered will be assessment, diagnosis, epidemiology, and applied behaviour analysis early intervention. Students may not hold credit for both PSYC 4440 and PSYC 4540 (017.454) with the topic "Autism Spectrum Disorders". Prerequisite: written consent of Department Head.

PSYC 4510 Applied Behaviour Analysis in Developmental Disabilities Cr.Hrs. 3 +3
Students will read recent applied behaviour analystic research in behavioural assessments and interventions for people with developmental disabilities, acquire skills to critically evaluate empirical evidence, and examine implications for practice. Students may not hold credit for both PSYC 4510 and PSYC 4540 (017.454) with the topic "Research in Developmental Disabilities". Prerequisite: written consent of Department Head.

PSYC 4562 Social Psychology and Health Cr.Hrs. 3 +3
This course uses theories and concepts from social/personality psychology to gain a better appreciation of what health is and how to achieve it, at the individual and population levels.

Students may not hold credit for both PSYC 4562 and PSYC 4540 (017.454) with the topic "Social Psychology and Health". Prerequisite: written consent of Department Head.

PSYC 4564 Self-regulation and Health Cr.Hrs. 3 +3
This course examines how self-regulatory processes such as goal-setting and self-awareness can affect behaviours that promote or undermine human health. A wide range of health-related behaviours is considered such as smoking, exercise, safe-sex practices, and eating. Students may not hold credit for both PSYC 4564 and PSYC 4540 (017.454) with the topic "Self-regulation and Health". Prerequisite: written consent of Department Head.

PSYC 4566 Psychology of Health and Aging Cr.Hrs. 3 +3
This course considers how adults adapt to the challenges of aging and the accompanying health problems. Seminar discussions will focus on selected psychological theories and related empirical literature regarding belief systems that operate in the face of health- and age-related challenges. Students may not hold credit for both PSYC 4566 and PSYC 4540 (017.454) with the topic "Health and Aging". Prerequisite: written consent of Department Head.

PSYC 4640 Person X Situation Interactionism Cr.Hrs. 3 +3
We will first explore research demonstrating the impact of personality and situations, separately, on behaviour. We then examine the debate that arose about whether understanding the person or the situation would have the most scientific merit. We spend the remainder (and the majority) of the course discussing the theories and research that arose from that debate. The majority of this research has an interactionist perspective, taking both the person and his/her situation into account. Students may not hold credit for both PSYC 4640 and PSYC 4540 (017.454) with the topic "Person X Situation Interactionism". Prerequisite: written consent of Department Head.

Modifications:

Modification of the following courses to indicate *the former* PSYC 2300 in recognition of the course deletion above.

PSYC 3200 Thinking Critically About Psychological Research Cr.Hrs. 3
PSYC 3340 Design and Analysis for Psychological Experiments Cr.Hrs. 3
PSYC 3520 Independent Research in Psychology 1 Cr.Hrs. 3
PSYC 3590 Independent Research in Psychology 2 Cr.Hrs. 3
PSYC 3630 Psychological Measurement and Assessment Cr.Hrs. 3

NET CHANGE IN CREDIT HOURS: +6

Program modifications:

Modifications reflect the deletion of PSYC 2300.

Psychology
2009-2010 Undergraduate Calendar, pages 200-201

- **Revisions to the Honours Single and Double Programs**
- **Revision to Program Notes**

Added material
~~Deleted material~~

8.24.3 Psychology, Department Code: 017

UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
HONOURS SINGLE			
PSYC 1200 or PSYC 1211 and PSYC 1221	• PSYC 2250 and PSYC 2260 ~~PSYC 2300~~[1] • 6 credit hours in Psychology courses numbered at the 2000 or 3000 level: (3 hours from each of two different lettered menu categories)[1,2] • 15 credit hours in ancillary options[2,3] • 3 credit hours in free options[2,4]	• 3 credit hours from PSYC 3340 or PSYC 3630 • PSYC 3200 • 15 credit hours in Psychology courses: (3 hours each of at least two different lettered menu courses not taken in Year 2) • 9 credit hours in ancillary options[2,3]	• PSYC 4520 • 6 credit hours in Psychology courses numbered at the 4000 level • 6 credit hours in Psychology courses numbered at any level, including any remaining menu category • 6 credit hours in ancillary options[2,3]
HONOURS DOUBLE			
PSYC 1200 or PSYC 1211 and PSYC 1221	• PSYC 2250 and PSYC 2260 ~~PSYC 2300~~[1] • 6 credit hours in Psychology courses numbered at the 2000 or 3000 level: (3 hours from each of two different lettered menu categories)[1,2] • 12 credit hours in other Honours field • 6 credit hours in an ancillary option[2,3]	• 3 credit hours from PSYC 3340 or PSYC 3630 • PSYC 3200 • 6 credit hours in Psychology courses: (3 hours from each of two different lettered menu categories not already taken in Year 2) • 12 credit hours in other Honours field	• PSYC 4520 • 6 credit hours in Psychology courses numbered at the 4000 level • 12 credit hours in other Honours field

NOTES:
[1] ~~PSYC 2250 and PSYC 2260 are required when PSYC 2300 is not offered.~~
[1,2] Lettered menu categories are as follows:
Category A: Personality/Social PSYC 2410, PSYC 2420, PSYC 3450, PSYC 3460
Category B: Developmental PSYC 2290, PSYC 2310, PSYC 2370
Category C: Learning PSYC 2440, PSYC 2470
Category D: Cognitive PSYC 2480, PSYC 3160, PSYC 3170, PSYC 3441, PSYC 3580, PSYC 3610
Category E: Biological PSYC 2360, PSYC 3350, PSYC 3430
[2,3] Ancillary options are to be chosen from courses that are acceptable for credit in the Faculty of Arts (excluding Psychology courses).
[2,4] Free options are to be chosen from courses that are acceptable for credit in the Faculty of Arts (including Psychology courses).

Religion

Deletion:

RLGN 3840 The Bible as Story (A) Cr. Hrs. 6 -6

Introductions:

RLGN 2600 Critical Animal Studies: An Introduction (B) Cr.Hrs. 3 +3
This course will introduce students to "the animal" in question that has emerged with such significance in recent decades, surveying some key theoretical and ethical issues under debate around the meaning of animality and of the difference between human and animal life, and pointing to the future challenges posed by "Critical Animal Studies" for the discipline of Religion.

RLGN 3266 Readings in Buddhist Text (B) Cr.Hrs. 3 +3
This is a course intended for students who have completed RLGN 2020 Introduction to Buddhism, and are interested in pursuing a more in-depth study of Buddhism. Following a discussion format, we will investigate Buddhist texts and ethnographic case studies and material

from a range of traditions and historical periods. Prerequisite: [a grade of "C" or better in RLGN 2020] or written consent of instructor.

RLGN 3824 Kabbalah (A) Cr.Hrs. 3 +3
Kabbalah is a centuries-old stream of Jewish thought and practice which encompasses mysticism, ethics, spiritual practice and magic. Students will come away from this course with a working knowledge of the Zohar, the central text of Kabbalah, its radical theology and its mythical-symbolic mode of expression. The course also explores the influence of the Zohar within Judaism and beyond, and related scholarly debates. Students may not hold credit for both RLGN 3824 and the former JUD 3390 (055.339).

RLGN 3830 The Bible as Story (A) Cr.Hrs. 3 +3
A study of the manner in which biblical storytellers present their tales and the ways in which these narratives have been retold every since. Particular attention will be paid to Midrash, the tradition of creative retelling of biblical tales. Students may not hold credit for both RLGN 3830 and the former RLGN 3840 (020.384). Prerequisite: written consent of instructor or department head.

NET CHANGE IN CREDIT HOURS: +6

Sociology

Modifications:

SOC 3390 Contemporary Sociological Theory Cr.Hrs. 3
(formerly 077.339) A critical examination of contemporary theoretical perspectives and developments in sociology, highlighting the contributions of some major theorists. Course content may vary from year to year depending upon the instructor's interest. Students may not hold credit for both SOC 3390 (077.339) and SOC 3391 (077.339). Prerequisite: [a grade of "C" or better in SOC 2220 (077.222) or SOC 2221 (077.222)] or written consent of department head.

SOC 2260 Cities and Urban Life Cr.Hrs. 3
A consideration of the social, cultural and urban processes and their relationship to urban life, with an emphasis on urban experience, sociality, and social inequality. Students may not hold credit for SOC 2260 and any of: SOC 2261 or the former SOC 2270 (077.227) or the former SOC 2271 (077.227). Prerequisite: [a grade of "C" or better in SOC 1200 (077.120) or SOC 1201 (077.120)] or [a grade of "C" or better in both SOC 2122 (077.121) and SOC 1221 (077.122)].

SOC 3580 Media, Culture and Society Cr.Hrs. 3
A consideration of the influence of media on contemporary society, analyzing the production, circulation and consumption of various media forms and their relationship to social life. Students may not hold credit for SOC 3580 and any of: SOC 3581 or the former SOC 3590 (077.359) or the former SOC 3591 (077.359). Prerequisite: [a grade of "C" or better in SOC 1200 (077.120) or SOC 1201 (077.120)] or [a grade of "C" or better in both SOC 1211 (077.121) and SOC 1221 (077.122)]. SOC 2330 (077.233) or SOC 2331 (077.233) is recommended.

NET CHANGE IN CREDIT HOURS: 0

Women's and Gender Studies

Deletions:

WOMN 1530 Introduction to Women's Studies in the Humanities Cr.Hrs. 3	-3
WOMN 1540 Introduction to Women's Studies in the Social Sciences Cr.Hrs. 3	-3
WOMN 2520 Introduction to Feminist Theory Cr.Hrs. 3	-3
WOMN 2550 Women in Nicaragua/Women in Canada Cr.Hrs. 6	-6
WOMN 3570 Feminist Cultural Studies Cr.Hrs. 3	-3
WOMN 3580 Feminist Approaches to Research Cr.Hrs. 6	-6
WOMN 4110 Advanced Feminist Theory Cr.Hrs. 3	-3

Introductions:

WOMN 1500 Introduction to Women's and Gender Studies in the Humanities Cr.Hrs. 3 +3
Examination of the central concerns of women and gender in the Humanities. A focus on representation, voice, knowledge, and subjectivity. Students may not hold credit for both WOMN 1500 and the former WOMN 1530 (156.153).

WOMN 1600 Introduction to Women's and Gender Studies in the Social Sciences Cr.Hrs. 3 +3
Examination of women's historical and contemporary roles in the economy, family, and society from the perspective of the social sciences. Introduction of feminist theories, with emphasis on the role of gender. Topics covered focus on the social conditions of women's lives: work, health, violence and organizing for change. Students may not hold credit for both WOMN 1600 and the former WOMN 1540 (156.154).

WOMN 2000 Feminist Thought Cr.Hrs. 3 +3
Survey of the varieties of historical and contemporary feminist ideas. Students may not hold credit for both WOMN 2000 and the former WOMN 2520 (156.252). Prerequisite: [a grade of "C" or better in a minimum of three credit hours of Women's and Gender Studies courses] or written consent of the Women's and Gender Studies coordinator.

WOMN 3000 Interdisciplinary Research in Women's and Gender Studies Cr.Hrs. 3 +3
An introduction to the approaches scholars use to challenge the dominant theories of knowledge and the major methodologies used to produce it. The course examines the influence of gender theory and feminism on the research questions we ask, the types of materials we use, and the methods we employ. Students may not hold credit for both WOMN 3000 and the former WOMN 3580 (156.358). Prerequisite: [a grade of "C" or better in a minimum of three credit hours of Women's and Gender Studies courses] or written consent of the Women's and Gender Studies coordinator.

WOMN 4200 Seminar in Women's and Gender Studies Cr.Hrs. 3 +3
An advanced seminar on a contemporary theme in Women's and Gender Studies. The theme will vary from year to year in accordance with the research interests of the instructor and new developments in the field. Student presentations and discussions will be emphasized. Students may not hold credit for both WOMN 4200 and the former WOMN 4110 (156.411). Prerequisite: [a grade of "C" or better in WOMN 2000 or the former WOMN 2520 (156.252)] and written consent of the Women's and Gender Studies coordinator.

Program modifications:

Women's and Gender Studies Program
2009-2010 Undergraduate Calendar, page 216

- **Revisions to General Major, Advanced Major, Minor, Honours Single and Honours Double Programs**
- **List A**

Added material
~~Deleted material~~

8.28.2 Program Information

Major Program

For entry to the Major, the prerequisite is a grade of "C" or better in each of two 3 credit hour courses in Women's and Gender Studies. It is suggested that students wishing to Major in Women's and Gender Studies take both WOMN 1500 and WOMN 1600,~~WOMN 1530 and WOMN 1540.~~ For students who have taken additional courses toward the Major, then a minimum cumulative GPA of 2.00 is required on all courses including the higher grade of repeated courses and excluding failed courses.

A minimum cumulative GPA of 2.00 in all courses that comprise the Major is required to graduate including the higher grade of repeated courses and excluding failed courses.

Minor Program

For entry to the Minor, the prerequisite is a grade of "C" or better in each of two 3 credit hour courses in Women's and Gender Studies.

Honours Program

For entry to the Honours Program, see Section 4: Basic Faculty Regulations for the Three Programs Leading to a B.A.

8.28.3 Women's and Gender Studies, Program Code: 156

UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
GENERAL MAJOR TOTAL: 30 CREDIT HOURS			
~~WOMN 1530 or WOMN 1540~~	~~• WOMN 2520 and WOMN 3580~~		
WOMN 1500 or WOMN 1600	• WOMN 2000 and WOMN 3000		
	• ~~18~~ 21 credit hours from Women's and Gender Studies courses and/or List A		
ADVANCED MAJOR TOTAL: 48 CREDIT HOURS			
~~WOMN 1530 or WOMN 1540~~	~~• WOMN 2520 and WOMN 3580~~		
WOMN 1500 or WOMN 1600	• WOMN 2000 and WOMN 3000		
	• 9 credit hours from Women's and Gender Studies courses		
	• 9 ~~6~~ credit hours from courses numbered at or above the 3000 level from Women's and Gender Studies courses and/or List A		
	• 21 credit hours from Women's and Gender Studies courses and/or List A		
MINOR TOTAL: 18 CREDIT HOURS			
~~WOMN 1530 or WOMN 1540~~	• 6 credit hours from Women's and Gender Studies courses		
WOMN 1500 or WOMN 1600	• 9 credit hours from Women's and Gender Studies courses and/or List A		
HONOURS SINGLE[1]			
~~WOMN 1530 and WOMN 1540~~	• ~~WOMN 2520, WOMN 3580,~~ WOMN 2000, WOMN 3000, WOMN 4100, ~~WOMN 4110~~ WOMN 4200		
WOMN 1500 and WOMN 1600	• 15 credit hours from Women's and Gender Studies courses		
	• 12 ~~9~~ credit hours from courses numbered at or above the 3000 level from Women's and Gender Studies courses and/or List A		
	• 12 credit hours from Women's and Gender Studies courses and/or List A		
	• 24 credit hours in ancillary options		

HONOURS DOUBLE[1]	
~~WOMN 1530 and WOMN 1540~~	• ~~WOMN 2520, WOMN 3580,~~ WOMN 2000, WOMN 3000, WOMN 4100, ~~WOMN 4110~~ WOMN 4200
WOMN 1500 and WOMN 1600	• 9 credit hours from Women's and Gender Studies courses
	• 12 ~~9~~ credit hours from courses numbered at or above the 3000 level from Women's and Gender Studies courses and/or List A
	• 36 credit hours in other Honours field
	• 6 credit hours in ancillary options

NOTE:
[1] Ancillary options are courses taken from outside the Honours field of study.

List A

Faculty of Arts

Anthropology

ANTH 3320	Women in Cross-Cultural Perspective (B)	3
ANTH 3321	Femmes, société et cultures (B) (CUSB)	3
ANTH 3350	Anthropology of Sex and Sexualities (B)	3

Economics

ECON 2360	Women in the Canadian Economy	6

French, Spanish and Italian

FREN 2680	Littérature feminine française (B)	3
FREN 3860	Études sur Beauvoir (B)	3

German

GRMN 1310	Love in German Culture	3
GRMN 3280	Sex, Gender and Cultural Politics in the German-Speaking World	3
GRMN 3282	Sex, Gender and Cultural Politics in the German-Speaking World in English Translation	3

History

HIST 2710	Women in History (G)	6
HIST 3570	History of Women in Canada (C)	6
HIST 3760	Problems in American History I Acceptable for credit only when the topic is "Gender and Sexuality in 20th Century America."	3
HIST 3810	The Family, Love and Marriage in Western Society, 1500-1800 (E)	6
HIST 3811	Famille, amour et mariage dans la société occidentale, 1500-1800 (E)	6
HIST 3820	The Women's Movement, 1850 to the Present (G)	6
HIST 4060	Gender History in Canada (C)	6

Native Studies

NATV 2430	Indigenous Women's Stories	3
NATV 3360	Aboriginal Women of Canada	3
NATV 3380	Cultural Constructions of Gender in Canadian Aboriginal Societies	3

Philosophy

PHIL 3220	Feminist Philosophy	3

Political Studies

POLS 3100	Gender and Politics in Canada	3
POLS 3240	Feminist Political Theory	3

Psychology

PSYC 2390	Psychology of Women	3
PSYC 2400	The Psychology of Sex Differences	3

Religion

RLGN 2680	Women and Religion 1	3
RLGN 2690	Women and Religion 2	3

Slavic Studies

RUSN 2350	Russian Women's Writing from the 1950s to the Present Day	3
RUSN 3980	Women and Russian Literature	3
UKRN 3970	Women and Ukrainian Literature	3

Sociology

SOC 2460	The Family	3
SOC 2461	La famille (CUSB)	3
SOC 2470	Courtship and Marriage	3
SOC 2471	Les fréquentations et le mariage (CUSB)	3
SOC 3770	Women, Health and Medicine	3
SOC 3790	Women, Crime and Social Justice	3
SOC 3810	Sociological Perspectives on Gender and Sexuality	3
SOC 3811	Sociologie de la sexualité et des rôles sexuels (CUSB)	3

School of Art

FAAH 2110	Women and Art	3
FAAH 4090	Seminar on Contemporary Issues in Art Acceptable for credit only when the topic is "Women Artists."	3

Marcel A. Desautels Faculty of Music

MUSC 4130	History of Women in Music	3

Faculty of Nursing

NURS 3330	Women and Health	3

For course descriptions, see the departmental listing.

NOTE: List A courses are identified in Aurora Student with the course attribute of "Women's Studies Requirement."

Option in Aging

Program modification:

Option in Aging
2009-2010 Undergraduate Calendar, page 221

Added material
~~Deleted material~~

9.5 Interfaculty Option in Aging

An Interfaculty Option in Aging is offered by: ~~Architecture (Interior Design),~~ Arts, Clayton H. Riddell Faculty of Enivronment, Earth, and Resources, Human Ecology, Nursing, Kinesiology and Recreation Management, and Social Work. To complete the option, Arts students will need to complete each of the following: a) The Social Aspects of Aging, HMEC 2650 or REC 2650 or SWRK 2650; and b) Health and Physical Aspects of Aging, NURS 2610 or KIN 2610~~; c) Developmental Psychology from Adolescence to Old Age, PSYC 2370, and Sociology of Aging, SOC 2620. (Prerequisites for these courses are a grade of "C" or better in, respectively, PSYC 1200 or SOC 1200)~~; and ~~d~~c) an additional ~~six~~ twelve credit hours from the following courses:

Faculty of Arts		
Anthropology		
ANTH 4750	The Anthropology of Aging (C)	3
English, Film, and Theatre		
FILM 3420	Film Theory	3
Psychology		
PSYC 2360	Brain and Behaviour	3
PSYC 2370	Developmental Psychology from Adolescence to Old Age	3
PSYC 3350	Behavioural Neuroscience	3
PSYC 3460	Abnormal Psychology	3
PSYC 3490	Individual Differences	3
PSYC 3610	Memory	3
PSYC 4420	Neuroimaging: Imaging and Thoughts	3
PSYC 4430	Vision: Perception and Action	3
PSYC 4566	Psychology of Health and Aging	3
Religion		
RLGN 1410	Death and Concepts of the Future (C)	3
Sociology		
SOC 2490	Sociology of Health and Illness	3
SOC 2620	Sociology of Aging	3
SOC 3510	Population Dynamics and Change	3
SOC 3540	The Sociology of Health Care Systems	3
Clayton H. Riddell Faculty of Environment, Earth, and Resources		
Geography		
GEOG 4710	Geography of the Elderly and Aging	3

Upon completion of these requirements, a ~~"Comment" will be added to~~ the Option in Aging will be recorded as a concentration on the student's official transcript. For information concerning the option, interested students are directed to faculty general offices.

Interdisciplinary Courses

Introduction:

ARTS 1160 Leadership: An Interdisciplinary Approach Cr. Hrs. 3 +3
This course provides an introduction to the key issues and concerns of leadership and leadership studies, focusing on the central question of "what is leadership". Students will examine the philosophical and historical foundations of leadership theory and practice, along with the more contemporary (and often more theoretical) reflections on both leadership

practices and the varied disciplines that study them. This course will satisfy the Faculty of Arts' Social Science requirement.

NET CHANGE IN CREDIT HOURS: +3

Other Faculties and Schools – Mathematics

Program modification:

Mathematics
2009-2010 Undergraduate Calendar, page 220

- **Revisions to the Advanced Major Program**

Added material
~~Deleted material~~

9.4.1 Mathematics, Department Code: 136

UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
ADVANCED MAJOR TOTAL: 48 CREDIT HOURS			
• one of MATH 1500, MATH 1510, MATH 1520 • one of MATH 1700, MATH 1710; or MATH 1690 • one of MATH 1300, MATH 1310	MATH 2300, MATH 2600[1] or MATH 2800, MATH 2720[2] and MATH 2730[2]	• MATH 3300, ~~MATH 3310,~~ MATH 3740 • ~~15~~ 18 credit hours from the following list of which at least 3 credit hours must be at the 3000 or 4000 level: MATH 2202, MATH 2400, MATH 2450, MATH 2500, MATH 2552, MATH 2600[1], MATH 2800; or any 3000 or 4000 level Mathematics course	

NOTES:
[1] MATH 2600 has a prerequisite of COMP 1010.
[2] MATH 2750 may be substituted for MATH 2720 and MATH 2730.
For entry to either Major in Mathematics, the prerequisite is a grade of "C+" or better in six hours of Mathematics courses taken.
For entry to the Minor in Mathematics, the prerequisite is a grade of "C" or better in six hours of Mathematics courses taken.
A detailed listing of courses in the Department of Mathematics is available in the *Calendar* entries of the Faculty of Science.
Equivalent Honours courses may sometimes be substituted for the courses listed above. In this way, a Major degree can be considerably strengthened. For more detailed advice students should talk to a faculty member in the department.

Faculty of Education

Introductions:

EDUB 1604 Academic and Professional English for Multilingual Teachers Cr.Hrs. 3 +3
This course provides English language development for multilingual teachers of English as a second/additional language and other subject areas. The focus is on teacher, classroom, and professional English that can be applied in various contexts.

EDUB 1606 Teaching EAL Literacy, Academics and Language Cr.Hrs. 3 +3
This course focuses on the theoretical and practical aspects of teaching foundational English literacy, numeracy, academics, oral language and schooling routines to English language learners. Definitions, assessment, and instructional strategies will be examined with a view to meeting the diverse needs of ESL/bilingual literacy learners.

EDUB 5512 Teacher Development and Leadership in Second Language Education +3
This course explores current approaches in the development of second language teachers and initiatives to facilitate leadership in programs inclusive of language learners.

EDUB 1608 Assessment and Testing of EAL/ESL Learners Cr.Hrs. 3 +3
This course will examine various methods in assessment and testing of English language learners, including formative, summative and alternative assessment strategies. Attention will be paid to the following areas: initial and ongoing needs assessment, evaluating without tests, evaluating with tests, and questioning the educative value of assessment and testing.

Deletion:

EDUB 1606 English for NNS (non-Native Speakers) Teachers of ESL Cr.Hrs. 3 -3

NET CHANGE IN CREDIT HOURS: +9

Program modification:

Addition of EDUB 1604, EDUB 1606, EDUB1608 to the list of B.Ed. complementary courses and deletion of EDUB 1604 to the list of B.Ed. complementary (elective) courses.
Addition of EDUB 5512 to the list of courses available in the Post-baccalaureate Diploma in Education program.

Faculty of Engineering

Department of Biosystems Engineering

Introductions:

BIOE 2000 Coop Work Study 1 Cr.Hrs. 1 +1
Work assignments in business, industry or government for cooperative education students in Biosystems Engineering. Requires submission of a written report covering the work completed during the four-month work period.

BIOE 3000 Coop Work Study 2 Cr.Hrs. 1 +1
Work assignments in business, industry or government for cooperative education students in Biosystems Engineering. Requires submission of a written report covering the work completed during the four-month work period. Not to be held with the former BIOE 3550 (or 034.355). Prerequisite: BIOE 2000.

BIOE Coop Work Study 3 Cr.Hrs. 1 +1
Work assignments in business, industry or government for cooperative education students in Biosystems Engineering. Requires submission of a written report covering the work completed during the four-month work period. Not to be held with the former BIOE 4550 (or 034.455). Prerequisite: BIOE 3000.

BIOE 4440 Bioprocessing for Biorefining Cr.Hrs. 4 +4
This course will provide students with an understanding of the principles involved in the design of proper conditions for processing of biomaterials for production of high-quality biofuels and bioproducts. The content of this course is built on the principles of physics, transport phenomena, thermodynamics, reaction kinetics, fermentation, and industrial unit operations. Prerequisite: BIOE 2110 (or 034.211). Pre- or Corequisite: BIOE 3320 (or 034.332 or 034.323).

BIOE 4700 Alternative Building Design Cr.Hrs. 4 +4
This course will provide students with experience in the design of structures that utilize natural and green building materials and techniques. Students will get hands-on lab experience with various natural building materials such as straw, straw light clay, cob and stackwall. Prerequisites: BIOE 3590.

Deletions:

BIOE 3550 Cooperative Work Study 1 Cr.Hrs. 1 -1
BIOE 4550 Cooperative Work Study 2 Cr.Hrs. 1 -1

Modifications:

BIOE 3320 Engineering Properties of Biological Materials Cr.Hrs. 4
Engineering properties of biological and interacting materials within the system. Relationship between composition, structure, and properties of plant, animal, and human tissues. Definition and measurement of mechanical, thermal, electromagnetic, chemical and biological properties and their variability. Use of these properties in engineering calculations. Prerequisites: MATH 2130 (or MATH 2100 or 136.210) and [CIVL 2800 or MECH 2222 (or MECH 2220 or 025.222)] and BIOE 2580 (or 034.258). Not to be held with the former 034.323.

BIOE 4460 Air Pollution Assessment and Management Cr.Hrs. 4
Air pollutant sources and characteristics, their impact on the environment, their behaviour in the atmosphere. Methods of sampling and measurement and the basic technological alternatives available for separation/removal and control. Particular problems of regional interest are discussed. Corequisites: CIVL 2790 (or 023.279) or MECH 2262 (or MECH 2260 or 025.226).

BIOE 4590 Management of By-Products from Animal Production Cr.Hrs. 4
Topics covered include solid and liquid manure, manure characteristics, manure collection, storage, land application and utilization, biological treatment, design of equipment and facilities for manure handling. Environment issues, such as odour and water pollution associated with manure management will also be discussed. Prerequisites: CIVL 2790 (or 023.279) or MECH 2262 (or MECH 2260 or 025.226).

BIOE 4620 Remediation Engineering Cr.Hrs. 4
The theoretical basis for the engineering design of different remediation technologies to treat contaminated soil and groundwater will be introduced. Methods for site characterization, monitoring of progress in remediation, and modeling of the remediation process will be presented. Different methods such as soil washing, air sparging, bioremediation, phyoremediation, constructed wetlands, electrokinetic remediation, reactive barriers will be discussed. Prerequisite: CIVL 2790 (or 023.279) or MECH 2262 (or MECH 2260 or 025.226).

BIOE 4630 Pollution Prevention Practices Cr.Hrs. 4
To give students an understanding of pollution prevention as it relates to solids and hazardous waste management, air and water pollution, energy usage, and resource depletion. To evaluate practices on improved manufacturing operations, present fundamentals of pollution prevention economics, examine waste minimization incentives, design improvements to existing systems, and investigate overall sustainability of industrial practices. Prerequisite: CIVL 2790 (or 023.279) or MECH 2262 (or MECH 2260 or 025.226).

NET CHANGE IN CREDIT HOURS: +9

Department of Electrical and Computer Engineering

Deletion:

ECE 3680 Introduction to Digital Systems Cr.Hrs. 4 -4

Modifications:

ECE 3590 Electromagnetic Theory Cr.Hrs. 4
Electrostatics, magnetostatics, Maxwell's equations and time-varying electromagnetic fields, polarization, boundary value problems, reflection and refraction, Poynting vector. Prerequisite: ECE 3580 (or the former ECE 2130).

ECE 3650 Electric Machines Cr.Hrs. 4
Continuation of ECE 3720, including steady state and transient performance and introductory power systems theory. Prerequisite: ECE 3720.

ECE 4200 Electric Filter Design Cr.Hrs. 4
Realizability theory, approximation of filtering characteristics, ladder networks and transmission zeros, active RC filter design with regard to sensitivity minimization, phase-shifting and time-delay filters, impulse response of filters, rudiments of digital filters. Prerequisite: ECE 3540 (or ECE 3530).

ECE 4370 Power Electronics Cr.Hrs. 4
Thyristor device theory and operation, controlled rectifiers and line-commuted inverters, and forced commutation as applied to d/c choppers and a/c variable frequency and voltage inverters. Prerequisites: ECE 3720 and ECE 2160.

ECE 4390 Engineering Computations Cr.Hrs. 4
Development and application of numerical methods for the solution of electrical and computer engineering problems. Optimization techniques. Finite difference, finite element and boundary element methods. Solution of large systems of linear and non-linear equations. Prerequisite: MATH 3132 and ECE 2240.

ECE 4610 Biomedical Instrumentation and Signal Processing Cr.Hrs. 4
Introduction to biological systems and the application of engineering principles to medical problems. Students design systems to acquire and analyze biological signals in the laboratory. Content includes introduction to relevant physiology and anatomy of cells, skeletal muscles, heart and cardiovascular systems, human balance and biomechanics, recording and analyzing biological signals (ECG, EMG, respiratory sounds), design of instrumentation amplifiers for signal conditioning, medical instrumentation safety and health hazards. Prerequisites: ECE 2160 and ECE 3780.

NET CHANGE IN CREDIT HOURS: -4

Proposed:
Electrical Engineering Program Changes
Department of Electrical and Computer Engineering

September 1, 2009

Introduction to Program Changes:

The Department of Electrical & Computer Engineering is seeking make the following changes to the Electrical Engineering (EE) program.

- Increase the required number of Technical Electives courses from 5 to 7.
- Dropping the core course ECE 3650 Electric Machines from the EE core program. This course will still be offered to students as a Technical Elective.
- Dropping the core course ECE 4240 Microprocessor Interfacing from the EE core program. This course will still be offered to students as a Technical Elective.
- Replacing the core course ECE 3710 Design of Engineering Software with ECE ~~3xxx~~ 3730 Principles of Embedded Systems Design. The proposed course number is ECE 37~~3~~0.

The current EE curriculum consists of 45 courses.

- 40 courses as core (including science elective, and complementary studies elective)
- 5 technical electives

With these desired changes, the program will become:

- 38 courses as core (including science elective, and complementary studies elective). All CEAB accreditation categories (mathematics, basic science, engineering science, engineering design, complementary studies) are met in this 38 course core.
- 7 technical electives

Modification to Technical Elective Requirement:

The current EE program requires 5 Technical Electives.

- 4 from recognized Electrical Engineering courses.
- 1 from a recognized Computer Engineering course.

With the new requirement of 7 Technical Electives, this breakdown will change. Technical Electives will be divided into Group A and Group B electives.

- Group A electives are electives recognized as Electrical Engineering courses.
- Group B electives are courses from Computer Engineering, or are relevant technical courses from outside the ECE Department.
    - Students will be allowed to take up to 3 Group B electives.
    - The outside Department courses are courses that other EE schools in Canada have either in their core program or allow as technical electives.

Group A Technical electives:

- These are the currently recognized Electrical Engineering technical elective courses, with the addition of ECE 3650 Electric Machines.

Group B Technical electives:

- These are the currently recognized Computer Engineering technical elective courses, and the additional courses indicated below.
    - ECE 4240 Microprocessor Interfacing
    - ECE 3700 Telecom Network Engineering
    - ECE 4530 Parallel Processing
    - ECE 4540 Wireless Networks
    - COMP 2140 Data Structures and Algorithms
    - MATH 3120 Applied Discrete Mathematics
    - MATH 3700 Applied Complex Analysis
    - MATH 3810 Partial Differential Equations

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

Department of Environment and Geography

Deletions:

GEOG 2460 Geography of Africa Cr.Hrs. 6	-6
GEOG 4600 Cognitive-Behaviour Geography Cr. Hrs. 3	-3
GEOG 4610 Techniques in Historical Geography Cr.Hrs. 3	-3

Introductions:

GEOG 3860 Animal Geographies (HS) Cr.Hrs. 3 +3

This course presents a variety of topics concerning the interactions between humans and animals, how humans influence and use animals, and the many roles animals play in human lives and environments. Animal Geographies lies at a meeting point between physical and

human geography, where we must consider the blurring boundaries between what it means to be animal/human, and the implications of how animals are used and represented. A wide variety of perspectives, beliefs, and points of view will be explored. Prerequisite: permission of department head.

GEOG 3870 Food Geographies Cr.Hrs. 3 +3
This course provides a critical examination of the geographies of food at a variety of scales, from the body to the global. The course focuses on themes in three interconnected areas: 1) food production and the global food system from farm to plate including agribusiness and alternative food production and distribution models; 2) food consumption habits and beliefs and foodways as geographically contingent material culture; and 3) food (in) security and its relationship to health and wellbeing. This course is cross-listed as HNSC 3630. Prerequisite: A grade of 'C' or better in GEOG 1280, GEOG 1281 or GEOG 1200, or permission of department head.

GEOG 4280 Gender and the Human Environment Cr.Hrs. 3 +3
This upper-level seminar course will develop in students a depth and breadth of understanding appropriate to the honours undergraduate/graduate level in the area of gender geography scholarship. From critical social science theoretical positions, this course asks students to examine what we can learn about how humans live on the earth if we see them as gendered. Just as we may also understand humans and their interactions in and with spaces, places and environments through the lenses of race, ethnicity, class, age and/or combinations of these categories with gender. Prerequisite: A grade of 'C' or better in a minimum of 6 credit hours in geography, or permission of the department head.

NET CHANGE IN CREDIT HOURS: -3

Faculty of Human Ecology

Interdisciplinary Health

Modification:

HEAL 4610 Health Studies Capstone Cr.Hrs. 3
Students will explore selected topics from the social sciences to synthesize and evaluate actions that can affect the health of people. The course summarizes the social sciences knowledge that forms the basis for all health related professional work. Prerequisites: A grade of C+ in HEAL 3600 and 57 credit hours in the Curriculum for Interdisciplinary Health or consent of instructor. Restricted to students in Health Sciences and Health Studies.

NET CHANGE IN CREDIT HOURS: 0

Faculty of Law

Deletions:

LAW 3270 Clinical Family Law Cr.Hrs. 6 -6
LAW 3060 Transportation Law Cr.Hrs. 3 -3
LAW 3280 Limits of Law Cr.Hrs. 3 -3

Introductions:

LAW 3012 International Business Law Cr.Hrs. 3 +3
Explores the legal, practical and social realities of international business transactions.

LAW 3014 International Trade Law Cr.Hrs. 3 +3
The course will deal with the doctrine, practice and policy issues in international trade and business.

LAW 3016 Corporations II Cr.Hrs. 3 +3
An advanced study of corporations law from various theoretical and practical perspectives.

LAW 3018 Human Rights Law Cr.Hrs. 3 +3
Critical and constructive study, at an advanced level, of a significant major subject or set of topics in Human Rights Law.

NET CHANGE IN CREDIT HOURS: 0

I.H. Asper School of Business – Faculty of Management

Department of Accounting and Finance

Modifications:

FIN 2200 Corporate Finance Cr.Hrs. 3
(formerly 009.220) An introduction to corporate finance regarding the allocation & acquisition of funds. Topics include: discounted cash flows, capital budgeting, financial instruments, cost of capital, risk-return trade-offs, market efficiency, capital structure and the use of derivatives. Prerequisite ACC 1100 (or 009.110)(D) and ECON 1200 (or 018.120)(D). Pre- or Corequisite: STAT 1000 (or 005.100) or equivalent.

FIN 3410 Investments Cr.Hrs. 3
(formerly 009.341) An introduction to investment analysis and modern portfolio theory. Topics include equilibrium in the capital markets, fixed income securities, equities and derivative instruments. Prerequisite: FIN 2200 (or 009.220)(C+).

FIN 3420 Security Analysis Cr.Hrs. 3
(formerly 009.342) This course provides a practical application of technique to analyse a company for investment purposes and evaluate purchases of stocks and fixed-income securities. Topics include financial statement analysis, ratio analysis, alternative methods for forecasting corporate profits and dividends, risk assessment, and valuation techniques. Prerequisite: FIN 2200 (or 009.220)(C+).

