

Senate
Senate Chamber
Room E3-262 Engineering Building
WEDNESDAY, May 14, 2008
1:30 p.m.
Regrets call 474-6892

A G E N D A

**I CANDIDATES FOR DEGREES,
DIPLOMAS AND CERTIFICATES - MAY 2008** **Page 17**

This report will be available at the Senate meeting. A copy of the list of graduands will be kept at the front table for examination by members of Senate.

**II REPORT ON MEDALS AND PRIZES
TO BE AWARDED AT THE SPRING CONVOCATION**

This report will be available at the front table in the Senate Chamber for examination by members of Senate.

III MATTERS TO BE CONSIDERED IN CLOSED SESSION

1. Report of the Senate Committee on Honorary Degrees

This report will be distributed to members of Senate at the meeting.
Documentation will be available for examination by eligible members of Senate the day preceding the Senate meeting.

IV ELECTION OF SENATE REPRESENTATIVES

1. To the Board of Governors **Page 18**

2. To the Senate Executive Committee **Page 20**

**3. Election of a Student Member to
the Senate Executive Committee** **Page 21**

V MATTERS RECOMMENDED FOR CONCURRENCE WITHOUT DEBATE

**1. Report of the Senate Committee
On Curriculum and Course Changes
Re: Minor Course and Curriculum Changes** **Page 22**

**2. Report of the Executive Council of the Faculty of
Graduate Studies on Course Changes – April 16, 2008** **Page 58**

VI MATTERS FORWARDED FOR INFORMATION

1. In Memoriam: Dr. D. Ralph Campbell **Page 63**

2. In Memoriam: Professor John Shewchuk **Page 65**

**XI REPORTS OF THE SENATE EXECUTIVE COMMITTEE
AND THE SENATE PLANNING AND PRIORITIES COMMITTEE**

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| 1. | <u>Report of the Senate Executive Committee</u> | Page 165 |
| 2. | <u>Report of the Senate
Planning and Priorities Committee</u> | |

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

**XII REPORTS OF OTHER COMMITTEES OF SENATE,
FACULTY AND SCHOOL COUNCILS**

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| a) | <u>Report of the Senate Committee on
Curriculum and Course Change</u> | Page 202 |
| b) | <u>Report of the Senate Planning and
Priorities Committee</u> | Page 205 |
| 3. | <u>Proposal to Reform the Undergraduate Program in
Environmental Design, Faculty of Architecture</u> | Page 207 |
| c) | <u>Report of the Senate Committee on
Curriculum and Course Change</u> | Page 224 |
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Priorities Committee</u> | Page 235 |
| 4. | <u>Reports of the Senate Committee on Admissions</u> | |
| a) | <u>RE: School of Dental Hygiene</u> | Page 237 |
| b) | <u>RE: Faculty of Medicine</u> | Page 239 |
| 5. | <u>Report of the Senate Committee on Medical Qualifications
RE: Dr. Alan Garland</u> | Page 247 |
| 6. | <u>Report of the Senate Committee on Nominations</u> | Page 249 |

XIII ADDITIONAL BUSINESS

XIV ADJOURNMENT

Please Call Regrets to 474-6892 or meg_brolley@umanitoba.ca.

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CANDIDATES FOR DEGREES, DIPLOMAS AND CERTIFICATES

1. Degrees Notwithstanding a Deficiency

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

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

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

2. Report of the Senate Committee on Appeals

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

3. List of Graduands

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

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

The Speaker for the Senate Executive Committee will make the appropriate motion approving the list of graduands, subject to the right of Deans and Directors to initiate late changes with the Registrar up to May 16, 2008.

Election of Senate Representatives to the Board of Governors

General

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

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

Among the more important procedures are the procedures governing nominations, the means of balloting, and the procedures to be followed in the event of a tie vote.

Special attention is directed to Point 3, which reads in part "...If the person nominated is not present, the nominator must state that the person nominated has consented to the nomination."

Election of Senate Representatives to the Board of Governors

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

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

4. Students and *Ex Officio* Members

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

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

5. Present Senate representatives on the Board:

Dean D. Ruth (Engineering)	2008
Professor J. Anderson (member-at-large)	2009
Dean R. Sigurdson (Arts)	2010

6. Not eligible for election are: the Chancellor; the President; and the Board representative on Senate, Ms. H. Milan.

7. Terms of Senate representatives on the Board are normally for three years.

Procedures

1. Nominations for the position shall be received from the floor.
2. Senators shall vote for no more than one candidate on the ballot provided.
3. The candidate receiving the largest number of votes shall be declared elected for a three-year term.
4. In the event of a tie, the question shall be resolved by another ballot involving those candidates who have tied.

Election of Senate Representatives to the Senate Executive Committee

1. Three Senators elected by faculty/school councils need to be elected for a term (June 1, 2008 to May 31, 2011) to replace Professor Prentice, Professor McNicol and Professor Brabston, whose terms on the Executive Committee expire on May 31, 2008.

(1) Eligible for election are:

- (a) Members of Senate elected under section 27 (by faculty/school councils)

(2) Presently serving:

Prof. E. Etcheverry (Medical Rehabilitation)	2009
Prof. K. Coombs (Medicine)	2009
Prof. T. Berry (Science)	2009
Prof. J. Owens (Arts)	2010
Prof. John Page (Science)	2010

2. One representative is to be elected from among the Vice-Presidents, Deans of Faculties and Directors of Schools, to be elected for a term (June 1, 2008 - May 31, 2011) to replace Dean G. Feltham.

(1) Eligible for election are:

- (a) Vice-Presidents: E. Goldie, J. Keselman, D. McCallum
- (b) Deans: M. Trevan, D. Witty, R. Sigurdson, T. Iacopino, J. Wiens, D. Ruth, G. Sevenhuysen, J. Watkinson, H. Sector, D. Sandham, E. Dawe, D. Crooks, D. Collins, R. Mullaly, L. Wallace
- (c) Director: C. Rabinovitch

(2) Presently serving:

Dean M. Whitmore (Science)	2009
Dean J. Doering (Graduate Studies)	2010

Procedures:

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

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Election of a Student Senator to the Senate Executive Committee

1. The composition of the Executive Committee makes provision for three student assessors. The Assessors are as follows:
 1. President of UMSU term: May 1, 2008 – April 30, 2009
 2. President of GSA term: May 1, 2008 – April 30, 2009
 3. Student Senator appointed by caucus of Student Senators term: April 1, 2008 – March 31, 2008
2. The composition of the Executive Committee makes provision one elected Student member of Senate Executive Committee. A candidate for this position is nominated by the caucus of Student Senators at Senate. Term for this position: April 1, 2008 – March 31, 2008

Procedures:

- (a) Nominations for the position shall be provided by the Student Senate Caucus.
- (b) Senators shall vote for no more than one candidate on the ballot provided.
- (c) The candidate receiving the largest number of votes shall be elected.
- (d) In the event of a tie, the question shall be resolved by another ballot involving those candidates who have tied.

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 April 9, 2008, 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. **Faculty of Agricultural and Food Sciences**

The Faculty is proposing the modification of two courses: **ABIZ 3520 Food Distribution and International Merchandising (3)** and **ABIZ 4250 Commodity Market Analysis** to remove the laboratory requirement. A change is proposed to the faculty core, removing MATH 1680 Mathematics for Agriculture and Related Sciences (6) and replacing the requirement with (MATH 1310 or MATH 1300) and (MATH 1520 or MATH 1500). It is proposed that the requirements for the Food Science Program be modified to replace HNSC 2140 Basic Principles of Human Nutrition with HNSC 1210 Nutrition for Health and Changing Lifestyles.

3. **School of Art**

The School is proposing the deletion of two courses: **STDO 2550 Printmaking 1A (3)** and **STDO 2560 Printmaking 1B (3)**; and the introduction of six courses: **STDO 2500 Printmaking Intaglio A (3)**, **STDO 2502 Printmaking Intaglio B (3)**, **STDO 2510 Printmaking Silkscreen A (3)**, **STDO 2512 Printmaking Silkscreen B (3)**, **STDO 2520 Printmaking Lithography A (3)**, and **STDO 2522 Printmaking Lithography B (3)**.

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

4. **Faculty of Arts**

Department of Economics

The Department is proposing the modification of one course: **ECON 2530 Introduction to Mathematical Economics (3)** to change the prerequisite.

Department of English, Film, and Theatre

The Department is proposing the modification of one course: **ENGL 2550 Critical Practise (3)** to clarify the purpose of the course in the course description.

Department of Political Studies

The Department is proposing four course modifications to add the requirement for a laboratory which was left out of the original course introduction approved by Senate in December 2007. The four courses are : **POLS 1000 Democracy and Development (3)**, **POLS 1010 Political Ideas and Ideologies (3)**, **POLS 1040 Global Political Issues (3)**, and **POLS 1070 Law, Politics, and Power in Canada (3)**.

5. **Faculty of Dentistry**

School of Dental Hygiene

The School is proposing to modify the following two courses to change the grading mode from pass/fail to letter grades: **HYGN 2312 Dental Hygiene Clinical Practice II (4)** and **Dental Hygiene Clinical Practice III (4)**.

6. **Faculty of Education**

The Faculty is proposing the following changes to the After-Degree and the Internationally Educated Teachers program as an interim measure pending the results of the review of the B.Ed. program. Students will be required to take: EDUA 1500 Aboriginal Education (3) or EDUB 1840 Recent Developments in CTL: Integrating Aboriginal Perspectives into the Curriculum (3) *and* one of EDUA 1540 Cross Cultural Education (3) or EDUA 1550 Communication and Interpersonal Relationships in Education (3) or EDUB 1620 Principles and Processes of 2nd Language Teaching (3) or EDUB 1820 Language and Content Instruction of ESL/Bilingual Students (3) in lieu of existing elective/complementary course space.

Those students in the Integrated Music/Education program will be required to take EDUA 1500 Aboriginal Education (3) or EDUB 1840 Recent Developments in CTL: Integrating Aboriginal Perspectives into the Curriculum (3) in lieu of EDUB 1520 Education in the Senior Years 1 (1) and EDUB 1530 Education in the Senior Years 2 (2); and one of EDUA 1540 Cross Cultural Education (3) or EDUA 1550 Communication and Interpersonal Relationships in Education (3) or EDUB 1620 Principles and Processes of 2nd Language Teaching (3) or EDUB 1820 Language and Content Instruction of ESL/Bilingual Students (3) in lieu of one of their 3 credit hour Music Education complementary courses.

7. **Faculty of Human Ecology**

The Faculty is proposing the modification of five courses due to changes in prerequisites: **HEAL 2600 Integration of Health Determinants of Individuals (3)**, **HEAL 3600 Integration of Health Determinants for Communities (3)**, **HEAL 4600 Integration of Health Determinants for Canada and the World (3)**, **HEAL 4610 Health Studies Capstone (3)**, and **HEAL 4620 Health Sciences Capstone (3)**.

8. **Faculty of Engineering**

The Faculty is proposing the introduction of one course: **ENG 4012 IEEQ Cooperative Education Assignment (1)**; and the modification of one course: **ENG 1430 Design in Engineering (3)**.

In the SCCCC fall 2007 report, approval for course **ENG 4011 Practicing Professional Engineering in Manitoba (3)** should have the number **ENG 4010**. **ENG 2020 Engineering CAD Technology for Biosystems (2)** was missed out of the summary sheets at the beginning of the fall 2007 report.

Department of Biosystems Engineering

The Department is proposing the modification of the following eight courses to update prerequisites or course descriptions: **BIOE 2110 Transport Phenomena (3)**, **BIOE 2580 Biosystems Engineering Design Trilogy 1 (4)**, **BIOE 2590 Biology for Engineers (3)**, **BIOE 3270 Instrumentation and Measurement for Biosystems (4)**, **BIOE 3320 Engineering Properties of Biological Materials (4)**, **BIOE 3580 Biosystems Engineering Design Trilogy 2 (4)**, **BIOE 3590 Mechanics of Materials in Biosystems (4)**, and **BIOE 4560 Structural Design in Wood**.

Department of Civil Engineering

The Department is proposing the introduction of five courses: **CIVL 2900 Co-op Work Term 1 (0)**, **CIVL 3910 Co-op Work Term 2 (0)**, **CIVL 4920 Co-op Work Term 3 (0)**, **CIVL 4930 Co-op Work Term 4 (0)**, and **CIVL 4940 Co-op Work Term 5 (0)**; the deletion of five courses: **CIVL 3560 Engineering Cooperative Education Assignment 1 (1)**, **CIVL 3570 Engineering Cooperative Education Assignment 2 (1)**, **CIVL 4900 Engineering Cooperative Education Assignment 3 (1)**, **CIVL 4910 Engineering Cooperative Education Assignment 4 (1)**, and **CIVL 4210 Engineering Cooperative Education Assignment 5 (1)**; and the modification of 17 courses to revise prerequisites: **CIVL 2780 Civil Engineering Systems (4)**, **CIVL 2790 Fluid Mechanics (4)**, **CIVL 2800 Solid Mechanics 1 (4)**, **CIVL 2840 Civil Engineering Geomatics (3)**, **CIVL 3590 Numerical Methods in Engineering Analysis (4)**, **CIVL 3690 Environmental Engineering Analysis (4)**, **CIVL 3710 Finite Element Analysis (4)**, **CIVL 3750 Hydrology (4)**, **CIVL 3770 Structural Design I (4)**, **CIVL 3790 Transport Engineering (4)**, **CIVL 4030 Structural Design 3 (4)**, **CIVL 4200 Groundwater Contamination (4)**, **CIVL 4250 Groundwater Hydrology (4)**, **CIVL 4380 Infrastructure Engineering and Construction Management (4)**, **CIVL 4390 Structural Design 2 (4)**, **CIVL 4470 Watershed Processes (4)**, and **CIVL 4590 Design Project (6)**.