FIN 3440 Real Estate Finance Cr.Hrs. 3
(formerly 009.344) An introduction to real estate finance. Topics include valuation, financing, transaction, tax and legal issues. Prerequisite: FIN 2200 (or 009.220)(C+).

FIN 3450 International Finance Cr.Hrs. 3
An introduction to the theory of comparative advantage, foreign exchange markets, international parity relations, international debt and equity markets, international debt operating exposures, and international capital budgeting. Prerequisite: FIN 2200 (or 009.220(C+).

FIN 3460 Financial Markets and Institutions Cr.Hrs. 3
A study of the financial systems with emphasis on Canada. Major topics include monetary policy, financial markets, financial institutions, financial regulation and risk management. Students may not hold credit for both FIN 3460 (or 009.346) and ECON 3640 (or 018.364). Prerequisite: FIN 2200 (or 009.220)(C+).

FIN 3480 Corporate Finance Theory and Practice Cr.Hrs. 3
Intermediate Corporate Finance including the following topics: Capital budgeting theory and techniques, determination of relevant cost of capital, capital structure, dividend policy, leasing and other special topics. Prerequisite: FIN 2200 (or 009.220)(C+).

FIN 4270 Derivatives Cr.Hrs. 3
Mechanics of futures, options and swaps markets. Topics include arbitrage, hedging, forward rate agreements, models of derivative valuation and value-at-risk. Prerequisite FIN 3410 (or 009.341)(D).

FIN 4400 Strategic Financial Management Cr.Hrs. 3
Application of theoretical models in finance to real-world problems using cases. Topics include working capital management, long-term investment and financing decisions, valuation, risk management, reorganizations and international financial management. Prerequisite: FIN 3480 (or 009.348)(D).

NET CHANGE IN CREDIT HOURS: 0

Faculty of Medicine

School of Medical Rehabilitation

Program modification:

Year 1 Program for Respiratory therapy program

Dept. Name	Dept Code	Course No.	Credit Hrs.
~~Medical Rehabilitation~~	~~REHB~~	~~1200~~	~~3~~
Human Physiology	**PHYS**	**1030**	**6**
Anatomy	ANAT	1030	3
Respiratory Therapy	RESP	1280	2
Respiratory Therapy	RESP	1320	3
Respiratory Therapy	RESP	1330	3
Respiratory Therapy	RESP	1360	3
Respiratory Therapy	RESP	1380	4

Faculty of Pharmacy

Deletions:

PHRM 1100 Pharmacy Skills Laboratory (PSL-1) Cr.Hrs. 5 -5

Introductions:

PHRM 1110 Pharmacy Skills Laboratory (PSL-1) Cr.Hrs. 3 +3
This is a multifaceted course using an integrated skills laboratory format to develop essential skills that students require for pharmacy practice. These skills primarily involve communication, problem solving and critical thinking that form the foundation for life-long learning. Exploring ethical principles and professionalism are also essential components of this course.

NET CHANGE IN CREDIT HOURS: -2

Program modification:

Faculty of Pharmacy course change proposal:

Additions/~~deletions~~

First Year (for 2010-2011)

Dept. Name	Dept. Code	Course No.	Credit Hours
Pharmacy	PHRM	1000	1
~~Pharmacy~~	~~PHRM~~	~~1100~~	~~5~~
Pharmacy	*PHRM*	~~1100~~ *1100*	*3*
Pharmacy	PHRM	1300	2
Pharmacy	PHRM	1430	3
Pharmacy	PHRM	1700	1
Anatomy	ANAT	1030	3
Physiology	PHGY	1030	6
Microbiology	MBIO	2100	3
Chemistry	CHEM	2210	3
Chemistry	CHEM	2360	3
Chemistry	CHEM	2370	3
~~Total Credit Hours for First Year:~~			~~33~~
Total Credit Hours for First Year:			31

Faculty of Science

Department of Microbiology

Deletions:

MBIO 2100 General Microbiology A Cr.Hrs. 3 -3
MBIO 2110 General Microbiology B Cr.Hrs. 3 -3

Introductions:

MBIO 1010 Microbiology I (Lab required) Cr.Hrs. 3 +3
Topics will include the definition and history of microbiology, concepts of practical microbiology, prokaryotic cell structure, prokaryotic specialization in gene expression and transfer of genetic information, the role of microbes in environments including the human body, and applications of microbiology to food production and biotechnology. Not to be held with MBIO 2100, MBIO 2110, MBIO 2101 or MBIO 2111. Pre- or Corequisite: BIOL 1020.

MBIO 2020 Microbiology II (Lab required) Cr.Hrs. 3 +3
Topics will include bacterial growth, chromosome replication, the specifics of transcription and translation and their application to the regulation of microbial gene expression. Families of bacterial and animal viruses, their modes of reproduction and pathogenicity will be discussed. Mutation and gene transfer in bacteria will be introduced. Not to be held with the former MBIO 2110 (60.211). Prerequisites: MBIO 1010 and one of CHEM 1310, CHEM 1311, or CHEM 1320 (C).

MBIO 3030 Microbiology III (Lab required) Cr.Hrs. 3 +3
The course will include an introduction to microbial growth and genomics approaches used for the analysis of microbial metabolism. Using these tools, the physiology of microbial cell walls, transport, and motility, as well as microbial metabolism as related to ATP production, respiration, fermentation and carbon fixation will be discussed. Not to be held with the former MBIO 2100 (60.210). Prerequisites: MBIO 1010 or permission of instructor, and one of CHEM 1310, CHEM 1311 or CHEM 1320 (C).

MBIO 44602 Molecular Genetics of Prokaryotes – Lectures Cr.Hrs. 3 +3
A detailed examination of replication, expression, mutability, repair and transposition of DNA in bacteria and their viruses. Lecture material will be identical to that of MBIO 4600, but MBIO 4602 lacks the laboratory component; Honours and major students must register in MBIO 4600. Check with the department for availability. Not to be held with MBIO 4601, MBIO 4600, or the former 060.452 or 060.456. Prerequisites: MBIO 2020 or the former MBIO 2110 (or equivalent MBIO 2111, 060.211)(C); and one of MBIO 2370, MBIO 2371 (060.237), CHEM 2370 or CHEM 2371 (002.237)(C). BIOL 2500 (BOTN 2460, 001.246) is recommended.

MBIO 4612 Molecular Genetics of Eukaryotes – Lectures Cr.Hrs. 3 +3
A comprehensive study dealing with replication and expression of DNA, genome structure, and the involvement of genes in diseases such as cancer. Lecture material will be identical to that of MBIO 4610, but MBIO 4612 lacks the laboratory component. Honours and Majors students must register in MBIO 4610. Check with the department for availability. Not to be held with MBIO 4610, or the former 60.461, 60.452, or 60.455. Prerequisites: MBIO 2020 or the former MBIO 2110 (or equivalent MBIO 2111, 060.211)(C), and one of MBIO 2370, MBIO 2371

(060.237), CHEM 2370 or CHEM 2371 (002.237)(C). BIOL 2500 (BOTN 2460, 001.246) is recommended.

Modifications:

MBIO 2280 Microbial Ecology (Lab required) Cr.Hrs. 3
(formerly 060.228) A survey of methods used to study microbial associations and their behaviour. Not to be held with the former 060.226. Prerequisite: MBIO 1010 or the former MBIO 2100 (or equivalent MBIO 2101, 060.210)(C) and one of CHEM 1310, CHEM 1311 or CHEM 1320 (C).

MBIO 3000 Applied Biological Safety Cr.Hrs. 3
A comprehensive overview of (i) applied biological safety in research and industrial environments and (ii) the disease-causing features of relevant infectious agents and considerations for their containment. The course consists of lectures and demonstration components. Prerequisite: MBIO 1010 or the former MBIO 2100 (or equivalent MBIO 2101, 060.210)(C) and one of CHEM 1310, CHEM 1311 or CHEM 1320 (C); or permission of instructor. Check with department for availability.

MBIO 3010 Mechanisms of Microbial Disease Cr.Hrs. 3
(formerly 060.301) 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. Not to be held with MBIO 3011. Prerequisites: MBIO 2020 or the former MBIO 2100 (or equivalent MBIO 2101, 060.210)(C); and one of MBIO 2370, MBIO 2371 (060.237), CHEM 2370, or CHEM 2371 (002.237)(C).

MBIO 3410 Molecular Biology Cr.Hrs. 3
(formerly 060.341) A rigorous treatment of the foundations of modern day molecular biology as it pertains to molecular disease, gene and cell manipulation, and cellular controls. Not to be held with MBIO 3411. Prerequisites: One of MBIO 2370, MBIO 2371 (060.237), CHEM 2370, CHEM 2371 (002.237), MBIO 2780 (060.278), or CHEM 2780 (002.278)(C); and one of MBIO 2020, the former MBIO 2110 (or equivalent MBIO 2111, 060.211)(C), BIOL 2520 (ZOOL 2280, 022.228)(C), BIOL 2521 (ZOOL 2281), BIOL 2500 (BOTN 2460, 001.246), or BIOL 2501 (BOTN 2461).

MBIO 3430 Molecular Evolution Cr.Hrs. 3
(formerly 060.343) 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: One of MBIO 2020, the former MBIO 2110 (or equivalent MBIO 2111, 060.211)(C), BIOL 2520 (ZOOL 2280, 022.228)(C), BIOL 2521 (ZOOL 2281), BIOL 2500 (BOTN 2460, 001.246), or BIOL 2501 (BOTN 2461), MBIO 2370, MBIO 2371 (060.237), CHEM 2370, CHEM 2371 (002.237), MBIO 2780 (060.278), or CHEM 2780 (002.278).

MBIO 3440 Microbial Physiology (Lab required) Cr.Hrs. 3
(formerly 060.344) Physiology of microbial growth, metabolism development and differentiation. Prerequisites: Both of MBIO 2020 and MBIO 3030, or the former MBIO 2110 (or equivalent – MBIO 2111, 060.211)(C); and one of [MBIO 2370, MBIO 2370 (060.237), CHEM 2370, CHEM 2371 (002.237)](C).

MBIO 3450 Regulation of Biochemical Processes Cr.Hrs. 3
(formerly 060.345) Mechanisms of regulation of enzyme activity, including allostery, control of selected biosynthetic and degradative pathways and regulation of gene expression. Contact department regarding availability. Not to be held with MBIO 3451. Prerequisites: MBIO 2020 or the former MBIO 2110 (or equivalent – MBIO 2111, 060.211)(C) or consent of the department; and one of [MBIO 2370, MBIO 2370 (060.237), CHEM 2370, CHEM 2371 (002.237)](C).

MBIO 3460 Membrane and Cellular Biochemistry (Lab required)
(formerly 060.346) Isolation, fractionation, structure and function of cellular membranes and subcellular components. The central role of these elements in the biochemistry of cellular processes will be stressed. Not to be held with MBIO 3461. Prerequisites: one of [MBIO 2370, MBIO 2370 (060.237), CHEM 2370, CHEM 2371 (002.237)](C).

MBIO 3470 Microbial Systematics (Lab required)
(formerly 060.347) Characterization and classification of the major group of micro-organisms. Bases for divisions and the relatedness among organisms will be studied. Laboratory work involves the identification of representative species. Prerequisite: [MBIO 3030 or the former MBIO 2110 (or equivalent – MBIO 2111.060.211)](C).

MBIO 3480 Microbial Diversity (Lab required)
(formerly 060.348) Study of selected groups of micro-organisms that exhibit distinctive properties such as phototrophy, nitrogen fixation, parasitism. Prerequisite: [MBIO 2020 or the former MBIO 2110 (or equivalent – MBIO 2111.060.211)](C),. Prerequisite or concurrent requirement: MBIO 3XY0.

MBIO 4470 Fermentations (Lab required)
(formerly 060.447) Biochemical and enzymatic mechanisms of microbial reactions in anaerobic fermentations and methods of their investigation. Prerequisites: [MBIO 3030 or the former MBIO 2110 (or equivalent – MBIO 2111.060.211)](C); and one of [MBIO 2370, MBIO 2371 (060.237), CHEM 2370, CHEM 2371 (002.237)](C).

MBIO 4510 Industrial Microbiology (Lab required)
(formerly 060.451) A survey of microbial reactions used in industry. Fermentations, such as the production of amino acids and antibiotics, will be discussed. Prerequisites: [MBIO 3030 or the former MBIO 2110 (or equivalent – MBIO 2111.060.211)](C); and one of [MBIO 2370, MBIO 2371 (060.237), CHEM 2370, CHEM 2371 (002.237)](C).

MBIO 4540 Biological Energy Transduction
(formerly 060.454) Biochemistry of biological processes involving interconversion of different forms of energy such as oxidative phosphorylation, membrane transport and contractile processes. Not to be held with MBIO 4541. Prerequisites: [MBIO 2020 or the former MBIO 2110 (or equivalent – MBIO 2111.060.211)](C); and one of [MBIO 2370, MBIO 2371 (060.237), CHEM 2370, CHEM 2371 (002.237)](C); or consent of department. MBIO 3030 is recommended as a prerequisite for this course.

MBIO 4600 Molecular Genetics of Prokaryotes (Lab required)
(formerly 060.460) A detailed examination of replication, expression, mutability, repair and transposition of DNA in bacteria and their viruses. Priority will be given to Science Honours and Majors students. Check with the department for availability. Not to be held with MBIO 4601, MBIO 4602, or the former 060.452 or 060.456. Prerequisites: [MBIO 2020 or the former MBIO

2110 (or equivalent – MBIO 2111.060.211)](C); and one of [MBIO 2370, MBIO 2371 (060.237), CHEM 2370, CHEM 2371 (002.237)](C). BIOL 2500 (BOTN 2460, 001.246) is recommended.

MBIO 4610 Molecular Genetics of Eukaryotes (Lab required)
(formerly 060.461) A comprehensive study dealing with replication and expression of DNA, genome structure, and the involvement of genes in diseases such as cancer. Priority will be given to Science Honours and Majors students. Check with the department for availability. Not to be held with MBIO 4XY0, or the former 060.452 or 060.455. Prerequisites: [MBIO 2020 or the former MBIO 2110 (or equivalent – MBIO 2111.060.211)](C); and one of [MBIO 2370, MBIO 2371 (060.237), CHEM 2370, CHEM 2371 (002.237)](C). BIOL 2500 (BOTN 2460, 001.246) is recommended.

NET CHANGE IN CREDIT HOURS: +9

Program modifications:

DEPARTMENT OF MICROBIOLOGY
Program Changes
2010-2011

Current:

HONOURS[3] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)			
BIOL 1020, BIOL 1030, CHEM 1300, CHEM 1310	~~MBIO 2100, MBIO 2110~~, MBIO 2280, MBIO 2360 (CHEM 2360), MBIO 2370 (CHEM 2370), BIOL 2500 (BOTN 2460), BIOL 2520 (ZOOL 2280), CHEM 2210, CHEM 2220,	MBIO 3010, MBIO 3410, MBIO 3440, MBIO 3470, MBIO 3480	MBIO 4010, MBIO 4470, MBIO 4530(6), MBIO 4600, MBIO 4610
In University 1 or Year 2 the following must be completed: 3 credit hours of Mathematics or Physics from MATH 1200, MATH 1300[1], MATH 1500[1], PHYS 1020 or PHYS 1050 STAT 1000 6 credit hours from the Faculty of Arts, which should include the required "W" course.		Plus ~~15~~ credit hours of Microbiology courses[4] and 12 credit hours chosen from Microbiology courses[4] or from the option list (see above)	
30 Hours	30 Hours	30 Hours	30 Hours

Proposed:

HONOURS[3] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)			
MBIO 1010* BIOL 1020, BIOL 1030, CHEM 1300, CHEM 1310	MBIO 2020 MBIO 2280, MBIO 2360 (CHEM 2360), MBIO 2370 (CHEM 2370), BIOL 2500 (BOTN 2460), BIOL 2520 (ZOOL 2280), CHEM 2210, CHEM 2220	MBIO 3030 MBIO 3010, MBIO 3410, MBIO 3440, MBIO 3470, MBIO 3480	MBIO 4010, MBIO 4470, MBIO 4530(6), MBIO 4600, MBIO 4610
In University 1 or Year 2 the following must be completed: 3 credit hours of Mathematics or Physics from MATH 1200, MATH 1300[1], MATH 1500[1], PHYS 1020 or PHYS 1050 STAT 1000 6 credit hours from the Faculty of Arts, which should include the required "W" course. 9 credit hours of open electives (* MBIO 1010 may be taken in year 1 or year 2)		12 credit hours of Microbiology courses[4] 12 credit hours chosen from Microbiology courses[4] or from the option list (see above)	
30 Hours	30 Hours	30 Hours	30 Hours

Current:

HONOURS COOPERATIVE OPTION[3] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)			
BIOL 1020, BIOL 1030, CHEM 1300, CHEM 1310	~~MBIO 2100, MBIO 2110~~, MBIO 2280, MBIO 2360 (CHEM 2360), MBIO 2370 (CHEM 2370), BIOL 2500 (BOTN 2460), BIOL 2520 (ZOOL 2280), CHEM 2210, CHEM 2220	MBIO 3010, MBIO 3410, MBIO 3440, MBIO 3470, MBIO 3480	MBIO 4010, MBIO 4470, MBIO 4600, MBIO 4610
In University 1 or Year 2 the following must be completed:		MBIO 3980, MBIO 3990, MBIO 4980 and/or MBIO 4990	
3 credit hours of Mathematics or Physics from MATH 1200, MATH 1300[1], MATH 1500[1], PHYS 1020 or PHYS 1050		Plus ~~21~~ credit hours of Microbiology courses[4] and 12 credit hours chosen from Microbiology courses[4] or from the option list (see above)	
STAT 1000			
6 credit hours from the Faculty of Arts, which should include the required "W" course			
30 Hours	30 Hours	30 Hours	30 Hours

Proposed:

HONOURS COOPERATIVE OPTION[3] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)			
MBIO 1010, BIOL 1020, BIOL 1030, CHEM 1300, CHEM 1310	MBIO 2010, MBIO 2280, MBIO 2360 (CHEM 2360), MBIO 2370 (CHEM 2370), BIOL 2500 (BOTN 2460), BIOL 2520 (ZOOL 2280), CHEM 2210, CHEM 2220	MBIO 2019, MBIO 3010, MBIO 3410, MBIO 3440, MBIO 3470, MBIO 3480	MBIO 4010, MBIO 4470, MBIO 4600, MBIO 4610
In University 1 or Year 2 the following must be completed:		18 credit hours of Microbiology courses[4]	
3 credit hours of Mathematics or Physics from MATH 1200, MATH 1300[1], MATH 1500[1], PHYS 1020 or PHYS 1050		12 credit hours chosen from Microbiology courses[4] or from the option list (see above)	
STAT 1000			
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 open electives			
(* MBIO 1010 may be taken in year 1 or year 2)			
30 Hours	30 Hours	40 Hours	30 Hours

Current:

30 Hours	30 Hours	30 Hours	30 Hours
FOUR YEAR MAJOR[3,5] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)			
BIOL 1020, BIOL 1030, CHEM 1300, CHEM 1310	~~MBIO 2100, MBIO 2110~~, MBIO 2360 (CHEM 2360), MBIO 2370 (CHEM 2370), BIOL 2500 (BOTN 2460), BIOL 2520 (ZOOL 2280), CHEM 2210, CHEM 2220,	~~33~~ credit hours of Microbiology courses[2] including 15 credit hours at the 4000 level[2] Plus 9 credit hours from Microbiology courses[2] or from the option list (see above)	
In University 1 or Year 2 the following must be completed: 3 credit hours of Mathematics or Physics from MATH 1200, MATH 1300[1], MATH 1500[1], PHYS 1020 or PHYS 1050 STAT 1000 6 credit hours from the Faculty of Arts, which should include the required "W" course.			

Proposed:

30 Hours	30 Hours	30 Hours	30 Hours
FOUR YEAR MAJOR[3,5] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)			
MBIO 1010, BIOL 1020, BIOL 1030, CHEM 1300, CHEM 1310	MBIO 2020, MBIO 2360 (CHEM 2360), MBIO 2370 (CHEM 2370), BIOL 2500 (BOTN 2460), BIOL 2520 (ZOOL 2280), CHEM 2210, CHEM 2220	MBIO 3030	
In University 1 or Year 2 the following must be completed: 3 credit hours of Mathematics or Physics from MATH 1200, MATH 1300[1], MATH 1500[1], PHYS 1020 or PHYS 1050 STAT 1000 6 credit hours from the Faculty of Arts, which should include the required "W" course. 12 credit hours of open electives (* MBIO 1010 may be taken in year 1 or year 2)		30 credit hours of Microbiology courses[2] including a minimum of 15 credit hours at the 4000 level[2] 9 credit hours from Microbiology courses[2] or from the option list (see above) 18 credit hours of open electives	

Current:

MAJOR COOPERATIVE OPTION[3,5] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)		
BIOL 1020, BIOL 1030, CHEM 1300, CHEM 1310	~~MBIO 2100, MBIO 2110~~, MBIO 2360 (CHEM 2360), MBIO 2370 (CHEM 2370), BIOL 2500 (BOTN 2460), BIOL 2520 (ZOOL 2280), CHEM 2210, CHEM 2220	MBIO 3010, MBIO 3410 ~~27~~ credit hours of Microbiology courses[2] including 15 credit hours at the 4000 level Plus 9 credit hours from Microbiology courses[2] or from the option list (see above)
In University 1 or Year 2 the following must be completed: 3 credit hours of Mathematics or Physics from MATH 1200, MATH 1300[1], MATH 1500[1], PHYS 1020 or PHYS 1050 STAT 1000 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

Proposed:

MAJOR COOPERATIVE OPTION[3,5] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)		
MBIO 1010*, BIOL 1020, BIOL 1030, CHEM 1300, CHEM 1310	MBIO 2020 MBIO 2360 (CHEM 2360), MBIO 2030, MBIO 2370 (CHEM 2370), BIOL 2500 (BOTN 2460), BIOL 2520 (ZOOL 2280), CHEM 2210, CHEM 2220	MBIO 3010, MBIO 3410
In University 1 or Year 2 the following must be completed: 3 credit hours of Mathematics or Physics from MATH 1200, MATH 1300[1], MATH 1500[1], PHYS 1020 or PHYS 1050 STAT 1000 6 credit hours from the Faculty of Arts, which should include the required "W" course. 12 credit hours of open electives (* MBIO 1010 may be taken in year 1 or year 2)		24 credit hours of Microbiology courses[2] including 15 credit hours at the 4000 level 9 credit hours from Microbiology courses[2] or from the option list (see above) 18 credit hours of open electives MBIO 3980, MBIO 3990, MBIO 4980 and/or MBIO 4990

General Degree Requirements

Current:

THREE YEAR GENERAL	
	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.)

Proposed:

THREE YEAR GENERAL	
MBIO 1XY0	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 Requirements

Current:

MINOR	
CHEM 1300, CHEM 1310, BIOL 1020, BIOL 1030 (C)	12 credit hours of Microbiology at the 2000 and (or) 3000 level

Proposed:

MINOR	
CHEM 1300, CHEM 1310 (C), BIOL 1020, BIOL 1030 (C), MBIO 1010 (C)	12 credit hours of Microbiology at the 2000 and (or) 3000 level

Microbiology list of Required Options:

Current:

Option List* for All Microbiology Programs:

Biological Sciences:

BIOL 2242 (BOTN 2010), BIOL 2260 (BOTN 2210), BIOL 2300 (BOTN 2370, ZOOL 2370), BIOL 2380 (BOTN 2180, ZOOL 2180), BIOL 2410 (ZOOL 2530), BIOL 2420 (ZOOL 2540), BIOL 2540 (ZOOL 2150), BIOL 3260 (BOTN 2290), BIOL 3290 (BOTN 3280), 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 3500 (BOTN 3460), BIOL 3540 (ZOOL 3070), BIOL 3560 (ZOOL 3060), 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 4560 (ZOOL 4140)

Chemistry:

CHEM 2280, CHEM 2290, CHEM 2380, CHEM 2470, CHEM 3390, CHEM 3590, CHEM 4590, CHEM 4360, CHEM 4370, CHEM 4620, CHEM 4630, CHEM 4670

Environmental Science: ENVR 2180

Food Sciences: FOOD 4150, FOOD 4280

General Agriculture: AGEC 2180, AGEC 2370

Mathematics: MATH 2010

With CuSB changes:

Option List* for All Microbiology Programs:

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 2540 (ZOOL 2150), 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 3500 (BOTN 3460), **BIOL 3501,** BIOL 3540 (ZOOL 3070), 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 4560 (ZOOL 4140)

Chemistry:

CHEM 2280, CHEM 2290, CHEM 2380, CHEM 2470, CHEM 3390, CHEM 3590, **CHEM 3XY0,** CHEM 4590, CHEM 4360, CHEM 4370, CHEM 4620, CHEM 4630 CHEM 4670

Environmental Science: ENVR 2180

Food Sciences: FOOD 4150, FOOD 4280

General Agriculture: AGEC 2180, AGEC 2370

***Pharmacology*: PHAC 4030, PHAC 4040**

***Statistics*: STAT 2000**

Department of Biological Sciences

Deletions:

BIOL 3240 Biodiversity: Mosses Cr.Hrs. 3	-3
BIOL 3260 Biology of Algae Cr.Hrs. 3	-3
BIOL 4244 Advanced Mycology Cr.Hrs. 3	-3
BIOL 4246 Lichen Symbiosis Cr.Hrs. 3	-3
BIOL 4550 Molecular Biology for Plants and Fungi Cr.Hrs. 3	-3

Introductions:

BIOL 2262 Biology of Algae (Lab required) Cr.Hrs. 3 +3
(formerly BIOL 3260, BOTN 2290, 001.229) Lectures and laboratories dealing with the cellular features of major groups of algae and their phytogenetic and adaptive significance. The basics of algal taxonomy are also covered. Not to be held with the former BIOL 3260, 001.323 or 001.341. Prerequisite: one of BIOL 1030, BIOL 1031, or the former 071.125(C).

BIOL 3250 Lichens and Bryophytes (Lab required) Cr.Hrs. 3 +3
The biology, evolution, and ecology of lichens and bryophytes. Emphasis is placed on the role of lichens and bryophytes in the ecosystem, gene flow, animal interactions, coevolution, secondary compounds, and species identification. Prerequisite: BIOL or BIOL 1031 or the former 071.125.

BIOL 4552 Molecular Biology Techniques for Eukaryotes (Lab required) Cr.Hrs. 3 +3
A techniques-intensive course focusing on the understanding of molecular biology techniques, troubleshooting problems, writing reproducible Materials and Methods for publications, accurate recording of procedures in lab journals, and bioinformatics exercises. Not to be held with the former 001.742 or 001.746 or BOTN 7460. Prerequisite: BIOL 2500 (BOTN 2460).

Modifications:

BIOL 2242 The Flowering Plants (Lab required) Cr.Hrs. 3
(formerly BOTN 2010; 001.201) A study of the structure and function of the flowering plants. Lecture topics are supplemented by laboratory exercises that focus on the anatomy and morphology of roots, stems, leaves, and reproductive organs. Not to be held with the former 001.230. Prerequisite: one of BIOL 1010 (071.101)(B), BIOL 1011 (C), BIOL 1030 (C), BIOL 1031 (C), or the former 071.125(C).

BIOL 3450 Plant Physiology (Lab required) Cr.Hrs. 3
(formerly BOTN 2020, 001.202) A study of the function of plants. The focus will be on photosynthesis, plant water relations, plant nutrition and the role of hormonal and extrinsic factors in the regulation of plant development. Not to be held with the former 001.230 or PLNT 3500. Prerequisite: BIOL 2242 (BOTN 2010, 001.201)(C).

BIOL 4312 Analysis of Biological Communities Cr.Hrs. 3
(formerly BOTN 4650) A survey of methods and approaches to the analysis of biological and environmental data containing many variables. Offered in alternate years. Not to be held with BOTN 7440. Prerequisites: a "C" or better in one of BIOL 2300 (BOTN 2370, ZOOL 2370, 001.237, 022.237), BIOL 2301 (BOTN 2371, ZOOL 2371), or AGEC 2370 (065.237); and STAT 2000 or STAT 2001 (005.200) (C).

BIOL 4330 Plant Ecology Cr.Hrs. 3
(formerly BOTN 4150, 001.415) This course examines the ecology of interactions between plants and their biotic environment – other plants, animals and soil microbes. This is a reading course. Students will participate in discussions on key papers, examine recent and historic literature, and write a term paper examining a selected topic. Prerequisite: a "C" or better in one of BIOL 3310, BIOL 3314, or BIOL 3312 or consent of department.

BIOL 4460 Comparative Animal Energetics Cr.Hrs. 3
The unifying theme of this course will be energetic strategies of animals living in ecologically diverse environments. It will involve an integration of metabolic, respiratory, cardiovascular and morphological adaptations in both the resting and exercising animal, with the emphasis on vertebrates, especially birds and mammals. The interplay between physiology and behaviour in animal energetics will also be stressed. Prerequisites: [BIOL 2210 (ZOOL 2320, 022.232) or ZOOL 2501 (C)] and one of BIOL 2410 (or equivalent ZOOL 2530, 022.253), BIOL 3460 (ZOOL 3530, 022.343), or BIOL 3462 (ZOOL 3540, 022.354); or consent of department.

NET CHANGE IN CREDIT HOURS: -6

Program modifications:

DEPARTMENT OF BIOLOGICAL SCIENCES
Program Change
2010-2011

Changes to the Biological Sciences Honours Degree: Evolution and Biodiversity Theme:

Current:

30 Hours	30 Hours	30 Hours	30 Hours
HONOURS: Evolution and Biodiversity Theme (incl. Co-op) 120 CREDIT HOURS[2,7]			
BIOL 1020, BIOL 1030, CHEM 1300, CHEM 1310, STAT 1000	BIOL 2300, BIOL 2500, BIOL 2520	BIOL 3100, BIOL 3300	BIOL 4100 (6)
	Choose one course from each of: Group A: BIOL 2200, BIOL 2210 Group B: BIOL 2240, BIOL 2242, BIOL 2260 Plus one additional course from either Group A or Group B	Choose one of the following: BIOL 3450, BIOL 3460, BIOL 3462 **Co-op requirements (if enrolled):** BIOL 3980, BIOL 3990	**Co-op requirements (if enrolled):** BIOL 4980, BIOL 4990 (if necessary)
In University 1 or Year 2 the following must be completed: 3 credit hours from Mathematics or Physics from: MATH 1200, MATH 1300[1] or MATH 1500[1], PHYS 1020 or PHYS 1050 Plus 6 credit hours from the Faculty of Arts, which should include the required "W" course		In addition to the core courses, students require 30 credit hours of 3000 or 4000 level Biology courses[6] to graduate. ~~No additional theme courses are required in this program; however, courses emphasizing evolution and biodiversity should be selected from a given set of courses offered by the department.~~	
30 Hours	30 Hours	30 Hours	30 Hours

Proposed:

30 Hours	30 Hours	30 Hours	30 Hours
HONOURS: Evolution and Biodiversity Theme (incl. Co-op) 120 CREDIT HOURS[2,7]			
BIOL 1020, BIOL 1030, CHEM 1300, CHEM 1310, STAT 1000	BIOL 2300, BIOL 2500, BIOL 2520	BIOL 3100, BIOL 3300	BIOL 4100 (6)
	Choose one course from each of: Group A: BIOL 2200, BIOL 2210 Group B: BIOL 2240, BIOL 2242, BIOL 2260 Plus one additional course from either Group A or Group B	Choose one of the following: BIOL 3450, BIOL 3460, BIOL 3462 3 credit hours chosen from the Evolutionary Processes list (A) below. 3 credit hours chosen from the Biodiversity course list (B) below. In addition to the core courses, students require 30 credit hours of 3000 or 4000 level Biology courses[6] to graduate.	
In University 1 or Year 2 the following must be completed: 3 credit hours from Mathematics or Physics from: MATH 1200, MATH 1300[1] or MATH 1500[1], PHYS 1020 or PHYS 1050 Plus 6 credit hours from the Faculty of Arts, which should include the required "W" course		**Co-op requirements (if enrolled):** BIOL 3980, BIOL 3990	**Co-op requirements (if enrolled):** BIOL 4980, BIOL 4990 (if necessary)
30 Hours	30 Hours	30 Hours	30 Hours

Changes to the Biological Sciences Major Degree: Evolution and Biodiversity Theme:

Current:

30 Hours	30 Hours	30 Hours	30 Hours
4-YEAR MAJOR: Evolution and Biodiversity Theme (incl. Co-op) 120 CREDIT HOURS[2,7]			
BIOL 1020, BIOL 1030, CHEM 1300, CHEM 1310, STAT 1000	BIOL 2300, BIOL 2500, BIOL 2520 Choose one course from each of: Group A: BIOL 2200, BIOL 2210 Group B: BIOL 2240, BIOL 2242, BIOL 2260 Plus one additional course from either Group A or Group B	BIOL 3300 Choose one of the following: BIOL 3450, BIOL 3460, BIOL 3462 **Co-op requirements (if enrolled):** BIOL 3100, BIOL 3980, BIOL 3990	The remaining 3000/4000 level Biological Sciences requirements[6]; plus any elective courses required to total 120 credit hours for the program. **Co-op requirements (if enrolled):** BIOL 4980, BIOL 4990 (if necessary)
In University 1 or Year 2 the following must be completed: 3 credit hours from Mathematics or Physics from: MATH 1200, MATH 1300[1] or MATH 1500[1], PHYS 1020 or PHYS 1050 Plus 6 credit hours from the Faculty of Arts, which should include the required "W" course		In addition to the core courses, students require 30 credit hours of 3000 or 4000 level Biology courses[6] to graduate. ~~There are no additional sub-core courses required in this program; however, courses emphasizing evolution and biodiversity should be selected from a given set of courses offered by the department.~~	
30 Hours	30 Hours	30 Hours	30 Hours

Proposed:

30 Hours	30 Hours	30 Hours	30 Hours
4-YEAR MAJOR: Evolution and Biodiversity Theme (incl. Co-op) 120 CREDIT HOURS[2,7]			
BIOL 1020, BIOL 1030, CHEM 1300, CHEM 1310, STAT 1000	BIOL 2300, BIOL 2500, BIOL 2520 Choose one course from each of: Group A: BIOL 2200, BIOL 2210 Group B: BIOL 2240, BIOL 2242, BIOL 2260 Plus one additional course from either Group A or Group B	BIOL 3300 Choose one of the following: BIOL 3450, BIOL 3460, BIOL 3462 3 credit hours chosen from the Evolutionary Processes list (A) below. 3 credit hours chosen from the Biodiversity course list (B) below. In addition to the core courses, students require 30 credit hours of 3000 or 4000 level Biology courses[6] to graduate. **Co-op requirements (if enrolled):** BIOL 3100, BIOL 3980, BIOL 3990	The remaining 3000/4000 level Biological Sciences requirements[6]; plus any elective courses required to total 120 credit hours for the program. **Co-op requirements (if enrolled):** BIOL 4980, BIOL 4990 (if necessary)
In University 1 or Year 2 the following must be completed: 3 credit hours from Mathematics or Physics from: MATH 1200, MATH 1300[1] or MATH 1500[1], PHYS 1020 or PHYS 1050 Plus 6 credit hours from the Faculty of Arts, which should include the required "W" course			
30 Hours	30 Hours	30 Hours	30 Hours

Rationale: Introduction of Theme specific courses for the Evolution and Biodiversity theme.

Evolution & Biodiversity Theme Courses

A. One (1) of the following courses that emphasize evolutionary processes:
Animal Behaviour (BIOL 3360)
Advanced Plant Systematics (BIOL 4240)
Evolution of Plant Structures and Systems (BIOL 4242)
Behavioural Ecology and Cognitive Ethology (BIOL 4362)

B. One (1) of the following courses that emphasize biodiversity of specific taxa:
Advanced Invertebrate Biology (BIOL 3200)
Biodiversity: Vascular Flora of Manitoba (BIOL 3242)
Lichens and Bryophytes (BIOL 3250)
Biology of Algae (BIOL ~~3260~~ 2262 – proposed new number)
Introductory Parasitology (BIOL 3270)
Systematics and Biogeography of Fishes (BIOL 4212)
Biology of Amphibians and Reptiles (BIOL 4214)
Biology of Birds (BIOL 4216)
Biology of Mammals (BIOL 4218)
Advanced Mycology (BIOL 4244)

Changes to the Biological Sciences Honours Degree: Integrative Theme:

Current:

30 Hours	30 Hours	30 Hours	30 Hours
HONOURS: Integrative Biology Theme (incl. Co-op) 120 CREDIT HOURS[2,7]			
BIOL 1020, BIOL 1030, CHEM 1300, CHEM 1310, STAT 1000	BIOL 2300, BIOL 2500, BIOL 2520	BIOL 3100, BIOL 3300	BIO 4100 (6)
	BIOL 2200, BIOL 2210, BIOL 2240, BIOL 2242, ~~MBIO 2100~~ (theme courses)	Choose one of the following: BIOL 3450, BIOL 3460, BIOL 3462	
		Co-op requirement (if enrolled): BIOL 3980, BIOL 3990	**Co-op requirement (if enrolled):** BIOL 4980, BIOL 4990 (if necessary)
In University 1 or Year 2 the following must be completed: 3 credit hours from Mathematics or Physics from: MATH 1200, MATH 1300[1] or MATH 1500[1], PHYS 1020 or PHYS 1050 Plus 6 credit hours from the Faculty of Arts, which should include the required "W" course		In addition to the core courses, students require 18 credit hours of 3000 or 4000 level Biology courses[6] and 12 credit hours of Microbiology courses to graduate[4] (theme courses). Students completing the above prescribed courses will satisfy the Integrative Biology Theme.	