Department of Electrical and Computer Engineering

The Department is proposing the introduction of six courses: **ECE 4100 Introduction to Microelectronic Fabrication (4)**, **ECE 4540 Wireless Networks (4)**, **ECE 4850 Topics in Electrical and Computer Engineering 1 (4)**, **ECE 4860 Topics in Electrical and Computer Engineering 2 (4)**, **ECE 4870 Topics in Electrical and Computer Engineering 3 (3)**, and **ECE 4880 Topics in Electrical and Computer Engineering 4 (3)**; the deletion of six courses: **ECE 3530 Network Theory (4)**, **ECE 3690 Engineering Law, the Environment and Society (3)**, **ECE 4190 Topics in Electrical Engineering 1 (4)**, **ECE 4760 Topics in Electrical Engineering 2 (3)**, **ECE 4770 Topics in Electrical Engineering 3 (4)**, and **ECE 4780 Topics in Electrical Engineering 4 (3)**; and the modification of one course: **ECE 2220 Digital Logic (5)**. It is proposed that the Computer Engineering Degree Program be modified to remove **ECE 3770 Digital Systems Design 2** from the required course list and add it to the list of Computer Engineering Electives.

Department of Mechanical and Manufacturing Engineering

The Department is proposing the introduction of one course: **MECH 3460 Heat Transfer (4)**; the deletion of one course: **MECH 3470 Heat Transfer 3M (3)**; two courses to be moved into the not currently offered category: **MECH 3530 CAE, Design and Analysis (3)** and **MECH 4750 Industrial Engineering Graduation Thesis (3)**; and the modification of 21 courses: **MECH 2200 Thermodynamics 2M (4)**, **MECH 2220 Stress (4)**, **MECH 2260 Introduction to Fluid Mechanics (3)**, **MECH 2300 Introduction to Production and Manufacturing (3)**, **MECH 3050 Mechanical Engineering Coop Education Assignment 2 (1)**, **MECH 3430 Measurement and Controls (4)**, **MECH 3480 Dynamics (3)**, **MECH 3490 Advance Fluid Mechanics and Design (3)**, **MECH 3500 Stress Analysis and Design 3M (3)**, **MECH 3550 Robotics and Computer Numerical Control (4)**, **MECH 3920 Manufacturing Cooperative Education Assignment 2 (1)**, **MECH 4050 Mechanical Engineering Coop Education Assignment 3 (1)**, **MECH 4060 Mechanical Engineering Coop Education Assignment 4 (1)**, **MECH 4160 Graduation Thesis (3)**, **MECH 4690 Topics in Heat Transfer and Energy (3)**, **MECH 4820 Computational Methods for Thermodynamics (3)**, **MECH 4860 Engineering Design (5)**, **MECH 4910 Manufacturing Cooperative Education Assignment 3 (1)**, **MECH 4920 Manufacturing Cooperative Education Assignment 4 (1)**, **MECH 4960 Manufacturing Process 1 (4)**, and **MECH 4970 Manufacturing Process 2 (4)**.

9. Faculty of Kinesiology and Recreation Management

The Faculty is proposing the introduction of three courses: **REC 4400 The Administration of Special Events (3)**, **KIN 3500 Basic Trauma and Life Support (3)**, and **PERS 2000 Special Topics (Introductory) (3)**; the deletion of three courses: **REC 4310 The Administration of Leisure Services 2 (3)**, **KIN 3200 Basic Trauma and Emergency Support (3)**, and **PHED 2610 Health and Physical Aspects of Aging (3)**; and the modification of 24 courses: **KIN 3910 Athletic Therapy Practicum (6)**, **KIN 4910 Athletic Therapy Practicum (6)**, **KIN 3300 Functional Assessment and Restoration (6)**, **KIN 4160 Advanced Pathology and Sport Medicine (3)**, **KIN 4300 Health and Wellness Practices in Athletic Therapy (3)**, **PERS 2200 Program Planning Principles (3)**, **PHED 2320 Human Anatomy (3)**, **PHED 2720 Developmental Games and Activities (3)**, **PHED 2730 Gymnastics, Dance and Rhythmic Activities (3)**, **PHED 3090 Principles of Fitness Training (3)**, **PHED 3450 Motor Learning (3)**, **PHED 3760 Diverse Populations Mentorship (3)**, **PHED 4600 Aboriginal Cultural Games (3)**, **REC 2400 Management and Marketing of Leisure Services (3)**, **REC 3090 Sustainable Nature-Based Tourism (3)**, **REC 3850 The Planning of Recreation Areas and Facilities (3)**, **REC 4060 Person Centres Leisure Education (3)**, **REC 4070 Community Development and the Leisure Service Delivery System (3)**, **REC 4120 Recreational**

Travel and Tourism (3), REC 4140 Marketing Recreation and Park Services (3), REC 4150 Clinical Aspects of Therapeutic Recreation (3), REC 4170 Sport Management (3), REC 4180 Social and Psychological Aspects of Leisure (3), and REC 4250 Leisure and Aging (3).

The Faculty is also proposing the introduction of two internal minors (18 credit hours): a Recreation minor for Kinesiology students and a Kinesiology minor for Recreation students.

10. **I.H. Asper School of Business Faculty of Management**

The Faculty is proposing the introduction of two new courses: **ENTR 2010 Managing the Smaller Business (3)** and **ENTR 2020 Starting a New Business (3)** for students outside of the School of Business.

11. **Faculty of Medicine**

Department of Pharmacology and Therapeutics

The Department is proposing the deletion of one course: **PHAC 4020 Pharmacology Basics (6)**. The course content will be split into two courses proposed for introduction: **PHAC 4030 Drugs in Human Disease I (3)** and **PHAC 4040 Drugs in Human Disease II (3)**.

12. **Faculty of Pharmacy**

The Faculty is proposing the modification of four courses: **PHRM 1700 Structured Practical Experiential Program 1 (1)**, **PHRM 2700 Structured Practical Experiential Program 2 (2)**, **PHRM 3700 Structured Practical Experiential Program 3 (4)**, and **PHRM 4700 Structured Practical Experiential Program 4 (10)** to address current and foreseeable shortages of placement sites.

13. **Faculty of Science**

Department of Biological Sciences

The Department is proposing the modification of four courses to clarify the requirement for a laboratory: **ZOOL 2150 Developmental Biology (3)**, **ZOOL 2280 Cell Biology (3)**, **ZOOL 2281 Biologie cellulaire (3)**, and **ZOOL 4170 Biology of Fishes (3)**.

Department of Chemistry

The Department is proposing the modification of the course description of three courses: **CHEM 2240 Applied Chemistry for Engineers (3)**, **CHEM 2360 Biochemistry I (3)**, and **CHEM 2370 Biochemistry II (3)**. The department also proposes some changes to the General Degree wording and course list.

Department of Computer Science

The Department proposes a change to the Area Specializations indicating the requirement of a grade of C in the courses to be used for the specialization.

Department of Mathematics

The Department proposes the deletion of one course: **MATH 1000 College Mathematical Applications (3)**; the modification of eleven courses to remove MATH 1000 as a prerequisite: **MATH 1200 Elements of Discrete Mathematics (3)**, **MATH 1201 Elements de mathematiques discretees (3)**, **MATH 1300 Vector Geometry and Linear Algebra (3)**, **MATH 1301 Geometrie vectorielle et algebra lineaire (3)**, **MATH 1310 Matrices for Management and Social Sciences (3)**, **MATH 1500 Introduction to Calculus (3)**, **MATH 1501 Introduction au Calcul (3)**, **MATH 1510 Applied Calculus I (3)**, **MATH 1520 Introduction to Calculus for Management (3)**, **MATH 1530 Calculus with Computers (3)**, and **MATH 1680 Mathematics for Agriculture (6)** and the modification of fourteen courses to update the prerequisites: **MATH 2120 Introductory Numerical Methods for Engineers (4)**, **MATH 2500 Introduction to Number Theory (3)**, **MATH 3120 Applied Discrete Mathematics (3)**, **MATH 3142 Engineering Mathematical Analysis 4 (3)**, **MATH 3220 Set Theory (3)**, **MATH 3230 Metric Spaces (3)**, **MATH 3300 Modern Algebra I (3)**, **MATH 3350 Advanced Algebra (6)**, **MATH 3400 Combinatorics I (3)**, **MATH 3450 Theory of Numbers (6)**, **MATH 3540 Techniques of Applied Analysis (3)**, **MATH 3760 Advanced Calculus (6)**, **MATH 4610 Introduction to Finite Elements and Boundary Elements (3)** and **MATH 4730 Tensor and Variational Calculus (3)**.

Department of Microbiology

The Department is proposing the modification of the course descriptions of three courses: **MBIO 2230 Introductory Biochemistry (3)**, **MBIO 2360 Biochemistry I (3)**, and **MBIO 2370 Biochemistry II (3)**.

Department of Physics and Astronomy

The Department is proposing the modification of two courses: **PHYS 1820 General Astronomy 2: Exotic Stars, Galaxies and Cosmology (3)** to remove a prerequisite and **PHYS 3430 Honours Physics Laboratory (6)** to clarify the laboratory requirement. The Department also proposes some changes to the General Degree wording.

Department of Statistics

The Department is proposing the modification of six courses to revise the prerequisites: **STAT 1000 Basic Statistical Analysis I (3)**, **STAT 2000 Basic Statistical Analysis II (3)**, **STAT 2400 Introduction to Probability (3)**, **STAT 3480 Statistical Methods for Research Workers II (3)**, **STAT 4140 Introduction to Statistical Inference (3)**, and **STAT 4170 Lifetime Data Analysis (3)**.

14. University 1

University 1 proposes the removal of four courses from the U1 approved list: **GEOL 1440 Introduction to Dynamic Earth (3)**, **GEOL 1350 Evolving Earth (3)**, **GEOL 1360 Environmental Earth Science (3)**, and **GEOL 1370 Earth in Space (3)**; and the addition of three new courses to the U1 approved list: **GEOL 1400 Time-Trekkers' Travelog: Our Evolving Earth (3)**, **GEOL 1410 (W) Natural Disasters and Global Change (3)**, and **GEOL Exploring the Planets (3)**.

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

School of Art

Faculty of Arts

Faculty of Dentistry, School of Dental Hygiene

Faculty of Education

Faculty of Engineering

Faculty of Human Ecology

Faculty of Kinesiology and Recreation Management

I.H. Asper School of Business Faculty of Management

Faculty of Medicine

Faculty of Pharmacy

Faculty of Science

University 1

Respectfully submitted,

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

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Faculty of Agricultural and Food Sciences

Course modifications:

ABIZ 3520 Food Distribution and International Merchandising Cr.Hrs. 3
(formerly 061.352) An introduction to logistics management concepts and their application to domestic and international merchandising. Prerequisites: [ABIZ 1000 (or 061.100) or 061.250] and [ABIZ 2510 (or 061.251) or MKT 2210 (or 118.221)].

ABIZ 4250 Commodity Market Analysis Cr.Hrs. 3
(formerly 061.425) Theory and methods of price analysis, commodity markets and the demand and supply factors that underpin seasonal, cyclical and secular changes in commodity prices.
Prerequisites: [ECON 2450 (or 018.245 or 018.270)] and [ABIZ 3080 (or 061.308) or ECON 3180 (or 018.318)]. Not to be held with the former 061.404.

NET CHANGE IN CREDIT HOURS:

0 HOURS

SECTION 5: Program Requirements

In order to fulfil the requirements for a degree in the Faculty of Agricultural and Food Sciences, students must complete five components:

- Faculty Core
- Degree Core
- Program Core
- Restricted Electives
- Free Electives

These requirements are outlined for all four degrees in the sections which follow.

5.1 Faculty Core

Course No.		Credit Hours
CHEM 1300	University 1 Chemistry: Structure and Modelling in Chemistry (see Notes 1&2)	3
	and one of the following two courses:	
CHEM 1310	University 1 Chemistry: An Introduction to Physical Chemistry (see Notes 1&2)	3
Or		
CHEM 1320	University 1 Chemistry: An Introduction to Organic Chemistry (see Notes 1&2)	3
STAT 1000	Basic Statistical Analysis 1	3
MATH 1680	Mathematical Science for Agricultural and Related Sciences	6
ECON 1200	Principles of Economics or ECON 1210 and ECON 1220	6
ABIZ 1000	Introduction to Agribusiness Management (see Note 3)	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	3
BIOL 1030	Biology 2: Biological Diversity, Function and Interactions	3
	Three credit hours from 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
Total credit hours		36-42

delete

add:

MATH 1310 Matrices for Management and Social Sciences (3)
(or MATH 1300 Vector Geometry and Linear Algebra (3))
AND
MATH 1520 Introductory Calculus for Management and Social Sciences (3)
(or MATH 1500 Introduction to Calculus (3))

5.5 Bachelor of Science (Food Science)

Chair: S. Arnfield
Office: 201 Ellis Building
Telephone: 204 474 9866

The B.Sc. degree program in Food Science, which students enter into after completing University 1, provides the academic foundation of knowledge and skills for the wide range of activities in food science and technology. The principal areas covered are food processing, chemistry, analysis and safety. The degree program is structured in course offerings and content to enhance the competence of graduating students by providing greater emphasis in communications, critical thinking, computer literacy and statistics which are basic requirements of a modern professional environment.

The faculty also offers a minor in Food Science. Refer to section 5.9.3 for details.

The Food Science program specifies ten required and a minimum of three restricted elective courses in Food Science. As well, students must select a minimum of three credit hours from a prescribed list of courses in critical thinking and ethics. Twenty-one credit hours of free electives are available and can be selected in Food Science. This will ensure a strong academic base in Food Science and accommodate a satisfactory level of Food Science specialization.

In addition to the courses required for the faculty core for all students in the Faculty of Agricultural and Food Sciences the following courses are prescribed for the program leading to a B.Sc. in Food Science.

Suggested Progression of Program:

Second Year		Credit Hours
Course No.		
CHEM 1310	University 1 Chemistry: Introduction to Physical Chemistry**	3
	or	
CHEM 1320	University 1 Chemistry: Introduction to Organic Chemistry**	
CHEM 2770	Elements of Biochemistry 1 (MBIO 2770)	3
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 and/or Free Electives:	9
Total credit hours		30
Third Year		
HNSC 2140	Basic Principles of Human Nutrition	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	
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:	10
Total credit hours		30

delete :

← ADD:

HNSC 1210 Nutrition for Health and Changing Lifestyles

School of Art

Course deletions:

STDO 2550 Printmaking 1A	-3
STDO 2560 Printmaking 1B	-3

Course introductions:

STDO 2500 Printmaking Intaglio A Cr.Hrs. 3

+3

An introduction to the basic techniques in Intaglio. Prerequisites: STDO 1200 (or 054.120) and STDO 1220 (or 054.122) and FA 1270 (or 054.127). May not hold for credit with STDO 2550 (Intaglio) or 054.255 (Intaglio) or 054.227.

STDO 2502 Printmaking Intaglio B Cr.Hrs. 3

+3

A continuation in the basic techniques in Intaglio. Prerequisites: STDO 2500 or 054.255 (Intaglio 1A) or STDO 2550 (Intaglio 1A).

STDO 2510 Printmaking Silkscreen A Cr.Hrs 3

+3

An introduction to the basic techniques in Silkscreen. Prerequisites: STDO 1200 (or 054.120) and STDO 1220 (or 054.122) and FA 1270 (or 054.127). May not hold for credit with STDO 2550 (Silkscreen 1A) or 054.255 (Silkscreen 1A) or 054.227.

STDO 2512 Printmaking Silkscreen B Cr.Hrs. 3

+3

A continuation in the basic techniques in Silkscreen. Prerequisites: STDO 2500 or 054.255 (Silkscreen 1A) or STDO 2550 (Silkscreen 1A).

STDO 2520 Printmaking Lithography A Cr.Hrs. 3

+3

An introduction to the basic techniques in Lithography. Prerequisites: STDO 1200 (or 054.120) and STDO 1220 (or 054.122) and FA 1270 (or 054.127). May not hold for credit with STDO 2550 (Lithography 1A) or 054.255 (Lithography 1A) or 054.227.

STDO 2522 Printmaking Lithography B Cr.Hrs. 3

+3

A continuation in the basic techniques in Lithography. Prerequisites: STDO 2500 or 054.255 (Lithography 1A) or STDO 2550 (Lithography 1A).

NET CHANGE IN CREDIT HOURS:

+12 HOURS

Faculty of Arts

Department of Economics

Course modification:

ECON 2530 Introduction to Mathematical Economics Cr.Hrs. 3 (formerly 018.253)

Introduction to mathematical methods used in economic analysis, including comparative-static analysis and optimization. Prerequisites: [A grade of "C" or better in six credit hours of 1000 level Economics] and [a grade of "C" or better in MATH 1500 9136.150) or MATH 1520 (136.152)].

NET CHANGE IN CREDIT HOURS:

0 HOURS

Department of English, Film, and Theatre

Course modification:

ENGL 2550 Critical Practise Cr.Hrs. 3 (formerly 004.255)

An introduction to the critical idioms and methods for the analysis of literary texts. This course emphasizes the application of critical idioms and methods in the analysis of literary texts. Students

may not hold credit for both ENGL 2550 (004.255) and ENGL 2800 (004.280). Prerequisites: [A grade of "C" or better in ENGL 1200 (004.120) or ENGL 2101 (004.120) or ENGL 1300 (004.130) or ENGL 1301 (004.130) or the former 004.126] or [a grade of "C" or better in each of ENGL 1310 (004.131) and ENGL 1340 (004.134)].

NET CHANGE IN CREDIT HOURS:

0 HOURS

Department of Political Studies

Course modifications :

POLS 1000 Democracy and Development Cr.Hrs. 3

An examination of development and democracy as desiderata of good societies and an examination of historical conditions which individual and collective freedom on the one hand, and economic prosperity on the other, have been achieved in the various countries of the world.

POLS 1010 Political Ideas and Ideologies Cr.Hrs. 3

An introduction to different philosophical systems of political beliefs and values that structure contemporary political discourse and practice.

POLS 1040 Global Political Issues Cr.Hrs. 3

An investigation of the most pressing global issues facing the world today, including debates over globalization, the rise of trans-sovereign problems, and current theories about the future of the state.

POLS 1070 Law, Politics, and Power in Canada Cr.Hrs. 3

An introduction to the basic structures and processes of politics, law and power in Canada with the aim of explaining and assessing contemporary issues and events.

NET CHANGE IN CREDIT HOURS:

0 HOURS

Faculty of Dentistry

School of Dental Hygiene

Course modifications:

HYGN 2312 Dental Hygiene Clinical Practice II Cr.Hrs. 4

This competency-based clinical course amalgamates theoretical knowledge and clinical skills in both general clinical and community based clinical settings. Students provide care to clients with moderate oral health needs. Prerequisites: HYGN 1238 and HYGN 1242. Corequisite: HYGN 2314.

HYGN 2316 Dental Hygiene Clinical Practice III Cr.Hrs. 4

This course advances the student's clinical dental hygiene skills to a level of minimal competency. Students provide dental hygiene care to clients with high oral health needs to facilitate their attainment of optimal oral health. Prerequisites: HYGN 2312 and HYGN 2314. Corequisite: HYGN 2318.

NET CHANGE IN CREDIT HOURS:

0 HOURS

Faculty of Engineering

Course introduction:

ENG 4012 IEEQ Cooperative Education Assignment Cr.Hrs. 1

Professional work assignment in business, industry, or government for cooperative education students in the IEEQ Program. Requires submission of a written report covering the work completed during a minimum 16-week work period. (Pass/Fail grade only). Prerequisite: enrolled in IEEQ Program with 80% of courses complete, including ENG 4010; good academic standing.

Course modification:

ENG 1430 Design in Engineering Cr.Hrs. 3 (Lab required)

The creative process; the design process; working in a team. The engineering profession from the perspective of students and professionals, academic, legal and ethical consideration. Not to be held with the former 130.113 or 130.140. Prerequisite: A minimum grade of 60% in pre-calculus mathematics 40S, or the former mathematics 40S, physics 40S, and chemistry 40S, or their equivalents.

NET CHANGE IN CREDIT HOURS:

+1 HOURS

Department of Biosystems Engineering

Course modifications:

BIOE 2110 Transport Phenomena Cr.Hrs. 3

(formerly 034.211) Principles of heat transfer, solar radiation, psychometrics, molecular diffusion, mass transfer and refrigeration and their application to biosystems. Prerequisite: ENG 1460 or the former ENG 1120 (or 130.112).

BIOE 2580 Biosystems Engineering Design Trilogy 1 Cr. Hrs. 4

(formerly 034.258) Biosystems Engineering and its place in the professions of engineering and agrology. Design concepts, with an emphasis on team building and technical communication skills. Philosophy of project planning. Preparation of a conceptual design by teams in response to design assignment submitted by industry. Written report presented orally. Prerequisite: ENG 1430 or the former ENG 1400 (or 130.140).

BIOE 2590 Biology for Engineers Cr.Hrs. 3

Provide theories and principles of Biology to engineering students and present applications of biological principles to engineering problems. Fundamental theories involved in cell structure and function, metabolism, genetics and heredity, bacteria and virus structure and function, plant and animal structure and function are covered. An introduction to animal and plant physiology is also provided. Laboratory sessions and term assignments focus on the engineering applications of these basic theories and principles to provide a good understanding of the role of Biology in Engineering. Prerequisite: CHEM 1300 (or 002.130).

BIOE 3270 Instrumentation and Measurement for Biosystems Cr.Hrs. 4
(formerly 034.327) Basic instrumentation for measuring electrical and nonelectrical quantities associated with Biosystems engineering and industry; transducers for automatic control.
Prerequisites: MATH 2132 [or the former MATH 2110 (or 136.2110), ENG 1450 or the former ENG 1180 (130.118).

BIOE 3320 Engineering Properties of Biological Materials Cr.Hrs. 4
(formerly 034.332) 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 the former MATH 2100 (or 136.210)], CIVL 2800 or MECH 2220.

BIOE 3580 Biosystems Engineering Design Trilogy 2 Cr.Hrs. 4
(formerly 034.358) Advanced design concepts associated with Biosystems Engineering, with emphasis on the principles of safety and human factors engineering. Theory of project planning. Preparation of a preliminary design by design teams in response to a design assignment submitted by industry. Written report with engineering drawings presented orally. Prerequisites: BIOE 2580 (or 034.258).

BIOE 3590 Mechanics of Materials in Biosystems Cr.Hrs. 4
(formerly 034.359) In this course students will be exposed to both the theory and physical behaviour of materials when subjected to loads. The course will be delivered using a combination of lectures and hands-on labs. The materials presented include a wide range of design Biosystems engineers may be involved with, including plastics, bone, wood, concrete, steel, other biological materials and composites. Prerequisite: CIVL 2800 (or 023.280) or consent of instructor.

BIOE 4560 Structural Design in Wood Cr.Hrs. 4 (Lab required)
(formerly 034.456) Design using wood as a structural material in light-frame buildings. Consideration of design constraints associated with sawn lumber as well as wood-based composite materials. Emphasis on use of computer based design aids. Prerequisites: CIVL 3770 (or 023.377) or BIOE 3590 (or 034.359) or 034.324.

NET CHANGE IN CREDIT HOURS:

0 HOURS

Department of Civil Engineering

Course introductions:

CIVL 2900 Co-op Work Term 1 Cr.Hrs. 0 +0
Work assignment in business, industry, or government for cooperative education students. Requires submission of a written report covering the work completed during the four-month professional assignment. (Pass/Fail grade). May not be held with CIVL 3560.

CIVL 3910 Co-op Work Term 2 Cr.Hrs. 0 +0
Work assignment in business, industry, or government for cooperative education students. Requires submission of a written report covering the work completed during the four-month professional assignment. Prerequisite: CIVL 2900. (Pass/Fail grade). May not be held with CIVL 3570.

CIVL 4920 Co-op Work Term 3 Cr.Hrs. 0 +0
Work assignment in business, industry, or government for cooperative education students. Requires submission of a written report covering the work completed during the four-month professional assignment. Prerequisite: CIVL 3910. (Pass/Fail grade). May not be held with CIVL 4900.

CIVL 4930 Co-op Work Term 4 Cr.Hrs. 0 +0
Work assignment in business, industry, or government for cooperative education students. Requires submission of a written report covering the work completed during the four-month professional assignment. Prerequisite: CIVL 4920. (Pass/Fail grade). May not be held with CIVL 4910.

CIVL 4940 Co-op Work Term 5 Cr.Hrs. 0 +0
Work assignment in business, industry, or government for cooperative education students. Requires submission of a written report covering the work completed during the four-month professional assignment. Prerequisite: CIVL 4930. (Pass/Fail grade). May not be held with CIVL 4210.

Course deletions:

CIVL 3560 Engineering Cooperative Education Assignment 1 Cr.Hrs. 1	-1
CIVL 3570 Engineering Cooperative Education Assignment 2 Cr.Hrs. 1	-1
CIVL 4900 Engineering Cooperative Education Assignment 3 Cr.Hrs. 1	-1
CIVL 4910 Engineering Cooperative Education Assignment 4 Cr.Hrs. 1	-1
CIVL 4210 Engineering Cooperative Education Assignment 5 Cr.Hrs.1	-1

Course modifications:

CIVL 2780 Civil Engineering Systems Cr.Hrs.4
(formerly 023.278) Introduction to applied systems analysis approach. Use of applied systems analysis in Civil Engineering. Optimization techniques: linear programming; dynamic programming; other techniques. Evaluation: decision analysis. Prerequisite: MATH 1710 (or 136.171) or MATH 1700 (or 136.170).

CIVL 2790 Fluid Mechanics Cr.Hrs. 4
(formerly 023.279) Definition of fluid; fluid properties; variation of pressure in a fluid; hydrostatic forces; buoyancy; kinematics of flow; control volumes; continuity; Bernoulli's equation; momentum equation; energy equation; flow in closed conduits; open channel flow. Prerequisite: ENG 1440 (or 130.135), MATH 1710 (or 136.171) or MATH 1700 (or 136.170).

CIVL 2800 Solid Mechanics 1 Cr.Hrs. 4
(formerly 023.280) Analysis of deformable bodies; stress and strain in three dimensions; equilibrium equations and strain-displacement relations; constitutive relations and mechanical behaviour of materials; radially symmetric and plane problems in elasticity; relevant experimental demonstrations. Prerequisite: ENG 1440 (or 130.135), MATH 1710 (or 136.171) or MATH 1700 (or 136.170).