Proposed:

30 Hours	30 Hours	30 Hours	30 Hours
HONOURS: Integrative Biology Theme (incl. Co-op) 120 CREDIT HOURS[2,7]			
BIOL 1020, BIOL 1030, CHEM 1300, CHEM 1310, STAT 1000	BIOL 2300, BIOL 2500, BIOL 2520	BIOL 3100, BIOL 3300	BIO 4100 (6)
	BIOL 2200, BIOL 2210, BIOL 2240, BIOL 2242, MBIO 1010 (theme courses)	Choose one of the following: BIOL 3450, BIOL 3460, BIOL 3462	
		Co-op requirement (if enrolled): BIOL 3980, BIOL 3990	**Co-op requirement (if enrolled):** BIOL 4980, BIOL 4990 (if necessary)
In University 1 or Year 2 the following must be completed: 3 credit hours from Mathematics or Physics from: MATH 1200, MATH 1300[1] or MATH 1500[1], PHYS 1020 or PHYS 1050 Plus 6 credit hours from the Faculty of Arts, which should include the required "W" course		In addition to the core courses, students require 18 credit hours of 3000 or 4000 level Biology courses[6] and 12 credit hours of Microbiology courses to graduate[4] (theme courses). Students completing the above prescribed courses will satisfy the Integrative Biology Theme.	

Rationale: MBIO 2100 replaced by MBIO 1010 – resulting from changes made to the suite of introductory Microbiology courses.

Changes to the Biological Sciences Major Degree: Integrative Theme:

Current:

30 Hours	30 Hours	30 Hours	30 Hours
4-Year MAJOR: Integrative Biology Theme (incl. Co-op) 120 CREDIT HOURS[2,7]			
BIOL 1020, BIOL 1030, CHEM 1300, CHEM 1310, STAT 1000	BIOL 2300, BIOL 2500, BIOL 2520	BIOL 3300	BIO 4100 (6)
	BIOL 2200, BIOL 2210, BIOL 2240, BIOL 2242, ~~MBIO 2100~~ (theme courses)	Choose one of the following: BIOL 3450, BIOL 3460, BIOL 3462 **Co-op requirement (if enrolled):** BIOL 3100, BIOL 3980, BIOL 3990	**Co-op requirement (if enrolled):** BIOL 4980, BIOL 4990 (if necessary)
In University 1 or Year 2 the following must be completed: 3 credit hours from Mathematics or Physics from: MATH 1200, MATH 1300[1] or MATH 1500[1], PHYS 1020 or PHYS 1050 Plus 6 credit hours from the Faculty of Arts, which should include the required "W" course		In addition to the core courses, students require 18 credit hours of 3000 or 4000 level Biology courses[6] and 12 credit hours of Microbiology courses to graduate[4] (theme courses). Students completing the above prescribed courses will satisfy the Integrative Biology Theme.	

Proposed:

30 Hours	30 Hours	30 Hours	30 Hours
4 – Year MAJOR: Integrative Biology Theme (incl. Co-op) 120 CREDIT HOURS[2,7]			
BIOL 1020, BIOL 1030, CHEM 1300, CHEM 1310, STAT 1000	BIOL 2300, BIOL 2500, BIOL 2520	BIOL 3300	BIO 4100 (6)
	BIOL 2200, BIOL 2210, BIOL 2240, BIOL 2242, MBIO 1010 (theme courses)	Choose one of the following: BIOL 3450, BIOL 3460, BIOL 3462	
		Co-op requirements (if enrolled): BIOL 3100, BIOL 3980, BIOL 3990	**Co-op requirements (if enrolled):** BIOL 4980, BIOL 4990 (if necessary)
In University 1 or Year 2 the following must be completed: 3 credit hours from Mathematics or Physics from: MATH 1200, MATH 1300[1] or MATH 1500[1], PHYS 1020 or PHYS 1050 Plus 6 credit hours from the Faculty of Arts, which should include the required "W" course		In addition to the core courses, students require 18 credit hours of 3000 or 4000 level Biology courses[6] and 12 credit hours of Microbiology courses to graduate[4] (theme courses). Students completing the above prescribed courses will satisfy the Integrative Biology Theme.	

Rationale: MBIO 2100 replaced by MBIO 1010 – resulting from changes made to the suite of introductory Microbiology courses.

Biochemistry Program

Program modifications:

Current:

JOINT HONOURS[5] ~~123~~ CREDIT HOURS (comprising courses listed in chart below, and electives)

CHEM 1300, CHEM 1310, BIOL 1020, BIOL 1030, PHYS 1050 and PHYS 1070 (or PHYS 1020 and 1030), MATH 1500[1] ~~Plus one of: MATH 1200, MATH 1300[1], MATH 1700[1]~~	CHEM 2210, CHEM 2220, CHEM 2280, ~~CHEM 2290~~, CHEM 2360 (MBIO 2360), CHEM 2370 (MBIO 2370), ~~MBIO 2100, MBIO 2110~~, and ~~whichever two of MATH 1200, MATH 1300[1], MATH 1700[1] not yet taken[2]~~	~~CHEM 2380, CHEM 2470~~, MBIO 3450, MBIO 3460 ~~Plus 18 credit hours from option list above~~	CHEM 4360, CHEM 4370, CHEM 4620, CHEM 4630, CHEM 4700, MBIO 4540 ~~Plus 15 credit hours from option list above~~
In University 1 or Year 2 the following must be completed: 6 credit hours from the Faculty of Arts, which should include the required "W" course[4]		~~The 33 credit hours of options must include 24 credit hours from Chemistry and Microbiology with at least 6 hours from each department. The remaining 9 credit hours may be from any of the options listed.~~	
~~30 Hours~~	~~30 Hours~~	~~30 Hours~~	~~33 Hours~~

Proposed:

JOINT HONOURS[5] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)

CHEM 1300, CHEM 1310, BIOL 1020, BIOL 1030, PHYS 1050 (or PHYS 1020), PHYS 1070 (or PHYS 1030, MATH 1500, MATH 1700	CHEM 2210, CHEM 2220, CHEM 2280, CHEM 2360, CHEM 2370, CHEM 2380, CHEM 2470, MBIO 1010 MBIO 2020	CHEM 3570 MBIO 3410, MBIO 3450, MBIO 3460	CHEM 4360, CHEM 4370, CHEM 4620, CHEM 4630, CHEM 4700, MBIO 4540
In University 1 or Year 2 the following must be completed: 6 credit hours from the Faculty of Arts including the University Written English "W" requirement 3 credit hours[8] chosen from COMP, MATH, or STAT		**18 credit hours selected from the list of Microbiology and Chemistry Optional courses listed below.** **12 credit hours selected from the Faculty of Science [8]:**	
30 Hours	30 Hours	30 Hours	30 Hours

NOTES:

[1] ~~MATH 1310 may be taken in place of MATH 1300;~~ MATH 1510, or MATH 1520 may be taken in place of MATH 1500; MATH 1710 may be taken in place of MATH 1700; MATH 1690 may be taken in place of MATH 1500 and MATH 1700.

[2] ~~Other combinations of mathematics courses may be acceptable with the approval of the department heads.~~

[3] ~~Only two of CHEM 4360, CHEM 4370, CHEM 4620 and CHEM 4630 are required, but all may be taken.~~

[4] As there are no electives in Year 2 of the program, students should complete the university written English requirement in University 1. If not completed in University 1, a "W" course must be completed prior to Year 3 in addition to the required Year 2 courses.

[5] The courses required in this program satisfy the University mathematics requirement.

[6] IMPORTANT: Students in the cooperative programs must ensure that they are able to satisfy the prerequisites for all 3000 and 4000 level courses they plan to take.

[7] 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.

8 MATH 1010, MATH 1020, MATH 1190, COMP 1260, COMP 1270 may not be chosen to satisfy this requirement

Microbiology and Chemistry Optional Courses:

Chemistry: 2290, 3360, 3370, 3380, 3390, 3490, 3580, 4570, 4580, 4590, 4600, 4640, 4650, 4670, 4680, 4690, 4710.

Microbiology: 2280, 3020, 3000, 3010, 3430, 3440, 3470, 3480, 4010, 4020, 4320, 4410, 4470, 4510, 4530, 4540, 4570, 4580, 4600, 4610, 4670 (or 4672).

Current:

30 Hours	30 Hours	30 Hours	30 Hours
JOINT HONOURS COOPERATIVE OPTION[5,6] ~~123~~ CREDIT HOURS (comprising courses listed in chart below, and electives)			
CHEM 1300, CHEM 1310, BIOL 1020, BIOL 1030, PHYS 1050 and PHYS 1070, (or PHYS 1020 and 1030), MATH 1500[1] ~~Plus one of: MATH 1200, MATH 1300[1], MATH 1700[1]~~	CHEM 2210, CHEM 2220, CHEM 2280, ~~CHEM 2290~~, CHEM 2360 (MBIO 2360), CHEM 2370 (MBIO 2370), ~~MBIO 2100, MBIO 2110, and whichever two of MATH 1200, MATH 1300[1], MATH 1700[1] not yet taken[2]~~	~~CHEM 2380, CHEM 2470~~, MBIO 3410, MBIO 3450, MBIO 3460	CHEM 4360, CHEM 4370, CHEM 4620, CHEM 4630, MBIO 4540
In University 1 or Year 2 the following must be completed: 6 credit hours from the Faculty of Arts, which should include the required "W" course[4]		MBIO 3980, MBIO 3990, MBIO 4980 and/or MBIO 4990 ~~Plus 30 credit hours from option list above which must include 21 credit hours from Chemistry and Microbiology with at least 6 hours from each department. The remaining 12 credit hours may be from any of the options listed.~~	

Proposed:

30 Hours	30 Hours	30 Hours	30 Hours
JOINT HONOURS[5] COOPERATIVE OPTION **120** CREDIT HOURS (comprising courses listed in chart below, and electives)			
CHEM 1300, CHEM 1310, BIOL 1020, BIOL 1030, PHYS 1050 (or PHYS 1020), PHYS 1070 (or PHYS 1030, MATH 1500, MATH 1700	CHEM 2210, CHEM 2220, CHEM 2280, CHEM 2360, CHEM 2370, CHEM 2380, CHEM 2470, MBIO 1010, MBIO 2020	CHEM 2570, MBIO 3410, MBIO 3450, MBIO 3460	CHEM 4360, CHEM 4370, CHEM 4620, CHEM 4630, MBIO 4540
In University 1 or Year 2 the following must be completed: 6 credit hours from the Faculty of Arts including the University Written English "W" requirement 3 credit hours[8] chosen from COMP, MATH, or STAT		MBIO 3980, MBIO 3990, MBIO 4980 and/or MBIO 4990 **21 credit hours selected from the list of Microbiology and Chemistry Optional courses listed below.** **12 credit hours selected from the Faculty of Science [8]:**	

NOTES:

[1] ~~MATH 1310 may be taken in place of MATH 1300~~; MATH 1510, or MATH 1520 may be taken in place of MATH 1500; MATH 1710 may be taken in place of MATH 1700; MATH 1690 may be taken in place of MATH 1500 and MATH 1700.

~~[2] Other combinations of mathematics courses may be acceptable with the approval of the department heads.~~

~~[3] Only two of CHEM 4360, CHEM 4370, CHEM 4620 and CHEM 4630 are required, but all may be taken.~~

[4] As there are no electives in Year 2 of the program, students should complete the university written English requirement in University 1. If not completed in University 1, a "W" course must be completed prior to Year 3 in addition to the required Year 2 courses.

[5] The courses required in this program satisfy the University mathematics requirement.

[6] IMPORTANT: Students in the cooperative programs must ensure that they are able to satisfy the prerequisites for all 3000 and 4000 level courses they plan to take.

[7] 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.

8 MATH 1010, MATH 1020, MATH 1190, COMP 1260, COMP 1270 may not be chosen to satisfy this requirement

Microbiology and Chemistry Optional Courses:

Chemistry: 2290, 3360, 3370, 3380, 3390, 3490, 3580, 4570, 4580, 4590, 4600, 4640, 4650, 4670, 4680, 4690, 4700, 4710.

Microbiology: 2280, 3030, 3000, 3010, 3430, 3440, 3470, 3480, 4010, 4020, 4320, 4410, 4470, 4510, 4530, 4540, 4570, 4580, 4600, 4610, 4670 (or 4672).

Current:

30 Hours	30 Hours	30 Hours	30 Hours
JOINT FOUR YEAR MAJOR[5,7] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)			
CHEM 1300, CHEM 1310, BIOL 1020, BIOL 1030, PHYS 1050 and PHYS 1070 (or PHYS 1020 and PHYS 1030), MATH 1500[1] ~~Plus one of: MATH 1200, MATH 1300[2], MATH 1700[1]~~	CHEM 2210, CHEM 2220, CHEM 2280~~, CHEM 2290~~, CHEM 2360 (MBIO 2360), CHEM 2370 (MBIO 2370), ~~MBIO 2100, MBIO 2110, and whichever two of MATH 1200, MATH 1300[2], MATH 1700[2] not yet taken[2]~~	~~CHEM 2380, CHEM 2470, MBIO 3450, MBIO 3460~~	~~Two of CHEM 4360, CHEM 4370, CHEM 4620, CHEM 4630[3]~~
In University 1 or Year 2 the following must be completed: 6 credit hours from the Faculty of Arts, which should include the required "W" course[4]		Plus 24 credit hours of Chemistry and Microbiology courses. The 24 credit hours must include 12 credit hours at the 4000 level and at least 6 credit hours from each of Chemistry and Microbiology.	

Proposed:

30 Hours	30 Hours	30 Hours	30 Hours
JOINT FOUR YEAR MAJOR[5,7] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)			
CHEM 1300, CHEM 1310, BIOL 1020, BIOL 1030, PHYS 1050 and PHYS 1070 (or PHYS 1020 and PHYS 1030), MATH 1500[1], MATH 1700	CHEM 2210, CHEM 2220, CHEM 2280, CHEM 2360, CHEM 2370, CHEM 2380, CHEM 2470, MBIO 1010, MBIO 2020	CHEM 3570 MBIO 3410 One of MBIO 3450, MBIO 3460, MBIO 4540	CHEM 4630 One of CHEM 4620, CHEM 4360, CHEM 4370
In University 1 or Year 2 the following must be completed: 6 credit hours from the Faculty of Arts including the University Written English "W" requirement 3 credit hours[8] chosen from COMP, MATH, or STAT		24 credit hours of Microbiology (minimum 6 credit hours) and Chemistry (minimum 6 credit hours). Of these 24 credit hours, at least 12 hours must be chosen from 4000 level courses. 21 credit hours of electives	

NOTES:

[1] ~~MATH 1310 may be taken in place of MATH 1300~~; MATH 1510, or MATH 1520 may be taken in place of MATH 1500; MATH 1710 may be taken in place of MATH 1700; MATH 1690 may be taken in place of MATH 1500 and MATH 1700.

[2] ~~Other combinations of mathematics courses may be acceptable with the approval of the department heads.~~

[3] ~~Only two of CHEM 4360, CHEM 4370, CHEM 4620 and CHEM 4630 are required, but all may be taken.~~

[4] As there are no electives in Year 2 of the program, students should complete the university written English requirement in University 1. If not completed in University 1, a "W" course must be completed prior to Year 3 in addition to the required Year 2 courses.

[5] The courses required in this program satisfy the University mathematics requirement.

[6] IMPORTANT: Students in the cooperative programs must ensure that they are able to satisfy the prerequisites for all 3000 and 4000 level courses they plan to take.

[7] 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.

8 MATH 1010, MATH 1020, MATH 1190, COMP 1260, COMP 1270 may not be chosen to satisfy this requirement

Current:

JOINT FOUR YEAR MAJOR COOPERATIVE OPTION [5,6,7] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)			
CHEM 1300, CHEM 1310, BIOL 1020, BIOL 1030, PHYS 1050 and PHYS 1070 (or PHYS 1020 and PHYS 1030), MATH 1500[1] ~~Plus one of: MATH 1200, MATH 1300[1], MATH 1700[1]~~	CHEM 2210, CHEM 2220, CHEM 2280, ~~CHEM 2290~~, CHEM 2360 (MBIO 2360), CHEM 2370 (MBIO 2370), ~~MBIO 2100, MBIO 2110, and whichever two of MATH 1200, MATH 1300[1], MATH 1700[1] not yet taken[2]~~	~~CHEM 2380, CHEM 2470~~, MBIO 3410, ~~MBIO 3450, MBIO 3460~~ ~~Two or more of CHEM 4360, CHEM 4370, CHEM 4620, CHEM 4630~~	
In University 1 or Year 2 the following must be completed: 6 credit hours from the Faculty of Arts, which should include the required "W" course[4]		MBIO 3980, MBIO 3990, MBIO 4980 and/or MBIO 4990 Plus ~~21 credit hours~~ of Chemistry and Microbiology courses. The 21 credit hours must include 12 credit hours at the 4000 level and at least 6 credit hours from each of Chemistry and Microbiology.	
~~30 Hours~~	~~30 Hours~~	~~30 Hours~~	~~30 Hours~~

Proposed:

30 Hours	30 Hours	30 Hours	30 Hours
JOINT FOUR YEAR MAJOR COOPERATIVE OPTION[5,7] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)			
CHEM 1300, CHEM 1310, BIOL 1020, BIOL 1030, PHYS 1050 and PHYS 1070 (or PHYS 1020 and PHYS 1030), MATH 1500[1], MATH 1700	CHEM 2210, CHEM 2220, CHEM 2280, CHEM 2360, CHEM 2370, CHEM 2380, CHEM 2470, MBIO 1010, MBIO 2020	CHEM 3570, MBIO 3410 One of: MBIO 3450, MBIO 3460, MBIO 4540	CHEM 4630 One of: CHEM 4620, CHEM 4360, CHEM 4370
In University 1 or Year 2 the following must be completed: 6 credit hours from the Faculty of Arts including the University Written English "W" requirement **3 credit hours[8] chosen from COMP, MATH, or STAT**		MBIO 3980, MBIO 3990, MBIO 4980 and / or MBIO 4990 **24 credit hours of Microbiology** (minimum 6 credit hours) and Chemistry (minimum 6 credit hours). Of these 24 credit hours, at least 12 hours must be chosen from 4000 level courses. 21 credit hours of electives	

NOTES:

[1] ~~MATH 1310 may be taken in place of MATH 1300~~; MATH 1510, or MATH 1520 may be taken in place of MATH 1500; MATH 1710 may be taken in place of MATH 1700; MATH 1690 may be taken in place of MATH 1500 and MATH 1700.

[2] ~~Other combinations of mathematics courses may be acceptable with the approval of the department heads.~~

[3] ~~Only two of CHEM 4360, CHEM 4370, CHEM 4620 and CHEM 4630 are required, but all may be taken.~~

[4] As there are no electives in Year 2 of the program, students should complete the university written English requirement in University 1. If not completed in University 1, a "W" course must be completed prior to Year 3 in addition to the required Year 2 courses.

[5] The courses required in this program satisfy the University mathematics requirement.

[6] IMPORTANT: Students in the cooperative programs must ensure that they are able to satisfy the prerequisites for all 3000 and 4000 level courses they plan to take.

[7] 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.

[8] MATH 1010, MATH 1020, MATH 1190, COMP 1260, COMP 1270 may not be chosen to satisfy this requirement

Biotechnology Program

Program modifications:

Changes to the Biotechnology Honours program caused by the changes to the Introductory Microbiology offerings.

Current:

5.4.2 Biotechnology - Joint Microbiology / Chemistry Programs			
UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
JOINT HONOURS 120 credit hours (comprising courses listed in chart below, and electives)			
BIOL 1020 (C+), BIOL 1030 (B) CHEM 1300 (C+), CHEM 1310 (B), PHYS 1020 or 1050 (C+), MATH 1500[1] (C+), STAT 1000 (C+) Plus 6 credit hours from the Faculty of Arts which should include the required "W" course. Plus sufficient credit hours of electives to total 30 hours.	CHEM 2210, CHEM 2220, MBIO/CHEM 2360, MBIO/CHEM 2370~~, MBIO 2100~~, CHEM 2470, BIOL 2500 (BOTN 2460), BIOL 2520 (ZOOL 2280) PLUS PROGRAM STREAM COURSES. Plus sufficient credit hours of electives to total 30 hours.	CHEM 3590, MBIO 3410, PLNT 2530, MBIO 3000 PLUS PROGRAM STREAM COURSES. Plus sufficient credit hours of electives to total 30 hours.	MBIO 4510, CHEM 4630, BIOL 4560 (ZOOL 4140), BIOL 4610, BTEC 4000, PLNT 4610 PLUS PROGRAM STREAM COURSES. Plus sufficient credit hours of electives to total 30 hours.

Proposed:

5.4.2 Biotechnology - Joint Microbiology / Chemistry Programs			
UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
JOINT HONOURS 120 credit hours (comprising courses listed in chart below, and electives)			
BIOL 1020 (C+), BIOL 1030 (B) CHEM 1300 (C+), CHEM 1310 (B), PHYS 1020 or 1050 (C+), MATH 1500[1] (C+), STAT 1000 (C+) Plus 6 credit hours from the Faculty of Arts which should include the required "W" course. Plus sufficient credit hours of electives to total 30 hours.	CHEM 2210, CHEM 2220, MBIO/CHEM 2360, MBIO/CHEM 2370, MBIO 1010 MBIO 1020 CHEM 2470, BIOL 2500 (BOTN 2460), BIOL 2520 (ZOOL 2280) PLUS PROGRAM STREAM COURSES. Plus sufficient credit hours of electives to total 30 hours.	CHEM 3590, MBIO 3000, MBIO 3410, PLNT 2530 PLUS PROGRAM STREAM COURSES. Plus sufficient credit hours of electives to total 30 hours.	MBIO 4510, CHEM 4630, BIOL 4560 (ZOOL 4140), BIOL 4610, BTEC 4000, PLNT 4610 PLUS PROGRAM STREAM COURSES. Plus sufficient credit hours of electives to total 30 hours.

Changes to the Biotechnology streams caused by the changes to the Introductory Microbiology offerings:

Current:

Program Stream courses:
Analytical Biotechnology
MATH 1700, CHEM 4370, CHEM 4590, CHEM 4670, CHEM 4700
Environmental Biotechnology
MATH 1700, BIOE 3200, BIOE 3530, BIOE 4510, MBIO 4672
Molecular Biotechnology
~~MBIO 2110,~~ BIOL 4550 (BOTN 4460), MBIO 4600, MBIO 4610, MBIO 4672

Proposed:

Program Stream courses:
Analytical Biotechnology
MATH 1700, CHEM 4370, CHEM 4590, CHEM 4670, CHEM 4700
Environmental Biotechnology
MATH 1700, BIOE 3200, BIOE 3530, BIOE 4510, MBIO 4672
Molecular Biotechnology
MBIO 3030 BIOL 4550 (BOTN 4460), MBIO 4600, MBIO 4610, MBIO 4672

Changes to the Biotechnology list of "Recommended Electives" caused by the course offering and numbering changes made by CuSB and course introduction in Microbiology.

Current:

Recommended General Electives if not required in Program stream:
All courses in above described Minors.
Appropriate pre-requisites must also be taken for all Electives.

BIOE 3200, BIOE 3530, BIOE 4510, BIOL 1300 (BOTN 1010), BIOL 2242 (BOTN 2010), BIOL 2380 (BOTN/ZOOL 2180), BIOL 2260 (BOTN 2210), BIOL 2300 (BOTN/ZOOL 2370), BIOL 3550 (BOTN 3190), BIOL 3290 (BOTN 3280), BIOL 3500 (BOTN 3460), BIOL 4500 (BOTN 4180), BIOL 4550 (BOTN 4460), BIOL 2540 (ZOOL 2150), BIOL 3540 (ZOOL 3070), BIOL 4540 (ZOOL 4150), CHEM 4360, CHEM 4370, CHEM 4590, CHEM 4620, CHEM 4670, CHEM 4700, COMP 1010, COMP 1020, COMP 1260, COMP 1270, ENG 1420, ENTR 2020, MATH 1700, ~~MBIO 2110~~, MBIO 2280, MBIO 3010, MBIO 3430, MBIO 3440, MBIO 3450, MBIO 3460, MBIO 3470, MBIO 3480, MBIO 4010, MBIO 4410, MBIO 4470, MBIO 4510, MBIO 4600, MBIO 4610, MBIO 4672, PHAC 4030, PHAC 4040, PHIL 2740, PHIL 2830, PLNT 3140, PLNT 3500, PLNT 3520, PLNT 3570, PLNT 4330, PLNT 4540, PLNT 4550, PLNT 4560, PLNT 4570, PLNT 4580, PLNT 4590, PLNT 4600, STAT 2000
Other suitable courses may be selected through consultation with the department heads.

Proposed:

Recommended General Electives if not required in Program stream:
All courses in above described Minors.
Appropriate pre-requisites must also be taken for all Electives.

BIOE 3200, BIOE 3530, BIOE 4510, BIOL 1300 (BOTN 1010), BIOL 2242 (BOTN 2010), BIOL 2380 (BOTN/ZOOL 2180), **BIOL 2381,** BIOL 2260 (BOTN 2210), **BIOL 2261,** BIOL 2300 (BOTN/ZOOL 2370), **BIOL 2301 (BOTN 2371, ZOOL 2371),** BIOL 3550 (BOTN 3190), BIOL 3290 (BOTN 3280), **BIOL 3291,** BIOL 3500 (BOTN 3460), **BIOL 3501,** BIOL 4500 (BOTN 4180), BIOL 4550 (BOTN 4460), BIOL 2540 (ZOOL 2150), BIOL 3540 (ZOOL 3070), BIOL 4540 (ZOOL 4150), CHEM 4360, CHEM 4370, CHEM 4590, CHEM 4620, CHEM 4670, CHEM 4700, COMP 1010, COMP 1020, COMP 1260, COMP 1270, ENG 1420, ENTR 2020, MATH 1700, **MBIO 3030** MBIO 2280, MBIO 3010, MBIO 3430, MBIO 3440, MBIO 3450, MBIO 3460, MBIO 3470, MBIO 3480, MBIO 4010, MBIO 4410, MBIO 4470, MBIO 4510, MBIO 4600, MBIO 4610, MBIO 4672, PHAC 4030, PHAC 4040, PHIL 2740, PHIL 2830, PLNT 3140, PLNT 3500, PLNT 3520, PLNT 3570, PLNT 4330, PLNT 4540, PLNT 4550, PLNT 4560, PLNT 4570, PLNT 4580, PLNT 4590, PLNT 4600, STAT 2000
Other suitable courses may be selected through consultation with the department heads.

Department of Chemistry

Introductions:

CHEM 3570 Biophysical Chemistry Cr.Hrs. 3 +3
The application of physical chemistry to biological problems, with an emphasis on quantitative interpretations. Topics include enzyme kinetics, bioenergentics, transport processes and spectroscopy. Prerequisites: CHEM 2360 and MATH 1500. CHEM 2280 is recommended.

CHEM 4660 Computational Chemistry Cr.Hrs. 3 +3
An overview of modern computational methods employed in the study of chemical systems, combining theoretical understanding with practical applications. Prerequisite: CHEM 3360.

Program modifications:

Proposed:

THREE YEAR B.Sc. – Chemistry Focus		
CHEM 1300(C), CHEM 1310(C), BIOL 1020, BIOL 1030, MATH 1500, MATH 1700, PHYS 1050[2], PHYS 1070[2,3]	21 hours of required 2000 level Chemistry courses: CHEM 2210, CHEM 2220, CHEM 2280, CHEM 2290, CHEM 2380, CHEM 2470, CHEM 2360	
6 credit hours from the Faculty of Arts. (Should include the student's "W" requirement.)	15 credit hours[1] of 2000 level or higher CHEM: Excluding service courses (2240, 2560, 2770, 2780), Co-op courses (3980, 3990, 4980, 4990) and specialized courses (4600, 4700, 4710).	
	6 credit hours of electives to be chosen from outside the Faculty of Science	
	18 credit hours of open electives	
30 Hours	30 Hours	30 Hours

Notes:

1. At least 6 hours must be chosen from the 3000 or 4000 level.
2. PHYS 1020 may be used in place of PHYS 1050; and PHYS 1030 may be used in place of PHYS 1070.
3. Students planning on a 4-year degree in Chemistry will be required to complete PHYS 1070 in order to satisfy Major and/or Honours degree graduation requirements.

Rationale:

The provision of a 'chemistry' option for students registered in the Faculty of Science 3-Year General degree. Students registered in the 3-Year General degree in the Faculty of Science must complete a minimum of 6 credit hours at the 1000 level in four different departments. A common combination for students is BIOL 1020 and BIOL 1030, CHEM 1300 and CHEM 1310, PHYS 1020 (or 1050) and PHYS 1030 (or 1070), MATH 1500 and MATH 1700 (or another MATH choice). Recently Senate approved changes to the 3-Year General permit students to complete more than 42 credit hours from a single department. This modification permits a student to have a greater focus of courses in a single subject area. This proposal is to provide an option for students to pursue a greater number of Chemistry courses in their degree. This change would also permit students a smoother transition to the completion of a 4-Year Degree (Majors or Honours) in Chemistry. There are no direct resource implications to this proposed change. An increase in enrolment in 3000 and 4000 level courses is anticipated.

Draft Proposal - B.Sc. 3-Year General (Chemistry Focus)

1000 Level course requirements (30 credit hours)

	Cr. Hrs.	
CHEM 1300	3	
CHEM 1310	3	
BIOL 1020	3	
BIOL 1030	3	
MATH 1500	3	
MATH 1700	3	
PHYS 1050	3	(or C+ in PHYS 1020)
PHYS 1070 or 1050	3	(PHYS 1070 preferred)
Faculty of Arts	6	(should include W course)
	30	

2000 Level course requirements

	Cr. Hrs.	
CHEM 2210	3	Organic
CHEM 2220	3	Organic
CHEM 2280	3	Physical
CHEM 2290	3	Physical
CHEM 2360	3	Biochemistry
CHEM 2380	3	Inorganic
CHEM 2470	3	Analytical
	21	

Optional Chemistry (5 courses chosen from)

Course	Cr. Hrs.	
CHEM 2370	3	Biochemistry
CHEM 2550	3	Environmental
CHEM 3360	3	Theoretical
CHEM 3370	3	Physical
CHEM 3380	3	Inorganic
CHEM 3390	3	Organic
CHEM 3490	3	Polymer Chemistry
CHEM 3580	3	Organic
CHEM 3590	3	Analytical (instrumental)
CHEM 4670	3	Medicinal Chemistry
5 courses	15	

Electives

8 courses*	24

*6 credit hours must be from outside the Faculty of Science

Summary

18 credit hours of free electives	
6 credit hours from Faculty of Arts	
6 credit hours from outside of Science	
42 credit hours of total Chemistry	
18 credit hours of other Science courses	
TOTAL DEGREE	**90**

MAJORS AND HONOURS Extension of 3-Year General Degree

Additional 30 Credit Hours required to complete a 4-Year Major or Honours Degree	**MAJOR**	**HONOURS**
3000/4000 Level Chemistry (must include CHEM 3380 and CHEM 3590 if not taken in 3-Year General)	9	9
CHEM 4600 (for Majors and Honours)	3	3
CHEM 4710 (for Honours only)		6
Focus Area (may be additional CHEM and/or approved courses to complete a focus area)	9	9
Electives (must include PHYS 1070 & additional MATH/COMP/STAT if not taken in 3-Year General)	9	3
	30	30

DEPARTMENT OF CHEMISTRY
Program Modification
2010-2011

Bioanalytical Chemistry Focus Area changes required due to the proposed changes in the Introductory Microbiology course offerings:

Current:

18 credit hours of Chemistry Courses chosen from:
CHEM 2370, CHEM 4360, CHEM 4630, CHEM 4590, CHEM 4550, CHEM 4700, CHEM 4370

9 credit hours of Non-Chemistry Courses chosen from:
~~MBIO 2100, MBIO 2110~~, MBIO 3410, BGEN 3020 (6)

Proposed:

18 credit hours of Chemistry Courses chosen from: CHEM 2370, CHEM 4360, CHEM 4630, CHEM 4590, CHEM 4550, CHEM 4700, CHEM 4370

9 credit hours of Non-Chemistry Courses chosen from:
MBIO 1010, **MBIO 2**020 **MBIO 3**030 MBIO 3410, BGEN 3020 (6)

Department of Computer Science

Program modification:

Joint Honours Program in Computer Science and Physics and Astronomy – Co-operative Option

Computer Science - Physics & Astronomy Joint Honours Program Co-operative Option			
UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
JOINT HONOURS[1] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)			
PHYS 1050 (B) (or PHYS 1020 (B+)) and PHYS 1070[2] (B), MATH 1300[3] (B), MATH 1500[3] (B), MATH 1700[3] (B), COMP 1010, COMP 1020 (B) Plus 6 credit hours from the Faculty of Arts, which must include the required 3 credit hour "W" course[4] Plus 3 credit hours of electives	PHYS 2260, PHYS 2380, PHYS 2390, PHYS 2490, PHYS 2650[5], COMP 2080, COMP 2130, COMP 2140, COMP 2160, COMP 2280	PHYS 2600, PHYS 2610, PHYS 3380, PHYS 3670, PHYS 3680, COMP 2190, COMP 3170, COMP 3430 Plus 6 credit hours of 3000 and 4000 level courses from Computer Science	15 credit hours of 3000 and 4000 level Honours Physics courses, with at least 6 credit hours at the 4000 level Plus 12 credit hours of 3000 or 4000 level courses from Computer Science, with at least 9 credit hours at the 4000 level by the end of Year 4 Plus 3 credit hours of electives
	COMP 2980[6]	COMP 3980[6]	COMP 4980[6]
30 Hours	30 Hours	30 Hours	30 Hours

NOTES:

[1] The courses required in this program will satisfy the University mathematics requirement.

[2] PHYS 1030 is not suitable for entry to the Honours and four year Major 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] MATH 1310 may be taken in place of MATH 1300; MATH 1510 or MATH 1520 may be taken in place of MATH 1500; MATH 1710 may be taken in place of MATH 1700; MATH 1690 may be taken in place of MATH 1500 and MATH 1700.

[4] As there are no electives in Year 2 of the program, students should complete the University written English requirement in University 1. If not completed in University 1, a "W" course must be completed prior to Year 3 in addition to the required Year 2 courses.

[5] The corequisite of MATH 2720 is waived for students in this program.

6 The work terms COMP 2980, COMP 3980, COMP 4980 will usually be completed in the summers following Year 2, Year 3 and Year 4, respectively.

Genetics Program

Program modifications:

Current:

5.8.2 Genetics			
UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
HONOURS[1] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)			
CHEM 1300, CHEM 1310, BIOL 1020, BIOL 1030, STAT 1000, MATH 1500[2] Plus either MATH 1200, MATH 1300[2], or MATH 1700[2] 6 credit hours of electives or from the list of optional courses In University 1 or Year 2: 6 credit hours from the Faculty of Arts, which should include the required "W" course3.	BIOL 2500 (BOTN 2460), CHEM 2210, CHEM 2220, CHEM 2360 (MBIO 2360), CHEM 2370 (MBIO 2370), STAT 2000, BIOL 2520 (ZOOL 2280), ~~MBIO 2100, MBIO 2110~~	BIOL 3500 (BOTN 3460), PLNT 3140, MBIO 3410, ~~ANTH 2890~~, BGEN 3020(6) Plus 42 credit hours from list of optional courses, a minimum of 18 of which must be at the 4000 level	

Proposed:

5.8.2 Genetics			
UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
HONOURS[1] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)			
CHEM 1300, CHEM 1310, BIOL 1020, BIOL 1030, STAT 1000, MATH 1500[2] Plus either MATH 1200, MATH 1300[2], or MATH 1700[2] 6 credit hours of electives or from the list of optional courses In University 1 or Year 2: 6 credit hours from the Faculty of Arts, which should include the required "W" course3.	BIOL 2500 (BOTN 2460), CHEM 2210, CHEM 2220, CHEM 2360 (MBIO 2360), CHEM 2370 (MBIO 2370), STAT 2000, BIOL 2520 (ZOOL 2280), MBIO 1010, MBIO 2020	BIOL 3500 (BOTN 3460), PLNT 3140, MBIO 3410, BGEN 3020(6) One of: ANTH 2890, ANTH 2560, or ANTH 2860 Plus 42 credit hours from list of optional courses, a minimum of 18 of which must be at the 4000 level	

- Add FORS 2000, BIOL 3290 (BOTN 3280), MBIO 3000, PHAC 4030 and PHAC 4040 to the list of optional course.
- Add MBIO 3030 Microbiology III to the list of optional courses subject to the approval of the Microbiology course changes.

Changes to the Genetics list of Required Options resulting from the CuSB course number changes in addition to the Genetics program committee's recommendations:

Current:

The optional courses are:

Biological Sciences: BIOL 2410 (ZOOL 2530), BIOL 2420 (ZOOL 2540), BIOL 2540 (ZOOL 2150), BIOL 3300 (BOTN 3000, ZOOL 3000), BIOL 3560 (ZOOL 3060), BIOL 4500 (BOTN 4180), BIOL 4540 (ZOOL 4150), BIOL 4542 (ZOOL 4270), BIOL 4560 (ZOOL 4140).