CIVL 2840 Civil Engineering Geomatics Cr.Hrs. 3
Geomatics in civil engineering, map-making, map-reading, computerized maps; leveling; distance measurement angles, directions, traverses; coordinate geometry; electronic survey instruments; global positioning system; geographic information systems; digital photogrammetric methods and data; aspects of route surveying. Not to be held with the former 023.281 or 023.282 or CIVL 2820. Prerequisite: MATH 1210. Co-requisite: CIVL 2830 Graphics for Civil Engineers

CIVL 3590 Numerical Methods in Engineering Analysis Cr.Hrs. 4

(formerly 023.359) Variety of numerical techniques applicable to solutions of problems in civil engineering. Students may not hold credit for CIVL 3590 (or 023.359) and MATH 2120 (or 136.212). Prerequisite: COMP 1010 (or 074.101). Pre or Co-requisite: MATH 2132 or MATH 2100 (or 136.210)

CIVL 3690 Environmental Engineering Analysis Cr.Hrs. 4

(formerly 023.369) Introduction to environmental engineering analysis concept; risk assessment; colloidal dispersions; mass balances, reaction kinetics and reactor design principles. Water pollution and water quality in rivers and lakes. Physical, chemical and biological unit operations and processes applied in water and/or wastewater treatment. Meteorology and air pollution; atmospheric dispersion. Solid waste management issues. Prerequisites: CHEM 2560 or CIVL 2760 (or 023.276), STAT 2220 (or 05.222).

CIVL 3710 Finite Element Analysis Cr.Hrs. 4

(formerly 023.371) One-dimensional analysis of fluid, flow, seepage and heat transfer; truss, beam and frame elements; two-dimensional problems; isoparametric elements and Gauss quadrature; time-dependent problems, diffusion, consolidation, and time integration methods; introduction to commercial packages; solution of problems in civil engineering (seepage, dams, pavements). Prerequisites: CIVL 2790 (or 023.279), CIVL 2800 (or 023.280), CIVL 3590 (or 023.359).

CIVL 3750 Hydrology Cr.Hrs. 4

(formerly 023.375) Basic hydrological processes; precipitation; evapotranspiration; infiltration and runoff; analytical methods; hydrograph theory and application; application to reservoir design; project floods and flow forecasting; statistical analysis. Pre or Co-requisite: STAT 2220 (or 005.222).

CIVL 3770 Structural Design I Cr.Hrs. 4

(formerly 023.377) Introduction to design of steel structures; loading, structural configurations; design of simple members and connections; building code requirements. Prerequisites: CIVL 2770 (or 023.277), CIVL 3760 (or 023.376).

CIVL 3790 Transport Engineering Cr.Hrs. 4

(formerly 023.379) Introduction to transportation. Overview of Canada and U.S. transport systems. Fundamentals of transport systems analysis. Introduction to sequential demand modeling. Analysis and evaluation of uninterrupted flow on highways. Basics of geometric design of highways. Basics of design of at-grade intersections. Introduction to computer applications in transportation engineering. Basics of pavement engineering and design. Prerequisites: CIVL 2820 (or 023.282) or CIVL 2840, CIVL 2770 (or 023.277), CIVL 2780 (or 23.278), STAT 2220 (or 005.222).

CIVL 4030 Structural Design 3 Cr.Hrs. 4

(formerly 023.403) Prestressed concrete structures; fibre-reinforced concrete structures; bridge loading, analysis and design in steel and concrete; special topics in structural engineering. Prerequisites: CIVL 2770 (or 023.277), CIVL 2800 (or 023.280), CIVL 3760 (or 023.376), CIVL 3770 (023.377), CIVL 4390 (or 023.439).

CIVL 4200 Groundwater Contamination Cr.Hrs. 4

(formerly 023.420) Introduction to the principles of groundwater chemistry; chemical evolution of natural groundwater flow systems; sources of contamination; mass transport processes; hydrochemical behaviour of contaminants; nuclear waste disposal; non-aqueous phase organics; aquifer remediation. Prerequisites: CIVL 4250 (or 023.425), GEOL 2250 (or 007.225).

CIVL 4250 Groundwater Hydrology Cr.Hrs. 4

(formerly 023.425) Introduction to theory of groundwater flow; flow nets; regional groundwater flow; well hydraulics; role of groundwater in geologic and engineering processes; multiphase flow.

Prerequisites: GEOL 2250 (or 007.225), CIVL 2790 (or 023.279), MATH 2130 (or MATH 2110), MATH 2132 (or MATH 2100).

CIVL 4380 Infrastructure Engineering and Construction Management Cr.Hrs. 4

(formerly 023.438) Infrastructure engineering; drainage systems, maintenance engineering and management. Construction and project management; workplace health and safety, construction site field trips, construction equipment, temporary facilities, project management. Elements of law for civil engineers. Prerequisite: CIVL 4050 (or 023.405).

CIVL 4390 Structural Design 2 Cr.Hrs.4

(formerly 023.439) Design in reinforced concrete; properties of materials; ultimate strength design; analysis and design of sections in bending; shear and development considerations; short- and long-term deflection; sections subjected to bending and axial stresses; design of simple floor systems; column footings. Prerequisite: CIVL 2770 (or 023.277), CIVL 2800 (or 023.280), CIVL 3760 (or 023.376), CIVL 3770 (or 023.377).

CIVL 4470 Watershed Processes Cr.Hrs. 4

(formerly 023.447) Rainfall-runoff processes, flood routing; characteristics and mechanics of flow in (natural) channels; computer modeling of watershed hydrology and hydraulics; influence of man-made structures; river morphology, sediment transport prediction, design of a stable channel; river ice processes. Prerequisite: CIVL 3750 (or 023.375), Pre or Co-requisite: CIVL 3740 (or 023.374).

CIVL 4590 Design Project Cr.Hrs. 6

(formerly 023.459) An interdisciplinary project-based course involving engineering design, teamwork and delivered in studio format. Students are expected to work in pre-assigned teams under the guidance of professional engineers on a pre-determined project. Lecture material will cover project management, construction, environmental and economic issues. Each team will be required to give an oral presentation of their design project. Prerequisites: ENG 2010 (or 130.201), CIVL 2840 (or CIVL 2840 or 023.282), CIVL 3700 (or 023.370), CIVL 3740 (or 023.374), CIVL 3750 (or 023.375), CIVL 3770 (or 23.377), CIVL 3790 (or 023.379).

NET CHANGE IN CREDIT HOURS:

-5 HOURS

Department of Electrical and Computer Engineering

Course introductions:

ECE 4100 Introduction to Microelectronic Fabrication Cr.Hrs. 4

+4

This course will cover contemporary topics in Electrical and Computer Engineering via lectures and laboratory sessions. The specific topics and a detailed course outline will be available at the time of registration. Prerequisite: permission of the department.

ECE 4540 Wireless Networks Cr.Hrs. 4

+4

Introduction to wireless communications systems, network architectures, protocols and applications. Topics include mobile computing systems, signal propagation, channel modeling, modulation, and networking standards. Prerequisite: ECE 3700 (or 024.370), ECE 3780 (or 024.378).

ECE 4850 Topics in Electrical and Computer Engineering 1 (4), +4
 This course will cover contemporary topics in Electrical and Computer Engineering via lectures and laboratory sessions. The specific topics and a detailed course outline will be available at the time of registration. Prerequisite: permission of the department.

ECE 4860 Topics in Electrical and Computer Engineering 2 Cr.Hrs. 4 +4
 This course will cover contemporary topics in Electrical and Computer Engineering via lectures and laboratory sessions. The specific topics and a detailed course outline will be available at the time of registration. Prerequisite: permission of the department.

ECE 4870 Topics in Electrical and Computer Engineering 3 Cr.Hrs. 3 +3
 This lecture based course will cover contemporary topics in Electrical and Computer Engineering. The specific topics and a detailed course outline will be available at the time of registration. Prerequisite: permission of the department.

ECE 4880 Topics in Electrical and Computer Engineering 4 Cr.Hrs. 3 +3
 This lecture based course will cover contemporary topics in Electrical and Computer Engineering. The specific topics and a detailed course outline will be available at the time of registration. Prerequisite: permission of the department.

Course deletions:

ECE 3530 Network Theory Cr.Hrs. 4	-4
ECE 3690 Engineering Law, the Environment and Society Cr.Hrs. 3	-3
ECE 4190 Topics in Electrical Engineering 1 Cr.Hrs. 4	-4
ECE 4760 Topics in Electrical Engineering 2 Cr.Hrs. 3	-3
ECE 4770 Topics in Electrical Engineering 3 Cr.Hrs. 4	-4
ECE 4780 Topics in Electrical Engineering 4 Cr.Hrs. 3	-3

Course modifications:

ECE 2220 Digital Logic Systems Cr.Hrs. 5
 (formerly 024.222) Boolean algebra and logic primitives, network simplification techniques, physical realizations, number systems and codes; analysis and design of asynchronous and synchronous sequential circuits; applications to computation, measurements, and control. Prerequisite: ENG 1450.

NET CHANGE IN CREDIT HOURS: +1 HOURS

Computer Engineering Degree Program

The program in Computer Engineering has a core-plus-elective structure. The core develops the necessary base in mathematics, physical sciences, computer science, circuits and systems, fundamental professional courses such as digital logic, discrete mathematics, electronics, microprocessors, microcontrollers, data communications, embedded systems, operating systems, software engineering, and compiler design. The final year core includes the capstone group design project.

Some specialization is possible in either the software or the hardware area through the selection of technical electives in the final year.

The student's program must include a specified number of complementary studies electives. Courses in engineering economics, technical writing, and ecology, technology and society, are compulsory.

Students are encouraged to consult with the department for model four- and five-year programs. Students are strongly encouraged to follow the model programs when possible, as timetabling and course offerings are based on these.

Preliminary Engineering Program

Common to all Engineering Programs. (See Section 5.2 for details.)

Department Program

Course No.	Credit Hours	
STAT 2220	Contemporary Statistics for Engineers	3
MATH 2130	Engineering Mathematical Analysis 1	
MATH 2132	Engineering Mathematical Analysis 2	3
MATH 2120	Introductory Numerical Methods for Engineers	4
MATH 3132	Engineering Mathematical Analysis 3	3
MATH 3110	Complex Analysis	4
MATH 3120	Discrete Mathematics	3
CIVL 4050	Engineering Economics	3
ECE 2160	Electronics 2E	5
ECE 2220	Digital Logic Systems	5
ECE 2260	Circuits and Transmission Lines	4
ECE 3610	Microprocessing Systems	4
ECE 3670	Electronics 3E	4
ECE 3700	Telecommunication Network Engineering	4
ECE 3740	System Engineering Principles 1	4
ECE 3750	System Engineering Principles 2	4
ECE 3760	Digital Systems Design 1	4
ECE 3770	Digital Systems Design 2	4
ECE 3780	Signal Processing 1	4
ECE 3790	Engineering Algorithms	4
ECE 4150	Control Systems	4
or		
ECE 4260	Communication Systems	4
ECE 4240	Microprocessor Interfacing	4
ECE 4740	Digital Systems Implementation	4
ECE 4830	Signal Processing 2	4
ECE 4600	Group Design Project (See Note 1)	6
COMP 1020	Computer Science 2	3
ANTH 2430	Ecology, Technology and Society	3
COMP 2140	Data Structures and Algorithms	3
COMP 3430	Introduction to Operating Systems	3
ENG 2010	Technical Communications	3

Computer Engineering Electives (2 required) (see Notes 3,4)		6 to 8
ECE 4250	Digital Communications	4
ECE 4420	Digital Control	4
ECE 4440	Computer Vision	4
ECE 4530	Parallel Processing	4
ECE 4520	Simulation and Modelling	4

Computer Science Courses (1 required)		
COMP 2150	Object Orientation	3
COMP 2160	Programming Practices	3
COMP 3010	Distributed Computing	3
COMP 3190	Introduction to Artificial Intelligence	3
COMP 3290	Introduction to Compiler Construction	3
COMP 3380	Databases Concepts and Usage	3
COMP 3490	Computer Graphics 1	3
COMP 3710	User Interfaces	3
COMP 4300	Computer Networks	3
COMP 4360	Machine Learning	3
COMP 4490	Computer Graphics 2	3
Electrical Engineering Courses (1 required)		
ECE 2130	Electric Fields	4
ECE 3600	Physical Electronics	4
ECE 3720	Electric Power and Machines	4
ECE 4390	Engineering Computations IVE	4
ECE 4610	Biomedical Instrumentation and Signal Processing	4
ECE 4150	Control Systems	4
ECE 4260	Communication Systems	4
Complementary Studies Elective (1 required) (see Note 2)		3
Total credits for Graduation		172-173

NOTES:

1. Course continuing through both terms. Credit on completion of course.
2. The complementary studies elective can be any course at the 100 level or above from either the faculties of Arts or Management. However, ARTS 1110 (formerly 099.111), Introduction to University, may not be used for credit in the Faculty of Engineering.
3. The Department of Electrical and Computer Engineering does not guarantee that all elective courses will be offered every session or that it will be possible to fit courses into all of the many possible timetable combinations of students taking the programs. The term in which an elective course is listed each year in the *Registration Guide*.
4. There may be a maximum limit on the number of students allowed to take an elective in a particular session. Similarly, there may be a minimum limit and if registration is below the minimum, the elective will be cancelled for the session, and those registered will be required to transfer to another elective before the deadline date for course changes.
5. Students are urged to discuss their program of courses with members of the instructional staff toward the end of their third year to obtain advice concerning the best choice of electives for their needs.

move to Computer Engineering Electives.

Department of Mechanical and Manufacturing Engineering

Course introduction:

MECH 3460 Heat Transfer Cr.Hrs. 4

+4

Steady-state and transient heat conduction, fins. Forced and free convection, laminar and turbulent conditions, internal and external flows. Heat exchangers. Radiation properties and exchange.

Prerequisites: MATH 3132 (or MATH 3100)(or 136.310) and ENG 1460(or 130.112).