Chemistry: CHEM 2280, CHEM 2290, CHEM 4360, CHEM 4370, CHEM 4620, CHEM 4630

Microbiology: MBIO 3010, MBIO 3430, MBIO 3440, MBIO 3450, MBIO 3460, MBIO 4010, MBIO 4410, MBIO 4530*, MBIO 4540, MBIO 4670 (or the former MBIO 4570), MBIO 4600, MBIO 4610.

Computer Science: COMP 1010, COMP 1020, COMP 1260, COMP 1270

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

Animal Science: ANSC 3500, ANSC 4280

Plant Science: PLNT 2530, PLNT 3500, PLNT 3520, PLNT 4330

Human Genetics: BGEN 4010*

With CuSB changes and changes approved by the Interdisciplinary Genetics Committee:

The optional courses are:

Biological Sciences: BIOL 2410 (ZOOL 2530), **BIOL 2411 (ZOOL 2531)**, BIOL 2420 (ZOOL 2540), **BIOL 2421 (ZOOL 2541)**, BIOL 2540 (ZOOL 2150), **BIOL 3290 (BOTN 3280)**, BIOL 3300 (BOTN 3000, ZOOL 3000), **BIOL 3301**, BIOL 3560 (ZOOL 3060), **BIOL 3561**, BIOL 4500 (BOTN 4180), BIOL 4540 (ZOOL 4150), BIOL 4542 (ZOOL 4270), BIOL 4560 (ZOOL 4140).

Chemistry: CHEM 2280, CHEM 2290, CHEM 4360, CHEM 4370, CHEM 4620, CHEM 4630

***Forensics*: FORS 2000**

Microbiology: **MBIO 3000**, **MBIO 3030**, MBIO 3010, MBIO 3430, MBIO 3440, MBIO 3450, MBIO 3460, MBIO 4010, MBIO 4410, MBIO 4530*, MBIO 4540, MBIO 4670 (or the former MBIO 4570), MBIO 4600, MBIO 4610.

Computer Science: COMP 1010, COMP 1020, COMP 1260, COMP 1270

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

Animal Science: ANSC 3500, ANSC 4280

Plant Science: PLNT 2530, PLNT 3500, PLNT 3520, PLNT 4330

Human Genetics: BGEN 4010*

***Pharmacology*: PHAC 4030, PHAC 4040**

Department of Physics and Astronomy

Deletion:

PHYS 2200 Electricity and Magnetism Cr.Hrs. 6 -6

Introduction:

PHYS 2210 Understanding Electricity and Magnetism Cr.Hrs. 3 +3
An introduction ranging from its history to connections with real-world phenomena in engineering and biology, and common sense advice on the understanding of the phenomena. The student is carefully guided through mathematical derivations. Physics is used to develop the theory and the applications of such things as motors, radios, magnetic resonance imaging

(MRI) systems and computers. Not to be held with PHYS 2200, PHYS 2201, PHYS 2600 (016.260) or PHYS 2610 (016.261). Prerequisite: a "C" or better in PHYS 1070 (or equivalent PHYS 1071, 016.107, 016.106. 016.120), or a "C" or better in both PHYS 1020 (or equivalent – PHYS 1021, 016.102) and PHYS 1030 (or equivalent – PHYS 1031, 016.103); and a "C" or better in one of MATH 1500, MATH 1501 (136.150), MATH 1510 (136.151), MATH 1520 (136.152), the former 136.153 or MATH 1690 (136.169. Prerequisite or concurrent requirements: MATH 1200 or MATH 1201; and one of MATH 1690, MATH 1700, MATH 1701, MATH 1710 or the former 136.173.

Modifications:

PHYS 1020 General Physics 1 (Lab required) Cr.Hrs 3
(formerly 016.102) It's a crazy world; come and find out why objects fall, slide, bounce, stick, go in circles or stay straight, float or sink, glide or crash. Why don't satellites fall to the ground? What exactly does weightlessness mean anyway? Find answers to these and other questions as you get to know Newton's and other basic laws of nature and see what makes the world go round. This course, together with the sequel PHYS 1030 (or 016.103), is recommended for students seeking either a single comprehensive course in Physics, or entry into health science programs. It may also be used for entry into the Honours Physics program ("B+" or better) or the Major Physics program ("B" or better). Not to be held with PHYS 1021, PHYS 1050, PHYS 1051 (016.105), PHYS 1410 (016.141), PHYS 1420 (016.142) or the former 016.127. Prerequisites: either Physics 40S, PHYS 0900 (016.090)(P), or equivalent; and either Pre-calculus Mathematics 40S, Applied Mathematics 40S (with 70% or better), or equivalent. It is strongly recommended that students attain a minimum of 70% as the average of their marks in Physics 40S and Pre-calculus Mathematics 40S.

PHYS 1030 General Physics 2 (Lab required) Cr.Hrs. 3
(formerly 016.103) Discover how physics is the basis of the hi-tech world we live in and how we live in it. Learn how to use simple, intuitive physics concepts that are described using little math and no calculus to understand a diversity of topics including how electricity is made, what drives the greenhouse effect, what makes a diamond sparkle, lasers, LASIC eye surgery and the workings of the human eye. This course, together with its prerequisite PHYS 1020 (016.102), is recommended for students seeking either a single comprehensive course in Physics, or entry into health science programs. Not suitable for entry to Major or Honours in Physics. This course may not be held with PHYS 1031, PHYS 1410 (016.141), PHYS 1420 (016.142), or the former 016.120. Prerequisite: One of PHYS 1020 or PHYS 1021 (016.102)(C), PHYS 1050 or PHYS 1051 (016.105)(C).

PHYS 1050 Physics 1: Mechanics (Lab required) Cr.Hrs. 3
(formerly 016.105) It's rocket science! Mechanics is the science of describing (Kinematics) and explaining (Dynamics) motion. The basic concepts of calculus together with the laws of conservation of momentum and energy are used to develop the tools required to describe, analyze and predict the outcomes of linear and rotational motion in simple mechanical systems. A brief introduction to the Einstein theory of special relativity provides a taste of modern approaches to this subject. This course develops a strong scientific foundation for students considering a program of study in engineering of the physical sciences. Not to be held with PHYS 1020, PHYS 1021 (016.102), PHYS 1051, PHYS 1410 (016.141), PHYS 1420 (016.142), or the former courses 016.118, 016.120, or 016.127. Prerequisites: Pre-calculus Mathematics 40S (300)(or equivalent) and Physics 40S (300)(or equivalent); or PHYS 0900 (016.090)(Pass). It is strongly recommended that student attain a minimum of 80 percent as the average of their marks in Physics 40S (300) and Pre-calculus Mathematics 40S(300). Prerequisite or concurrent

requirement: One of MATH 1500, MATH 1501, MATH 1510, MATH 1520, the former 136.153 or MATH 1690.

PHYS 1070 Physics 2: Waves and Modern Physics (Lab required) Cr.Hrs. 3
(formerly 016.107) At the heart of modern communications, waves and oscillations are key to understanding the world around us from subatomic scales to biology, traffic flow, the stock market, climate change and the cosmos itself. Learn about the mysterious quantum world, the basis of the latest nanotechnology, where particles are waves and waves are particles. Explore Bohr's mode of the atom and discover Heisenberg's Uncertainty Principle. This calculus based course addresses the underlying concepts for all modern science and engineering. This course, like Physics 1 (PHYS 1050), is intended for students considering a program in the physical sciences. Not to be held with PHYS 1071, PHYS 1410 (016.141), PHYS 1420 (016.142). Prerequisite: PHYS 1050 (or equivalent – PHYS 1051 016.105, 016.118)(C) or PHYS 1020 (or equivalent –PHYS 1020, 016.102)(B); and "C" or better in one of MATH 1500, MATH 1501 (016.150), MATH 1510 (016.151), MATH 1520 (016.152), or the former 136.153. Prerequisite or concurrent requirements: one of MATH 1700, MATH 1690, MATH 1710, or the former 136.173.

PHYS 2250 Introductory Modern Physics Cr.Hrs. 3
(formerly 016.225) Come join us as we explore the ground breaking discoveries in physics during the last 100 years that have laid the foundation for our modern high-tech world and brought us nuclear power, computers, nanotechnology and new energy technologies (to name a few). Then, finish off with a look into the future, at the 21st century physics frontier. Not available to students who have previously obtained credit in, or are currently registered in PHYS 2251, PHYS 2380 (016.238), or the former 016.250. Not available to students in Honours or Major programs in Physics. Prerequisites: a "C" or better in PHYS 1070 (or equivalent – PHYS 1071, 016.107, 016.127), or a "C+" or better in both of PHYS 1020 (or equivalent – PHYS 1021, 016.102) and PHYS 1030 (or equivalent – PHYS 1031, 016.103); and a "C" or better in one of MATH 1500, MATH 1501 (136.150), MATH 1520 (136.152), the former 136.153, or MATH 1690 (136.169). Prerequisite or concurrent requirements: MATH 1200 or MATH 1201; and one of MATH 1690, MATH 1700, MATH 1701, MATH 1710 or the former 136.173 (D).

PHYS 2650 Classical Mechanics I Cr.Hrs. 3
(formerly 016.265) The first in a sequence of three courses on intermediate to advanced level mechanics. Topics include dynamics of a particle, conservation theorems, rotation, rolling motion, oscillations, gravitation and central force motion, and associated mathematical methods. Prerequisite: one of [PHYS 1070, PHYS 1071 (016.107), or the former 016.106](C). Prerequisite or concurrent requirements: PHYS 2490.

Program modifications:

DEPARTMENT OF PHYSICS and ASTRONOMY
Program Modification
2010-2011

Current:

30 Hours	30 Hours	30 Hours	30 Hours
THREE YEAR GENERAL			
	A minimum of 18 credit hours must be chosen from this list: PHYS 2070, ~~PHYS 2200~~, PHYS 2250, PHYS 2260, PHYS 2270, PHYS 2280, PHYS 2350, PHYS 2380, PHYS 2700, PHYS 2710, PHYS 3180, PHYS 3380, PHYS 3800, PHYS 4230. (Subject to the Faculty requirement that of the 36 hours of advanced level courses, at least 6 credit hours must be chosen from the 3000 and (or) 4000 level.)		

Proposed:

30 Hours	30 Hours	30 Hours	30 Hours
THREE YEAR GENERAL			
	A minimum of 18 credit hours must be chosen from this list: PHYS 2070, **PHYS 2210 (or the former PHYS 2200)**, PHYS 2250, PHYS 2260, PHYS 2270, PHYS 2280, PHYS 2350, PHYS 2380, PHYS 2700, PHYS 2710, PHYS 3180, PHYS 3380, PHYS 3800, PHYS 4230. (Subject to the Faculty requirement that of the 36 hours of advanced level courses, at least 6 credit hours must be chosen from the 3000 and (or) 4000 level.)		

This change is a direct result of the above noted deletion of PHYS 2200 and Addition of PHYS 2210.

Psychology program

Program modifications:

DEPARTMENT OF PSYCHOLOGY
Program Changes
2010-2011

Current:

5.12.2 Psychology			
UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
HONOURS[9] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)			
PSYC 1200 (B+) (or PSYC 1211 (B+) and PSYC 1221 (B+)) 6 credit hours Science[1](B)	~~PSYC 2300 M~~[2] 6 credit hours 2000 or 3000 level[3] Psychology 15 credit hours Science[6] 3 credit hours options[7]	3 credit hours from PSYC 3630, PSYC 3340 PSYC 3200 15 credit hours Psychology[4] 9 credit hours Science[6]	PSYC 4520 18 credit hours Psychology[5] 6 credit hours Science[6]
30 Hours	30 Hours	30 Hours	30 Hours

Proposed:

5.12.2 Psychology			
UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
HONOURS[9] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)			
PSYC 1200 (B+) (or PSYC 1211 (B+) and PSYC 1221 (B+)) 6 credit hours Science[1](B)	PSYC 2250, PSYC 2260 6 credit hours 2000 or 3000 level[3] Psychology 15 credit hours Science[6] 3 credit hours options[7]	3 credit hours from PSYC 3630, PSYC 3340 PSYC 3200 15 credit hours Psychology[4] 9 credit hours Science[6]	PSYC 4520 (6) 18 credit hours Psychology[5] 6 credit hours Science[6]
30 Hours	30 Hours	30 Hours	30 Hours

NOTES:

[1] Introductory courses in Biological Sciences, Chemistry, Computer Science, Mathematics, or Statistics are highly recommended.

[2] ~~PSYC 2250 and PSYC 2260 are required when PSYC 2300 is not offered.~~

[3] These 6 credit hours must include 3 credit hours from each of two different lettered categories of Psychology courses below.

[4] These 15 credit hours must include 3 credit hours from each of two different lettered categories of Psychology courses below and not sampled in Year 2.

[5] These 18 credit hours must include 6 credit hours at the 4000 level; and 6 credit hours at any level including any remaining lettered category below.

[6] The Science courses that are chosen must be approved by the Department of Psychology and must include a minimum of 18 credit hours at the 2000 level or above.

[7] Free options are to be chosen from courses that are acceptable for credit in the Faculty of Science and must be approved by the Department of Psychology.

[8] During Years 2 to 4 a total of 42 credit hours of 2000 or 3000 level Psychology courses must be completed, including a minimum of 3 credit hours from each of four of the five lettered categories of courses below.

[9] The courses required in this program satisfy the university mathematics requirement.

[10] 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.

(Letters in brackets indicated minimum prerequisite standing required for further study.)

Categories of Psychology Courses

Category A:	Personality/Social	PSYC 2410, PSYC 2420, PSYC 3450, PSYC 3460
Category B:	Developmental	PSYC 2290, PSYC 2310, PSYC 2370
Category C:	Learning	PSYC 2440, PSYC 2470, ~~PSYC 3420~~
Category D:	Cognitive	PSYC 2480, PSYC 3160, PSYC 3170, PSYC 3441, PSYC 3580, PSYC 3610,
Category E:	Biological	PSYC 2360, PSYC 3350, PSYC 3430

Current:

30 Hours	30 Hours	30 Hours	30 Hours
FOUR YEAR MAJOR[9,10] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)			
PSYC 1200 (C+)(or PSYC 1211 (C+) and PSYC 1221(C+)) 6 credit hours Science1(C+)	PSYC 2250, PSYC 2260M 6 credit hours 2000 or 3000 level Psychology[8]	18 credit hours 2000 or 3000 level Psychology[8]	18 credit hours 2000 or 3000 level Psychology[8]
	Plus 30 credit hours of courses from departments in the Faculty of Science, including a minimum of 18 credit hours at the 2000 level or above.		
A "W" course must be taken in University 1 or Year 2			

Proposed:

30 Hours	30 Hours	30 Hours	30 Hours
FOUR YEAR MAJOR[9,10] 120 CREDIT HOURS (comprising courses listed in chart below, and electives)			
PSYC 1200 (C+)(or PSYC 1211 (C+) and PSYC 1221(C+)) 6 credit hours Science[1](C+)	PSYC 2250, PSYC 2260[9] 6 credit hours 2000 or 3000 level Psychology[8]	18 credit hours 2000 or 3000 level Psychology[8]	18 credit hours 2000 or 3000 level Psychology[8]
	Plus 30 credit hours of courses from departments in the Faculty of Science, including a minimum of 18 credit hours at the 2000 level or above.		
A "W" course must be taken in University 1 or Year 2			

NOTES:

[1] Introductory courses in Biological Sciences, Chemistry, Computer Science, Mathematics, or Statistics are highly recommended.

~~[2] PSYC 2250 and PSYC 2260 are required when PSYC 2300 is not offered.~~

[3] These 6 credit hours must include 3 credit hours from each of two different lettered categories of Psychology courses below.

[4] These 15 credit hours must include 3 credit hours from each of two different lettered categories of Psychology courses below and not sampled in Year 2.

[5] These 18 credit hours must include 6 credit hours at the 4000 level; and 6 credit hours at any level including any remaining lettered category below.

[6] The Science courses that are chosen must be approved by the Department of Psychology and must include a minimum of 18 credit hours at the 2000 level or above.

[7] Free options are to be chosen from courses that are acceptable for credit in the Faculty of Science and must be approved by the Department of Psychology.

[8] During Years 2 to 4 a total of 42 credit hours of 2000 or 3000 level Psychology courses must be completed, including a minimum of 3 credit hours from each of four of the five lettered categories of courses below.

[9] The courses required in this program satisfy the university mathematics requirement.

[10] 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.

(Letters in brackets indicated minimum prerequisite standing required for further study.)

Categories of Psychology Courses

Category A:	Personality/Social	PSYC 2410, PSYC 2420, PSYC 3450, PSYC 3460
Category B:	Developmental	PSYC 2290, PSYC 2310, PSYC 2370
Category C:	Learning	PSYC 2440, PSYC 2470, ~~PSYC 3420~~
Category D:	Cognitive	PSYC 2480, PSYC 3160, PSYC 3170, PSYC 3441, PSYC 3580, PSYC 3610,
Category E:	Biological	PSYC 2360, PSYC 3350, PSYC 3430

Collège universitaire de Saint-Boniface

Sociology

Deletions:

SOC 2271 Sociologie urbaine Cr.Hrs. 3	-3
SOC 3591 Les communications de masse Cr.Hrs. 3	-3

NET CHANGE IN CREDIT HOURS: -6

Philosophy

Introduction:

PHIL 1291 Pensée critique Cr.Hrs. 3 +3
(Ancien 015.129) Ce cours aide les étudiants a penser clairement et de manière critique, à présenter, à défendre et à évaluer des arguments. On discutera des bons et des mauvais raisonnements, des sophismes quotidiens et de certaines formes de raisonnement telles que le syllogisme catégorique et des moyens et des manières de définir les mots. On ne peut se faire créditer PHIL 1291 (015.129) et PHIL 1290 (015.129), PHIL 1320 (015.132) ou PHIL 1321 (015.132).

NET CHANGE IN CREDIT HOURS: +3

Spanish

Introductions:

SPAN 1191 Introduction à l'espagnol II Cr.Hrs. 3 +3
Deuxième partie du cours SPAN 1181 Introduction à l'espagnol, le cours SPAN 1191 se donne à la session d'hiver avec le même groupe d'étudiants qui ont suivi le cours SPAN 1181 à l'automne. Ce cours est destiné aux étudiants qui connaissent déjà l'alphabet, le système de sons espagnols, qui ont une compréhension élémentaire de la langue et qui maîtrisent les bases de la communication et de l'écriture équivalentes à celles qui seraient obtenues à la première session du cours SPAN 1181. On ne peut se faire créditer SPAN 1191 et SPAN 1181, SPAN 1180 (044.118), SPAN 1190, SPAN 1261, SPAN 1260 (044.126), SPAN 1271 ou SPAN 1270 (044.127).

SPAN 2591 Femmes et culture en Espagne et en Amérique latine Cr.Hrs. 3 +3
Panorama de la culture latino-américaine abordée a partir de la production féminine. On étudiera les œuvres des femmes et leurs conditions de production dans une perspective féministe et dans le cadre théorique des études culturelles. Ce panorama inclut divers pays et diverses époques, ainsi que différents types de production (littérature, cinéma, peinture, sculpture). Préalables : Une note minimale de «C» dans le SPAN 1261 (ou TRAD 1261) ou le consentement écrit du professeur.

SPAN 2671 Espagnol sujet spécial I Cr.Hrs. 3 +3
Le contenu de ce cours varie en fonction des besoins et des intérêts des étudiants et des professeurs. La formule du tutorat peut être utilisée. Le contenu du cours varie d'année en année. Puisque les contenus varient d'année en année et que le cours se crée selon les besoins des étudiantes et des étudiants, les étudiantes et les étudiants pourraient suivre ce cours plus d'une fois. Préalables : Une note minimale de «C» dans le SPAN 1261 (ou TRAD 1261) ou le consentement écrit du professeur.

SPAN 3271 Espagnol sujet spécial II Cr.Hrs. 3 +3
Le contenu de ce cours varie en fonction des besoins et des intérêts des étudiants et des professeurs. La formule du tutorat peut être utilisée. Le contenu des cours varie d'année en année. Puisque les contenus varient d'année en année et que le cours se crée selon les besoins des étudiants et des étudiants, eux ou elles pourraient suive ce cours plus d'une fois.

Préalables : Une note minimale de «C» à un cours d'espagnol de niveau 2000 ou le consentement écrit du professeur.

NET CHANGE IN CREDIT HOURS: +12

Sociology & Criminology

Introductions :

SOC 2261 Sociologie de la ville et du milieu urbain Cr.Hrs. 3 +3
Étude des dimensions sociale et culturelle du phénomène urbain. Analyse de l'expérience urbaine, des formes de socialité et des inégalités sociales. On ne peut se faire créditer SOC 2261 et SOC 2260, SOC 2271 (077.227) ou SOC 2270 (077.227). Préalables : une note minimale de C dans un des SOC 1201 ou SOC 1200 (ancien 077.120), ou les SOC 1211 (ancien 077.121) et SOC 1221 (ancien 077.122).

SOC 3581 Culture, medias et société Cr.Hrs. 3+3
Étude de l'influence des medias dans les sociétés contemporaines; analyse de la production, de la circulation et de la consommation de diverses formes médiatiques et de leurs impacts sur la vie sociale. On ne peut se faire créditer SOC 3581 et SOC 3580, SOC 3591 (077.359) ou SOC 3590 (077.359). Préalables: une note minimale de C dans un des SOC 1201 ou SOC 1200 (ancien 077.120), ou les SOC 1211 (ancien 077.121) et SOC 1221 (ancien 077.122); le SOC 2331 ou SOC 2330 (ancien 077.233) est recommande.

Modifications:

SOC 3331 Origines de la pensée sociologique Cr.Hrs. 3
Introduction systématique a la pensée sociologique, de ses origines philosophiques jusqu'au milieu de XIXe siècle. Examen de la pensée sociale qui deviendra la base de la théorie sociologique. On ne peut se faire créditer SOC 3331 et SOC 3330 (077.333). Préalables : une note minimale de C dans un des SOC 1201 ou Soc 1200 (ancien 077.120), ou les SOC 1211 (ancien 077.121) et SOC 1221 (ancien 077.122). Et une note minimale de C dans SOC 2221.

SOC 3391 Théories sociologiques contemporaines Cr.Hrs. 3
Comparaison systématique des théories sociologiques contemporaines. Évolution compétitive des diverses écoles en sociologie et surtout l'apport des théoriciens les plus importants. On ne peut se faire créditer SOC 3391 et SOC 3390 (077.359). Préalables: une note minimale de C dans un des SOC 1201 ou SOC 1200 (ancien 077.120), ou les SOC 1211 (ancien 077.121) et SOC 1221 (ancien 077.122). Et une note minimale de C dans SOC 2221.

NET CHANGE IN CREDIT HOURS : +6

Social Work

Modifications :

SWRK 3151 Formation a la pratique du terrain 1 Cr.Hrs. 6
Première expérience de formation pratique sur le terrain au cours de laquelle l'étudiant ou l'étudiante aura l'occasion d'assumer une responsabilité dans son engagement pour le travail social, la consultation, la planification, l'intervention, l'évaluation et l'application concrète de la théorie apprise en classe. Les heures requises sont calculées sur une base de 28 semaines, 2

jours par semaine, 7.5 heures par jour pour un total de 420 heures. Ces heures comprennent la participation aux activités de stage et l'évaluation de la performance. Ces heures incluent aussi les réunions et les entre vues formatives avec la personne qui supervise le stage sur une base individuelle ou en groupe de session. En plus, il y aura 13 sessions obligatoires d'ateliers d'application d'habiletés de 3 heures chacune aux deux semaines pendant les deux semestres pour un total de 39 heures. Préalables: SWRK 1311, SWRK 2081, SWRK 2091, ET SWRK 3141. Concomitant : SWRK 4201.

SWRK 4121 Formation a la pratique du terrain 2 Cr.Hrs. 6
Seconde expérience de formation pratique sur le terrain construite a partir du cours 3151. Occasion d'apporter une contribution professionnelle soutenue dans des situations nécessitant une intégration des valeurs, connaissances et aptitudes au niveau débutant du praticien professionnel. Les heures requises sont calculées sur une base de 28 semaines, 2 jours par semaine, 7.5 heures par jour pour un total de 420 heures. Ces heures incluent aussi les réunions et les entrevues formatives avec la personne qui supervise le stage sur une base individuelle ou en groupe de session. En plus, il y aura 13 sessions obligatoires d'ateliers d'application d'habiletés de 3 heures chacune aux deux semaines pendant les deux semestres pour un total de 39 heures. Préalables: SWRK 3151, SWRK 4201. Concomitant: SWRK 4301.

MEMO

REGISTRAR'S OFFICE
Room 400 University Centre
PH: 474-9425
FAX: 275-2589

UNIVERSITY OF MANITOBA

Date: November 6, 2009

Memo To: Senate Executive Committee

From: Neil Marnoch, Registrar

Re: **Proposed Academic Schedule for 2010-2011**

The attached proposed 2010-2011 Academic Schedule has been updated based on changes in days and/or dates to conform to the 2010 and 2011 calendars, along with revised information received from academic units. The proposed schedule has been reviewed by all Faculties and Schools. Please note the following:

1. Deadlines for receipt of applications for admission for the Faculties/Schools will be published on the Enrolment Services website.

2. Labour Day in 2010 is September 6; therefore University 1 Orientation will take place on the first two days of the Fall Term – Tuesday, September 7 and Wednesday, September 8 (see Section 1). **Classes in most faculties and schools will begin on Thursday, September 9 and end on Wednesday, December 8** (see Section 2).

3. There are two statutory holidays in the 2010 Fall Term: Thanksgiving Day, Monday, October 11 and Remembrance Day, Thursday, November 11 (see Section 5).

4. There are 63 days available for instruction in Fall Term, including 38 teaching hours in the Monday/Wednesday/Friday time slots and 37.5 teaching hours in the Tuesday/Thursday time slots.

5. The 2010 December Examination Period will be from **Friday, December 10** through **Wednesday, December 22** (see Section 6).

   Note: The last day of the Examination Period is also the last day the university is open before the Christmas break.

6. The university will re-open after the Christmas Break on Tuesday, January 4, 2011. **The Winter Term will commence on Wednesday, January 5, 2011** (see Section 2).

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

7. There are two statutory holidays in the 2010 Winter Term: Louis Riel Day on Monday, February 21 (which occurs during Mid-Term Break) and Good Friday on April 22 (which occurs during the Examination Period) see Section 5).

8. **Mid-Term Break in 2011 is February 21 - 25**, which is the eighth week of Winter Term. This is a departure from the normal practice of holding the Mid-Term Break on the seventh week, in order that Mid-Term Break coincides with Louis Riel Day (see Section 5).

9. There are 63 days available for instruction in Winter Term, including 38 teaching hours in the Monday/Wednesday/Friday time slots and 37.5 teaching hours in the Tuesday/Thursday time slots.

10. The 2011 April Examination period will be from **Monday, April 11** through **Tuesday, April 26** (see Section 6).

11. As approved previously by Senate, the deadline for Voluntary Withdrawal is the 48th teaching day of the term. In 2010-2011 these dates are **Wednesday, November 17, 2010 for Fall Term** courses and **Friday, March 18, 2010 for Winter Term and Fall/Winter Term (spanned) courses** (see Section 3).
    Note: Faculties and schools offering courses with irregular schedules and withdrawal dates **must** ensure these are well publicized to your students.

12. Convocation ceremonies (see Section 9) will be held as follows:

▪ **Fall Convocation**	**October 20 & 21, 2010**
▪ **Medicine Convocation**	**May 12, 2011**
▪ **Spring Convocation**	**May 31, June 1 & 2, 2011**
▪ **Collège universitaire de Saint-Boniface Convocation**	**June 6, 2011**

13. Dates included as information include: Fee Payment deadlines determined by Financial Services (see Section 4), deadlines to apply for graduation (Section 9), and items list under Section 10: Other University Special Events.

Encl.

2010-2011 Academic Schedule

Note: Admission Application Deadlines may be found on the web at www.umanitoba.ca/student/admissions

Chapter Contents

Section 1: Orientation Sessions for Fall/Winter Session

IDDP Year 1	May-June 2010
University 1	Sept. 7-8, 2010
Agriculture Diploma	Sept. 17, 2010
School of Art Orientation	Sept. 7-8, 2010
Asper School of Mgmt, Year 1 student welcome luncheon	Sept. 7, 2010
Asper School of Mgmt, Year 1 CSA orientation and Barbeque	Sept. 8, 2010
Education, Year 1	TBA
Education, Year 2 and Year 5 Integrated	TBA
Kinesiology and Recreation Management	July 6-7, 2010
Medicine, Year 1	Aug. 17, 2010
Medicine Inaugural Exercises	Aug. 18, 2010
Music	Sept. 7, 2010
Nursing, Year 2 (2180)	
Tuesday/Wednesday clinical orientation	Sept. 1, 2010
Nursing, Year 2 (2190)	
Tuesday/Wednesday clinical orientation	Sept. 1, 2010
Nursing, Year 2 (2180)	
Thursday/Friday clinical orientation	Sept. 2, 2010
Nursing, Year 2 (2190)	
Thursday/Friday clinical orientation	Sept. 2, 2010
Nursing, Year 2 (2180 continues)	
Tuesday/Wednesday clinical orientation continues	Sept. 8, 2010
Nursing, Year 2 (2180 continues)	
Thursday/Friday clinical orientation continues	Sept. 9, 2010
Nursing, Year 2 (2190 continues)	
Both rotations clinical orientation continues	Sept. 9, 2010
Nursing, Year 2 (2180 and/or 2190)	
Tuesday/Wednesday clinical begins	Sept. 14, 2010
Nursing, Year 2 (2180 and/or 2190)	
Thursday/Friday clinical begins	Sept. 9, 2010
Nursing, Year 3 clinical orientation	
Tuesday/Wednesday clinical rotation begins	Sept. 28, 2010
Nursing, Year 3 clinical orientation	
Thursday/Friday clinical rotation begins	Sept. 30, 2010
Nursing, Year 4 clinical orientation	Sept. 9, 2010
Nursing Lectures in NURS 2120 (Health Assessment) and Nursing labs in NURS 2120 (Health Assessment) and NURS 2130 (Skills Year2), NURS 3280 (Skills Year 3) start week of Sept. 13, 2010	
NOTE: Immunizations/CPR due for all newly admitted Nursing students	Aug. 1, 2010
Occupational Therapy, Year 1 Linking Days	Aug. 26 - 27, 2010
Pharmacy, Year 1 orientation session	Sept. 8, 2010
Social Work, Year 1	Sept. 8, 2010
Social Work, Year 2 and 3 Field Orientation	Sept. 7 and 8, 2010

Section 2: Start and End Dates for Fall/Winter Session

(Classes, practica, experiences)

The following start and end dates are for students in **most** faculties and schools.

See Section 5 for mid term break and other university closures.

Students registering for **Distance and Online Education** courses should consult the Distance and Online Education Calendar available from Distance Education.

Education courses may have unique start and end dates. Students are referred to the Aurora Student Class Schedule.

Fall Term 2010 (including full courses)	**Start**	**End**
Most faculties and schools	Sept. 9, 2010	Dec. 8, 2010
Agriculture diploma	Sept. 20, 2010	Dec. 3, 2010
Dentistry, Years 1 and 2	Aug. 16, 2010	Dec. 3, 2010
Dentistry, Year 3	Aug. 9, 2010	Dec. 3, 2010
Clinics	Aug. 30, 2010	Dec. 17, 2010
Dentistry, Year 4	Aug. 9, 2010	Dec. 10, 2010
Clinics	Aug. 23, 2010	Dec. 17, 2010
Dental Hygiene, Year 1	Aug. 23, 2010	Dec. 3, 2010
Clinics	Sept. 17, 2010	Dec. 3, 2010
Dental Hygiene, Year 2	Aug. 16, 2010	Dec. 3, 2010
Clinics	Aug. 30, 2010	Dec. 10, 2010
Law	Sept. 7, 2010	Dec. 6, 2010
Medicine, Years 1 and 2	Aug. 23, 2010	TBA.
Medicine, Years 3 and 4	Aug. 23, 2010	Dec. 17, 2010
Medicine, B.Sc.	May 24, 2010	Aug. 20, 2010
Occupational Therapy Year 1	Aug. 30, 2010	Nov. 19, 2010
Basic Fieldwork	Nov. 22, 2010	Dec. 17, 2010
Occupational Therapy Year 2	Aug. 30, 2010	Dec. 17, 2010
Pharmacy, Year 4 (classes)	Sept. 7, 2010	Nov. 1, 2010
(Experiential Rotations - Block 1)	Nov. 8, 2010	Dec. 17, 2010
(Electives - Block 1)	Nov. 4, 2010	Dec. 22, 2010
Physical Therapy Year 3	Aug. 30, 2010	Dec. 10, 2010
Respiratory Therapy Years 1, 2, 3	Aug. 23, 2010	Dec. 17, 2010
Respiratory Therapy,		
Year 1 Basic Fieldwork	Sept. 17, 2010	Dec. 17, 2010
Year 2 Basic Fieldwork	Sept. 17, 2010	Dec. 17, 2010
Social Work, Field Instruction Years 2 & 3	Sept. 7, 2010	Dec. 10, 2010

Winter Term 2011 (including full courses)	**Start**	**End**
Most faculties and schools	Jan. 5, 2011	April 8, 2011
Agriculture Diploma	Jan. 5, 2011	Mar. 29, 2011
Dental Hygiene, Years 1 and 2 classes	Jan. 4, 2011	April 8, 2011
Year 1 clinic	Jan. 4, 2011	April 8, 2011
Year 2 clinic	Jan. 4, 2011	April 21, 2011
Dentistry, Years 1 and 2	Jan. 4, 2011	April 21, 2011
Dentistry, Year 3 classes	Jan. 4, 2011	April 8, 2011
Year 3 clinics	Jan. 4, 2011	April 21, 2011
Dentistry, Year 4 classes	Jan. 4, 2011	Feb. 11, 2011
Year 4 clinics	Jan. 6, 2011	April 21, 2011
Law	Jan. 4, 2011	April 11, 2011
Medicine, Years 1 and 2	TBA	May 20, 2011

Medicine, Year 3	Jan. 4, 2011	Aug. 19, 2011
Medicine, Year 4 Clerkship	Jan. 4, 2011	May 6, 2011
Occupational Therapy Year 1	Jan. 4, 2011	April 29, 2011
Occupational Therapy Year 2		
Intermediate Fieldwork 2	Jan. 3, 2011	Feb. 25, 2011
Occupational Therapy Year 2	Mar. 7, 2011	June 24, 2011
Pharmacy, Year 2, experiential rotations	May 2, 2011	May 13, 2011
Pharmacy, Year 3 Community Practice	April 4, 2011	April 29, 2011
Pharmacy, Year 4,		
(Experiential Rotations - Block 2)	Jan. 4, 2011	Feb. 11, 2011
(Electives - Block 2)	Jan. 3, 2011	Feb. 18, 2011
(Experiential Rotations - Block 3)	Feb. 21, 2011	April 1, 2011
(Electives - Block 3)	Feb. 21, 2011	April 8, 2011
Physical Therapy	Jan. 4, 2011	variable; depends on clinical placements
Resp. Therapy Year 1 Basic Fieldwork	Jan. 7, 2011	Mar. 25, 2011
Resp. Therapy Year 2 Basic Fieldwork	Jan. 7, 2011	Mar. 25, 2011
Respiratory Therapy Years 1 and 2	Jan. 3, 2011	April 29, 2011
Respiratory Therapy Year 3	Jan. 3, 2011	June 24, 2011
Social Work Years 2 and 3 field instruction	Jan. 4, 2011	April 15, 2011

Section 3 Registration and Withdrawal Dates

NOTE: 1. The refund schedule will be published on the Registrar's Office web site in July 2010.

2. Some courses have irregular Voluntary Withdrawal deadline dates. Please refer to your faculty or school section of the Calendar.

Fall Term 2010 (including full courses)	**Start**	**End**
Nursing Clinical Courses: last date to register for Fall Term 2010 and Winter Term 2011	Aug. 18, 2010	
Last Date to register and pay fees without penalty for all programs (except Agriculture Diploma)	Sept. 8, 2010	
Agriculture Diploma	Sept. 17, 2010	
Law: Registration after this date requires Associate Dean's approval	Sept. 7, 2010	
Registration revisions and late registration in all programs (except Agriculture Diploma). A financial penalty is assessed on all late registrations during this period	Sept. 9, 2010	Sept. 22, 2010
Agriculture Diploma	Sept. 20, 2010	Sept. 29, 2010
Last date in all programs (except Agriculture Diploma) to withdraw from Fall Term 2010 and full courses and not be assessed a "VW"		Sept. 22, 2010
Agriculture Diploma		Sept. 29, 2010
Last date for Voluntary Withdrawal from Fall Term 2010 courses without academic penalty in all faculties and schools. (see refund schedule, published on the Registrar's Office web site in July 2010, for financial implications) (For a refund schedule, please check the Registrar's Office website after July 1, 2010.)		Nov. 17, 2010
Winter Term 2011		
Registration and Revision period in Winter Term 2011 half courses in all programs (except Agriculture Diploma)	Jan. 5, 2011	Jan. 18, 2011
Agriculture Diploma	Jan. 5, 2011	Jan. 17, 2011
Last date for registration in Winter Term 2011 half courses, including Challenge for Credit, and/or registration revisions in all programs (except Agriculture Diploma)		Jan. 18, 2011
Agriculture Diploma		Jan. 17, 2011
Winter Term 2011 half courses and full courses dropped after this date from any program (except Agriculture Diploma) are recorded as Voluntary Withdrawals		Jan. 18, 2011
Agriculture Diploma		Jan. 17, 2011
Last date for Voluntary Withdrawal from Winter Term 2011 half courses and full courses without academic penalty in all faculties and schools (except Agriculture Diploma). (see refund schedule, published on the Registrar's Office web site in July 2010, for financial implications) (For a refund schedule, please check the Registrar's Office website after July 1, 2010.)		Mar. 18, 2011
Agriculture Diploma		Mar. 10, 2011

Section 4: Fee Deadlines

Last date for all students to pay Fall Term 2010 and 1st instalment fees without late fee (except Agriculture Diploma)	Sept. 8, 2010
Agriculture Diploma	Sept. 17, 2010
Last date for all students to pay Winter Term 2011 and 2nd instalment fees without late fee	Jan. 6, 2011

Section 5: Dates of University Closure and Mid Term Break

When the University is closed no classes/ examinations will be held.	**Start**	**End**
Canada Day (Holiday Observed)	July 1, 2010	
Civic Holiday	Aug. 2, 2010	
Labour Day	Sept. 6, 2010	
Thanksgiving Day	Oct. 11, 2010	
Remembrance Day (Holiday Observed)	Nov. 11, 2010	
December Holidays	Dec. 23, 2010	Jan. 3, 2011
Mid-Term Break* for all faculties and schools (except Medicine, Education, Occupational Therapy, Physical Therapy Yr. 3 and Respiratory Therapy Yr. 3)	Feb. 21, 2011	Feb. 25, 2011
Louis Riel Day	Feb. 21, 2011	
Occupational Therapy	Feb. 28, 2011	Mar. 4, 2011
Medicine Years 1 and 2	Mar. 14, 2011	Mar. 18, 2011
Good Friday	April 22, 2011	
Easter Monday (Respiratory Therapy department only)	April 25, 2011	
Victoria Day	May 23, 2011	

*The academic and administrative offices will be open during this period, but there will be no classes/examinations held for students

Section 6: Fall/Winter Session Examination and Test Dates

Students are reminded that they must remain available until all examination and test obligations have been fulfilled.

Fall/Winter Session 2010-2011

Fall Term 2010 (including full courses)	**Start**	**End**
Most faculties and schools	Dec. 10, 2010	Dec. 22, 2010
Agriculture Diploma*	Dec. 6, 2010	Dec. 13, 2010
Dentistry, Years 1, 2, and 3	Dec. 6, 2010	Dec. 17, 2010
Dentistry, Year 4	Dec. 13, 2010	Dec. 17, 2010
Dental Hygiene Year 1	Dec. 6, 2010	Dec. 17, 2010
Dental Hygiene Year 2	Dec. 13, 2010	Dec. 17, 2010
Law	Dec. 10, 2010	Dec. 22, 2010
Pharmacy, Year 4	Nov. 2, 2010	Nov. 3, 2010

Winter Term 2011 (including full courses)		
Most faculties and schools	April 11, 2011	April 26, 2011
Agriculture Diploma	Mar. 31, 2011	April 8, 2011
Dental Hygiene, Years 1 and 2	April 11, 2011	April 15, 2011
Dentistry, Years 1, 2 and 3	April 25, 2011	May 6, 2011
Year 4	Feb. 14, 2011	Feb. 18, 2011
Law	April 13, 2011	April 27, 2011
Pharmacy, Year 3	Mar. 26, 2011	Mar. 30, 2011
Respiratory Therapy		
Clinical Entrance Exams Year 2	April 29, 2011	
Composite Exams Year 3	June 20, 2011	

Section 7: Challenge for Credit, Supplemental and Other Special Examinations and Tests

Faculties and schools that extend supplemental examination privileges: last date for applications for autumn supplemental examinations	July 2, 2010
Language reading tests for graduate students	Sept. 4, 2010
Last date to apply for Challenge for Credit for courses offered in Fall Term 2010	Sept. 22, 2010
International Dental Degree Program on-site assessment	TBA
Last date to apply for Challenge for Credit for courses offered in Winter Term 2011	Jan. 18, 2011
Agriculture Diploma Last date for applications for Fall Term 2010 supplemental examinations	Jan. 4, 2011
Fall term supplementary examinations	Jan. 10, 2011
Language reading tests for graduate students	April 2, 2011
Agriculture Diploma Last date for applications for Winter Term 2011 supplemental examinations	April 29, 2011
Winter Term supplementary examinations	May 20, 2011
Last day to register for Challenge for Credit for examinations in June series	April 29, 2011
Medical Council of Canada examinations	May 2 -10, 2011

Section 8: Final Grade Appeal Dates

Appeal period for final grades received for Fall Term 2010 courses	Jan. 4, 2011	Jan. 24, 2011
Appeal period for final grades received for Winter Term 2011 courses and full courses	May 24, 2011	June 13, 2011

Section 9: University Convocation

Fall Convocation	Oct. 20-21, 2010
Last date to apply online to graduate in October	July 29, 2010
Last date to apply online to graduate in February	Sept. 22, 2010
Last date to apply online to graduate in May	Jan. 18, 2011
Graduation date for students graduating in February 2011 (Ceremony for February grads is in May 2011)	Feb. 2, 2011
School of Agriculture graduation ceremony	April 29, 2011
Faculty of Medicine Convocation ceremony	May 12, 2011
Spring Convocation	May 31, June 1, 2, 2011
Convocation ceremony at Collège universitaire de Saint-Boniface	June 6, 2011

Section 10: Other University Special Events

Parents Orientation	June 5, 2010
2010 School Counsellors Admissions Seminar	Sept. 2010
Enrolment Services/Student Recruitment: Evening of Excellence	Oct. 2010
Memorial events for 14 women murdered at l'Ecole Polytechnique in 1989	Dec. 6, 2010
Information Days for high school students	Feb. 23-24, 2011
Annual traditional graduation Powwow in honour of Aboriginal students	May 7, 2011

Section 11: Distance and Online Education 2010/2011 Deadline Dates

Start and End Dates		
Fall term 2010 (including Full Courses)	Refer to Section 2 for start & end dates	
Winter Term 2011	Refer to Section 2 for start & end dates	
Winter/Summer Term 2011	Jan. 5, 2011	July 5, 2011
Summer Term 2011	May 2, 2011	July 29, 2011
Registration and Withdrawal Dates		
Fall Term 2010 (including full courses)	Refer to Section 3 for registration & withdrawal dates	
Winter Term 2011	Refer to Section 3 for registration & withdrawal dates	
Winter/Summer Term 2011		
Registration and Revision period	Jan. 5, 2011	Jan. 18, 2011
Last date for Voluntary Withdrawal		June 8, 2011
Summer Term 2011		
Registration and Revision period	May 2, 2011	May 13, 2011
Last date for Voluntary Withdrawal		July 8, 2011
Application to write examinations at a location other than the University of Manitoba		
Fall term 2010	First working day of October	
Fall/Winter and Winter term 2011	First working day of February	
Winter/Summer term 2011	First working day of May	
Summer term 2011	First working day of June	
Examination and Test Dates		
Fall Term 2010	Refer to Section 6 for examination and test dates	
Winter Term 2011	Refer to Section 6 for examination and test dates	
Winter/Summer term 2011	July 6, 2011	July 8, 2011
Summer Term 2011	Aug. 2, 2011	Aug. 8, 2011

Section 12: Summer Session 2010

Start and End Dates

For more detailed information, please consult the Summer Session Calendar available from the Summer Session Office, 166 Extended Education Complex. The Summer Session Calendar is available on-line at umanitoba.ca/summer.

May Day, June Day, May-June Day	Start	End
Classes	May 3, 2010	June 22, 2010
Examinations		
May Day	May 28, 2010	May 29, 2010
June Day & May-June Day	June 24, 2010	June 25, 2010
May-June Eve, June-Aug. Eve, May-Aug. Eve		
Classes	May 3, 2010	Aug. 5, 2010
Examinations		
May-June Eve	June 18, 2010	June 19, 2010
June-Aug Eve & May-Aug Eve	Aug. 6, 2010	Aug. 7, 2010
July Day, Aug. Day, July-Aug. Day		
Classes	June 28, 2010	Aug. 19, 2010
Examinations		
July Day	July 24, 2010	July 26, 2010
Aug. Day & July-Aug. Day	Aug. 21, 2010	Aug. 23, 2010
Other		
Nursing Summer Term	April 26, 2010	July 28, 2010
Occupational Therapy Year 1 Summer Term		
Intermediate Fieldwork 1	May 3, 2010	June 25, 2010
Occupational Therapy Year 2 Summer Term		
Advanced Fieldwork	June 28, 2010 (flexible start date)	must end by Sept. 10, 2010
Physical Therapy Summer Term	variable; depend on clinical placements	

Section 13: Summer Session 2011

Class Start Dates		
Nursing summer term begins	April 25, 2011	
Summer Session Start Date	May 2, 2011	
Occupational Therapy Year 1 Summer Term		
Intermediate Fieldwork 1	May 2,2011 - June 24,2011	
Occupational Therapy Year 2 Summer Term		
Advanced Fieldwork	June 27, 2011 - flex. start date	must end by Sept.16,2011
Physical Therapy Summer Term	variable; depend on clinical placements	

The other summer session dates are not available yet.

Section 14: Faculty of Graduate Studies Submission Dates for 2010-2011

For reports on theses/practica (and the corrected copies of the theses/practica), comprehensive examinations and M.Eng. projects to be submitted to Graduate Studies by students expecting to graduate in October	Aug. 26, 2010
For receipt, in Graduate Studies Office, of Ph.D. theses (for distribution) from graduate students expecting to graduate in February	Oct. 5, 2010
For distribution of Master's theses/practica (to examining committee) by students expecting to graduate in February	Oct. 18, 2010
For reports on theses/practica (and the corrected copies of theses/practica), comprehensive examinations and M.Eng. projects to be submitted to Graduate Studies by students expecting to graduate in February.	Jan. 4, 2011
For receipt, in Graduate Studies Office, of Ph.D. theses (for distribution) from graduate students expecting to graduate in May.	Jan. 17, 2011
For distribution of Master's theses/practica (to examining committee) by students expecting to graduate in May	Jan. 24, 2011
For reports on theses/practica (and the corrected copies of theses/practica), comprehensive examinations and M.Eng. projects to be submitted to Graduate Studies by students expecting to graduate in May	April 6, 2011
For receipt, by the Faculty of Graduate Studies, of Annual Progress Reports for Master's and Ph.D. students	June 14, 2011
For receipt, in Graduate Studies Office, of Ph.D. theses (for distribution) from students expecting to graduate in October	June 13, 2011
For distribution of Master's theses/practica (to examining committee) by students expecting to graduate in October	June 20, 2011

Nov. 18, 2009

REPORT OF THE SENATE COMMITTEE ON AWARDS

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)

Observation

In an electronic poll conducted between October 20 and October 26, 2009, the Senate Committee on Awards reviewed one new offer, as set out in Appendix A of the *Report of the Senate Committee on Awards* (dated October 26, 2009).

Recommendation

The Senate Committee on Awards recommends that Senate and the Board of Governors approve one new offer, as set out in Appendix A of the *Report of the Senate Committee on Awards* (dated October 26, 2009).

Respectfully submitted,

Dr. Philip Hultin
Chair, Senate Committee on Awards

Appendix A

MEETING OF THE SENATE COMMITTEE ON AWARDS
October 26, 2009

1. NEW OFFER

Bison Football – Nick Laping Memorial Scholarship

In honour of Nick Laping, a fellow team mate, coach, and supporter of Bison Football, the Bison Football Alumni of the University of Manitoba have established an endowment fund at the University of Manitoba, in 2009. The Manitoba Scholarship and Bursary Initiative has made a contribution to the fund. The fund will be used to offer the Bison Football – Nick Laping Memorial Scholarship for a returning football player who best exemplifies Nick's characteristics as an athlete and as a role model for humanity. The available annual income from the fund will be used to offer one or more scholarships, with a minimum value of $2,000 each, to undergraduate students who:

(1) are Canadian citizen or permanent residents;

(2) are returning students with the Bison Football program and are eligible to compete in CIS competition;

(3) are registered full-time (minimum 60% of a full course load) in any Faculty or School;

(4) have achieved a minimum sessional grade point average of 3.0 in the previous academic session and are in good academic standing, as determined by the University;

(5) have demonstrated exceptional athletic ability in football, team leadership, and integrity;

(6) volunteer their time in community outreach programs.

The selection committee will be named by the Athletic Director (or designate) and will include the Head Coach of the Bison Football Team (or designate), the Assistant Athletic Director (or designate), and a representative of the Bison Football Alumni Committee (or designate). More than 50 percent of the members of this committee shall be University of Manitoba staff.

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 Canadian Interuniversity Sport (CIS) criteria governing "University Academic Scholarships with an Athletic Component", currently numbered C.5 in the CIS Operations Manual.

STATEMENT OF INTENT

Institution

☐	Brandon University	☐	Assiniboine Community College
X	University of Manitoba	☐	University College of the North
☐	University of Winnipeg	☐	Red River College
☐	Collège universitaire de Saint-Boniface		

Program Overview

☐Program Name: Clinical Health Psychology

☐Credential to be offered: Doctorate of Psychology (PsyD) in Clinical Health Psychology

☐Does the program require accreditation from a licencing group? X YES ☐ NO

Canadian Psychological Association

☐Length of the program: 3 Years plus one-year internship / residency

☐Proposed program start date: 01 / 09 / 2010
Day/Month/Year

☐Which department(s) within the institution will have responsibility for the program?

Clinical Health Psychology

☐As compared to other programs your institution will be proposing, is the priority of this program:
X High
☐ Medium
☐ Low

☐Is this a new program? X YES ☐ NO

☐Is this a revision of an existing program: ☐ YES X NO
If YES, name program
What are the impacts of changing this program?

☐Will the program be available to part-time students? ☐ YES X NO

☐Will this program have a cooperative education component? ☐ YES X NO
If YES, how long with the field placement be?

☐Will the program contain an option to assess the prior learning of students, to grant credit for the skills/knowledge already present? ☐ YES X NO
Provide Details

☐Will there be distance delivery options? ☐ YES X NO
Provide Details

☐Will this program be delivered jointly with another institution? ☐ YES X NO
If YES, name the institution

□Are similar programs offered in Manitoba or other jurisdictions? X YES □ NO
If YES, indicate why this program is needed (e.g., area of specialization) (see below)

There is a shortage of psychologists in Manitoba, and the number of local graduates each year is below the number needed to replace psychologists leaving practice. Establishing a PsyD program in the Department of Clinical Health Psychology would increase the number of psychologists graduating every year in Manitoba, and would graduate them using an efficient training model, with relevant training for current employment trends and opportunities in the healthcare system.

The proposed PsyD in the Department of Clinical Health Psychology is unique in three respects. First, it would be the first program in Canada in clinical ***health*** psychology, focused on psychological interventions in physical medicine such as cardiac sciences, surgical preparation, diabetes control, gastrointestinal pain and other pain conditions (as well as traditional mental health areas of anxiety and depression). Secondly, it provides Manitoba with an alternative model of training. The "professional school" model Doctor of Psychology (PsyD) degree would give students a choice of a more direct route to professional practice in less time (PsyD degrees typically take 4-5 years to complete compared to 7-8 for PhD programs). Thirdly, the Dept of Clinical Health Psychology would be unique in being a doctoral program in professional psychology based in a Faculty of Medicine. This would provide opportunities for inter-professional education and training, focused on the full range of health care from primary prevention to tertiary specialist inpatient care, and including both physical and mental health.

The University of Manitoba's Faculty of Arts offers a PhD degree in Clinical Psychology. The PhD program graduates 4-5 students annually, which is insufficient to meet Manitoba health care needs. The emphasis of this program has historically been on mental health professional roles and research and less on health psychology issues. PhD training is a "scientist-practitioner" model which aims to prepare all students for **both** professional practice and research careers, which increases length of training. The Department of Clinical Health Psychology has historically contributed to the education of these students by supervising clinical practica and by serving on thesis committees, and this support will continue.

The PhD and PsyD models meet distinct needs and offer students the choice between a direct route to professional practice and an academic clinical research degree. Both are required in Manitoba.

□What articulation, block transfer or credit transfer arrangements will you be looking at developing for this program?

No articulation is required. Existing transfer credit arrangements used by the University of Manitoba will be used.

Specific Program Information

1. **Program Description**

□Describe the program and its objectives:

Background The Department of Clinical Health Psychology was established in the Faculty of Medicine in 1995. External reviews conducted for the Canadian Psychological Association and the American Psychological Association (2004) and the Faculty of Medicine and Winnipeg Regional Health Authority (2005) both recommended that the department expand beyond its highly-regarded residency training program and establish a doctoral degree program taking advantage of its unique strengths. In particular, the external reviews noted that the Dept of Clinical Health Psychology is ideally situated in the Faculty of Medicine to promote inter-

professional education and research for psychology graduate students and to provide immersion in the healthcare system from the point of their entry into graduate education. This potential was recognized by an "External Review of Clinical Health Psychology", commissioned by the University of Manitoba, Faculty of Medicine (2005), which noted:

> "Currently, this Department is recognized as the pre-eminent clinical health psychology department in Canada, due to its strong role in partnerships with a diversity of medical specialties and primary care, as well as its highly integrated relationship between WRHA and the Faculty of Medicine at the University of Manitoba."

This review explicitly recommended that the Department of Clinical Health Psychology should...

> "Develop a doctoral level graduate program in health psychology. Such a program would be clinically focused and could be provided largely within existing resources. It would prove exceptionally popular within Canada and would serve to create a significant academic focus, while providing an ongoing supply of service providers."

With over 40 full-time psychologists on staff, this is the largest group of academic clinical psychologists in Manitoba. Access to relevant patient populations and opportunities to collaborate with other health professionals make possible exemplary clinical teaching at the Bannatyne campus. The Dept of Clinical Health Psychology has active research programs in prevention and treatment of irritable bowel syndrome, sleep disorders, anxiety disorders, cardiac rehabilitation, knowledge translation, and members collaborate in a number of multi-site pediatric clinical trials. Department members are involved in graduate student thesis and dissertation committees and clinical supervision of 7-8 residents and 12-18 practicum students per year.

This proposal is to establish a Doctor of Psychology (Psy.D.) degree at the University of Manitoba, in the Faculty of Medicine. The PsyD. is a professional degree – analogous to the models in Medicine, Dentistry, and other health professions – which would provide an alternative for students whose career goals are primarily in the area of clinical practice, and it would effectively double the number of psychologists graduated in Manitoba each year.

One-quarter of doctoral programs in Clinical Psychology in the United States are PsyD. programs. Several Canadian universities (Laval, Memorial, Université de Moncton) have developed or are developing professional PsyD training programs. The PsyD program at Université Laval has received accreditation by the Canadian Psychological Association, and coexists with a clinical psychology PhD program within the same university.

Program Description The proposed graduate program of studies is a three year program of intensive professional studies and training with a one year external internship (residency) towards a professional Doctorate of Psychology (Psy.D). It is the intent of the Department of Clinical Health Psychology to seek CPA accreditation for this PsyD program.

The program of studies will employ an innovative curriculum that will parallel the recent case-based, active-learner, group problem-solving approach now emphasized in medical training. Both classroom studies and practicum training will use a problem-based approach that integrates epidemiology, data analysis, critical review of the literature, clinical reasoning, skill development, ethics, social and professional issues in every case study. Students in this model consistently employ systematic information-seeking methods that prepare them for a diversity of health care issues in later active professional practice.

Objectives

1. To establish a professional school model of clinical health psychology education at the University of Manitoba

The model of training leading to a Doctorate in Psychology or Psy.D is an explicitly professional program along the lines of professional programs in Medicine, Dentistry, and Law. The PsyD is meant as an alternative to (but not to replace) the PhD "Scientist-Practitioner" model of clinical psychology training which places equal emphasis on research and professional training, culminating in an extensive dissertation. The difference in time to completion between the two types of programs is almost entirely due to their different approaches to research. Research training in a PsyD program aims to develop critical thinking and use of research literature to guide best practice; not to prepare students for academic positions as researchers. PsyD dissertation research projects are applied, translational, and completed within much less time than typical PhD dissertations. There is need for both training models, with the PsyD model best suited to meeting the human resource needs for professional practice in health care, and the PhD model best for training future academic researchers. PsyD trained psychologists from American universities have been accepted for licensure by the Psychological Association of Manitoba.

2. To integrate psychology professional training into inter-professional models of health professional education, health care delivery and health research.

Psychologists working in health care are expected to be able to practice in an inter-professional environment and must be trained explicitly in multidisciplinary approaches to health care. Towards this end, all clinical and research training in the Clinical Health Psychology PsyD program will take place in interdisciplinary health care settings (the Bannatyne Campus and WRHA hospitals and healthcare facilities affiliated with the Faculty of Medicine). Some course work will be offered by, or in collaboration with, other Faculty of Medicine departments such as Community Health Sciences (epidemiology & biostatistics, health policy), Psychiatry and Pharmacology (psychopharmacology).

3. To increase the access of Manitobans to needed psychological services.

Canadian Institute for Health Information (CIHI) data show that the number of psychologists serving Manitobans is the lowest in Canada at a per capita rate of 14 psychologists/100,000 population, and among the lowest of all health professions (only optometrists and midwives have a lower professional-to-population ratio). The proposed program will ensure that more people in Manitoba can access psychological services that will improve their physical and mental health.

4. To meet emerging service demands in clinical health psychology by focusing psychology professional training on the full spectrum of health issues.

The term "clinical health psychology" denotes the application of psychology principles and skills to the full spectrum of health care needs. In addition to the traditional mental health focus of earlier training models, employment for psychologists is increasingly expanding in health sectors such as pain management, cardiac stress management, diabetes, surgical pre-habilitation and rehabilitation, trauma, child and adult neuropsychology.

□Provide an overview of the content to be taught in this program:

The recommended curriculum is a structured professional training model. The curriculum outline is based on *A MODEL CURRICULUM FOR A DOCTOR OF PSYCHOLOGY (PSY.D.) PROGRAMME* (2004) developed by the Canadian Psychological Association (CPA). The "core components of Psy.D training programs include:

- A research experience resulting in a dissertation on a meaningful problem associated with the practice of psychology, using a strategy of disciplined inquiry appropriate to the problem."
- A minimum of three full-time academic years of graduate study or equivalent, and completion of an internship prior to awarding the doctoral degree."
- Doctoral programs that prepare psychologists for practice should meet accreditation standards for professional training (CPA, 2002), and core regulatory requirements for

licensing / certification (MRA, 2002)."

These accreditation requirements include a full year of internship / residency. In Manitoba, those who intend to practice under the title of Psychologist must obtain a doctoral degree in order to be eligible for licensure; thus all studies will be directed towards obtaining the doctoral degree. Students will graduate having completed all requirements for licensure including national licensing examinations.

The model presented in the accompanying table conforms to the CPA guidelines and is consistent with precedents set by CPA for full accreditation of the PsyD program at Université Laval. Where appropriate, CPA accreditation foundational knowledge requirements (e.g., physiological psychology, cognition, social psychology, human development) will be met through undergraduate admission prerequisites.

2. Enrollment

Admissions.

In addition to Graduate Studies requirements, the admissions criteria would be an undergraduate Honours B.A. or B.Sc. with an appropriate combination of foundational undergraduate and Honours courses such as research methods, psychopathology, health psychology, neuroscience and/or neuropsychology, developmental psychology, social psychology, cognitive psychology, physiological psychology, psychological testing and measurement, introductory biology (or human anatomy and physiology / human genetics), and completion of an undergraduate research thesis (or equivalents). This combination of courses would permit students to enter directly into graduate level professional training in clinical health psychology. However provision will be made through supplementary courses for suitable applicants applying from institutions where this set of courses were not fully available. Admission will be based on grade point average, scores on the Graduate Record Examination (Quantitative, Verbal), letters of reference and screening for professional suitability. Special admissions considerations will be instituted for First Nations' students.

□What is the program's initial projected enrollment?

5 students

□What is the projected enrollment for the 2nd and 3rd years?

5 students per year

□Describe the expected student profile?

This program is designed for students interested in professional practice careers in clinical health psychology. This program will attract students with interests in the applications of biopsychology and social science principles to health care. This program will select from a large pool of existing undergraduate students, and admission will be very competitive (it is expected that students accepted for this program will have undergraduate GPAs typically at the 4.0 level or higher).

Table 1
Curriculum for 4 year program leading to Professional Doctor of Psychology (PsyD) degree in Clinical Health Psychology

PsyD in Clinical Health Psychology			
	Fall Semester	Winter Semester	Summer Semester
Year 1	*CHP7xxx(3cr)* Clinical Skills 1 Diagnostic evaluation and interviewing *CHP7xxx(3cr)* Case Studies in Clinical Health Psychology 1 *CHSC7470(3cr)* Biostatisitics 1 (or equivalent) *CHSC7520(3cr)* Principles of Epidemiology *CHP-7xxy(0cr)* Practicum: Evaluation 1	*CHP7xxx(3cr)* Clinical Skills 2 Cognitive & Neuropsychological evaluation *CHP7xxx(3cr)* Case Studies in Clinical Health Psychology 2 *CHSC7480(3cr)* Biostatistics 2 (or equivalent) *CHSC7350(3cr)* Research Methods in Health Care (or equivalent) *CHP-7xxy(0cr)* Practicum: Evaluation 2	*CHP7xxx(3cr)* Thesis proposal *CHP-7xxy(0cr)* Practicum: Psychological Intervention – Health Promotion and Illness Prevention
Year 2	*CHP7xxx(3cr)* Clinical Skills 3 Evidence Based Psychological Intervention Skills *CHP7xxx(3cr)* Professional practice & ethics *CHP-7xxy(0cr)* Practicum: Adult Clinics	*CHP7xxx(3cr)* Clinical Skills 4 Research Topics in Psychological Interventions Elective * *CHP7xxx(0cr)* Practicum: Child Clinics	Thesis research Doctoral Exam :EPPP
Year 3	*CHP7xxx(3cr)* Topics in Health Psychology *CHP-7xxy(0cr)* Practicum: Clinical Health Psychology 1 (e.g., cardiac rehab) Application for Residency	*CHP7xxx(3cr)* Medical and psychopharmacological Interventions *CHP-7xxy(0cr)* Practicum: Clinical Health Psychology 2 (e.g., pain) Residency Match	Thesis Defense *CHP-7xxy(0cr)* Practicum: elective / rural
Year 4	*CHP-7xxz* CHP Residency	*CHP-7xxz* CHP Residency	*CHP-7xxz* CHP Residency

* Examples of Electives from other Departments and Faculties (permission required):
IMED7100(6cr) Fundamentals of Neuroscience; ***CHSC7510(3cr)*** Current Topics in Community Health; ***IMED7290(3cr)*** Developmental Biology; ***CHSC7380(3cr)*** Prevention and Health

3. Labour Market Information

□What labour market need is the program expected to meet?

Employment opportunities in health care settings (in hospital and community) and in private practice have expanded considerably in the past decade. Due to the increasing demand for psychological services in physical medicine (e.g., cardiac rehabilitation, developmental neuropsychology, chronic illness), there is a specific demand for clinical health psychologists in regional health authorities in addition to the continued need for psychologists practicing in the area of mental health. There is increasing recognition of the valuable contributions that psychologists make as members of primary care teams including family physicians and other professionals, to deliver optimal primary care. The supply of psychologists is of particular concern in Manitoba. CIHI data (2005) indicate that Manitoba has the lowest psychologist-to-population ratio in Canada. Furthermore, the average age of professional psychologists in Canada is approximately 52, with a forecasted difficulty in replacing retiring psychologists over the next several decades. Due to this looming recruitment crisis, the Canadian Psychological Association has struck a Task Force on Supply and Demand. To meet the health human resource needs for their populations, provincial governments and universities in Quebec, Newfoundland, and New Brunswick have specifically targeted the development of professional PsyD programs. As there is a different targeted purpose of PsyD and PhD training, some institutions (e.g., Université Laval) have both PsyD and PhD programs.

□Are there currently jobs in Manitoba in this field? X YES □ NO
If yes, where (geographic location and industry)?

Each year there are a number of vacant psychologist positions within the health care facilities and community programs of the Winnipeg Regional Health Authority and additional positions in Manitoba's northern and rural regional health authorities that would be appropriate for graduates of this program. As the value of clinical health psychology services is increasingly recognized, the demand for these positions is increasing. In addition, there is an expanding private practice sector demand for clinical health psychologists.

□What is the future job forecast for individuals with this education/training/credential?

There is very significant demand and employment opportunity for psychologists with this kind of training. Fifty percent of psychologist positions within the Winnipeg Regional Health Authority have turned over in the past 5 years, due to retirements and departures of psychologists from practice in the publicly-funded health care system to opportunities in private practice or in other provinces. Recruitment typically takes 12 to 18 months. Students who complete their doctoral degree or psychology residency training in Manitoba are much more likely to be successfully recruited into positions in Manitoba.

□How does this program fit with Manitoba's stated economic, social and other priorities?

Manitoba aspires to be at the forefront of evidence based, cost-effective quality health services. Psychological approaches to health issues such as cardiac disorders improve outcomes, improve quality of life, and reduce overall costs. For example, the Practice Directorate of the American Psychological Association estimates that for cardiac patients, following the initial cardiac event, there is an overall health care cost saving of $5 for every $1 spent on health psychology services such as stress reduction. Manitoba population health priorities include the behavioural prevention of disorders such as Fetal Alcohol Syndrome, diabetes, cardiac disease, renal failure, injuries and self-harm. Health psychologists can help with all of these.

□What agencies, groups, institutions will be consulted regarding development of the program?

Dr. Dean Sandham, Dean of Medicine, University of Manitoba
Dr Patrick Choy and Dr Kevin Coombs, Associate Deans, Research, Faculty of Medicine, UM
Dr Wil Fleisher, Associate Dean Medical Education, Faculty of Medicine, UM
Dr Murray Enns, Head, Dept of Psychiatry, Faculty of Medicine, UM
Dr. Jitender Sareen, Director of Research, Dept of Psychiatry, UM
Dr. Lawrence Elliott and Dr. Sharon Macdonald, Acting Heads, Dept of Community Health Sciences, Faculty of Medicine, UM
Dr. Bob Tate, Graduate Program Chair, Dept of Community Health Sciences, UM
Dr Emily Etcheverry, Director, School of Medical Rehabilitation, UM
Dr. Ed Kroeger, Assistant Dean of Graduate Studies, Faculty of Medicine, UM
D. Tom Hassard, Associate Dean, Faculty of Graduate Studies, UM
Dr. John Doering, Dean Faculty of Graduate Studies, UM
Mr. Milton Sussman, Vice President Community Health and Chief Operating Officer, Winnipeg Regional Health Authority (WRHA)
Dr. Karen Cohen, Executive Director, Canadian Psychological Association
Dr Janel Gauthier, Dept of Psychology, Université Laval
Department Council, the Dept of Clinical Health Psychology, Faculty of Medicine, UM
Dr. Nancy Prober, President, Manitoba Psychological Society
Dr. Alan Slusky, Registrar, Psychological Association / College of Psychologists of MB
Dr. John Amett, Director of Clinical Training and the Psychological Service Centre, Dept of Psychology, Faculty of Arts, University of Manitoba
Dr. Harvey Keselman and Dr. Todd Mondor, Heads, Dept of Psychology, Faculty of Arts, UM
Dr Jamie Boyd, Head, Dept of Family Medicine, UM
Dr Dan Roberts, Head, Dept of Medicine, Faculty of Medicine, UM
Dr Cheryl Greenberg, Head, Dept of Pediatrics and Child Health, Faculty of Medicine, UM
Dr. Margaret Morris, Head, Dept of Obstetrics, Gynecology & Reproductive Sciences, UM
Dr. Fiona Parkinson, Acting Head, Dept of Pharmacology & Therapeutics, UM
Dr. Christine Arlett, Director, Psy.D. Program, Memorial University of Newfoundland
Manitoba Health & Healthy Living

□ Is there any other information relevant to this program? (Available on request)

4. Financial Information

Financial details to follow in the full proposal.

Submitted by: Dr. John Doering
Dean, Faculty of Graduate Studies, University of Manitoba

Signature

20 Oct '09
Date

STATEMENT OF INTENT

Institution

	Brandon University	Assiniboine Community College
x	University of Manitoba	University College of the North
	University of Winnipeg	Red River College
	Collège universitaire de Saint-Boniface	

Program Overview

Program Name: Joint Computer Science and Statistical Honours Programme

Credential to be offered: B.Sc.(Hons)

Does the program require accreditation from a licencing group? YES x NO
If yes, name group

Length of the program:_____ 4 Years; 4 Years 4 months with Coop Option

Proposed program start date: _01__/_09_/_10__
Day/Month/Year

Which department(s) within the institution will have responsibility for the program?
Computer Science, Statistics

As compared to other programs your institution will be proposing, is the priority of this program:
x High
Medium
Low

Is this a new program? x YES NO

Is this a revision of an existing program: YES x NO
If YES, name program
What are the impacts of changing this program?

Will the program be available to part-time students? YES x NO

Will this program have a cooperative education component? x YES NO
If YES, how long with the field placement be? It is optional but if taken it will be three 4-month workterms.

Will the program contain an option to assess the prior learning of students, to grant credit for the skills/knowledge already present? x YES NO
Provide Details
Courses in both Statistics and Computer Science from other institutions are already subject to articulation

Will there be distance delivery options? some NO
Provide Details
A few courses in Computer Science and Statistics are offered by Distance Education.

Will this program be delivered jointly with another institution? YES x NO
If YES, name the institution

Are similar programs offered in Manitoba or other jurisdictions? YES x NO
If YES, indicate why this program is needed (e.g., area of specialization)

What articulation, block transfer or credit transfer arrangements will you be looking at developing for this program?
Just what is offered or will be offered by Distance Education .

Specific Program Information

1. **Program Description**

Describe the program and its objectives:

The program objective is to develop statisticians capable of handling the computer science problems that come with handling large reams of data stored in or produced by the computer.

Provide an overview of the content to be taught in this program:

The student will get enough of the Statistics Department's course to be accredited by the Statistical Association of Canada and enough of the accredited Computer Science courses to have a good grounding in Computer Science basics to handle advanced algorithms, data mining or bio-theoretic techniques.

2. **Enrollment**

What is the program's initial projected enrollment? 5

What is the projected enrollment for the 2nd and 3rd years? 9, 13
Describe the expected student profile?

In addition to having strong analytical and problem solving skills, students are expected to have a strong interest in Computer Science, Statistics and Probability.

3. **Labour Market Information**

What labour market need is the program expected to meet?

Currently the Statistics Department produces many fine graduates but with a limited amount of programming and other computer science skills. The Computer Science Department produces fine graduates in computer Science skill but lacking the inferential and probabilistic skills. This programme would produce individuals with both sets of skills. This kind of individual is needed in today markets to handle the predication and analysis of the huge amounts of data produced by government, education and other institutions, and large corporations

Are there currently jobs in Manitoba in this field? x YES NO
If yes, where (geographic location and industry)?
All levels of government, educational institutions, survey companies, polling companies, marketing companies all need many such individuals. These people are also vital in community health programs and in epidemiology studies. Most of these jobs would be in Winnipeg with some in Brandon.

What is the future job forecast for individuals with this education/training/credential?

excellent

How does this program fit with Manitoba's stated economic, social and other priorities?

Accurate forecasts are needed for people to decide what are our economic, social and other priorities. Any company wishing to meet future goals need these kind of people to tell them what the future will probably be. This is as true about Manitoba as the rest of Canada or the rest of the world.

What agencies, groups, institutions will be consulted regarding development of the program?
Department of Statistics, Department of Computer Science, Statistical Society of Canada, Canada's Association of Information Technology, The computer Science Industrial Liaison Committee and the Coop Director in the Dept. of Computer Science.

Is there any other information relevant to this program ? NO

4. **Financial Information**

Projected Program Costs: $0 Salary $0

Operating $0
Capital $0
Total cost $0

Submitted by:

Xikui Wang, Ph.D.

Name (print)

Professor and Associate Head, Chair of the Undergraduate Committee

Position

Signature

October 9, 2009

Date

UNIVERSITY OF MANITOBA | Office of the Vice-President (Academic) & Provost

208 Administration Building
Winnipeg, Manitoba
Canada R3T 2N2
Telephone (204) 480-1408
Fax (204) 275-1160

October 23, 2009

TO: Tony Iacopino, Dean, Faculty of Dentistry

FROM: Joanne C. Keselman, Vice-President (Academic) & Provost

SUBJECT: Dental Hygiene Degree Completion Program

At its meeting on 8 October, the COPSE Council approved our proposed Dental Hygiene Degree Completion program. On behalf of the University, I extend sincere congratulations to you and your colleagues!

On 3 September 2009, Salme Lavigne sent me by email a paper entitled, "Resource Plan for the Delivery of the Bachelor of Science in Dental Hygiene Degree Completion Program", a copy of which I attach for your reference. On the basis of that plan, I authorize implementation of the new program in January 2010.