Course deletion:

MECH 3470 Heat Transfer 3M Cr.Hrs. 3

-3

Not currently offered:

MECH 3530 CAE, Design and Analysis Cr.Hrs. 3

MECH 4750 Industrial Engineering Graduation Thesis Cr.Hrs. 3

Course modifications:

MECH 2200 Thermodynamics 2M Cr.Hrs. 4

(formerly 025.220) Cycles, entropy, transient flow processes, irreversibility and availability, thermodynamic relations, departure charts, gas mixtures, psychrometry, combustion. Prerequisites: ENG 1460 (or 130.112), MATH 1500 (or 136.150) or MATH 1510 (or 136.151) and MATH 1700 (or 136.170) or MATH 1710 (or 136.171).

MECH 2220 Stress Cr.Hrs.4

(formerly 025.222) Axial and torsional loading-stress, strain and deformation in statically determinate and indeterminate systems. Thermally induced stress. Stresses in beams under pure bending and bending with shear. Reinforced beams. Stresses under combined loading. The transformation of plane stress and Mohr's circle. Instability and columns. Prerequisites: PHYS 1050 (or 016.105), ENG 1440 (or 130.135) and MATH 1700 (or 136.170) or MATH 1710 (or 136.171).

MECH 2260 Introduction to Fluid Mechanics Cr.Hrs.3

(formerly 025.226) Fundamental concepts used in analysis of fluid behaviour, pressure in stationary fluids, forces on submerged surfaces, buoyancy, integral methods, the Bernoulli equation, pipeline analysis. Pre- or Corequisite: MATH 2130 (or MATH 2110)(or 136.211) or MATH 2132 (or MATH 2100)(or 136.210).

MECH 2300 Introduction to Production and Manufacturing Cr.Hrs 3

(formerly 025.230) The objective of this course is to introduce the fundamental principles that a manufacturing engineer needs to know in managing a production facility. Manufacturing and important related processes are described, along with the problem areas that need to be controlled to maintain productivity, flexibility and quality within a time frame. The basic techniques for maintaining control and solving manufacturing problems are described and the students will be given a number of industrial problems to solve. Prerequisite: MECH 2290 (or 025.229).

MECH 3050 Mechanical Engineering Coop Education Assignment 2 Cr.Hrs. 1

(formerly 025.305) Special work assignment in business, industry, or government for cooperative education students. Requires submission of a written report covering the work completed during the

four-month professional assignment, and in-depth presentation of related engineering problems. (Pass/Fail grade only). Prerequisite MECH 2050 (or 025.205).

MECH 3430 Measurement and Controls Cr.Hrs. 4

(formerly 025.343) Mathematical modeling of mechanical systems. Feedback systems and stability. Digital control; analog to digital and digital to analog control systems. Prerequisites: MATH 3132 (or MATH 3100) (or 136.310) and ENG 1450 (or 130.118).

MECH 3480 Dynamics Cr.Hrs. 3

(formerly 025.348) Kinematics and kinetics of a system of particles. Extension to three-dimensional, rigid-body motions involving Euler's equations, bearing reactions and balancing. Prerequisites: MECH 2120 (or 025.212) and MATH 1700 (or 136.170) or MATH 1710 (or 136.171), MATH 2120 (or 136.212) and MATH 2130 (or MATH 2110)(or 136.211).

MECH 3490 Advance Fluid Mechanics and Design Cr.Hrs. 3

(formerly 025.349) Dimensional analysis and similitude, flow measurement, differential analysis. Introduction to boundary-layer theory. Design of flow systems and devices. Prerequisite: MECH 2260 (or 025.226). Pre- or Corequisite: MATH 3132 (or MATH 3100)(or 136.310).

MECH 3500 Stress Analysis and Design 3M Cr.Hrs. 3

(formerly 025.350) Strength and stability of columns, torsion of thin-walled members, unsymmetric loading and shear centres, beam deflection and energy methods. Time and temperature behaviour of materials, design against fatigue and creep. Prerequisites: MATH 2130 (or MATH 2110)(or 136.211), MECH 220 (or 025.222).

MECH 3550 Robotics and Computer Numerical Control Cr.Hrs.4

(formerly 025.355) This course builds up a foundation in the area of Computer Aided Manufacturing (CAM) such as computer numerically controlled machine tools and robotics. Intense hands on experience are provided in the laboratory sessions on part programming using Computer Aided Design (CAD) packages and robots to demonstrate application in the area of CAM. Several case studies and manufacturing applications will be discussed. Not to be held with the former 025.484.

MECH 3920 Manufacturing Cooperative Education Assignment 2 Cr.Hrs. 1

(formerly 025.392) Special work assignment in business, industry, or government for cooperative education students. Requires submission of a written report covering the work completed during the four-month professional assignment, and in-depth presentation of related engineering problems. (Pass/Fail grade only). Prerequisite: MECH 3910 (or 025.391).

MECH 4050 Mechanical Engineering Coop Education Assignment 3 Cr.Hrs. 1

(formerly 025.405) Special work assignment in business, industry, or government for cooperative education students. Requires submission of a written report covering the work completed during the four-month professional assignment, and in-depth presentation of related engineering problems. (Pass/Fail grade only). Prerequisite: MECH 3050 (or 025.305).

MECH 4060 Mechanical Engineering Coop Education Assignment 4 Cr.Hrs. 1

(formerly 025.406) Special work assignment in business, industry, or government for cooperative education students. Requires submission of a written report covering the work completed during the four-month professional assignment, and in-depth presentation of related engineering problems. (Pass/Fail grade only). Prerequisite: MECH 4050 (or 025.405).

MECH 4160 Graduation Thesis Cr.Hrs. 3

(formerly 025.416) Each graduating student must submit a satisfactory thesis on a subject which will be designated or approved by the head of the department. Theses are to be handed in to the Department of Mechanical and Industrial Engineering office by the designated deadline.

RESTRICTION: Only students with a year class distinction of 4 or higher in Mechanical or Manufacturing Engineering may register for this course. Prerequisite: ENG 2010 (or 130.201) and eligible to graduate.

MECH 4690 Topics in Heat Transfer and Energy Cr.Hrs. 3

(formerly 025.469) Some combination of the following advanced topics: conduction heat transfer, radiation heat-exchanger design, two-phase phenomena, fluidization, alternative energy, energy conservation. Other topics of current interest may also be included. Prerequisite: MECH 3460 (or MECH 3470)(or 025.347).

MECH 4820 Computational Methods for Thermodynamics Cr.Hrs. 3

(formerly 025.482) General conservation equations; specific forms of the conservation equations and energy equations; finite difference methods; one dimensional steady problems; one dimensional unsteady problems; two dimensional steady problems; two dimensional unsteady problems; convection, solution for the flow field. Prerequisites: MATH 3132 (or MATH 3100)(or 136.310), MATH 2120 (or 136.212), MECH 3460 (or MECH 3470)(or 025.347) and MECH 3490 (or 025.349).

MECH 4860 Engineering Design Cr.Hrs. 5

(formerly 025.486) Design projects; teams of students prepare written and oral design reports on solutions to specific problems from Manitoba industries; series of seminars by invited speakers. Prerequisite: eligibility for graduation in the current academic year or registered in third year Manufacturing Cooperative Education Program. Not to be held with the former 024.101. Prerequisite ENG 2010 (or 130.201).

MECH 4910 Manufacturing Cooperative Education Assignment 3 Cr.Hrs. 1

(formerly 025.491) Special work assignment in business, industry, or government for cooperative education students. Requires submission of a written report covering the work completed during the four-month professional assignment, and in-depth presentation of related engineering problems. (Pass/Fail grade only). Prerequisite: MECH 3920 (or 025.392).

MECH 4920 Manufacturing Cooperative Education Assignment 4 Cr.Hrs. 1

(formerly 025.492) Special work assignment in business, industry, or government for cooperative education students. Requires submission of a written report covering the work completed during the four-month professional assignment, and in-depth presentation of related engineering problems. (Pass/Fail grade only). Prerequisite: MECH 4910 (or 025.491).

MECH 4960 Manufacturing Process 1 Cr.Hrs. 4

(formerly 025.496) This course will introduce additional or expanded versions of topics introduced in MECH 2290 (or 025.229), "Manufacturing Engineering". Topics will be selected from: relationship of manufacturing, materials selection to design, process improvement techniques; casting of metals and polymers; machining and cutting; polymers and composites; processing of powders, ceramics and glasses. Prerequisite: MECH 2290 (or 025.229).

MECH 4970 Manufacturing Process 2 Cr.Hrs. 4

This course will introduce additional or expanded versions of topics introduced in MECH 4960 (or 025.496), "Manufacturing Process 1", and building on course material from MECH 2290 (or 025.229). Topics will be selected from: forming of metals; joining processes; rapid manufacturing; micro-

electronics processing; surface engineering and finishing systems. Laboratory experience will be obtained on casting and rolling of metals and comparison of mechanical properties of the two routes. Prerequisite: MECH 4960 (or 025.496).

NET CHANGE IN CREDIT HOURS:

+1 HOURS

Faculty of Human Ecology

Course modifications:

HEAL 2600 Integration of Health Determinants of Individuals Cr.Hrs. 3

Students study, integrate and apply the determinants that affect the health of individuals throughout the life span to selected case or learning scenarios. The case or learning scenarios present a variety of issues in the delivery of health-related services that are intended to benefit individual health.

Prerequisites: [One of CHEM 1300 or BIOL 1020 or STAT 1000] and [one of PSYC 1200 or SOC 1200] or consent of instructor.

HEAL 3600 Integration of Health Determinants for Communities Cr.Hrs. 3

Students study, integrate and use community level determinants of population health in selected case or learning scenarios. These cases present a variety of issues in the design of health related services that are intended to benefit population health. Prerequisites: A grade of C in HEAL 2600 and 39 credit hours in the IDH program or consent of instructor. Restricted to students in Health Sciences and Health Studies.

HEAL 4600 Integration of Health Determinants for Canada and the World Cr.Hrs. 3

Students use selected case or learning scenarios to study the determinants of population health that depend on decision making in governmental or international agencies. The case scenarios present a variety of issues in the governance and management of population health. 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.

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 47 credit hours in the Curriculum for Interdisciplinary Health or consent of instructor. Restricted to students in Health Sciences and Health Studies.

HEAL 4620 Health Sciences Capstone Cr.Hrs. 3

Students will explore selected topics from the biological sciences to synthesize and evaluate actions that can affect the health of people. The course summarizes the biological 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 HOURS

Faculty of Kinesiology and Recreation Management

Course introductions:

REC 4400 The Administration of Special Events Cr.Hrs. 3 +3
Advanced management principles and practices and their applicability to the delivery of leisure services. May not hold for credit with REC 4310 (or 123.431). Prerequisite: REC 2400 (c) or REC 3860 (or 123.386)(C).

KIN 3500 Basic Trauma and Life Support Cr. Hrs. 3 +3
Assessment and management of medical emergencies common to sports. Topics will include on-field primary and secondary surveys, airway management, assessment and management of head, spinal, chest, abdominal and extremity trauma. Open only to Athletic Therapy students or with permission of instructor. May not hold for credit with KIN 3200 or PHED 3200 (or 057.320).

PERS 2000 Special Topics (Introductory) Cr.Hrs. 3 +3
An introductory examination of selected topics in the fields of kinesiology, physical education and recreation. Topics will vary depending on faculty expertise and student need.

Course deletions:

REC 4310 The Administration of Leisure Services 2 Cr.Hrs. 3 -3
KIN 3200 Basic Trauma and Emergency Support Cr.Hrs. 3 -3
PHED 2610 Health and Physical Aspects of Aging Cr.Hrs. 3 -3

Course modifications:

KIN 3910 Athletic Therapy Practicum Cr.Hrs. 6
To provide clinical and on-field internship experiences on campus and in the community for prospective Athletic Therapy candidates. May not be held for credit with PHED 3910 (or 057.391). Evaluated pass-fail. Prerequisite: KIN 2910 and KIN 2750 (C) and KIN 2320 (C) and KIN 3200 (C).

KIN 4910 Athletic Therapy Practicum Cr.Hrs. 6
To provide clinical and on-field internship experiences on campus and in the community for prospective Athletic Therapy candidates. May not be held for credit with PHED 4910 (or 057.391). Evaluated pass-fail. Prerequisite: KIN 3910 and KIN 3160 (C) and KIN 3300 (C) and KIN 3400 (C).

KIN 3300 Functional Assessment and Restoration Cr.Hrs. 6
Assessment of acute and chronic musculo-skeletal injuries and rehabilitation techniques to ensure full restoration of function. Open only to Athletic Therapy students. Evaluated pass-fail. May not hold for credit with PHED 3300 (or 057.330). Prerequisite: KIN 3320(C).

KIN 4160 Advanced Pathology and Sport Medicine Cr.Hrs. 3
Basic principles of pathology and clinical manifestations of cardiac, respiratory, and neurologic disorders. Preventative measures, assessments and treatment methods employed in care of patients with these disorders. Preventative measures, assessments and treatment methods employed in care of patients with these disorders will also be examined. May not be held for credit with PHED 4050 (or 057.405). Prerequisite: [KIN 3160 (C) or PHED 3160(C) or PHED 3060 (or 057.306)(C)] and [KIN 3470 (C) or PHED 3470(C) or PHED 3430(or 057.343)(C)].

KIN 4300 Health and Wellness Practices in Athletic Therapy Cr.Hrs. 3

Overview of health and wellness practices in Athletic Therapy with the focus on issues relevant to the development and management of an Athletic Therapy business/clinical practice. May not hold for credit with PHED 4300 (or 057.430). Open only to Athletic Therapy students. Prerequisite: PERS 2100 (C).