Encl

cc Salme Lavigne, Director, School of Dental Hygiene
Richard Lobdell, Vice-Provost (Programs)
Jeff Leclerc, University Secretary
Neil Marnoch, Registrar

PRESIDENT'S REPORT: December 2, 2009

I. GENERAL

Over the past several weeks, there has been a great deal of work undertaken on two projects designed to help improve services and programs, make optimal use of our resources, and address our budgetary constraints. The Optimizing Academic Resources (OARs) project, which focuses on improving the use of our academic resources, and the Resource Optimization and Service Enhancement (ROSE) project, which focuses on improving our services while reducing costs in a sustainable way, both are well underway and are benefiting from the involvement of and input from a many members of the university community.

These projects were the major focal point of the October 15 President's Town Hall, at which many members of our community participated and expressed their views. As was noted at the Town Hall, the university is pursuing these projects in order to create efficiencies, optimize our resources and create flexibility in existing budgets, so that we have more options when the provincial government announces our funding level and any changes related to tuition fee levels in the spring. The measures we are undertaking right now are meant to minimize the impact of potential reductions on the members of our community.

The House of Commons Standing Committee on Finance held hearings in Winnipeg on October 20. The University of Manitoba's presentation to this Committee focused on the three funding priorities articulated in its pre- budget submission to the committee: (1) Increased funding to the three major research granting agencies and increased funding for the indirect costs of research; (2) increased investment in university programs and services which support Aboriginal students; and (3) funding support for the establishment of a Canadian Cereals Research and Innovations Lab – an international Centre for Excellence in grain Crops at the University of Manitoba.

In late October, I attended meetings of the AUCC in Ottawa and while there, also took the opportunity to meet with federal MPs and senior federal officials. The AUCC meetings included a special session focused on innovation and its connection to research, featuring Dr. Bengt I. Samuelsson. Also in Ottawa, I attended the Dr. David Barber's presentation on Climate Change and Arctic Sea Ice at the Bacon *and Eggheads* breakfast on Parliament Hill, sponsored by the Partnership Group for Science and Engineering.

A committee has been established to provide advice on candidates for the position of Vice-President (External) and more generally on the role of the Vice-President (External). Joining me on the committee are: Terry Sargeant, Chair, Board of Governors; James Blatz, Chair, Senate Planning and Priorities Committee; David Collins, Dean, Faculty of Pharmacy; John Danakas, Director of Public Affairs; Mark Evans, President and CEO, Emerging Information Systems Inc.; Karen Grant, Vice-Provost (Academic Affairs); Paul Hess, Director, School of Art; Rosalyn Howard, Director of Learning and Development Services; Alanna Makinson, Vice-President (External), University of Manitoba Students' Union; Rennie Zegalski, Board of Governors.

On October 21 and 22, the University of Manitoba's Fall Convocation gave us a chance to celebrate the achievements of our students who have successfully completed their programs of study since Spring of 2009. In addition, honorary degrees were conferred upon: Andrew Bjerring, Richard Frost and John Lau. We also honoured new Distinguished Professors, a new Professor Emeritus, and the recipients of the Distinguished Alumni Award, the Distinguished Service award, and the Dr. and Mrs. H. H. Saunderson Award.

The Council of Presidents of Universities in Manitoba (COPUM), which I currently chair, recently met to discuss issues of mutual concern and identify priorities for collaborative work in the coming months. We have agreed on a number of issues of common interest related to the upcoming provincial budget and agreed to a joint effort to communicate these issues.

II. ACADEMIC MATTERS

- October 7, 2009 marked the launch of the Optimizing Academic Resources (OARs) Project. The project will identify strategies to improve and reduce barriers to the effective use of our academic resources. Project Teams have been established to consider three areas of focus:
  i. Academic Synergies and Efficiencies
  ii. Rules, Regulations and 'Red Tape'
  iii. Strategic Enrolment Management. Recommendations are anticipated by April 2010.

  The Leadership Committee for the OARs project is co-chaired by Vice-Presidents Joanne Keselman and Digvir Jayas, and comprised of all deans and directors and senior academic administrators. The Leadership Committee will provide advice on the overall project direction.

- Three prominent University of Manitoba professors have been elected to the Royal Society of Canada, the country's most prestigious association of scholars and scientists:
  - Dr. Digvir Jayas, Biosystems Engineering, world renowned leader in grain storage research;
  - Dr. Noralou Roos, Community Health Sciences, founded the Manitoba Centre for Health Policy and pioneered the use of administrative data to identify the healthcare patterns of Manitobans over the past three decades;
  - Dr. Ronald Stewart, Environment and Geography, global leader in precipitation processes within winter storms.

  The official induction will be held on November 28, 2009 at the Canadian Museum of Civilization.

- Ken Standing, Physics and Astronomy, was selected to receive the Royal Society of Canada's 2009 Sir John William Dawson Medal. Dr. Standing is internationally renowned for innovations in time-of-flight mass spectrometry.

- The Faculty of Pharmacy hosted an evening with the World Presidents' Organization (WPO) on October 15, 2009. The WPO is a global organization of more than 4,600 business leaders who are or have been chief executive officers of major companies and who are "graduates" of the YPO (Young Presidents' Organization).

- For the second year in succession, the Faculty of Pharmacy's Class of 2009 was ranked first in Canada in the 2009 Pharmacy Examining Board of Canada (PEBC) Qualifying Examination!

- The first biennial Philanthropy and the Law Symposium, was hosted by the Faculty of Law and The Winnipeg Foundation in September attracted 150 participants. The inaugural theme, Law, Philanthropy and New Economic Challenges: Changing the Rules of Engagement, considered charity management and fiduciary responsibility, funding challenges for charities and non-profit organizations, as well as tax-driven governance of the philanthropic sector.

- Jim House, Human Nutritional Science, received the 2008 Centrum Foundation New Scientist Award for Outstanding Research. The New Scientist Award was established to recognize outstanding contributions to nutrition research by a member of the Canadian Society for Nutritional Sciences, who is within 15 years of completing their Ph.D.

- A full house of 225 alumni, friends and colleagues turned out for the Faculty of Dentistry's 2009 Alumni of Distinction Awards. Award recipients, Drs. Tom Breneman and Hester Rumberg, and honorary alumni membership awardee, Mr. Burton Cummings, were recognized.

- David Barber, Environment, Earth and Resources, received an invitation from the Communications Committee of the Partnership Group for Science and Engineering (PAGSE) to speak at the "Bacon and Eggheads" science lecture series on Parliament Hill in Ottawa on October 29th, 2009. This session brings together Parliamentarians with experts across the spectrum of science and engineering, and showcases outstanding Canadian accomplishments. PAGSE is an umbrella group of 25+ national science and engineering organizations operating under the auspices of the Royal Society, and is co-sponsored by NSERC and the Speakers of the House of Commons and the Senate. This prestigious forum represents a unique opportunity to communicate important scientific work to a distinguished and highly influential audience, which includes key decision-makers.

- The Department of Supply Chain Management, Asper School of Business organized a unique Humanitarian Logistics: Relationship Building in Relief Supply Chain Conference in Ottawa in October 2009. Speakers and participants in the conference included Logistics and Supply Chain directors of the International Federation of Red Cross & Red Crescent Societies, World Vision International, World Organization for Relief Logistics Developed and the World Food Program; the Chartered Institute of Logistics and Transport, Air Serv International, Airline Ambassadors International, Disabled Peoples' International, among others. Participants were involved in a simulated complex disaster where each was assigned roles in various humanitarian relief organizations. Working in teams they applied relationships building techniques in a simulated complex disaster.

- The Faculty of Arts unveiled its new "Wall of Recognition" commemorating the achievements of Arts students and staff at its annual Arts Celebrating Arts event. Senator Janis Johnson, Dr. Bill Valgardson, and Dr. Joanne Keselman were honored as this year's celebrated alumni.

- Extended Education's summer session course calendar received the 2009 Western Association of Summer Session Administrators (WASSA) Award for Best Catalogue (Calendar) in the Layout and Style category. The award recipients were: Summer Session staff (Bill Kops, Area Director, with Janine Lindsey, Darlene Lecuyer, Cheryl Hadaller), and Creative Services designers (Liz Bachmann and Gerald Beyak).

- The Children of the Earth High-school in Winnipeg won the Canadian Education Association 2009 Ken Spencer Award for Innovation in Teaching and Learning for their Medical Career Exploration Program. This program is the result of a partnership with Extended Education's Access Program, the Winnipeg School Division, the Pan Am Clinic and the Health Sciences Centre. The Medical Exploration program is designed to promote aboriginal students to a career in health care.

- Lot Shafai, Electrical and Computer Engineering, received the IEEE Antennas and Propogation Society's International Distinguished Educator Award for his contributions to antenna teaching and research by developing curriculum, numerical techniques, establishing links between industry and university, and its impact on students internationally.

- Faculty of Engineering's Centennial Book, *Grinding "Geers" for 100 Years*, has been printed and is available at the University of Manitoba.

- Noted photographer, Henry Kalen, has donated a large body of his photography collection to the University of Manitoba. The "Henry Kalen Archive" exhibit was launched the Faculty of Architecture on October 8, 2009 and the exhibit featuring a montage of his photographs will run until December 23, 2009. Kalen was born in Winnipeg and received his Bachelor of Architecture degree from the University of Manitoba in 1957.

- Ted McLaughlin, Jean Trottier, and Keith Millan, Landscape Architecture, were recognized by the Town of Minnedosa for their outreach efforts. These efforts, merging curriculum and service, included the deconstruction, recycling, and building of a community project.

- Jennifer Berry, social work student, has become the interim coordinator of StreetReach, a new agency to help sexually exploited and vulnerable youth. StreetReach brings together 22 social services and community organizations around the province and has been touted by Family Services and Housing Minister Gord Mackintosh as the first of its kind in Canada. StreetReach partners with the Winnipeg Police Service, Metis Child and Family Services, Child Find Manitoba, Marymound and Ma Mawi Wi Chi Itata Centre.

- Luke Sellick, jazz studies student, has been awarded the national Oscar Peterson Grant for Jazz Performance, which is a Developing Artists Grant of $10,000 from the Hnatyshyn Foundation.

- Chad Reimer, music student, has won the position of Principal Tuba with the Regina Symphony after a rigorous audition process.

- Members of the Bison's women's basketball team launched a "Think Pink" campaign to help raise awareness of breast cancer while raising funds for the Canadian Breast Cancer Foundation. Team members wore limited edition pink uniforms during games against Cape Breton and the University of Winnipeg – uniforms that were later on display at the Women's Basketball Breast Cancer Research and Scholarship fundraiser, an event that featured a wine tasting, appetizers, auctions and live entertainment.

- A team of undergraduate students from the Departments of Food Science, Management and Human Nutritional Sciences placed in the top two in the Product Development Competition at the American Association of Cereal Chemistry Annual Meeting for its 'Crepe UP', a tasty gluten-free product made with pea and rice flours.

- Stanislaw Lozecznik, engineering graduate student and student member of the Northern Lights Chapter of the Solid Waste Association of North America (SWANA), won the Robert P. Stearns/SCS Engineers Scholarship. He was the only Canadian student recognized at this year's event.

III. RESEARCH MATTERS

- Three new and three renewed Canada Research Chairs (CRCs) were announced in September, bringing the University of Manitoba total to 48 CRCs, with the six chairs totalling $4.8 million in support. The new chairs are Drs. Jeffrey Marcus (Phylogenomics), Peter Eck (Nutrigenomics), Zahra Moussavi (Biomedical Engineering). The three renewed chairs are Drs. Fikret Berkes (Community-Based Resource Management), Hao Ding (Genetic Modelling) and Phillip Gardiner (Physical Activity and Health Studies).

- Dr. Stephen Moses was recognized as one of only eight named recipients of the "Top Canadian Achievements in Health Research" by the Canadian Institutes of Health Research (CIHR) and the Canadian Medical Association Journal (CMAJ). The recognition is related to his research proving male circumcision reduces the risk of HIV infection.

- The Province of Manitoba announced $1.675 million in funding for two genomics research projects on October 5th. Genome Prairie's Total Utilization of Fax Genomics (TUFGEN), led by Dr. Sylvie Cloutier (Agriculture and Agri-Food Canada and Faculty of Agricultural and Food Sciences), and Microbial Genomics for Biofuels and Co-Products from Biorefining Processes (MGB2), co-led by Drs. David Levin (Faculty of Agricultural and Food Sciences) and Richard Sparling (Faculty of Science).

IV. ADMINISTRATIVE MATTERS

- **Resource Optimization and Service Enhancement Project (ROSE) project update –** Members of the joint working team have conducted approximately 150 interviews and meetings with stakeholders across the University. The team continues to analyze potential quick wins as well as longer term opportunities focusing on both service delivery improvement and cost reduction. The team is in the process of validating, prioritizing, finalizing and quantifying opportunities for presentation to the ROSE steering committee later this month.

- **Pandemic Planning Update -** Meetings were held with the unions and the EMAPs advisory committee to discuss pandemic planning efforts. Information on H1N1 has been shared with Deans and Directors, Administrators, Middle Managers and is being widely circulated to students. The Institutional Pandemic Plan has been updated and can be accessed on the WEB along with FAQs for both staff and students on H1N1. The H1N1 vaccine clinic at the University began on October 26, 2009 in 218 Helen Glass and then moved to the Multi-Purpose Room in University Centre. The Pandemic Planning Committee is still meeting every two weeks and as of now, there have been no reported cases of H1N1 on the Fort Garry Campus and one reported case on the Bannatyne Campus.

- **Duff Roblin Fire Recovery –** A temporary location to test restored equipment has been set up at the Crop Technology Centre. The Council on Post Secondary Education has approved a funding request of $2.5 Million for the installation of a sprinkler system which was not covered by insurance. Restoration is set to begin on the East side by mid-November.

- **Fall Tuition Collection** - Over 6,800 fee payments were receipted in person and 8,000 were received electronically. Electronic payment methods continue to increase so that 54% of fee payments are now received through web banking. Overall transaction volumes are higher than the previous year as undergraduate enrolment increased by 3.6% and credit hours increased by 2.4%.

- **Orientation 2009** went very well. N parking lot was closed for four days in order that UMSU sponsored social activities could safely take place in a central location. Not only did this allow for a safe and unique venue but also saved the grass in the quadrangle from the damage endured in previous years. This negotiated "trade off" resulting in the orientation period being reduced to 4 days.

- **Banking Services –**The University has entered into a 5 year agreement with the TD Bank for banking services following a formal RFP process. The TD Bank offered the most attractive package in terms of pricing and service resulting in significant savings for the University.

- **Economic Impact Analysis –** The Economic Impact Study has been finalized and the consultant has issued the report. A press release is being prepared by Public Affairs.

- **University Centre** – The University has partnered with ARAMARK to complete renovations in University Centre. UMSU is also involved. We are working together as a group to improve services in University Centre. Subway and Tim Horton's will be relocated and possibly the Manitoban. A temporary stage will be set up in the Fireplace Lounge to accommodate the upcoming Celebration and other main stage events.

- **Domino Project –**
  - **Art Research and Technology (ART) Lab** - Patkau Architects presented the design for the ART Lab to the Exterior Environment Committee for input. Design plans are well underway. A construction forum for Drake Building occupants is being planned for the end of November to discuss access route changes, construction schedules, possible disruptions and other construction related issues. Construction is anticipated to begin in January 2010.
  - **Pembina Hall Residence** - The design of the Pembina Hall 360 unit residence is largely complete and construction, once tendered, is anticipated to commence in January 2010.
  - **Tache Hall Redevelopment** – The redevelopment project will provide space for the Marcel A. Desautels Faculty of Music, School of Art, A Music Library and a 400 seat concert hall. Patkau Architects met with Marcel Desautels and members of the Faculty of Music on September 11, 2009 to present a number of options for the concert hall. The redevelopment of Tache Hall will commence upon completion of the Pembina Hall Residence. In the interim, the Marcel S. Desautels Faculty of Music has expanded into the recently vacated Services Building.

- **Russell Building Courtyard Opening –** The official opening of the Russell Building courtyard took place on October 27, 2009. The outdoor courtyard has been revamped to provide an attractive outdoor gallery for students, faculty and staff.

- **Stabbing –** A student was stabbed outside the School of Music and suffered numerous stab wounds. The stabbing was an isolated incident and the victim was deliberately targeted. There was no other threat to the University at the time of the incident. The stabbing received wide spread media attention and the safety and security features in place at the Fort Garry Campus were reviewed.

- **Power Outage –** a major power outage occurred in Taché Hall and the Drake Building on the evening of October 18. Power was restored to Taché Hall in a few hours but was not restored to the Drake Building until 11:00 AM the next day.

- **Wind Energy Turbine Project** – A 50 foot tall, 5 kilowatt wind turbine now stands in Smartpark at the corner of Technology Trail and Chancellor Matheson. Students and faculty will have an opportunity to test the performance of a horizontal axis wind turbine and further their understanding of wind power generation for a period of three years.

- **Smart Park Retention Pond** – Excavation of the Lake 2 storm water retention pond began in September. The excavated earth has been transported to the Glenlea Research Centre. The naturalization phase which involves the identification of existing native plants for re-vegetation in the pond next spring is currently underway.

- **Public Forum** – A public forum is being held November 25th in University Centre to assess the value/merit of an ongoing campus pub presence.

V. EXTERNAL MATTERS

- Total funds raised as of November 2, 2009: $15,616,169.68

- A Town Hall on the Resource Optimization Projects was held on October 15, 2009 in the EITC Atrium and connected with a video link to the Gaspard Theatre on the Bannatyne Campus and it was webcast. The town hall elicited news coverage in the Winnipeg Free Press and on CBC and CTV.

- On Thursday, October 15, 2009 the Manitoba Chapter of the World Presidents' Organization (WPO) toured the Bannatyne Campus followed by dinner and a presentation from Geoff Hicks, CIHR Canada Research Chair in Functional Genomics Director.

- The itsmyfuture.ca micro site, originally launched in Fall 2007 as a recruitment marketing tool to encourage prospective students to learn more about what its like to be a University of Manitoba student, has evolved to reflect the U of M's position of offering "more" – integrating stronger messaging and defined positioning that recruitment officers can reference and rally around. The third year of the program will involve further expansion of site components to include 9 student bloggers, a new video contest feature targeted at current students, and greater integration with existing social media initiatives and umanitoba.ca. External advertising directed toward prospective students and their influencers (Winnipeg Transit bus back posters, Winnipeg Movie Theatres and on Hot 103) will be delivered through two phases to coincide with key recruitment timeframes, from October to December 2009, and February and March 2010.

- A new "prestige" publication that highlights excellence in education, research and community service at the University of Manitoba was published last week. Titled *"More"*, it shares a look with the annual report and is intended as an impressive print piece to share with special visitors or those whom senior administrators visit.

- David Barnard, president and vice-chancellor, and Clayton H. Riddell, O.C., CEO & chairman, Paramount Resources Ltd., co-hosted a breakfast in Calgary on Oct. 1, 2009, where Dr. Barnard spoke to Alberta-based donors, alumni and friends about the future of the University of Manitoba. The breakfast was held at the Calgary Petroleum Club, and more than 30 people turned out for the event.

- A reception for alumni and friends will be held in Hong Kong on Sunday, November 22, 2009, from 3:00 to 5:30 pm at the Conrad Hotel. The event will feature a piano performance by Dean of Music Edmund Dawe, and David Barnard will bring greetings. As this event precedes the symposium at Shantou University (http://www.umanitoba.ca/shantou-symposium/), several University of Manitoba representatives will be in attendance. The Alumni Association is working with the University of Manitoba Alumni Association in Hong Kong to make the arrangements and take the RSVPs.

- Manitoba Conservation partnered with Smartpark to plant 15 white spruce trees approximately 5' tall at Smartpark under the Trees for Tomorrow Program. The value of these trees is $5,600. Smartpark and Manitoba Conservation will also be preparing a draft plan for more extensive tree planting next spring at Smartpark.

- There is a University of Manitoba steering group, coordinated by the Government Relations Office, working with Federal Human Resource officials on the Champions Program. This program is a proactive strategy promoting the Public Service as a career choice for university graduates. The steering group includes John Alho, Associate Vice-President (External), George Maclean, Professor, Political Studies, Marek Debicki, Professor, Political Studies, David Ness, Associate Professor, Career Services, Lynda Peto, and Angela Bohonos, Employment Advisors, Career Services. Topics under discussion include the Masters in Public Administration course, Career Fair, Co-op programs, direct appointments of top level students to Public Service positions, a speaker's series by senior Federal officials, and a focus on improving employment equity in the Public Service including hiring aboriginal graduates.

- The Honourable Jim Rondeau, Minister of Science, Technology, Energy and Mines announced $1.3 million in funding for research into health sciences, the environment and new technologies for the University of Manitoba on September 22. Dr. Digvir Jayas, Vice-President (Research) brought greetings on behalf of the University of Manitoba. This funding was provided through the Manitoba Research and Innovation Fund.

- Debbie McCallum and John Alho toured Dockside Green in Victoria, BC and the residential developments at both Simon Fraser University and University of British Columbia. The purpose of these tours was to get a better understanding of the challenges and opportunities inherent in developing an environmentally sustainable community and to see if there are lessons that could be applied to a possible future development at the University of Manitoba's Southwood lands.

November 18, 2009

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**

   Professor Mark Gabbert will be the Speaker for the Executive Committee for the December meeting of Senate.

2. **Nominations to the Senate Committee on Nominations**

   The report of the University Secretary on the Senate Committee on Nominations is attached. Members of the Senate Committee of Nominations are nominated by the Senate Executive Committee and elected by Senate (See recommendation below).

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 nomination to the Senate Committee on Nominations be approved by Senate for a term ending May 31, 2011:

a) Professor Malcolm Smith, representing Management and Extended Education

Respectfully submitted,

Dr. David Barnard, Chair
Senate Executive Committee
Terms of Reference:
http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/477.htm

/mb

Vacancies on the Senate Committee on Nominations

At the July 1977 meeting of Senate, Senate approved without debate the following area representations for the Senate Committee on Nominations. The representation was amended in July 1991 to include the Libraries, and again in June 2005 to include the Clayton H. Riddell Faculty of Environment, Earth and Resources. The membership at November 4, 2009 is as follows:

1.	Agriculture & Human Ecology	Carla Taylor*	to	2012
2.	Architecture & Engineering	Jay Doering*	to	2010
3.	Arts	Pam Perkins	to	2011
4.	Science	Michael Freund*	to	2010
5.	Law, Pharmacy & Environment, Earth and Resources	David Collins*	to	2010
6.	Medicine & Dentistry	Emily Etcheverry*	to	2011
7.	Education & Kinesiology and Recreation Management	Sandra Kouritzin*	to	2012
8.	Management & Extended Education	~~Mary Brabston*~~	to	2011
9.	Music, Fine Art & Libraries	Karen Jensen	to	2012
10.	Nursing, Social Work & Student Affairs	Marie Edwards*	to	2010
11.	Students (2) *(note: student terms end October 14)*	Atnatyos Hailu Brian Latour	to to	2010 2010

* denotes member of Senate at time of appointment

Professor Mary Brabston, Science, has resigned from the Committee effective October 7, 2009. Consequently, a replacement is required for the following area for the term ending May 31, 2011.

1. Management & Extended Education

The composition of the Committee on Nominations calls for ten members of the academic staff, the majority of whom are to be members of Senate. Since eight of the academic members currently on the Committee are Senators, and one of the member's term is ending, the replacement will not necessarily have to be a member of Senate at the time of election to the Senate Committee on Nominations.

October 1, 2009

Report of the Faculty Council of Graduate Studies on Regulation Changes

Preamble:

1. The Faculty of Graduate Studies has responsibility for all matters relating to the submission of graduate course, curriculum and program changes, and new graduate programs. Recommendations for new programs or changes are submitted by the Faculty Council of Graduate Studies for the approval of Senate.

2. The Faculty Council of Graduate Studies met on the above date to consider changes to the Faculty of Graduate Studies Academic Guide.

Observations:

1. The major content change of the Master's Admission section of the Faculty of Graduate Studies Academic Guide referes to the consideration of Graduates from first-cycle Bologna compliant degrees. Please review:
   - Section 4 of the Academic Guide: General Regulations, Master's Admission (Attach. A)

Recommendations:

The Faculty Council of Graduate Studies endorses the regulation changes to the Section 4 of the Academic Guide: General Regulations, Master's Admission and recommends that it be forwarded to Senate for approval.

Respectfully submitted,

Dean J. Doering, Chair
Graduate Studies Faculty Council

/py

Attach. A: Section 4 of the Academic Guide
Attach. B: Bologna Overview

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

ii. SECTION 4: General Regulations: Master's Admission

Students who are eligible to be considered for direct admission to a program of study leading to the Master's degree include:

- Graduates of four-year undergraduate degree programs (or equivalent) from
    a. Canadian institutions empowered by law to grant degrees, or
    b. Colleges and universities outside Canada that are officially recognized by The Faculty of Graduate Studies.
- Graduates from first-cycle Bologna compliant degrees.
- Students who have completed the pre-Master's program from the University of Manitoba or from another university.

All students applying for a Master's degree program must have attained a minimum GPA of 3.0 in the last two full years (60 credit hours) of study. This includes those applying for direct admission and those entering from a pre-Master's program. Students who meet the minimum requirements for admission to the Faculty of Graduate Studies are not guaranteed admission.

The pre-Master's program is designed to bring the student's standing to the approximate level of an Honours graduate in the major department, and to provide the student with any necessary prerequisites for courses to be taken in the Master's program.

In specific cases where the academic background of the student is judged to be insufficient for the given program in a unit, the department may recommend that the student be admitted to a pre-Master's program of study.

Bologna Overview

In 1999, twenty-nine signatory countries agreed to create a European Higher Education Area (EHEA). Since that signing, an additional seventeen countries have joined the list of those wishing to participate in the creation of the EHEA. This initiative harmonizes education in the EHEA. The reforms involve more than 5100 institutions and their thirty-one million students. The creation of the EHEA and the associated harmonization is directed an improving the international competitiveness of the EU workforce by facilitating the international mobility of students and the international transferability of qualifications. To do this Bologna mandated the creation of a "three-cycle" education system. The first-, second-, and third-cycles lead to bachelor's, master's, and doctoral degrees, respectively.

Canada has responded to Bologna in a number of ways. These responses have come from the Canadian Association for Graduate Studies (CAGS), Association of Universities and Colleges of Canada (AUCC), and the Council of Ministers of Education, Canada (CMEC) to name a few. Most, if not all, of my decanal colleagues of graduate studies, accept a first-cycle Bologna-compliant degree as the basis for admission to graduate studies. York University has formalized through their senate the recognition of first-cycle Bologna-compliant degrees as a basis for admission to their graduate studies. Others have not formalized the process through senate but have indicated on their promotional material or website (*e.g.*, McGill) that they will accept first-cycle Bologna-compliant degrees as a basis for admission to their graduate studies.

October 1, 2009

Report of the Faculty Council of Graduate Studies on Regulation Changes

Preamble:

1. The Faculty of Graduate Studies has responsibility for all matters relating to the submission of graduate course, curriculum and program changes, and new graduate programs. Recommendations for new programs or changes are submitted by the Faculty Council of Graduate Studies for the approval of Senate.

2. The Faculty Council of Graduate Studies met on the above date to consider changes to the Faculty of Graduate Studies Academic Guide.

Observations:

1. The major content change of the Master's and Ph.D. Thesis regulations is the submission of one (1) mandatory electronic copy. Please review:
   - Section 4.1 of the Academic Guide: [Master's] Thesis Submission (Attach. A)
   - Section 5.1 of the Academic Guide: Thesis Regulations: Ph.D. (Attach. B)

Recommendations:

The Faculty Council of Graduate Studies endorses the regulation changes to Section 4.1 of the Academic Guide: [Master's] Thesis Submission and Section 5.1 of the Academic Guide: Thesis Regulations: Ph.D. and recommends that it be forwarded to Senate for approval.

Respectfully submitted,

Dean J. Doering, Chair
Graduate Studies Faculty Council

/py

Attach. A: Section 4.1 of the Academic Guide
Attach. B: Section 5 of the Academic Guide
Attach. C: Thesis Statistics / Paper versus Electronic

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

Attach. A

iii. SECTION 4.1: [Master's] Thesis and Practicum Regulations

CURRENT REGULATIONS

Deadlines and Details for submissions of final copies:
The Academic Schedule in the Graduate Calendar should be consulted regarding dates by which theses/practica must be submitted. Following the approval of the thesis/practicum by the examining committee and the completion of any revisions required by that committee, the thesis must be submitted to the Faculty of Graduate Studies in one of the following ways:,

a) two paper copies to the Faculty of Graduate Studies Office in unbound form, enclosed in an envelope or folder. Note: Only one copy need be single-sided.

b) one paper copy (that is single sided) to the Faculty of Graduate Studies Office in unbound form, enclosed in an envelope or folder, and one electronic copy of the paper version submitted as an electronic thesis/dissertation (ETD) at the MSpace website:
https://mspace.lib.umanitoba.ca/index.jsp

Note: In those cases where one copy of the thesis is submitted electronically and following approval of the Dean of Graduate Studies, part of that thesis/practicum (paper copy) may be submitted in electronic format, including CD-ROM. Further details with regard to the format may be provided in the Supplementary Regulations of the department. Complete information regarding the software used to produce the electronic portion of the thesis/practicum must be included. (Details are provided in the Thesis Guideline booklet)

The thesis/practicum copies are required for the University Library and remain the property of The University of Manitoba.

PROPOSED NEW WORDING

Deadlines and Details for submissions of final copies:
The Academic Schedule in the Graduate Calendar should be consulted regarding dates by which theses/practica must be submitted.

Following the approval of the thesis/practicum by the examining committee and the completion of any revisions required by that committee, the thesis, and where applicable, the practicum, must be submitted to the Faculty of Graduate Studies as follows:

- one single-sided paper copy in unbound form, enclosed in an envelope or folder; and
- one digital version submitted as an e-thesis at the MSpace website: https://mspace.lib.umanitoba.ca/index.jsp

The e-thesis is the official copy. Students are encouraged to review the e-thesis submission requirements prior to creating a digital version. Electronic multimedia files or accompanying files that are part of an e-thesis should be posted to MSpace as separate files.

The paper copy will become a circulating copy. Multi-media material on a CD-ROM may accompany the paper copy. Where possible, the contents of the official electronic version should be replicated in the paper copy.

Both digital and paper copies of the thesis/practicum are required for the University Library and remain the property of The University of Manitoba.

Attach. B

iv. SECTION 5.1: Thesis Regulations: Ph.D.

CURRENT REGULATIONS

Deadlines and Details for submission of final copies:
The Academic Schedule in the Graduate Calendar should be consulted regarding dates by which theses must be submitted to the Faculty of Graduate Studies to be eligible to graduate for a specific session.

Following the approval of the thesis by the examining committee and the completion of any revisions required by that committee, the thesis must be submitted to the Faculty of Graduate Studies in one of the following ways:,

a) two paper copies to the Faculty of Graduate Studies Office in unbound form, enclosed in an envelope or folder. Note: Only one copy need be single-sided.

b) one paper copy (that is single sided) to the Faculty of Graduate Studies Office in unbound form, enclosed in an envelope or folder, and one electronic copy of the paper version submitted as an electronic thesis/dissertation (ETD) at the MSpace website:
https://mspace.lib.umanitoba.ca/index.jsp

Note: In those cases where one copy of the thesis is submitted electronically and following approval of the Dean of Graduate Studies, part of that thesis/practicum (paper copy) may be submitted in electronic format, including CD-ROM. Further details with regard to the format may be provided in the Supplementary Regulations of the department. Complete information regarding the software used to produce the electronic portion of the thesis/practicum must be included. (Details are provided in the thesis guideline booklet)

The thesis copies are required for the University Library and remain the property of The University of Manitoba.

PROPOSED NEW WORDING

Deadlines and Details for submissions of final copies:
The Academic Schedule in the Graduate Calendar should be consulted regarding dates by which theses/practica must be submitted.

Following the approval of the thesis by the examining committee and the completion of any revisions required by that committee, the thesis must be submitted to the Faculty of Graduate Studies as follows:

- one single-sided paper copy in unbound form, enclosed in an envelope or folder; and
- one digital version submitted as an e-thesis at the MSpace website: https://mspace.lib.umanitoba.ca/index.jsp

The e-thesis is the official copy. Students are encouraged to review the e-thesis submission requirements prior to creating a digital version. Electronic multimedia files or accompanying files that are part of an e-thesis should be posted to MSpace as separate files.

The paper copy will become a circulating copy. Multi-media material on a CD-ROM may accompany the paper copy. Where possible, the contents of the official electronic version should be replicated in the paper copy.

Both digital and paper copies of the thesis are required for the University Library and remain the property of The University of Manitoba.

Thesis Statistics / Paper versus Electronic

Why create an e-thesis and post to MSpace?

- can include multi-media and large data set(s) in appendix
- can be found through Google and is, therefore, available world wide
- more citations, higher impact!
- cheaper

Borrowed / Viewed Statistics (2005-2008)[1]

Number of Times Borrowed /Viewed	Paper Theses	E-Theses
0	55%	0%
1 to 9	38%	2%
10 to 99	7%	14%
100 to 499	0%	58%
> 500	0%	26%

Select MSpace e-thesis viewings[1]

Author	Department	Grad. Date	MSpace Viewings	Paper Copy Borrowed
Eno	City Planning	2005	not in MSpace	56
Nickerson	Education	2007	2,661	5
Richthammer	History	2008	1,924	0
Tsang	Orthodontics	2006	1,897	1
Hoque	Civil Eng.	2006	1,759	0
Russell	City Planning	2007	1,728	6
Poritsanos	Microbiology	2006	1,388	0
Weitsman	Law	2006	1,034	14
Boyce	English	2007	977	0

[1] All data kindly provided by Juliette Nadeau, University of Manitoba, Libraries

UNIVERSITY OF MANITOBA | OFFICE OF THE VICE-PRESIDENT (RESEARCH)

207 Administration Building
Winnipeg, Manitoba
Canada R3T 2N2
Telephone (204) 474-6915
Fax (204) 474-7568
www.umanitoba.ca

MEMORANDUM

TO: Mr. Jeff Leclerc, University Secretary

FROM: Digvir S. Jayas, Vice-President (Research)
and Chair, Senate Committee on University Research

DATE: November 3, 2009

SUBJECT: Proposal to establish an Endowed Chair in Surgical Research

Attached please find a proposal to establish an Endowed Chair in Surgical Research. The Vice-President (Academic) and Provost, and the Senate Committee on University Research (SCUR), have endorsed this proposal, in accordance with the University's policy on Chairs and Professorships,

Please include this report and recommendation on the next Senate agenda. Please feel free to contact me should you require any further information.

Thank you.

DSJ/nis
Encl.

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

4.1

208 Administration Building
Winnipeg, Manitoba
Canada R3T 2N2
Telephone (204) 480-1408
Fax (204) 275-1160

UNIVERSITY OF MANITOBA | Office of the Vice-President (Academic) & Provost

September 9, 2009

To: Dr. Digvir Jayas, Vice-President (Research)

From: Dr. Joanne C. Keselman, Vice-President (Academic) and Provost

Re: Endowed Chair of Surgical Research

Dr. J. Dean Sandham, Dean of the Faculty of Medicine, has provided a letter of support for the proposal to establish an endowed chair of surgical research in the Department of Surgery.

The policy on Chairs and Professorships specifies that:

(1) the chair be established consistent with the academic goals and objectives of the University;
(2) the chair be fully funded from external sources, rather that University operating funds, and that the funds be sufficient to cover the salary and benefits of the incumbent and provide for an appropriate level of unrestricted research/scholarly support;
(3) the funds for the chair be provided by way of an endowment or through a schedule of annual expendable gifts for a defined period of not less than five years, or by an appropriate combination of endowment and annual expendable gifts;
(4) the chair shall be attached to a department, faculty, school, college, centre or institute of the University, and have goals consistent with the unit to which it is attached;
(5) the establishment of the chair is not tied to the appointment of a particular individual;
(6) individuals appointed to the chair normally shall have the academic qualifications commensurate with an appointment at the rank of Professor; and
(7) the initial term of the appointment of the chair shall be 3-5 years, and if renewal is permitted, such renewal shall be subject to a successful performance review and the availability of funds.

The proposed endowed chair of surgical research satisfies all of the above requirements.

I am in support of the proposal from Medicine, and request that you present it to the Senate Committee on University Research for consideration and recommendation to Senate and then to the Board of Governors.

If you have any questions or concerns, I would be pleased to meet with you.

/encl.

c. Dr. J. Dean Sandham, Dean, Faculty of Medicine
Dr. Richard Nason, Head, Department of Surgery

UNIVERSITY OF MANITOBA | Faculty of Medicine

Office of the Dean
Room 260 Brodie
727 McDermot Avenue
Winnipeg, Manitoba
Canada R3E 3P5
Telephone (204) 789-3557
Fax (204) 789-3928

August 28, 2009

Dr. Joanne Keselman
Vice-President (Academic) and Provost
University of Manitoba
208 Administration Building
Fort Garry Campus

Dear Dr. Keselman:

Dr. Richard Nason, Professor and Head, Department of Surgery, has submitted an application for the establishment of an Endowed Research Chair in Surgical Research. A copy of the draft document is enclosed.

The Department of Surgery is the driving force behind this application. Its commitment of $1.5 million to the Endowed Chair, to be paid from the tithe of clinical earnings over the next three years, is exemplary to our Faculty. The amount will be matched by $1.5 million from the Dr. Paul H.T. Thorlakson Foundation Fund, to create an endowment of $3.0 million.

The Faculty of Medicine strongly supports this endeavour. The establishment of the Endowed Chair in Surgical Research will raise the research profile of the Department and the Faculty. The incumbent of this Endowed Chair will provide leadership to the research enterprise of the Department, and play a mentorship role to junior faculty members.