PERS 2200 Program Planning Principles Cr.Hrs. 3

While contexts in practice may vary, program planning is an essential competency for all professionals in recreation, kinesiology, and physical education. To ensure the requisite skill set is acquired, the emphasis in this course will be on the principles and processes in effective program planning, implementation, and evaluation. Prerequisites: [PERS 1200(C) or PHED 1200 (or 057.120(C) or PERS 1500 (C) or PHED 1500 (or 057.150)(C)] and [PERS 1400 or REC 14400 (or 123.140)(C)].

PHED 2320 Human Anatomy Cr.Hrs. 3 (Lab required)

(formerly 057.232) Structure of the skeletal, articular, and muscular systems of the human body. May not be held for credit with KIN 2320, REHB 1480 (or 068.148), REHB 1490 (or 068.149), or REHB 1500 (or 068.150). Prerequisites: [ZOOL 1320 (or 022.132)(C) and ZOOL 1330 (or 022.133)(C)] or [BIOL 1020 and BIOL 1030 (C)] or [(071.125)(C)] or equivalent.

PHED 2720 Developmental Games and Activities Cr.Hrs. 3

Practical and theoretical aspects of designing educational game experiences applicable to early through senior years physical education, to include the design, implementation, and assessment of safe and inclusive physical activities as well as planning, organizational and teaching strategies. Introduced students to Manitoba Curriculum Student Learning Outcomes in "Movement, Safety, Personal and Social Management". May not hold for credit with PHED 2650 (or 057.265). Requires a paid facility use pass. Prerequisite: PHED 2710 (C).

PHED 2730 Gymnastics, Dance and Rhythmic Activities Cr.Hrs. 3

Practical and theoretical aspects of designing gymnastics, dance and rhythmic activity experiences applicable to early through senior years physical education, to include the design, implementation, and assessment of safe and inclusive physical activities as well as planning, organizational and teaching strategies. Incorporates Manitoba Curriculum Student Learning Outcomes in "Movement" and "Safety". May not hold for credit with PHED 3410 (or 057.341). Requires a paid facility use pass. Prerequisite: PHED 2710 (C).

PHED 3090 Principles of Fitness Training Cr.Hrs. 3

(formerly 057.309) Theoretical concepts of designing programs employing the principles of overload and adaptation for all components of fitness for all age groups. May not hold for credit with KIN 3090. Prerequisite: PHED 3470 (C) or KIN 3470 (C) or PHED 3430 (or 057.343)(C).

PHED 3450 Motor Learning Cr.Hrs. 3

(formerly 057.345) Psychological components of human movement; human motor behaviour and the acquisition of motor skills. May not be held for credit with KIN 3450 (or 057.345).

PHED 3760 Diverse Populations Mentorship Cr.Hrs. 3

Practical and theoretical aspects of designing physical activity experiences for students from diverse populations, including on site leadership opportunities in a multicultural school Context. Evaluated pass-fail.

PHED 4600 Aboriginal Cultural Games Cr.Hrs. 3

This course will provide students with a unique opportunity to explore, in theory and practice, traditional and contemporary world views related to historical, cultural, and environmental approaches to Aboriginal games and activities. Requires a paid facility use pass. Evaluated pass-fail.

REC 2400 Management and Marketing of Leisure Services Cr.Hrs. 3

Basic management, and marketing principles and practices and their applicability to delivery of leisure services. Topics include financial resources, budgeting, people-centred management, and marketing. Prerequisites: PERS 1400 or REC 1400 (or 123.140).

REC 3090 Sustainable Nature-Based Tourism Cr.Hrs. 3

(formerly 123.309) Analysis of the growth and development of sustainable nature-based tourism as a global and regional phenomenon. Particular emphasis will be placed upon the fundamental principles of sustainability, natural resource and visitor management for recreation, and the role of outdoor recreation and education in Sustainable Tourism Planning and Management. May not be held with 123.330. Note: A fieldwork fee is attached to this course. Prerequisites: [PERS 1300 (C) or REC 1200 (or 123.120)(C)] and [PERS 1400 (C) or REC 1400 (or 123.140)(C)].

REC 3850 The Planning of Recreation Areas and Facilities Cr.Hrs. 3

The process used to plan both recreational open spaces and facilities. Special consideration is given to the role of the recreation professional in relationship to other planners. Prerequisite: PERS 1400 (C) or REC 1400 (or 123.140)(C).

REC 4060 Person Centres Leisure Education Cr.Hrs. 3

(formerly 123.406) A detailed examination of person centred leisure education with an emphasis on both theoretical and practice models and their application to the recreation service delivery system. Prerequisite: PERS 3100 (C) or REC 3060 (123.306)(C).

REC 4070 Community Development and the Leisure Service Delivery System Cr.Hrs. 3

(formerly 123.407) The nature of community and the unique role that leisure service organizations play in the complex process of community development. May not be held for credit with 123.404. Prerequisites [PERS 2200 (C) or REC 2530 (or 123.253)(C)] and REC 2400 (C).

REC 4120 Recreational Travel and Tourism Cr.Hrs. 3

(formerly 123.412) The purpose of this course is to provide students with a better understanding of the travel and tourism industry through an examination of its history, service systems and issues. Prerequisite: PERS 1300 (C) or REC 1200 (or 123.120)(C).

REC 4140 Marketing Recreation and Park Services Cr.Hrs. 3

(formerly 123.414) A review of the general principles of marketing and an introduction to strategies for their implementation in public sector and not-for-profit recreation agency programs and services. Prerequisites: MKT 2210 (or 118.221) and [REC 2400 (C) or REC 3860 (or 123.386)(C)].

REC 4150 Clinical Aspects of Therapeutic Recreation Cr.Hrs. 3

(formerly 123.415) An examination of the current principles of therapeutic recreation in relation to their practical application to individuals in clinical settings such as nursing homes, hospitals and other long-term care facilities. Prerequisite: PERS 3100 (C) or REC 3060 (or 123.306)(C).

REC 4170 Sport Management Cr.Hrs. 3

(formerly 123.417) The purpose of this course is to assist students in gaining an in-depth appreciation of national and provincial sport organizations. Topics include structure, policies, programs, marketing,

funding and communications as they relate to Fitness and Amateur Sport Canada and governance in the Canadian Sport System. Prerequisites: [PERS 1400 (C) or REC 1400 (or 123.140)(C)] or [PERS 1500 (C) or PHED 1500 (or 057.150)(C)] and REC 2400 (C).

REC 4180 Social and Psychological Aspects of Leisure Cr.Hrs. 3
(formerly 123.418) An examination of leisure behaviour and experience of individuals in social and situational contexts, focusing on the role of leisure in the social psychological adjustment of the individual and implications for managing and delivering leisure services. Prerequisite: PERS 1400 (C) or REC 1400 (or 123.140)(C).

REC 4250 Leisure and Aging Cr.Hrs 3
The nature of the aging process and its impact on leisure behaviour. The factors influencing leisure among older adults, policy issues, and program and service methods and implications will be examined. May not be held for credit with REC 4130 (or 123.413). Prerequisite PERC 3100 (C) or REC 3060 (or 123.306)(C).

NET CHANGE IN CREDIT HOURS:

0 HOURS

Internal Minors for Kinesiology and Recreation Students

A. Kinesiology Student – Recreation Minor (18 credit hours)

PERS 1400 Concepts of Recreation and Leisure
REC 2400 Management and Marketing of Leisure Services
REC 3600 Advanced Program Planning and Leadership

Pre-requisite

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PERS 1400 Concepts of Recreation & Leisure
PERS 2200 Program Planning Principles

Plus

REC 4310 Administration of Leisure (2) (**proposed name change to Administration of Special Events*)
REC 4070 Community Development and the Leisure Service Delivery System
+ 1 other (3 credit hours)

PERS 2400 Management & Marketing

PERS 2200 Program Planning Principles &
PERS 2400 Management & Marketing

Or

PERS 1300 Introduction to Leisure Travel
REC 3090 Sustainable Nature-Based Tourism

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PERS 1300 Introduction to Leisure Travel &
PERS 1400 Concepts of Recreation & Leisure

+ 1 other (3 credit hours)

B. Recreation Student – Kinesiology Minor (18 credit hours)

PERS 1500 Foundations of Physical Education & Kinesiology--
KIN 2320 Human Anatomy

BIOL 1020/1030 or BIOL 1000/1010
or ZOOL 1320/1330

KIN 2740 Fitness Theory and Practice
KIN 3470 Exercise Physiology
KIN 3090 Principles of Fitness Training
+ 1 other (3 credit hours)

Kin 2320 Human Anatomy
ZOOL 2540
KIN 3470 Exercise Physiology

Course pre-requisites not offered in the Faculty of Kinesiology and Recreation Management will not be counted toward the 18-credit hour minor.

I.H. Asper School of Business Faculty of Management

Small Business/Entrepreneurship

Course introductions:

ENTR 2010 Managing the Smaller Business +3
Small firms dominate the Canadian economic scene and contribute to the nation's economic welfare in a major way but pose different managerial issues and problems for their owner/managers than larger organizations. This course will focus specifically on how to effectively manage and grow the smaller firm. Students may not hold credit for both ENTR 2010 and ENTR 3100.

ENTR 2020 Starting a New Business +3
This is a course for students in all Faculties who may wish to start a business of their own at some time or assess their potential for such an option. It will cover a broad range of topics to increase your understanding of what it takes to succeed in an entrepreneurial career. Students may not hold credit for both ENTR 2020 and ENTR 4100.

NET CHANGE IN CREDIT HOURS: +6 HOURS

Faculty of Medicine

Department of Pharmacology and Therapeutics

Course deletion:

PHAC 4020 Pharmacology Basics Cr.Hrs. 6 -6

Course introductions:

PHAC 4030 Drugs in Human Disease I Cr.Hrs. 3 +3
Foundation physiological principles underlying human disease integrated with drug disposition and effects of important drug groups on disorders of the autonomic and central nervous systems, and the cardiovascular system. May not be held with PHAC 4020. Prerequisites: ZOOL 2530 (or 022.253) and ZOOL 2540 (or 022.254).

PHAC 4040 Drugs in Human Disease II Cr.Hrs. 3 +3
Foundation physiological principles underlying human disease integrated with effects of important drug groups on endocrine and organ systems disorders, allergy and inflammation, infection, and cancer. The course also offers an introduction to basic clinical pharmacology as well as several current specialized topics in pharmacology. May not be held with PHAC 4020. Prerequisites: ZOOL 2530 (or 022.253) and ZOOL 2540 (or 022.254).

NET CHANGE IN CREDIT HOURS: 0 HOURS

Faculty of Pharmacy

Course modifications:

PHRM 1700 Structured Practical Experiential Program 1 Cr.Hrs. 1

The course is a service-learning experience, providing students the opportunity to work in community-based patient/client-centred settings. This course also includes 2 half-day job shadowing experiential rotations in a variety of pharmacy practice settings (eg. Community pharmacy practice, institutional pharmacy practice) under the supervision of pharmacist preceptors consistent with the Manitoba Pharmacy Act. It serves to familiarize students with the health care setting and the pharmacist's role. Students will be graded on a pass/fail basis.

PHRM 2700 Structured Practical Experiential Program 2 Cr.Hrs. 2

This course offers experiential learning in a variety of pharmacy practice settings (eg. Community pharmacy practice, institutional pharmacy practice). It consists of 2 one week rotations at the end of the second year of the program. This course builds on skills learned in SPEP 1 and focuses on the practice of drug preparation and distribution, non-prescription medication counseling and jurisprudence under the supervision of pharmacist preceptors consistent with the Manitoba Pharmacy Act. Students will be graded on a pass/fail basis.

PHRM 3700 Structured Practical Experiential Program 3 Cr.Hrs. 4

This course offers experiential learning in a variety of pharmacy practice settings (eg. Community pharmacy practice, institutional pharmacy practice). It consists of 2 two week rotations at the end of the third year of the program. This course builds on skills learned in SPEP 1 and SPEP 2 and focuses on the introduction of applying pharmaceutical care to patients under the supervision of pharmacist preceptors consistent with the Manitoba Pharmacy Act. Students will be graded on a pass/fail basis.

PHRM 4700 Structured Practical Experiential Program 4 Cr.Hrs. 10

This course offers experiential learning in a variety of pharmacy practice settings (eg. Community pharmacy practice, institutional pharmacy practice). It consists of 2 six week rotations. This course builds on skills learned in SPEP 1, SPEP 2 and SPEP 3 and focuses on practicing advanced pharmaceutical care and further developing therapeutic and disease knowledge under the supervision of pharmacist preceptors consistent with the Manitoba Pharmacy Act. Students will be graded on a pass/fail basis.

NET CHANGE IN CREDIT HOURS:

0 HOURS

Faculty of Science

Department of Biological Sciences

Course modifications:

ZOOL 2150 Developmental Biology Cr.Hrs. 3

(formerly 022.215) Principles and concepts of developmental biology including gametogenesis, fertilization, early and late development. Cellular, tissue and molecular aspects will be presented utilizing both invertebrate and vertebrate examples. Prerequisite: BIOL 1030 or BIOL 1031 (or the former 071.125)(C).

ZOOL 2280 Cell Biology Cr.Hrs. 3

(formerly 022.228) The microscopic and submicroscopic aspects of cellular structure and function are considered with emphasis on the living cell as a dynamic system. Prerequisite: BIOL 1030 or BIOL 1031 (or the former 071.125)(C).

ZOOL 2281 Biologie cellulaire Cr.Hrs. 3

(l'ancien 022.228) La fonction des organites cellulaires sera étudiée conjointement avec leur structure microscopique ou leur ultrastructure en insistant sur l'ensemble de la vie cellulaire en tant que système dynamique. Préalable: BIOL 1030 ou BIOL 1031 (ou l'ancien 071.125)(C). Donné seulement au Collège universitaire de Saint-Boniface.