Sincerely,

J. Dean Sandham, MD, FACP, FRCPC
Dean
JDS/kh
Encl.

Cc: Dr. Patrick Choy, Associate Dean (Development)
Dr. Heather Dean, Associate Dean (Academic)
Dr. Richard Nason, Professor and Head, Department of Surgery
Dr. Kevin Coombs, Associate Dean (Research)

SURGICAL RESEARCH ENDOWED CHAIR

Funding

The Department of Surgery has committed $1.5 million to the Endowed Chair, to be paid from the tithe of clinical earnings over the next three years, 2009 - 2012. The amount will be matched by $1.5 million from the Dr. Paul H.T. Thorlakson Foundation Fund, to create an endowment of $3.0 million.

Terms of Reference

1. The Endowed Chair of Surgical Research shall be held by a senior surgical clinician scientist with the academic rank of Professor of Surgery at the University of Manitoba.
2. The primary activity of the Endowed Chair of Surgical Research shall be research and teaching with a complementary clinical role.
3. The professor who holds the Endowed Chair of Surgical Research may provide complementary and supportive administrative services to the Department of Surgery, especially in matters of his/her primary activity (e.g. Director of Research).
4. The term shall be for five years, renewable upon recommendation.
5. The professor who holds the Endowed Chair of Surgical Research will personally be actively engaged in the academic scientific process.
6. The professor who holds the Endowed Chair of Surgical Research shall provide leadership and establish a team of surgical researchers. The incumbent will be a motivator and teacher of surgical research.
7. The professor who holds the Endowed Chair of Surgical Research will seek external funding through peer-reviewed agencies and also by forging partnerships with the University, community agencies and individuals thereby advancing the boundaries of surgery at the University of Manitoba.
8. The Advisory and Review Committee will oversee the Endowed Chair.
   a. Composition
      i. The Dean of Medicine (or designate) shall serve as vice-char
      ii. The Head of the Department of Surgery shall serve as vice-chair
      iii. The elected chair-person of the Department of Surgery Geographical Full- Time Group shall be a standing member
      iv. The Director of Surgical Research (or a designate as appointed by the Department Head) shall be a standing member
      v. Other members may include those appointed by the Department Head, Dean of Medicine, or as required by University of Manitoba policies

   b. Duties
      i. To advise on the appointment and renewal of the Endowed Chair of Surgical Research
      ii. To receive annual progress reports regarding the Endowed Chair of Surgical Research

May 21, 2009

Report of the Faculty Council of Graduate Studies on New Programs

Preamble

1. The Faculty of Graduate Studies has responsibility for all matters relating to the submission of graduate course, curriculum and program changes, and new graduate programs. Recommendations for new programs or changes are submitted by the Faculty Council of Graduate Studies for the approval of Senate.

2. The Faculty Council of Graduate Studies met on the above date to consider a integrated DMD/PhD proposals from the Faculty of Dentistry

Observations

1. The Faculty of Dentistry proposes a new program, the DMD/Ph.D. Please refer to:
   - Program Proposal (Attach. A)
   - Combined External Reviewers' Report & Departmental Response (Attach. B)

Recommendations

The Faculty Council of Graduate Studies endorses the integrated DMD/Ph.D. program proposal and recommends that it be approved by Senate:

Respectfully submitted,

Dean J. Doering, Chair
Graduate Studies Faculty Council

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

FACULTY OF DENTISTRY
SCHOOL OF DENTAL HYGIENE
University of Manitoba

Traditions of Excellence, Horizons of Change

UNIVERSITY OF MANITOBA

Proposal from the Faculty of Dentistry, University of Manitoba to establish an integrated DMD/PhD program

The department/unit planning on delivering a new graduate program prepares a New Program Proposal submission addressing the following matters for assessment. Guidelines for information required, headings and format are given below. The submission is to include an Executive Summary at the beginning of the written proposal and a projected date of program implementation.

Proposal to develop an integrated DMD/PhD in the Faculty of Dentistry

EXECUTIVE SUMMARY

Dental education at the University of Manitoba has traditionally provided excellent training in clinical dentistry, indeed the dental program is known for the quality and competence of its graduates. With the modern knowledge explosion, dentistry like other fields, requires ongoing underpinning of the clinical methodologies with new cutting edge research in both basic and clinical dental areas. For a variety of reasons, there is a significant shortage of appropriately trained clinical researchers required to address relevant issues and to translate dental research from the laboratory and clinical testing phases of development to the chair-side. To develop the dental clinician-scientists who can operate comfortably in either environment, who can identify important relevant clinical problems and who can transfer important new methodologies to patient care, the Faculty of Dentistry is proposing to create and implement a DMD/PhD program. Although several such programs exist in the United States, such a program will be unique in Canada. It will provide the foundation to educate and train future dental clinician-scientists to support renewal of dental research in the province and extend the reputation of the province and University beyond the traditional borders.

Our proposal will build on the successful undergraduate dental research experience of the B.Sc. (Dent.) program. This is now the largest research program for undergraduate dental students in the country having expanded from about 7-8 students in 2007 to approximately 25 students in 2008. We have acquired funding from Manitoba Medical Service Foundation (MMSF), Manitoba Institute of Child Health (MICH), the Manitoba Dental Association (MDA) and the Aboriginal Capacity and Developmental Research Environments (ACADRE) to support two summers of student research. Building on this base, the DMD/PhD program intends to use the B.Sc. (Dent) program to identify students with outstanding potential research capabilities and to pair them with faculty researchers, most of whom are funded by national or local agencies. These students will pursue a PhD integrated within the DMD program. These students will follow an extended program of clinical dental education and concurrently train in a research laboratory to a PhD level of expertise (see appendix with graphical presentation of this program). A great advantage of this program is that it will integrate the acquired clinical knowledge of the DMD with the rigorous PhD training extant in both programs in the faculty. Thus no new resources or materials are required. This is of course an important added benefit for the Faculty and the University. Furthermore the proposed program will bring national and international recognition as a "research intensive" faculty and institute.

In conclusion, implementation of the DMD/PhD in Dentistry represents a ground-breaking endeavor which ultimately is cost-neutral. It will integrate with other graduate-level programs in the Faculty and the university and the research experience afforded to these students will rank with the best in North America. As a cutting-edge program supported by the Faculty of Dentistry, the researchers in the Faculty, and various other organizations including the Manitoba Dental Association, our Faculty in unequivocal terms recommends immediate approval of the DMD/PhD program.

A. PROGRAM DESCRIPTION

1. Rationale, objectives and features

I. Clearly state the rationale for the program.

Scientific and technological advancements that generate new knowledge continue to occur at unprecedented rates. In order to maintain the status of a respected scientifically-based health profession, dentistry must appreciate and incorporate these advances within its education and patient care system. The continued evolution of the dental profession will depend on the discipline's ability to translate advancements in biomaterials, molecular biology/medicine, and integrated interdisciplinary services to clinical settings. Traditionally, dental school graduates do not have an appreciation for the application/importance of research and discovery to patient care activities and are not adequately prepared to embrace technology-based education/training and informational resources critical to life-long learning and professional growth. The general lack of incentives for clinical dentists to incorporate research experiences/training or follow an academic career course, particularly involving a requirement for original research as part of their job, has resulted in many unfilled faculty positions both in Canada and the United States. Indeed a crisis looms for dental schools in North America as it has become very difficult to fill these faculty positions with full-time dentally qualified individuals capable of academic scholarship and willing to accept lower levels of remuneration compared with private practice. This is particularly important in light of current faculty shortages (250 unfilled positions in US dental schools as of 2004-2005) and the most recent data regarding US dental graduates as the 2003 ADEA Survey of Dental School Seniors demonstrated that only 1.9% of graduates (47 out of 4,000) were interested in pursuing academic/research careers.

Recent reports have hypothesized that this problem may be overcome by dental school curricula that create sophisticated consumers of research, foster an appreciation of research/discovery, and stimulate an interest in academic/research careers. These curricula enhance access, acceptance, and applicability of science and scholarship through integration of biomedical/clinical sciences, scholarly approaches to evidence-based paradigms in clinical patient management, and application of biomedical and technological advances to clinical practice settings. Approaches have included a mandatory dedicated four-year research/scholarly curriculum track as well as various courses, special programs, or elective student experiences. Each approach has demonstrated a positive influence on student attitudes toward careers in academic dentistry. Indeed, new dental faculty have indicated that student participation in research/scholarly activities and active mentorship by faculty were crucial factors in developing their interest in academic/research careers. ***Previous reports have emphasized the need for dental schools to integrate research and scholarship into the curriculum such that they produce future leaders for the profession and it has been estimated that dental schools must engage 20% of their best and brightest students with enriched academic curricula for 20% of their educational program in order to accomplish this.***

II. Clearly state the objectives of the program.

This program will be unique to Manitoba and to Canada. The objectives of the program are:

1. *To develop dental clinician scientists to undertake leadership roles in dental research and education*
2. *Provide a pipeline for development of qualified scientists to maintain the level of excellence of teaching and research at the Faculty of Dentistry, University of Manitoba, as well as to disseminate our reputation to other dental schools across the country.*
3. *To train highly competent clinician scientists who will make significant advances in our basic understanding of oral infectious and systemic diseases.*
4. *To train scientists conversant in dental diseases who can translate basic research findings into clinically relevant diagnostic, preventive, and therapeutic methods.*

III. Indicate how the program fits within the research/academic priorities of the unit and faculty/school.

The Faculty of Dentistry at the University of Manitoba has a long history of academic research and scholarly activity. From its inception in 1958, basic biomedical research related to dental diseases and systemic conditions has been a priority of the faculty. Indeed the Faculty was actually the first site in North America to offer a Ph.D. in Oral Biology. Researchers have been internationally recognized for their outstanding achievements in such areas as oral microbiology, bacterial characterizations and salivary research[1]. These researchers together with more recent appointees have formed the core of a very active research program in the Faculty. Indeed the majority of researchers has been funded by national and local agencies for many years and collaborate with researchers in Medicine, and at other institutions nationally and internationally. They have also trained many graduate students at both the M.Sc. and Ph.D. levels (the Director of the Canadian Space Agency, Biological Division, Dr. N. Buckley is a former Ph.D. student with Dr. Hamilton). Thus graduate level research is vitally important in the faculty. During the past year, the Faculty has undertaken a major expansion in the B.Sc. (Dent) undergraduate research program. Structured in a similar fashion to the B.Sc. (Med.) program, it now has approximately 25 students enrolled – about the equivalent of one complete class of undergraduate dental students. In addition with the major emphasis on research experience, faculty members now provide structured learning workshops over the summer for these students, reflecting our commitment to research. To complement this enhanced availability of student research and the broadened access to faculty research expertise, the proposed DMD/PhD program is the next logical step in the development of a vibrant local dental/ systemic health research program.

[1] Dr. Bowden has a bacterium named after him; Dr. Hamilton has received honorary degrees from both Laval University and Malmo University, Sweden; Dr. Dawes has received international awards for his salivary research

IV. Highlight novel or innovative features of the program.

No such program exists in Canada, thus this program will be unique both to the province and to the country. In Manitoba, advanced training in dental research can only occur within the Faculty of Dentistry at the University of Manitoba as only here does the expertise exist to supervise students at the Ph.D. training level through undertaking original research. Ultimately students will become clinically competent as dentists but concurrently acquire the skills to function as independent scientists supporting the dental profession. Furthermore, and of particular importance to this program as clinician/scientists, these students will be in a unique position to apply their research findings directly to clinical situations, thus interacting at both levels.

2. Context

I. Indicate the extent to which the program responds to current or future needs of Manitoba and/or Canada.

No opportunity for dental research training exists in Manitoba except at the Faculty of Dentistry, University of Manitoba. The present proposal will extend this opportunity from the undergraduate level (B.Sc. (Dent) program) to the independent investigator level through training and experience at the Ph.D. level. No similar Ph.D. level programs exist in Canada to the best of our knowledge. UBC has a stand-alone M.Sc. level program. Hiring of new faculty members in Dentistry will require high levels of expertise and training in research as the Faculty renews itself. The proposed DMD/PhD program will meet ongoing current and future needs and requirements for researchers to provide teaching at the undergraduate level, high level research productivity and nationally recognized training opportunities in dental and biomedical research.

II. What is (are) the particular strength(s) of the program? e.g. this program will be known for its strength in areas A, B and C in the discipline.

The Department of Oral Biology has been noted for its expertise in basic dental-related research. In fact several years ago, MacLean's magazine made particular note of the department as internationally recognized. We expect to continue this path of excellence by training a majority of students in basic laboratory biomedical/biodental research. This will begin at the B.Sc. (Dent) level, and for a few select students who display high potential, we will provide the opportunity for them to proceed beyond this undergraduate degree to develop additional research knowledge and skills combined with their dental education leading to the DMD/PhD. Thus the strengths of this program are to provide students with an introduction to research and to allow them to develop the abilities and expertise to function as independent investigators. In addition other areas within the faculty will also be open to students. For example the faculty has a very active Orthodontics research program as well as community-related epidemiology research ongoing. Depending on students' interests, these areas will also provide potential research fields as well as an opportunity to integrate into a D.M.D/Ph.D. program. It should however be noted that we envision all programs to involve cross-disciplinary supervision and interactions between students and faculty members.

III. What will outsiders know the program for in terms of areas of concentration or specialization?

As a unique program at the university, outsiders will know the program from two differing views. The general public will see graduates of the program undertaking important research in the dental area and acting as public interpreters of both clinical and basic research. Other faculties of dentistry in Canada or the US will know the faculty for potential highly trained graduates able to undertake clinical or basic research while providing undergraduate dental instruction expertise.

IV. Indicate the extent to which the program extends or uses existing programs at The University of Manitoba as a foundation.

This DMD/PhD program will build on several existing programs. As mentioned above, the present B.Sc. (Dent) program will be used as the foundation for initial experience and demonstration of research potential in undergraduate dental students. It will also provide the means of identifying students who display the capacity to undertake high level research training. In addition the Ph.D. program in Oral Biology will also be used as a model. Interaction between DMD/PhD and regular Ph.D. graduate students will provide a wealth of opportunities for interactions and experiences not often available to either group individually.

V. Indicate the extent to which the program enhances co-operation among Manitoba's universities.

Other universities in Manitoba feed the D.M.D. program through a competitive entrance process. Similarly entrance into a DMD/PhD program will essentially be competitive. Potential for research collaborations or joint supervision of DMD/PhD students exist depending on the research project.

VI. Indicate the extent to which the program is likely to enhance the national/international reputation of The University of Manitoba.

The DMD/PhD program in Dentistry will enhance the national/international reputation of The University of Manitoba as it will train dental researchers/clinicians who will be highly competitive for faculty positions here at the university as well as at other institutions worldwide. This will provide a tremendous added bonus to this program which will benefit the University of Manitoba.

VII. Indicate where similar programs are offered in Canada and North America. (Tabular format).

United States and Canada:

- *Baylor*
- *Birmingham*
- *Marquette University*
- *Medical University of South Carolina*
- *New Jersey Dental School*
- *San Antonio*
- *South Carolina*
- *UCSF*
- *University of Western Ontario (though not an integrated program)*

3. Specifics

I. Indicate the credential (degree or diploma) to be granted a student on successful completion of the program.

No new credential is proposed. Upon graduation students will receive a D.M.D. and a Ph.D.

Where a new credential is being proposed, provide:

a) Rationale for the name
b) An indication of whether the credential is offered under the same name, similar or different names elsewhere (and if different, state why a new name is chosen)
c) A list of those (individuals, groups, universities, organizations etc.) consulted in arriving at the new name
d) An indication of whether accreditation for the new degree is required by an external body

II. Describe the program under the following headings:

a) Admission requirements

Students identifying the DMD/PhD program will largely be recruited from the pool of students undertaking the B.Sc. (Dent) program and will therefore have met admission criteria and selection processes to enter dentistry. A minimum GPA of 3.0 is required for the B.Sc. (Dent) program. After completion of the first year of undergraduate dentistry and a summer of research in the faculty under the supervision of a qualified faculty advisor, the option of undertaking the DMD/PhD will be discussed with high achieving students. Students who are not in the B.Sc. (Dent) program but with existing research experience (for example some students in the DMD program possess MSc degrees) and who may wish to enter the DMD/PhD stream will also be considered. Standard selection processes of the Faculty of Graduate Studies (FGS) will be applied and applications will be processed and rated within the Faculty of Dentistry by the standing Graduate Studies & Research Committee.

b) Course requirements. Note: if new courses are to be introduced as a result, complete course introduction forms will be required.

In consultation with the FGS, we intend to make course requirements align with present requirements. In consideration of the large number of credit hours associated with the DMD program which has 366 credit hours in 56 courses and in consultation with FGS, DMD/PhD students would take a minimum of 12 credit hours at the 7000 level. No new courses will be introduced. Courses will be drawn from present offerings in Oral Biology and individual departments in Medicine or interdisciplinary courses such as Cell Biology.

c) Evaluation of students procedures.

Students will be evaluated according to criteria set out in the DMD and PhD programs and following standards presently existing in the Faculty of Graduate Studies.

d) Thesis, practicum or comprehensive procedures and regulations

The DMD/PhD will require original research expected at the Ph.D. level in programs such as Oral Biology. Thesis requirements will follow those of the FGS as will comprehensive requirements. All other regulations will be those of the FGS.

e) Ability to transfer courses into the program

The undergraduate DMD is very specific in its course requirements and transfers cannot be done. In the case of the PhD, it will be dependent on regulations of the FGS.

f) Other procedures and regulations specific to the program, but not covered above - Supplemental Regulations

4. Projections and Implementations

I. Provide a sample program listing for a typical student in the program and a timeline for completion of their studies leading to the credential proposed.

This program will be an integrated program (see attached example modified according to the reviewers suggestions on page 18).

- *Students will complete the first year of undergraduate dental studies and enter the B.Sc. (Dent) program. Top caliber students will be identified from academic performance in first year and research performance.*
- *In the second year of the undergraduate program, a modified scheduling will take place such that students will begin research for the Ph.D. This will occupy approximately one half of their time commitment. The remaining one half will be devoted to undergraduate clinical work. The second summer will be a continuation of their first summer's research as well as the Ph.D. research of the second year.*
- *Year three will be devoted almost exclusively to Ph.D. research with a small continuation of clinical work. Summer of third year will again be devoted to research.*

- *Similarly fourth year will mirror third year with a concentration on research. The summer of fourth year will again be centered on research.*
- *Year five will incorporate continued research effort at a similar pace as in year four. This will enable the collection of the majority of the Ph.D. data. The summer after this year will again be focused on research.*

- *Year six will see a shift back to the undergaduate D.M.D. program with a small committment to the Ph.D. researchundergraduate dental requirements sufficient for the D.M.D. program.*
- *Year seven will be similar to year six.*

- *Awarding of the D.M.D. will not take place until defense of the Ph.D. is successfully completed.*
- *Both degrees will be awarded at the same time.*

II. Estimate the enrolment for the first 5 years of the program and provide the evidence on which the projection is based.

We would not anticipate more than two students undertaking this program in any one year and believe that most likely only one would be enrolled per year given the heavy time commitment. Overall we anticipate a maximum of 4-6 students in this program at any one time.

III. State whether there is an intent to provide some aspects of the program through distance education and if so, how this will be effected.

No intent to provide distance education.

IV. Provide a schedule for implementation.

Summer 2008: *acceptance of first year dental students into B.Sc. (Dent) program [this has been done. The program has expanded from 8 students in 2007 to 26 students in 2008. Funding base has expanded from MMSF to include MICH and MDA]*

Spring 2009: *approval of program by COPSE*

Summer 2009: *identification of high performing students*

Fall 2009: *registration of a maximum of 2-3 students (from the pool of B.Sc. (Dent) students in summer 2008) in the DMD/PhD program. Note: if only 1 student wishes to pursue these studies first year, the next class of B.Sc. (Dent) students will be the pool for potential DMD/PhD students. This cycle will continue year after year.*

B. HUMAN RESOURCES

1. Faculty

List all faculty members associated with the program (include adjuncts).

I. For research-based programs (i.e. thesis) indicate their expected association as:

a) Thesis advisors *Only those holding the Ph.D. degree in the Faculty:*

A. Iacopino, D.M.D., Ph.D., A. Banerjee Ph.D., R. Bhullar Ph.D., C. Birek D.M.D., Ph.D., P. Chelikani Ph.D., L-P Choo-Smith (adjunct) Ph.D., N. Fleming Ph.D., S. Gelskey Ph.D., J. Gilchrist Ph.D., A. Karim Ph.D., G. Kirouac Ph.D., C. Lekic D.M.D., Ph.D., K-Z. Liu (adjunct) Ph.D., A. McNicol Ph.D., G. Nogueira,D.M.D., Ph.D., R. Roperto,D.M.D., Ph.D., R. Schroth Ph.D., D. Scott (adjunct) Ph.D., J.E. Scott, Ph.D., A. Shaw (adjunct) Ph.D., M. Sowa (adjunct) Ph.D., W. Wiltshire, Ph.D.

b) Thesis committee members

A. Iacopino, S. Ahing, J. Asadoorian, A. Banerjee, H. Benitez, R. Bhullar, C. Birek,T. Bonstein,N. Boorberg, D. Brothwell, P. Chelikani, L-P Choo-Smith (adjunct), J. Curran, D. Davidson, C. Dong, N. Fleming, S. Gelskey, E. Ghiabi, J. Gilchrist, A. Karim, G. Kirouac, S. Lavigne, C. Lekic, K-Z. Liu (adjunct), L. MacDonald, N. Mazurat, R. Mazurat, A. McNicol, G. Nogueira, J. Perry, I. Pesun, V. Pruthi, R. Roperto, D. Schonwetter, R. Schroth, D. Scott (adjunct), J.E. Scott, A. Shaw (adjunct), D. Smith, M. Sowa (adjunct), L. Stockton, A. Stoykewych, V. Swain, M. Wener, W. Wiltshire, C. Yakiwchuk

Faculty members in other faculties, for example the Faculty of Medicine and the NRC Biodiagnostics Institute are regular members involved in student supervision and research in the Faculty of Dentistry.

c) Course teachers

No new courses will be introduced. No impact on teaching.

II. For non-research-based programs (i.e. practicum or comprehensive) indicate their expected association as:

a) Student program advisors
b) Course teachers

Provide an abbreviated* c.v. for thesis advisors and student program advisors. For others, provide only a list (by year) of graduate courses taught over the last 5 years or a rationale for the individual's inclusion in their respective category.

Indicate the extent of participation of thesis advisors listed in I.a) above in other programs and anticipated participation in the proposed program (using relative measures, e.g. 80/20 split program A/program B).

Describe the impact of the proposed program on teaching loads.

2. Support Staff

Indicate the role or participation, if any, of clerical or technical support staff in the delivery or administration of the program.

No additional requirement

3. Other

Indicate the participation in the program, if any, of individuals or groups external to the University of Manitoba and provide a rationale for their participation. List the credentials for each individual/group supporting their involvement.

None

C. PHYSICAL RESOURCES

1. Space

Describe the physical space in which the students will carry out this program of study and in which this program will be administered. (Classrooms for existing courses are assumed in place and no comment is required, but may be included if desired.)

The resources and space for the Undergraduate program are in place and no modification is necessary. Research programs will occur in faculty research laboratories under the supervision of existing faculty members. All equipment for research is already in place.

A 'resource implication' statement is required from the Director of Student Records. (from Neil Marnoch)

"A model for dual degrees involving PhD programs is in existence. For a number of years Student Records has supported the dual degree MD/PhD program. Although administering this program involves a fair amount of manual intervention, it seems manageable due to the low number of students involved. Your proposal is similar and also is planned to accommodate only a few students each year. There is quite a big impact on the Registrar's Office, however, particularly with respect to managing the students' records, registrations and fees.

With regard to fee, in the MD/PhD program students are assessed either the Medicine program fee or the PhD program fee in each year depending upon their primary activity. In each year that the student is assessed the Medicine fee, the student is also assessed the graduate Studies Continuing fee. Based on the sample program you provided, students are primarily studying Dentistry in Year 1, 5, 6, & 7. They are primarily studying toward the PhD in Year 2, 3, & 4. Dental fees are assessed in each of four years. PhD Program fees are assessed in each three years, plus a Continuing Fee for each other year a student is studying toward the degree. I would see the student being assessed the Dental Fee in Year 1; the B.Sc. (Dent) fee (nominal) in the Summer of

Year 1; the PhD program Fee in each of years 2, 3, and 4. The Dental Fee would then be assessed for Year 5, 6, and 7 along with the PhD Continuing Fee for the PhD program in each of these years."

I. Students

Student offices, study carrels, study/reading rooms, rooms with computer connections (if not included in other space), laboratory space, other research or study space as may be appropriate for the program.

No impact – students are already registered.

II. Administrative

General office, graduate chair office (if applicable).

Not required. The program will be administered through existing resources in the Dean's Office. As the students will be drawn from the B.Sc. (Dent) pool, where they are presently registered, their registrations will simply be transferred to the DMD/PhD program.

2. Equipment

I. Teaching

Instructional equipment needed in delivery of courses/workshops/seminars in the program (projectors, video, computers, etc.)

None

II. Research

Major research equipment accessible to graduate students in the program, plans to retire/upgrade equipment or to obtain new equipment over the next 5 years.

The Faculty of Dentistry is fully equipped to undertake research at the MSc and PhD levels as these programs have existed in the faculty for many years. Students in the DMD/PhD program will make use of existing equipment.

A 'resource implication' statement is required from the Director of Information Services Technology.

As these student will already be registered at the University of Manitoba (and thus have usernames and passwords already set up) no additional impact on IST will occur.

3. Computer

Facilities available to graduate students in the program (laptops, PC's, mainframe, scanners, printers, etc.), and anticipated usage of open areas, facilities reserved for students in the program, availability of a University account for use with email, internet access, etc.

The faculty has a small computer room for use by graduate students. In addition the faculty is entirely wireless. We would expect to have to purchase one additional desktop computer for the general use area but being wireless has meant the students can use laptops from the labs. All students entering Dentistry must have wireless laptops. Therefore accessibility to computers and the internet is excellent.

4. Library

a) Describe existing resources available for use in the program

No new resources are required with regard to the libraries as this is really an amalgamation of the DMD program and the PhD program now available in Oral Biology. Furthermore library resources will be dependent on the research program of individual students and their supervisors who will largely be scientists in Oral Biology who presently run research programs. Research literature is presently available, both electronically and in hardcopy from the Neil John Maclean library in the Brodie centre. This literature already meets most needs for graduate students and researchers and will meet the needs of DMD/PhD students.

b) Describe new resources required –

None are required.

A 'resource implication' statement is required from the Director of Libraries.

Your unit should comment on the Library statement and any new resources that are required for the program.

The library supports this program; no new resources are needed. Please see statement attached.

D. FINANCIAL RESOURCES

1. Delivery Costs

List and describe immediate and projected additional costs involved in running the program.

No additional costs are anticipated to run this program as we anticipate only 1-2 students initially in the program. This is also dependent on in-house faculty researchers' willingness to take on research students in addition to their present load of traditional track graduate students.

Tuition:

Students in dentistry are paying approximately $20,000 per year while graduate tuition is $4100. Students would pay tuition on a prorated basis depending on time commitments to each program. Thus in the example provided, in year two (the first year of entry into the DMD/PhD) tuition for the dental program would be approximately ⅓ of the regular undergraduate dental fee and approximately ⅔ of the Graduate Studies tuition fee.

I. Costs associated with Human Resources implications under the headings B. 1, 2 & 3
II. Costs associated with Physical Resources implications under the above headings B. 1, 2 &3
III. Costs associated with research not covered above.

For the categories above indicate which costs are to be covered by internal (to unit) reallocation of existing budget(s) and which costs represent need for new funds.

2. Student Support

Indicate how and to what extent support of students is anticipated and indicate what commitment is made for student recruitment.

As marks of student support for research and research programs in the faculty, this past year our B.Sc. (Dent.) program has expanded from a previous registration of 7 students to 25 students. In addition we have formed a Student Research Group (SRG) which has hosted a national student research meeting. Plans for integration of a "research experience" module into the undergraduate curriculum is underway. The development of the DMD/PhD program will mark the high end of student research development. From the undergraduate research experiences, students for the DMD/PhD program will be recruited.

3. Identification of new financial resources

Indicate any new sources of funds that are anticipated for supporting the program.

The Dean's Office has allocated $50,000 annually to support the B.Sc. (Dent) program which will form the foundation for entry level students into the DMD/PhD program. New studentships have been acquired from MICH and the MDA as well as ongoing support from MMSF for our programs in research.

4. Balance sheet

Provide a financial statement summarizing the expected costs and the revenue anticipated. Present a financial plan that includes all costs from start-up to achievement of a "steady-state" operation of the program. Include such items as capital start-up needs and phasing in of FTE growth.

Neither additional costs nor additional revenues are anticipated.

E. Supporting documents

Provide letters of support from departments/faculties/units and outside groups/agencies/organizations as appropriate.

MANITOBA DENTAL ASSOCIATION
103 - 698 Corydon Avenue, Winnipeg, Manitoba R3M 0X9

Phone: (204) 988-5300
Fax: (204) 988-5310
www.manitobadentist.ca

May 15, 2008

Dr. J. Elliott Scott
Associate Dean (Research)
Faculty of Dentistry
University of Manitoba
Winnipeg, MB R3E 0W2

Dear Dr. Scott,

Thank you for your letter informing us that you are intending to develop a DMD/PhD degree program here.

Please accept this letter as our support for the program. We are encouraged that you have identified the value related to moving dental research from clinical testing to chairside procedures and developing dental clinician – scientists who can transfer this knowledge to patient care.

This program, as we understand it, will be unique to Canada. To have, in our province, a way to train dental clinician – scientists will go a long way to enhance the reputation of the faculty and attract fulltime educators.

We look forward to hearing how the program will advance innovation and technology in the oral health field which will benefit the public of Manitoba.

On a very positive note, to develop anything new that will be cost-neutral is almost unheard of today.

We encourage the approval of the DMD/PhD program in the Faculty of Dentistry. If we can inform others of our support, please let us know.

Thank you.

Yours truly,

P.A. Kmet, BSc., D.M.D.
President

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RIVERVIEW
HEALTH CENTRE

October 14, 2008

Dr. J. Elliott Scott, Associate Dean (Research)
Faculty of Dentistry
780 Bannatyne Avenue
Winnipeg, MB
R3E OW2

Dear Dr. Scott:

Re: Proposal to Establish an Integrated DMD/PhD program

I read with great interest the proposal by the Faculty of Dentistry to develop an integrated DMD/PhD program. For many years the Faculty of Dentistry has provided dental services to residents and patients at Riverview Health Centre. In conjunction with the Faculty of Dentistry, RHC is currently in the process of developing a plan to renovate the dental service area. This will be a site in which dentistry students can be educated in the provision of optimal dental care to older persons, using contemporary equipment designed to meet their unique needs.

This new DMD/PhD program will strengthen the relationship between our two organizations, both of which have goals of education and research. For many years, RHC has encouraged and supported the conduct of basic and applied research that is congruent with the mission and goals of RHC and will potentially be of benefit to the residents and patients. Should this DMD/PhD proposal be approved and implemented, I would welcome the opportunity to discuss the allocation of space in our Research Centre to support DMD/PhD student and faculty research that is focused upon the dental and oral health needs of older persons.

You have my strongest support in this initiative.

Sincerely yours,

[sent electronically for:]

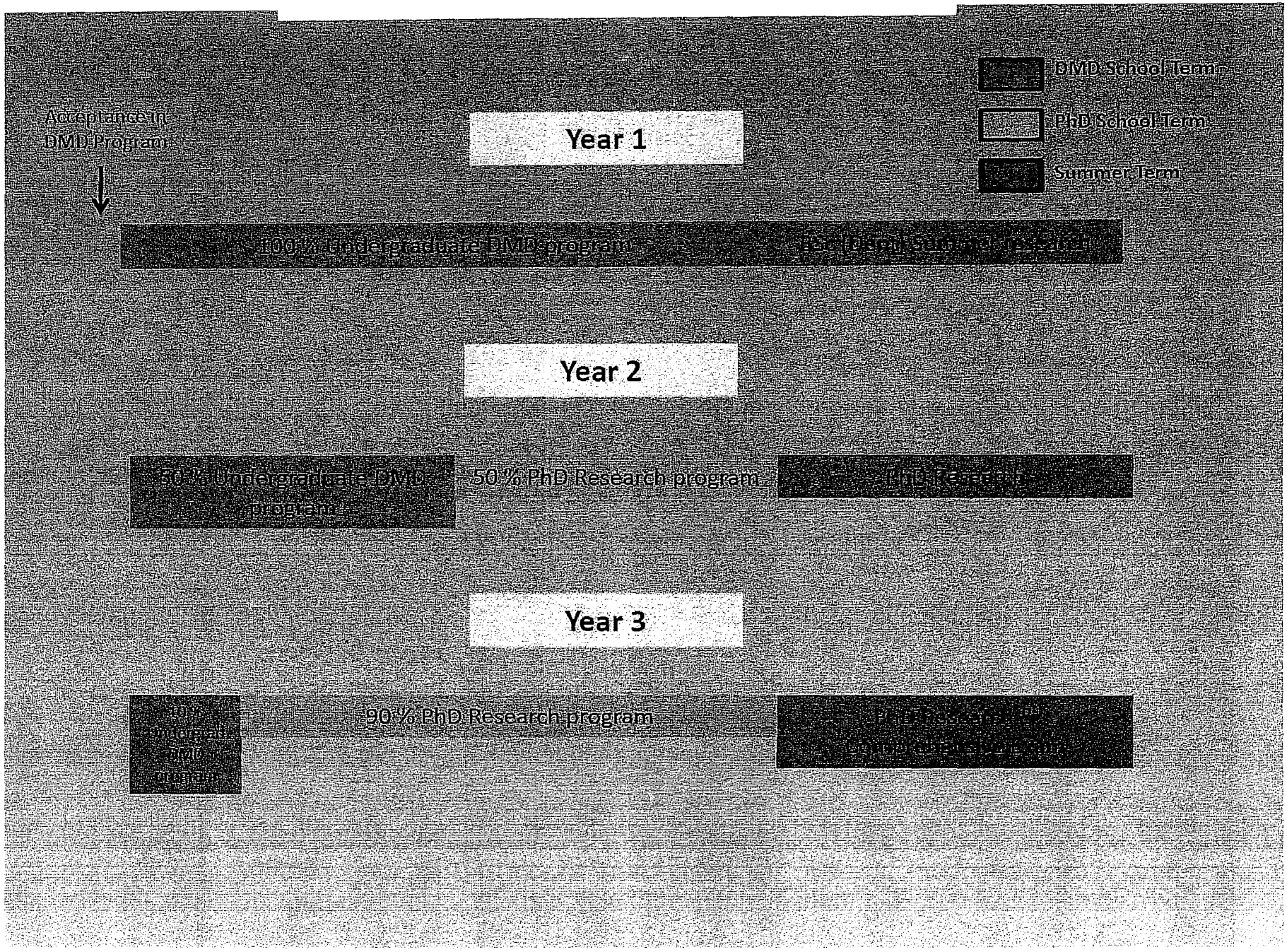
Norman R. Kasian
President & CEO

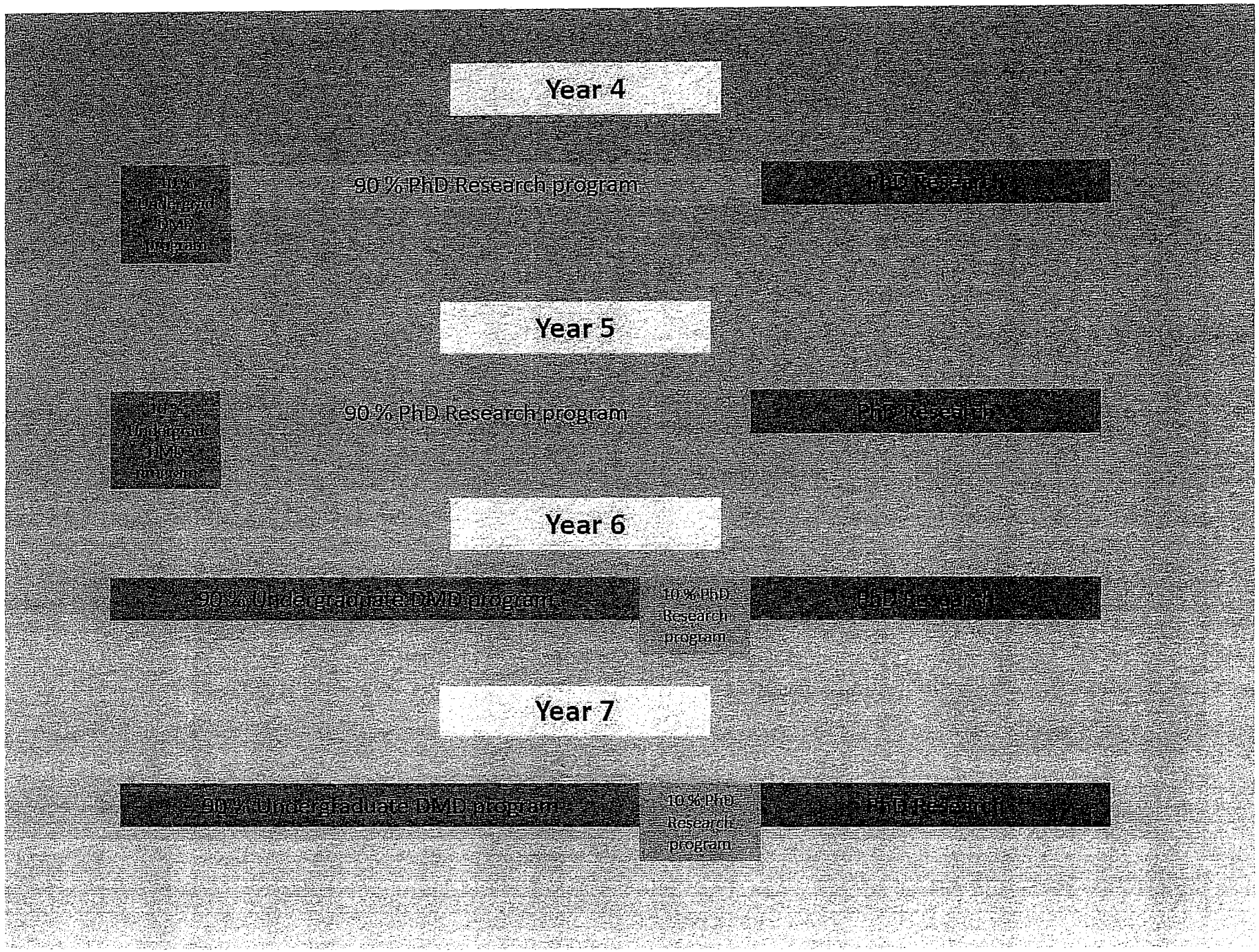
cc: Dr. Anthony Iacopino, Dean, Faculty of Dentistry, University of Manitoba
Dr. John Bond, Advisor Research and Applied Learning and Manager, Research, RHC

1 Morley Avenue • Winnipeg, Manitoba, Canada • R3L 2P4
Telephone (204) 452-3 (204) 287-8718

An example of a DMD/PhD Program as suggested by the external review conducted in January, 2009

Proposed Year-by-Year program for the DMD/PhD




Year 4
10 % Undergrad DMD program
90 % PhD Research program
PhD Research
Year 5
10 % Undergrad DMD program
90 % PhD Research program
PhD Research
Year 6
90 % Undergraduate DMD program
10 % PhD Research program
PhD Research
Year 7
90 % Undergraduate DMD program
10 % PhD Research program
PhD Research

Letter of support from University of Manitoba Libraries

The University of Manitoba Libraries

INTER-DEPARTMENTAL CORRESPONDENCE

Date: April 29, 2008

To: Dr. J.E. Scott, Associate Dean, Research, Faculty of Dentistry

From: Anne Thornton-Trump, Dental Librarian, Neil John Maclean Health Sciences Library

Re: Proposed: Doctor of Dental Medicine (DMD)/PhD Program

The Libraries' is able to support the proposed DMD/PhD program in Dentistry for the clinical researcher. This statement is based on the 2002 Libraries' review for the Graduate Programs in the Faculty of Dentistry, the 2002 Libraries' assessment for the proposed Pediatric Dentistry program and various Libraries' assessments for the undergraduate DMD courses in Dentistry.