ZOOL 4170 Biology of Fishes Cr. Hrs. 3 (Lab required)

(formerly 022.417) Lectures survey organ systems, life history, and the population biology of fishes. The ecological analysis of fish communities is addressed through a field trip and a series of workshops on the analysis of field data. Evaluation is based upon work related to the field trip and examinations based upon the lecture material. Not to be held with the former 022.467. Prerequisite: ZOOL 2320 (or 022.232)(C) or ZOOL 2501 (or the former 022.250)(C).

NET CHANGE IN CREDIT HOURS:

0 HOURS

Department of Chemistry

Course modifications:

CHEM 2240 Applied Chemistry for Engineers (3)

(formerly 002.224) Bonding, surface chemistry, phase rule, electrochemistry, materials and descriptive inorganic chemistry of selected elements. Prerequisite: CHEM 1300 or CHEM 1301 (or 002.130)(C).

CHEM 2360 Biochemistry I (3)(Lab required)

(formerly 000.236) An introductory course dealing with kinds of molecules encountered in biochemistry, and the concept of metabolic energy as a product of catabolism and a requirement for biosynthesis. This course is also given in Microbiology as MBIO 2360. Not to be held with CHEM 2770 (or 002.277) or MBIO 2360 or MBIO 2361 (or 060.236) or CHEM 2860 (or 002.286) or MBIO 2770 (or 060.277). Prerequisites: CHEM 1310 or CHEM 1311 (or 002.131)(C) and BIOL 1030 or BIOL 1031 (or 071.125)(C). NOTE: Students may hold this course for credit in the B.Sc. General degree program, but may not use it to fulfill the minimum requirement of 12 credit hours in 2000 level Chemistry (pre-September 2008 regulations). Those students following the new B.Sc. General Degree regulations (effective 2008-09) are able to use this course as advanced level credit in both Microbiology and Chemistry.

CHEM 2370 Biochemistry II (3)(Lab required)

An introductory course dealing with the basic metabolic processes that occur in living cells, including the production and use of metabolic energy, the breakdown and synthesis of biomolecules; the synthesis of DNA, RNA and proteins; and the regulation of these processes. This course is also given in Microbiology as MBIO 2370. Not to be held with CHEM 2780 (or 002.287) or MBIO 2370 or MBIO 2371 (or 060.237) or MBIO 2780 (or 060.278). Prerequisites: CHEM 2360 or CHEM 2361 (or 002.236 or 060.236)(C) and CHEM 2210 or CHEM 2211 (or 002.221)(C). NOTE: Students may hold this course for credit in the B.Sc. General degree program, but may not use it to fulfill the minimum requirement of 12 credit hours in 2000 level Chemistry (pre-September 2008 regulations). Those

students following the new B.Sc. General Degree regulations (effective 2008-09) are able to use this course as advanced level credit in both Microbiology and Chemistry.

NET CHANGE IN CREDIT HOURS:

0 HOURS

DEPARTMENT OF CHEMISTRY
Program Changes
2008-09

Change program from:

THREE YEAR GENERAL

CHEM 1300(C) and CHEM 1310(C)	A minimum of 12 credit hours from: CHEM 2210, CHEM 2220, CHEM 2280, CHEM 2290, CHEM 2380, CHEM 2470
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to:

THREE YEAR GENERAL

CHEM 1300(C) and CHEM 1310(C)	a minimum of 18 credit hours from the following list of advanced level courses: CHEM 2210, CHEM 2220, CHEM 2280, CHEM 2290, CHEM 2360, CHEM 2370, CHEM 2380, CHEM 2470, CHEM 3360, CHEM 3370, CHEM 3380, CHEM 3390, CHEM 3580, CHEM 3590, CHEM 4360, CHEM 4370, CHEM 4570, CHEM 4580, CHEM 4590, CHEM 4620, CHEM 4630, CHEM 4640, CHEM 4670, CHEM 4680, CHEM 4690 (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.).
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The above changes were made as a result of the changes to the Bachelor of Science General Degree requirements. Specifically with respect to the number of credit hours now required at the 2000/3000/4000 level.

Department of Computer Science

DEPARTMENT OF COMPUTER SCIENCE
Program Change
2008-2009

Area Specializations

Students who obtain a grade of "C" or better in the courses listed for an area of specialization will receive a notation on their transcript stating that they have met the requirements of that specialization. Students may obtain such a notation for more than one area.

The "Areas of Specialization" were approved by Senate in Spring 2007. The Computer Science Department wishes there to be a minimum grade of "C" required in each course a student may be using for a given area of specialization.

Department of Mathematics

Course deletion:

MATH 1000 College Mathematical Applications Cr.Hrs. 3

-3

Course modifications:

The prerequisites of the following course modified to remove reference to MATH 1000:

MATH 1200 Elements of Discrete Mathematics (3)

MATH 1201 Elements de mathematiques discrete (3)

MATH 1300 Vector Geometry and Linear Algebra (3)

MATH 1301 Geometrie vectorielle et algebra lineaire (3)

MATH 1310 Matrices for Management and Social Sciences (3)

MATH 1500 Introduction to Calculus (3)

MATH 1501 Introduction au Calcul (3)

MATH 1510 Applied Calculus I (3)

MATH 1520 Introduction to Calculus for Management (3)

MATH 1530 Calculus with Computers (3)

MATH 1680 Mathematics for Agriculture (6).

Course modifications:

MATH 2120 Introductory Numerical Methods for Engineers Cr.Hrs. 4 (Lab required)

(formerly 136.212) Numerical methods applied to problems in engineering; roots of nonlinear equations and systems of linear equations, numerical differentiation and integration, initial-value problems. For Engineering and Geophysics students only. Not to be held with MATH 2600 or MATH 2601 (or 136.260 or 006.220), the former 010.344 or 006.270. Prerequisites: COMP 1010 or COMP 1011 (or 074.101 or 074.111 or 074.112)(C); and MATH 2132 (or the former MATH 2100 or 136.210 or 006.260)(C).

MATH 2500 Introduction to Number Theory Cr.Hrs. 3

(formerly 136.250) Topics may include divisibility, unique factorization, linear and quadratic congruences, Fermat's theorem. This course may not be held with MATH 2501. Prerequisite: An average of "C" or better in six credit hours of Year 1 Mathematics courses with the exception of MATH 1000 (136.100), MATH 1010 (or 136.101), MATH 1020 (or FA 1020 or 054.102 or 136.102), and MATH 1190 or MATH 1191 (or 136.119); or consent of department.

MATH 3120 Applied Discrete Mathematics Cr.Hrs. 3 (Lab required)

(formerly 136.312) Sets, groups, graphs, and Boolean algebra. For Engineering students only. Not to be held with COMP 2130 (or 074.213) or 074.212 and the former 006.371. Prerequisites: MATH 2132 (or the former MATH 2100 or 136.210)(C) and MATH 2120 (or 136.212 or the former 006.270)(C).

MATH 3142 Engineering Mathematical Analysis 4 Cr.Hrs. 3

Introduction to discrete mathematics; systems of linear differential equations; complex function theory and applications. For Engineering and Geophysics students only. Not to be held with MATH 3110 (or 136.311 or 006.343) or MATH 3700 (or 136.370 or 006.325) or MATH 3710 (or 136.371 or 013.372). Prerequisites: MATH 2130 and MATH 2132 (or the former MATH 2110 or 136.211 or 006.261)(C).

NOTE: MATH 3132 is highly recommended.

MATH 3220 Set Theory Cr.Hrs. 3

(formerly 136.322) Axiom systems, cardinal and ordinal numbers, models of set theory, the axiom of choice, the generalized continuum hypothesis, etc. Prerequisite: MATH 2202 (or the former MATH 2200 or 136.220)(C) or consent of department.

MATH 3230 Metric Spaces Cr.Hrs. 3

(formerly 136.323) Definition of metric spaces; examples. Compactness, connectedness and continuity in metric spaces. Applications to analysis. Not to be held with MATH 3210 (or 136.321). Prerequisites: MATH 2750 (or 136.275)(C) and MATH 2202 (or MATH 2200 or the former 136.220)(C), or consent of department.

MATH 3300 Modern Algebra I Cr.Hrs. 3

(formerly 136.330) Introduction to the concepts and structures of modern algebra, including groups, rings and fields; substructure, isomorphism, quotients. Not to be held with MATH 3350 (or 136.335)> Prerequisites: MATH 2300 or MATH 2301 (or 136.230)(C) or MATH 2352 (or the former MATH 2350 or 136.235)(C) and an additional 6 credit hours of 2000 level mathematics courses, or consent of department.

MATH 3350 Advanced Algebra Cr.Hrs. 6

(formerly 136.335) An introduction to abstract algebra with topics taken from among the theories of groups, rings, modules, fields and lattices. This course is taught at an Honours/Major level. Not to be held with MATH 3300 (or 136.330), MATH 3310 (or 136.331). Prerequisites: MATH 2352 (or MATH 2350 or 136.235)(C) and MATH 2202 (or MATH 2200 or 136.220)(C) or consent of department.

MATH 3400 Combinatorics I Cr.Hrs. 3

(formerly 136.340) Basic counting principles, pigeon-hole principle, recursion, graphs. This course is taught at an Honours/Major level. Prerequisites: MATH 2202 (or MATH 2200 or 136.220)(C) and MATH 2352 (or MATH 2350 or 136.235)(C) or consent of department.

MATH 3450 Theory of Numbers Cr.Hrs. 6

(formerly 136.345) Divisibility, congruences; quadratic residues and reciprocity; introduction to analytic and algebraic number theory. Prerequisites: MATH 2750 (or 136.275)(C) and MATH 2202 (or MATH 2200 or 136.220)(C) or consent of department.

MATH 3540 Techniques of Applied Analysis Cr.Hrs. 3

(formerly 136.354) Applied mathematical topics such as asymptotics, transform theory and special functions. Prerequisites: MATH 3700 (or 136.370)(C) and MATH 3800 (or 136.380)(C) or consent of department. Pre- or co-requisite: MATH 3740 (or 136.375).

MATH 3760 Advanced Calculus Cr.Hrs. 6

(formerly 136.376) Vector analysis; The Riemann and Riemann-Stieltjes integral, uniform convergence of series and integrals, power series and Fourier series. This course is taught at an Honours/Major level. Not to be held with MATH 3740 (or 136.375). Prerequisites: MATH 2750 (or 136.275 or the former 013.234)(C), MATH 2352 (or MATH 2350 or 136.235)(C) and MATH 2202 (or MATH 2200 or 136.220)(C), or consent of department.

MATH 4610 Introduction to Finite Elements and Boundary Elements Cr.Hrs. 3

(formerly 136.461) Introduction to finite element and boundary element techniques for solving partial differential equations. Prerequisites: MATH 3600 (or 136.360)(C) and either [MATH 3740 (or 136.375)(C) or MATH 3760 (or 136.376)(C)].

MATH 4730 Tensor and Variational Calculus Cr.Hrs. 3

(formerly 136.473) An introduction to tensor calculus, differential forms, and variational principles on differentiable and Riemannian manifolds. Prerequisites: six credit hours of 2000 level calculus and MATH 2800 or MATH 2801 (or 136.280)(C) or consent of department. Pre- or co-requisite: MATH 3740 (or 136.375) or MATH 3760 (or 136.376).

NET CHANGE IN CREDIT HOURS:

-3 HOURS

Department of Microbiology

Course modifications:

MBIO 2230 Introductory Biochemistry Cr.Hrs. 3

(formerly 060.223) The roles and interactions of biological, chemical and geological reactions in determining the composition of the environment. Microorganisms as major agents of biogeochemical change and their roles in the element cycles will be especially emphasized. Prerequisite: CHEM 1310 or CHEM 1311 (or 002.131)(C). It is recommended that 3 credit hours of 1000 level Geological Sciences be taken concurrently with or prior to MBIO 2230. Not available to students who have previously obtained credit in, or are currently registered in MBIO 4320 (or 060.432).

MBIO 2360 Biochemistry I Cr.Hrs. 3 (Lab required)

(formerly 060.236) An introductory course dealing with kinds of molecules encountered in biochemistry, and the concept of metabolic energy as a product of catabolism and a requirement for biosynthesis. This course is also given in Chemistry as CHEM 2360. Not to be held with MBIO 2770 (or 060.277) or CHEM 2360 or CHEM 2361 (or 002.236) or CHEM 2860 (or 002.286) or CHEM 2770 (or 002.277). Prerequisites: CHEM 1310 or CHEM 1311 (or 002.131)(C) and BIOL 1030 or BIOL 1031 (or 071.125)(C). NOTE: Students may hold this course for credit in the B.Sc. General degree program, but may not use it to fulfill the minimum requirement of 12 credit hours in 2000 level Chemistry (pre-September 2008 regulations). Those students following the new B.Sc. General Degree regulations (effective 2008-09) are able to use this course as advanced level credit in both Microbiology and Chemistry.

MBIO 2370 Biochemistry II Cr.Hrs. 3 (Lab required)

An introductory course dealing with the basic metabolic processes that occur in living cells, including the production and use of metabolic energy, the breakdown and synthesis of biomolecules; the synthesis of DNA, RNA and proteins; and the regulation of these processes. This course is also given in Chemistry as CHEM 2370. Not to be held with MBIO 2780 (or 060.287) or CHEM 2370 or CHEM 2371 (or 002.237) or CHEM 2780 (or 002.278). Prerequisites: MBIO 2360 or MBIO 2361 (or 060.236 or 002.236)(C) and CHEM 2210 or CHEM 2211 (or 002.221)(C). NOTE: Students may hold this course for credit in the B.Sc. General degree program, but may not use it to fulfill the minimum requirement of 12 credit hours in 2000 level Chemistry (pre-September 2008 regulations). Those students following the new B.Sc. General Degree regulations (effective 2008-09) are able to use this course as advanced level credit in both Microbiology and Chemistry.