The Libraries' currently support the existing 4 year DMD undergraduate program, the B.Sc. (Dent) research program and M.Sc. and PhD. Programs in Oral Biology. The primary library resources used by the research programs are dental and medical journals. According to the analysis completed for the graduate review in Dentistry the dental journal collection was determined to be capable of doctoral level research. Reviews for medical departments (e.g. Biochemistry &.Medical Genetics, Community Health Sciences, Human Anatomy & Cell Science, Immunology, Pathology, Pharmacy & Therapeutics, Surgery) have identified similar strengths in the Libraries' journal holdings, and if anything, journal holdings have improved since 2002 with the Libraries' acquisition of major journal packages through consortia such as CRKN (Canadian Research Knowledge Network).

As the DMD/PhD program will not include any new courses and the research component will be supervised by faculty/researchers in Oral Biology, special library resources will not be required.

The Libraries' collections are able to support the proposed DMD/PhD program.

THE UNIVERSITY
OF MANITOBA
LIBRARIES

LIBRARY SUPPORT STATEMENT FOR PROPOSED COURSE CHANGES

The signatures below endorse the findings of the bibliographer whose comments are attached. They do not necessarily indicate that the library has the resources to support the course change as outlined in the departmental submission.

NAME OF PROGRAM

Faculty: Dentistry

Department: Dental Medicine

Course no. and names: Doctor of Dental Medicine (DMD)/PhD Program

SUPPORT STATEMENT PREPARED BY: Anne Thornton-Trump (Bibliographer)

APPROVED BY: Jan Horner
Coordinator, Collections Management

Director of Libraries

DATE: April 29, 2008

UNIVERSITY OF MANITOBA

FACULTY OF DENTISTRY
SCHOOL OF DENTAL HYGIENE
University of Manitoba

Traditions of Excellence, Horizons of Change

UNIVERSITY OF MANITOBA

Response of the Faculty of Dentistry to the Review of the Proposal to establish an integrated DMD/PhD program

Reviewers:

Dr. Ed Yen, Former Dean, Professor, Orthodontics, Faculty of Dentistry, University of British Columbia, Vancouver, B.C.

Dr. Mark Filiaggi, Assistant Dean, Research, Dalhousie University, Halifax, N.S.

January, 2009

External Review of DMD/PhD Proposal

Faculty of Dentistry, University of Manitoba, January 12-13, 2009

Submitted by Drs. Mark Filiaggi and Edwin Yen

Comparisons with related program(s)

There are currently no DMD (DDS)/PhD program in Canadian dental schools. However, a number of programs exist in the US institutions, several of which are supported by the NIDCR. These programs (examples of which include the DDS/PhD program at the University of Maryland, the Dental Medicine Scientist training program at Medical University of South Carolina, and the DMD/PhD program at the University of Connecticut Health Center) are nominally 7-year programs, with Years 3-5 devoted principally to doctoral research activities. Completion of clinical requirements would then occur primarily in the last 2 years of the program. The proposed program at the University of Manitoba is structured similarly, though in a somewhat more compressed time frame (see Recommendation # 1). [1]

Breadth and depth of Curriculum

The DMD curriculum as needed in this proposed program is already well established within the Faculty of Dentistry and requires no additional consideration other than to the timing of the delivery of the preclinical and clinical components (see Recommendation # 2). [2] There are currently a number of relevant graduate-level courses existing both within and outside the Faculty to address the didactic component of the PhD program, though the Faculty may wish to develop additional courses as appropriate to incorporate more fully the clinically relevant aspects of this program of study. [3] The proposed minimum of 12 credit hours may require some further consideration and flexibility - with a possible reduction in this requirement, particularly in light of the quality and strength of the basic science curriculum currently present in the DMD program.

Of some concern to these reviewers is the diversity of potential mentors (project supervisors) for the doctoral studies to be undertaken. There is clearly a strong basic science group (Oral Biology) within the Faculty to support this component. Currently, however, there are a more limited number of clinical scientists and translational research mentors available to prospective trainees [4] (see Recommendation # 10) that may ultimately limit doctoral training opportunities in clinically oriented areas.

Demand for graduates with the proposed credentials

There remains a critical shortage of academic clinician-scientists to fill chronically vacant positions that exist not only in Canadian dental schools, but in North America as a whole. Graduates from this program having both a DMD (DDS) and PhD will undoubtedly be highly recruited, particularly by the University of Manitoba.

Excellence of the Faculty and Breadth of Expertise

There is an excellent cadre of basic scientists with continuing external funding and experience with PhD mentorship. There are several recent appointments with enthusiasm for clinical and translational research but these areas will continue to require further development if the program[5] is ever to meet its unique mission of developing researchers in the area of clinical and translation research. The Dean's Office anticipates several impending retirements that will permit recruitment of new faculty and this should allow strengthening in these areas. As with all research programs there is the constant concern of sustaining operational grants and equipment in an increasing competitive funding environment. The Faculty as a whole may need to develop internal strategies to optimize funding success which will directly sustain the PhD program.

Adequacy of Facilities, Space and Other Resources

Laboratory space appears adequate given the small number of students that will be registered into this program. Equipment is aging but the Faculty is moving to renewing equipment as needed. Collaboration with units such as the NRC will provide access to excellent facilities and equipment. The Registrar and the internal Faculty administrative staff feel quite prepared to handle the additional student services. The Library is well structured to provide all information services electronically and in a distributed manner. The Library also provides student orientation and training in informatics and its space planning will move towards providing student learning environments such as meeting rooms.

Strengths and Weaknesses of the Proposal

Recruitment of PhD potential is based on participants of the BScDent program. Manitoba faculty feel very confident that they will be able to identify appropriate candidates since they will have worked with these students quite intimately for the last year plus the summer research months. The reviewers remain skeptical that enthusiasm for a summer research program at the undergraduate level can be translated into a commitment for a 7-year PhD level research program.[6] To be fair, many of the dental students may already have had a Master's degree research experience or equivalent. Likely the most appropriate students will be those who self identify and this has occurred already.

An incoming admissions policy has been proposed (or may already be in place) to limit admission to Manitoba students for 25 of the 29 first year positions. This will seriously limit the opportunity to recruit research oriented students from across Canada when the ratio of research oriented applicant is historically low especially for PhD aspirants. It may be necessary to review this admission policy or develop alternatives for admitting research-oriented students from a greater applicant pool.[7]

The Faculty has an excellent base of Oral Biology basic science PhD mentors but a much smaller group with any clinical or translational research expertise. This has been partially resolved by recruiting adjunct faculty[8] and this process will need to be sustained until more permanent appointments can be recruited.

While there are verbal financial commitments for student stipends and contingency funds for the inevitable delays and interruptions of PhD projects, there needs to be a budget created[9] to clearly identify resources and costs for planning purposes.

There remains the considerable task of allocating the various components of the DMD curriculum and of the PhD curriculum to a student timetable. Department Heads expressed enthusiasm for the

The collaborations with other research facilities (especially the NRC unit) is a definite asset to this program and further collaborations will be needed to optimize the research opportunities and mentor resources for the PhD candidates.

The existence of a graduate student community to develop a culture of interdisciplinarity and support needs to be cultivated with a seminar series, journal clubs and possibly social events.[11]

An overarching steering committee plus advisory committees for each student are required[12] to facilitate the inevitable conflicts that will occur with new joint degree programs that will involve facilities and faculty from different units.

Recommendations

1. Commit to a 7-year minimum program with a program designed to provide a more continuous research component of a longer duration to optimize research success and a delay of the clinical skills development and patient care components to the latter part of the program to coordinate a more likely simultaneous completion of the DMD and the PhD tracks. A suggested format might look like the following:

Year	Description of Activity	Summer activity
1	DMD 100%	BScDent research
2	DMD 50%; PhD 50%	PhD research
3	10% DMD; 90% PhD	PhD research plus comprehensive Examination
4	10% DMD; 90% PhD	PhD research
5	10% DMD; 90% PhD	PhD research
6	90% DMD; 10% PhD	PhD research
7	90% DMD; 10%PhD	PhD publications

Both degrees awarded simultaneously May of Year 7
Students may require an additional PhD year after Year 5 if thesis committee deems it necessary

2. Develop more detailed coordination between DMD curriculum and PhD curriculum and timetables based on the excellent enthusiasm and flexibility demonstrated by the current BScDent program. Preclinical elements that should be kept near the beginning of the patient care session should be identified. Maintenance of some preclinical skills should be

3. Develop Steering committee to oversee entire program with responsibilities for:

   a. Selection of DMD/PhD candidates

   b. Creation of advisory committees for each student to monitor both PhD and DMD progress

   c. Customization if necessary of individual programs

4. Ensure participation of clinicians on advisory committees plus researchers with clinical or translational research expertise as co-supervisors to meet stated goals of developing future academicians with clinical and translation research skills

5. Develop external advisory panel to monitor program progress and assess outcomes in relation to program goals and objectives

6. Develop a recruitment strategy to attract research-oriented applicants to the DMD first year pool in addition to utilizing the excellent resource of BScDent candidates. For example, special consideration might be made for research experience such as a previous Master's degree.

7. Build contingency strategy (informal if preferred) for PhD students who encounter difficulty in completing the research and other components of the PhD program (e.g. Master's degree) at an appropriate point (e.g. after comprehensive examination)

8. Develop dedicated financial resources to support PhD stipends and project bridge funding in event of prolonged PhD programs

9. Create a Faculty-wide seminar series for graduate student periodic presentation of research goals and progress with participation of all graduate students and faculty to encourage further integration of clinical and basic sciences.

10. Encourage continued recruitment of adjunct supervisors especially with clinical and translational research expertise to complement existing research strengths within the Faculty

Comments on underlined items from Review:

[1] Recommendations from the review suggest a restructuring of the example provide. We have taken this into account in the new proposal

[2] We realize this is a limitation of the present proposal. We will be working on this with clinical faculty members prior to acceptance of any students into this program.

[3] this remains a possibility and in fact the Department of Oral Biology has recently reviewed and updated their research courses. These will be accessible to DMD/PhD students as will other graduate level course available at the University and at Bannatyne campus in particular. Graduate students in Oral Biology regularly take courses in other departments such as Biochemistry, Anatomy and Physiology. One of the most popular courses is Interdisciplinary Cell Biology. We would anticipate DMD/PhD students take this course as it provides an excellent background on molecular cell biology. As well Research Methodology courses are available.

[4] while this is true to a limited extent, the Faculty has made great strides in hiring clinician/scientists in the last year. This includes specialists in Oral Maxillofacial Surgery and Restorative Dentistry who have PhD's in addition to their clinical qualifications. This includes Drs. ElGazzar (OMS), Mello (RD), Nogueiro (Perio director), Ramirez (Pedo), and Todescan (RD). We anticipate that all the DMD/PhD students will be co-supervised by basic science and clinical faculty. This will be the responsibility of the oversight committee (to be established as recommended) to determine appropriate makeup of the supervisory committee.

[5] retirement replacements in Oral Biology will all PhD scientists and in other departments combinations DMD/PhD clinician/scientists are a top priority.

[6] we recognize this problem as outlined by the reviewers. However given that monetary support that will be available, potential support for postgraduate training and involvement of clinical as well as basic scientists in the program as well as the uniqueness of the program in Canada we hope to be able to attract a small but enthusiastic group of students. This will be further supported by the present BSc (Dent) group and the SRG within the faculty.

[7] while this is a possibility, this would require changes in the Selection procedures for the DMD program. In the future this may be a consideration but at the moment the initiation of the DMD/PhD program can be simplified by drawing from the present pool of undergraduate DMD students.

[8] the Department of Oral Biology has appointed adjuncts from several departments including Anatomy, Human Ecology and the National Research Council Biodiagnostics Institute.

[9] budgetary support is critical for this program. The Faculty recognizes this and has made monies available from the Dean's Office to support student research; this can be expanded when this program is implemented. Current fundraising priorities include Oral Biology and fund specifically for the DMD-PhD program can be established from this. Additionally, the national application (CANTHOR) has already

been submitted that would provide a 50% match for stipends and research support of DMD-PhD students. We are currently covering all planning costs so this should not be an issue going forward. Students are also encouraged apply to local agencies such as MHRC, MMSF, MICH for studentship support.

[10] please see comment #2 above. We are well aware that this will be a critical issue.

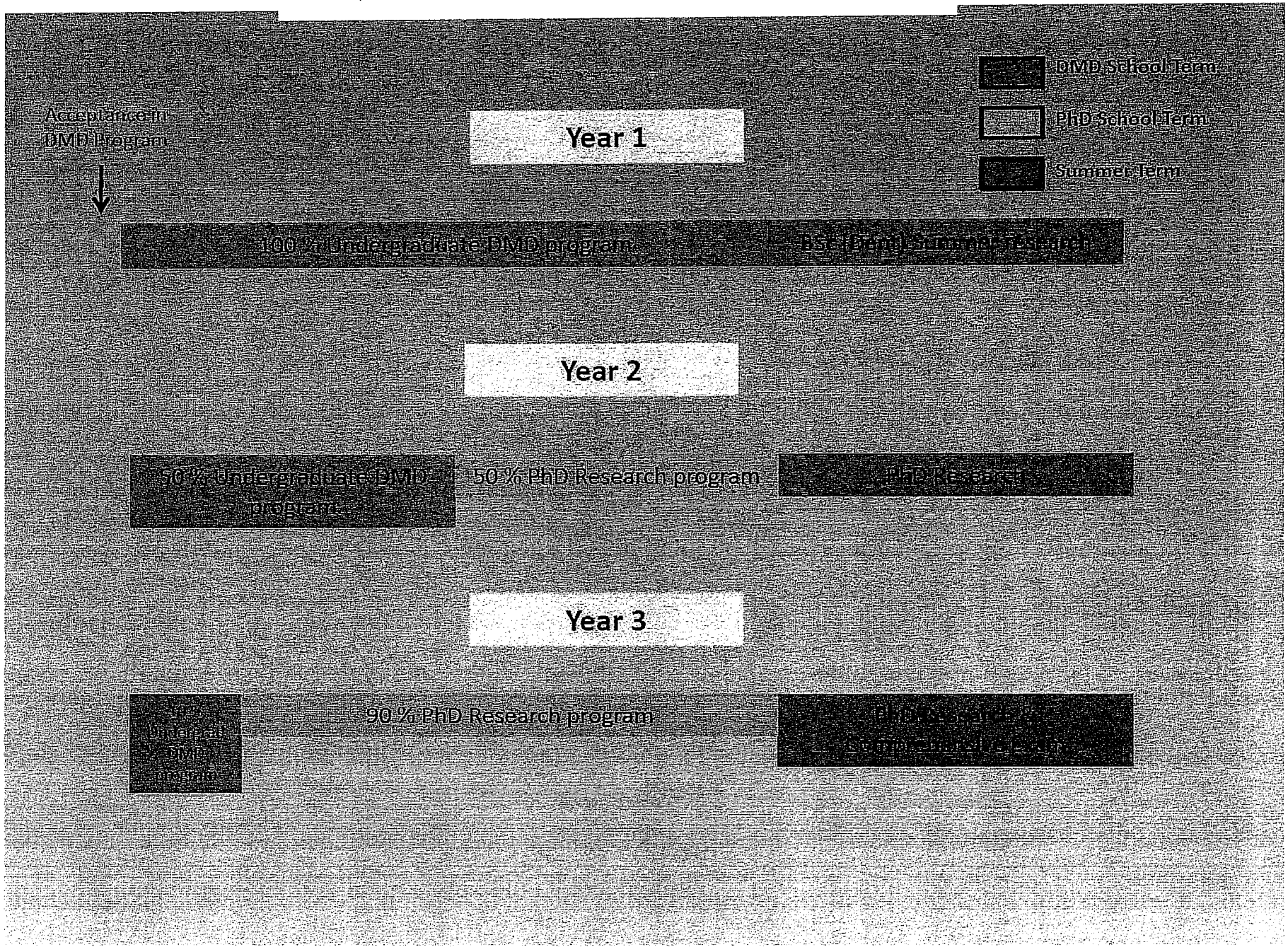
[11] the Student Research Group (SRG) was established in 2008 and has hosted a national group in Winnipeg. The SRG consists of BSc (Dent) students as well as other students and faculty mentors interested in research. Dr. T. Bonstein directs this group. A summer research seminar series has been initiated as well as participation in various research forums including but not limited to the Research Day and National Poster competition here in Medicine (which drew some 500 students), the NSERC undergraduate poster competition, the Midwest Dental student research forum (Minneapolis and Chicago), the CADR-Dentsply student competition each year, the Hinman dental student conference (Memphis), and the ADA annual dental students conference in Gaithersburg MD as examples of undergraduate student participation in national and international research forums. In most of these cases the Faculty has provided monetary support to student to attend.

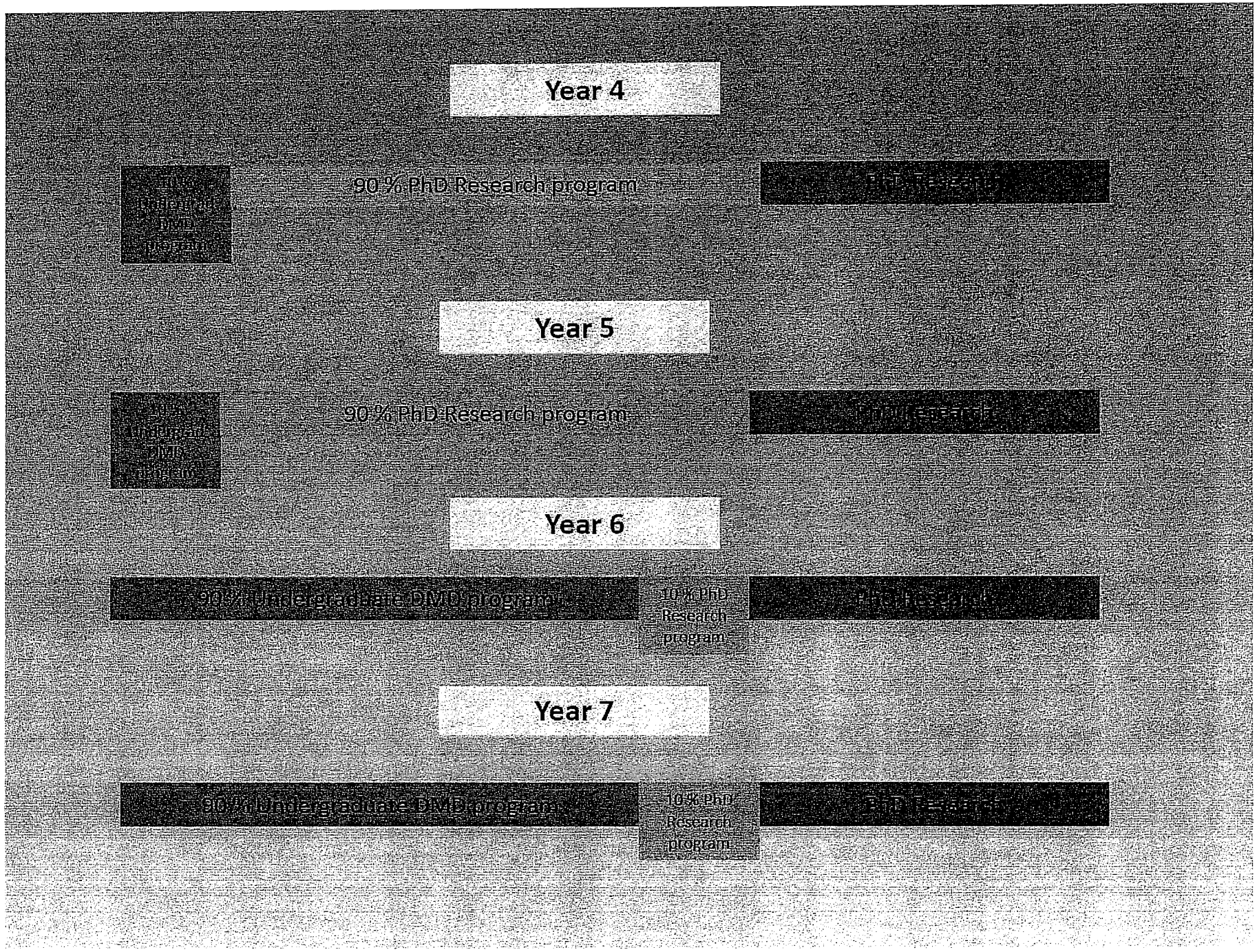
[12] a steering committee will be established for this program, reporting to the Faculty Graduate Studies and Research Committee (GSRC) which also oversees the BSc (Dent) program.

Comments on and follow-up of items from Recommendations:

#1: We agree with the review committee that the example we provided was not optimal for our purposes. We further agree that both degrees should be awarded simultaneously, the overall program should be stipulated as 7 years and at the discretion of the thesis supervisory committee additional time may be required. An adjusted program outline is provided below.

Proposed Year-by-Year program for the DMD/PhD




Year 4
90 % PhD Research program
Year 5
90 % PhD Research program
Year 6
90 % Undergraduate DMD program
10 % PhD Research program
Year 7
90 % Undergraduate DMD program
10 % PhD Research program

#2. The Faculty is committed to providing an internationally recognized top quality undergraduate dental education. Coordination of the DMD and PhD programs will be vital to the ungoing qualityof these programs and therefore careful integration will be absolutely required as will the maintenance of preclinical skills throughout the 7 year training process. This process will be undertaken once the program has been approved for implementation. Clinical and basic science colleagues will carefully organize the revision of the order of the curriculum with a mind to maintaining prerequisites for both didactic and clinical courses. Coordination of this process will be done through the Steering Committee (see next item).

#3. A Steering Committee as a subcommittee of the GSRC will be established initially to determine the intergration of the DMD/PhD program as indicated above. Subsequent ongoing responsibilities of the committee will be to:

a. Select and approve DMD/PhD candidates

b. Create advisory committees for each student to monitor both PhD and DMD progress

c. Customization if necessary of individual clinical and research programs

#4. Individual students identified to enter the DMD/PhD program will be co-superised by basic science faculty and clinicians in all cases. This will bring a depth as well as a breadth to the research project while concurrently ensuring that clinical requirements are being met.

#5. The program will be re-assessed after 3-5 years, depending on the number of participants by external advisors, as recommended by the program review committee.

#6. We have developed a recruitment approach for new BSc (Dent) students which resulted in an increased participation in this program from 5-6 student to 18 in the past year. We now have about 23 students involved in the two year BSc (Dent) degree, a number of additional students involved in the SRG where all BSc (Dent) student must participate and several senior students completing their BSc (Dent) projects beyond the second year. As we will be drawing from these pools of students, detailed advertising of our DMD/PhD program is being prepared as approval nears completion. These materials will be circulated to students and discussed with them on an annual basis. Information about the program will be included in the student manual, as is the information regarding the BSc(Dent) program. In addition information on the faculty website (Dentistry, BSc (Dent)) will be expanded beyond the BSc (Dent) to include the DMD/PHD program. (interestingly we have already had an enquiry from a student at the University of Toronto as to our start date).

#7. We have discussed contingency strategies. These will be of an informal nature on a case-by-case basis as required and will involve the student's supervisory committee and the steering committee as

required.

#8. As indicated above dedicated funding for student support is in place for the BSc (Dent) program and these can be expanded as we identify potential DMD/PhD applicants (see item 8 in first section). The other question of research funding support is very difficult to answer. Most students will be placed in a funded lab. Funding at present arises from many sources including CIHR, NSERC, MHRC, MMSF, MICH, NRC-IBD, H & S and recently Johnson & Johnson. The term of most of the grants is in the order of 2 – 5 years. Bridge funding is also available if a researcher loses his/her grant. This is generally through MHRC and is supported by Faculty matching funds. This arrangement will continue but no guarantees can be made. On past occasions where a research has lost funding or moved, graduate students have changed supervisors and continued with their projects. An important feature of the Faculty is the existence of university-recognized research group in Cell Signaling. Thus a core group of individuals exist to supervise and/or support ongoing research and this will be significant should problems arise as to project funding. Beyond that no assurances can realistically be provided.

#9. The Faculty and the Department of Oral Biology have traditionally both had seminar series although they functioned independently. This requirement will provide an opportunity to reactivate the seminar series and require students to participate. Research seminars over the summer period for BSc (Dent) students have been functioning for two years. A research luncheon for students and faculty as well as funding partners (MMSF, MICH NRC) occur every year as does a "Research Day' sponsored by Johnson & Johnson and Bisco and which highlights student research is now a regular faculty event. We anticipate that these events will act as "feeder sources" for the BSc (Dent) and the DMD/PHD program in particular.

#10. We will continue to recruit adjuncts with clinical and basic science expertise as a faculty priority. Several of the recently recruited clinician/scientists in RD are in the process of being cross-appointed to Oral Biology for research and supervisory purposes. Collaborative research with faculty in other Faculties such as Medicine, Human, Ecology, Pharmacy and Nursing is also underway and student opportunities to undertake research has grown tremendously. These adjunct members serve on student supervisory committees, participate in some teaching activities both undergraduate and graduate, and give seminars in the faculty. With the increase in funding and collaborative efforts we expect further increases in these appointments and activities.

October 26, 2009

Report of the Senate Planning and Priorities Committee on the proposal to introduce an integrated DMD/PhD Program in Faculty of Dentistry

Preamble:

1. The terms of reference of the Senate Planning and Priorities Committee (SPPC) are found on the website at: http://www.umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/508.htm, wherein SPPC is charged with making recommendations to Senate regarding proposed academic programs.

2. The Programs and Planning Committee of the Faculty of Graduate Studies (FGS) has the responsibility of reviewing new graduate programs and makes recommendations to FGS Council.

3. The FGS recommends that Senate approve an Integrated DMD/PhD Program in the Faculty of Dentistry

Observations:

1. The committee noted that this proposed program has been developed to assist in addressing the need for dental clinician scientists to undertake leadership roles in dental research and education. The program will be built on the Faculty's long history of academic research and scholarly activity and successful undergraduate program.

2. In addition the committee noted that the Faculty has indicated that no additional resources will be required to implement this proposed program. Only a small number of students (1 or 2) will be admitted annually. The costs of the new students would be offset by using the existing resources of the Faculty and the additional tuition revenue

3. The Faculty has provided letters of support from the Manitoba Dental Association and Riverview Health Centre.

4. The committee noted that the proposal provided documentation which indicated that the University of Manitoba Libraries has reviewed the library resource needs for the proposed program. The report of the Director of Libraries indicates that Neil John Maclean Health Sciences Library holdings would be sufficient to meet needs of the doctoral level researchers admitted to the program and no new special library resources would be needed to meet the needs of students in the program.

5. The Faculty of Dentistry has indicated that, because of the small number of students admitted to the program, no additional equipment, classroom, laboratory and study space would be required as new students' instructional and study space needs could be readily accommodated by the existing resources of the Faculty.

Recommendation:

The SPPC recommends that:

> Senate approve and recommend to the Board of Governors that it approve an Integrated DMD/PhD Program in the Faculty of Dentistry. The Senate Committee on Planning and Priorities recommends that the Vice-President (Academic) not implement the program until satisfied that there would be sufficient existing space and funding to support the ongoing operation of the program.

Respectfully submitted,

Professor James Blatz, Chair
Senate Planning and Priorities Committee

UNIVERSITY OF MANITOBA | Faculty of Arts

Dean of Arts
310 Fletcher Argue Building
University of Manitoba
Winnipeg, Manitoba
Canada R3T 5V5
Telephone (204) 474-9271
Facsimile (204) 474-7590
Email
Richard_Sigurdson@ms.umanitoba.ca

Date: October 21, 2009

To: Meg Brolly, Senate Specialist, Office of the University Secretary

From: Richard Sigurdson, Dean of Arts

Subject: Program Name Change

The Arts Faculty Council, at its meeting of October 20, 2009, approved the following name change, which I respectfully ask to be presented to Senate Executive for approval:

Current name	Proposed New Name
Near Eastern & Judaic Studies	Judaic Studies Program

Once this matter has been considered by the Senate Executive, would you please inform my office of the decision so that I can inform the affected program.

Thank you.

/js

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

UNIVERSITY
OF MANITOBA

NEAR EASTERN & JUDAIC STUDIES PROGRAM

Justin Jaron Lewis
Co-coordinator
335 Fletcher Argue Building
University of Manitoba
Winnipeg, MB R3T 5V5
(204) 474-8696
Justin_Lewis@umanitoba.ca

May 27, 2009

To: Janice Ristock, Acting Dean
Dean's Office, Faculty of Arts

Re: program name change

Dear Dr. Ristock,

This is a request for approval of a "department name change" – in this case, a program name change.

As per recent conversations with you and with Barry Ferguson, the coordinators of the Near Eastern & Judaic Studies Program – Dr. Ben Baader and I – would like to change the program name to **Judaic Studies Program**.

We still envision special attention to the Near East within the curriculum, since that region is the cradle of the Jewish people and an important centre of Jewish life today. In particular, the existing course in Elementary Arabic can certainly remain within the program, since Arabic is a major language of Jewish literature and an official language of the State of Israel today.

We feel that the shorter name is less cumbersome and clearer. It will make advertising the program (for example, on the banner bug to be provided by the Faculty) easier, and will make it easier for interested students to find information about the program (for example, by looking under J in Aurora or the undergraduate calendar). Historically, the program was founded in 1950 as the Judaic Studies Department, and indeed Judaic Studies has remained the academic field that this program belongs to.

In keeping with the Faculty's stated intention to revive Judaic Studies, it would be especially appreciated if this change could be in place by this fall for the benefit of incoming students, if that is possible.

With thanks,

Justin Jaron Lewis

October 28, 2009

Report of the University Discipline Committee
Regarding the Revision of the Student Discipline Bylaw and related Procedures

Preamble

1. The Terms of Reference of the University Discipline Committee are found in the Student Discipline Bylaw on the governance website.

2. Included in the terms of reference for the University Discipline Committee (UDC) is the periodic review of the Student Discipline Bylaw (Bylaw) and related Procedures and, if necessary, to recommend changes to the Bylaw.

3. The Student Discipline and related Procedures were last reviewed by Senate in September 2008 and reviewed and approved by the Board of Governors in September 2008. At the time, both Senate and the Board of Governors were advised that the Bylaw is living document and that changes will be made from time to time as any issues regarding the application of the Bylaw are identified.

4. The University Discipline Committee met with the Graduate Students' Association ("GSA") and the University of Manitoba Students' Union ("UMSU"), to discuss some suggested amendments brought forth by both student groups.

5. The UDC met in June 2009 to review the suggested changes to the Student Discipline Bylaw, and related procedures and make recommendations to the Board of Governors.

Observations

1. The University Discipline Committee met with representatives from UMSU and GSA on two occasions to review suggested amendments to the Procedures. The UDC recommends the following amendments for the approval of the Board of Governors:

CURRENT WORDING	PROPOSED WORDING	RATIONALE
2.14.2 **When an appeal is received based on a fine or the amount ordered, the only decision from which an appeal is taken is the amount levied by way of fine or the amount ordered to be paid by way of restitution; then, if such fine or restitution does not exceed $500.00, the Chair may, at the Chair's discretion, personally decide the matter, or may convene a hearing panel to hear the appeal.**	**2.14.2** **When an appeal is received based on a fine or the amount ordered, the only decision from which an appeal is taken is the amount levied by way of fine or the amount ordered to be paid by way of restitution; then, if such fine or restitution does not exceed $250.00, the Chair may, at the Chair's discretion, personally decide the matter, or may convene a hearing panel to hear the appeal.**	Both student bodies were concerned with the Chair unilaterally deciding on the fines over $250. This appeared reasonable to the Committee.

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

CURRENT WORDING	PROPOSED WORDING	RATIONALE
2.4.5 **Where the Student has been suspended or expelled from a Faculty/ School of the University, any other Faculty/School may refuse to register the Student for any course or courses or refuse to accept the Student as a transfer Student, provided that prior to such refusal, the other Faculty/School has:** **(a) obtained and considered a written report from the Disciplinary Authority that implemented the suspension or expulsion, outlining the circumstances surrounding the disciplinary action; and** **(b) provided the Student a copy of the report.**	**2.4.5** **Where the Student has been suspended or expelled from a Faculty/ School of the University, any other Faculty/School may refuse to register the Student for any course or courses or refuse to accept the Student as a transfer Student, provided that prior to such refusal, the other Faculty/School has:** **(a) obtained and considered a written report from the Disciplinary Authority that implemented the suspension or expulsion, outlining the circumstances surrounding the disciplinary action;** **(b) provided the Student a copy of the report; and** **(c) given the student an opportunity to respond to the report.** **This is not an appealable matter.**	Both student bodies requested that the third clause be added where the student in question would have an opportunity to respond to the report as was in the old bylaw. It was agreed that the old wording be added but to make clear that this is not an appealable item.

2.1.2 If the disciplinary matter relates to a course other than a course offered by the Faculty/School in which the student is registered, the following procedures shall take place: **(a) the matter shall be referred directly to the Dean/Director of the Faculty/School offering the course; and** **(b) where disciplinary action is found to be warranted the appropriate disciplinary action shall be determined in consultation with the Dean/Director of the Faculty/School in which the student is registered.**	**2.1.2 If the disciplinary matter relates to a course other than a course offered by the Faculty/School in which the student is registered, the following procedures shall take place:** **(a) the matter shall be dealt with directly by the Department Head; and** **(b) where disciplinary action is found to be warranted the following shall apply:** **(i) The Department Head shall review the Student's Academic History to determine whether other acts of Academic Dishonesty and/or Inappropriate Behaviour have occurred previously for this student, and** **(ii) The appropriate disciplinary action shall be determined in consultation with the Dean/Director of the Faculty/School in which the student is registered and the Department Head of the Faculty/School offering the course will advise if earlier acts of Academic Dishonesty and/or Inappropriate Behaviour were found.**	Concerns were raised by the Chair of the Committee where sub section (a) directs a Department Head to refer the matter directly to the Dean/Director of the Faculty/School offering the course. It was discussed amongst the committee members that section (a) be changed with new wording allowing the Department Head to deal with these matters but to check the Student's academic History to determine whether earlier acts of Academic Dishonesty or Inappropriate Behaviour had taken place before consulting and determining the Disciplinary Action for the current breach of the Student Discipline Bylaw.

RECOMMENDATION

That Senate recommend that the Board of Governors approve the amended Student Discipline procedures as recommended by the University Discipline Committee.

Respectfully submitted,

Dr. T. G. Berry, Chair
University Discipline Committee