NET CHANGE IN CREDIT HOURS:

0 HOURS

Department of Physics and Astronomy

Course modifications:

PHYS 1820 General Astronomy 2: Exotic Stars, Galaxies and Cosmology Cr.Hrs. 3 (Lab required) (formerly 016.182) This course extends the material from General Astronomy 1, increasing the student's physical understanding of topics like black holes, galaxies, and the expanding universe. Topics range from the Big Bang to the formation of neutron stars. A significant amount of simple arithmetic and trigonometry is used to provide the insights into physical background and to illuminate current research problems. Labs and observing sessions are used to teach scientific method. Not to be held with the former 016.180. Prerequisites: Pre-calculus Mathematics 40S or equivalent, or consent of department.

PHYS 3430 Honours Physics Laboratory Cr.Hrs. 6 (Lab required) (formerly 016.343) Six hours per week. Prerequisites: PHYS 2260 or PHYS 2261 (or 016.226)(C) and PHYS 2610 (or 016.261 or the former 016.269)(C) or consent of instructor.

NET CHANGE IN CREDIT HOURS:

0 HOURS

DEPARTMENT OF PHYSICS AND ASTRONOMY Program Changes 2008-2009

Current:

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 2700, PHYS 2710, PHYS 3180, PHYS 3380, PHYS 3800.

Proposed:

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 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.)

Department of Statistics

Course modifications:

STAT 1000 Basic Statistical Analysis I Cr.Hrs. 3

(formerly 005.100) An introduction to the basic principles of statistics and procedures used for data analysis. Topics to be covered include: gathering data, displaying and summarizing data, examining relationships between variables, sampling distributions, estimation and significance tests, inference for means. Not to be held with STAT 1001, STAT 2220 (or the former 005.222). Prerequisite: Any grade 12 or 40S Mathematics, or equivalent.

STAT 2000 Basic Statistical Analysis II Cr.Hrs. 3

(formerly 005.200) The study of estimation and hypothesis testing procedures for means and proportions in one, two and multiple sample situations, introduction to the analysis of variance; regression and correlations analysis; optional topics may include nonparametric procedures, design of experiments, probability models. Not to be held with STAT 2001. Prerequisite: STAT 1000 (or 005.100) or STAT 1001 (C).

STAT 2400 Introduction to Probability Cr.Hrs. 3(Lab required)

Basic probability, discrete distributions including binomial, hypergeometric, geometric and Poisson joint distributions, continuous distributions, statistical inference and applications involving discrete random variables. This course is not available to any student who has previously obtained credit for STAT 3500. Prerequisites: [STAT 1000 or STAT 1001 (005.100)(C)] and [MATH 1700 or MATH 1701 (136.170) OR MATH 1680 (136.169)(C)].

STAT 3480 Statistical Methods for Research Workers II Cr.Hrs. 3

(formerly 005.348) Analysis of variance, randomized block design, nested and Latin square experiments, analysis of covariance. Not to be held with STAT 3130 (or 005.313). Prerequisite: STAT 3470 (or 005.347)(C).

STAT 4140 Introduction to Statistical Inference Cr.Hrs. 3

(formerly 005.414) Introduction to methods of estimation and test of hypotheses. Prerequisite: STAT 3600 (or 005.360)(C).

STAT 4170 Lifetime Data Analysis Cr.Hrs. 3

(formerly 005.417) An introduction to basic principles and techniques for lifetime data analysis in biostatistics and reliability, with emphasis on theory and applications. Topics to be covered include: censoring, truncation, survival and hazard functions, parametric and nonparametric methods, proportional hazards regression. Prerequisites: [STAT 3120 (005.312) or STAT 3470 (005.347)(C)] and [STAT 3130 (005.313) or STAT 3480 (or 005.348)(C)] and [STAT 3600 (or 005.360)(C)].

NET CHANGE IN CREDIT HOURS:

0 HOURS

/mb

SENATE COMMITTEE ON CURRICULUM AND COURSE CHANGES – 2008/2009

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

	Fall Deadline	SPPC meeting	Spring Deadline	Senate Exec meeting	Senate meeting
Curriculum/Course changes < 9 CH	September 19, 2008 <i>Submitted to SCCCC only</i>			November 18, 2008	December 3, 2008
Curriculum/Course changes > 9 CH or with resource implications	August 22, 2008 <i>Submitted to SCCCC and SPPC</i>	September 29, 2008		October 22, 2008	November 5, 2008
Curriculum/Course changes < 9 CH			February 20, 2009	April 29, 2009	May 13, 2009
Curriculum/Course changes > 9 CH or with resource implications					

Note:

1. Items to be included in the General Calendar must be submitted for the fall round of meetings.
2. All changes with resource implications must be considered by the Senate Planning and Priorities Committee (SPPC). Faculty/School should provide a separate submission for SPPC.
Resource Implications include: (i) additions/deletions of courses in a department with a net increase of more than nine credit hours, submission to SPPC should include how this will be addressed; (ii) if course is offered jointly with other faculty(s) what are the resource implications.
3. The submission of new undergraduate programs with or without additional funding will be considered on an on-going basis by SCCCC and SPPC. In the fall, the Committee's focus is on course changes, therefore, new programs might not be dealt with as quickly as at other times of the year.

Report of the Executive Committee of the Faculty of Graduate Studies from the e-mail vote of April 16, 2008

Preamble:

The Executive Committee voted by e-mail on Wednesday, April 16, 2008 and made the following recommendation. There were no observations.

Recommendation:

THAT the Faculty of Graduate Studies Executive Committee approve the Feb. 20/08 Programs and Planning report with respect to the course modifications in the Dept. of Psychology and that it be recommended to Senate for approval.

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

Preamble

The Programs and Planning Committee (PPC) of the Faculty of Graduate Studies (FGS) has the responsibility of reviewing new programs, program changes, and course changes and makes recommendations to FGS Executive. PPC held a meeting on Feb. 20, 2008 and made the following recommendation.

Note: The course modifications in the Dept. of Psychology were incorrectly sent to Senate and therefore must be resubmitted to FGS Executive and Senate for approval.

Department of Psychology, Faculty of Arts

TWELVE (12) MODIFICATIONS

PSYC.7010	Ethics, History and Profession of School Psychology <i>"(Formerly 017.701.) An overview of the fundamental concepts and issues of professional school Psychology. Ethical, professional, regulatory and legal issues pertaining to the practice of school psychology are examined. Also examined are the history of school psychology and the organization of educational systems. Pre-requisite: permission of instructor."</i>	6
PSYC.7020	Psycho-educational Assessment and Measurement <i>"(Formerly 017.702.) Designed to provide students with competencies in the basic principles of psychological assessment and related measurement concepts, highlighting the process of data-based decision making. Emphasis will be placed on how information from a variety of psycho-educational sources is used to identify profiles for planning intervention programs. Pre-requisite: permission of instructor."</i>	6
PSYC.7050	Junior Practicum in School Psychology <i>"(Formerly 017.705.) Supervised practice with school children in a field setting. Emphasis on development of</i>	3

skills in assessing intelligence, academic skills and social-emotional difficulties, and on communication of findings to parents, teachers, and school administrators through written and verbal reports. Pass/fail course. Pre-requisite: permission of instructor."

- PSYC.7060** **Senior Practicum in School Psychology** **6**
"(Formerly 017.706.) Supervised practice in a school setting. The focus is on development of skills relevant to case conceptualization, intervention, and supervision of junior practicum students. Pass/fail course. Pre-requisite: PSYC.7050 (or 017.705), permission of instructor."
- PSYC.7070** **Social, Emotional, and Personality Assessment Of Children/Youth** **3**
"(Formerly 017.707.) An overview of theory, research, and the educational implications of social, emotional, and personality assessment of children and adolescents. A variety of methods are examined with an emphasis on empirically-supported practices in the assessment of psychopathology and socio-emotional functions. Pre-requisite: permission of instructor."
- PSYC.7090** **Behavioural Assessment and Intervention in School Settings** **3**
"(Formerly 017.709.) Behavioural management strategies and techniques for children and adolescents who present with serious disruptive and/or emotional and behavioural disorders in schools. A wide range of techniques and strategies are considered. Pre-requisite: permission of instructor."
- PSYC.7100** **Intervention in the Early/Middle Years** **3**
"(Formerly 017.710.) Examines interventions directed at individuals, groups, and families, as well as classroom- and school-based intervention and prevention programs to promote a range of adaptive outcomes and intervene in a range of maladaptive pathways. Pre-requisite: PSYC.7080 (or 017.708), permission of instructor."

PSYC.7110	Intervention in Adolescence 3 <i>"(Formerly 017.711.) Examines interventions directed at individuals, groups, and families, as well as classroom- and school-based intervention and prevention programs to promote a range of adaptive outcomes and intervene in a range of maladaptive pathways. Pre-requisite: PSYC.7080 (or 017.708), permission of instructor."</i>
PSYC.7120	Consultation and Supervision 3 <i>"(Formerly 017.712.) An examination of theories and models of school-based consultation and collaboration. Practice with techniques and procedures associated with effective consultation with teachers, school administrators, and parents. Pre-requisite: permission of instructor."</i>
PSYC.7130	School Psychology Research Design and Program Evaluation 3 <i>"(Formerly 017.713.) Provides students with knowledge and skills needed to understand, design, and conduct evaluations of intervention programs for individuals experiencing academic or behaviour difficulties in school. Addresses the aims, theories, and methods of program evaluation, including relevant research design and statistical methods. Pre-requisite: permission of instructor."</i>
PSYC.8070	Profession of Clinical Psychology 3 <i>"(Formerly 017.807.) Study of professional issues in clinical practice. The historical development and current status of the profession; discussion of ethical considerations, licensure, professional standards, public and private practice, public education, and legal decisions affecting clinical psychology. Pass/fail course."</i>
PSYC.8330	Family Therapy Seminar 3 <i>"(Formerly 017.833.) This course deals with both family theory and practice by reviewing the current literature on family systems and providing case discussions, peer supervision and small group simulated tasks. Co-requisite: current enrolment in PSYC.7910 (or 017.791) – PSYC.7950 (or 017.795) or GRAD.7030 (or 069.703) or permission of the instructor."</i>

(No credit hour changes)

Observations

The primary reason for the course modifications is to reflect a change in the course pre- or co-requisites.

Recommendation

The Programs and Planning Committee of the Faculty of Graduate Studies recommends that the Faculty Executive of Graduate Studies endorse the course modifications in the Department of Psychology, Faculty of Arts.

In Memoriam: D. Ralph Campbell, 1918 - 2008

D. Ralph Campbell was the eighth President of the University of Manitoba serving for a term 1976 – 1981. At the time of his appointment he was Principal of Scarborough College at the University of Toronto. As a native of Southern Ontario, Dr. Campbell joined the Royal Canadian Air Force and received the Distinguished Flying Cross on two occasions. After his discharge he studied at the University of Toronto and at Oxford as a Rhodes Scholar in politics and economics. He then joined the Ontario Agriculture College, now the University of Guelph, to teach Agricultural Economics, and in 1964 accepted an appointment as Professor of Political Economy at the University of Toronto where he later became Associate Dean of Arts and Science.

Dr. Campbell's term as President was marked by a commitment to make the University more accessible and he introduced the Access programs, expansion of the correspondence program to include year-round study, the establishment of Winnipeg Education Centre to provide innovative teacher training for residents of the core area and the modification of the timetable to facilitate part-time students.

Several new academic programs began during Dr. Campbell's term. These included joint master's programs with the University of Winnipeg, a joint program in industrial arts / business education with Red River and the establishment of a Centre for Ukrainian Canadian Studies through an affiliation agreement with St. Andrew's College.

Dr. Campbell focused on improving relations between faculty and staff, and the administration. He obtained agreement with the University of Manitoba Faculty Association for a new bargaining process which included a timetable for bargaining and a provision for final-offer-selection arbitration. Policy panels were established for non-unionized staff which provided a mechanism to review matters of mutual concern. Reduced appointments were introduced and sabbatical leaves became research / study leaves to facilitate better understanding by the community of their purpose.

Dr. Campbell "inherited" a \$4 million debt, half of which was forgiven by the Province. This necessitated major changes in the budgeting process including the establishment of a broadly based budget advisory committee, development of a reallocation process, establishment of a five-year plan and more decentralization to permit more openness and unit involvement in budgeting.

New research centers were established including the High Voltage Direct Current Resource Centre, the Institute for Social and Economic Research and support for the Allergy Research Centre was renewed in the amount of \$3 million. The Winnipeg Rh Institute was re-located to a new facility at the Fort Garry Campus which was expanded to what is now the Cangene Corporation in Smartpark.

At the outset of the University Centennial Year in 1977, Dr. Campbell established the first Department of Private Funding which, as its initial task, was to raise funds for a capital project to commemorate the University's Centennial. The campaign was a success and resulted in the construction of the Carolyn Sifton Wing of the Library and the Max Bell Centre.

Dr. Campbell had been active in international development, serving for example as an economic advisor to the Government of Jordan in 1962 and to Kenya in 1969. It was therefore not surprising that he placed an emphasis on international development and exchanges. Two major CIDA contracts were awarded during Dr. Campbell's term - the first to provide academic staff to Zambia and the second to develop a similar program in Kenya.

Dr. Campbell placed a high priority on external communications, in particular with the general community, the education sector and the media. As a self-acknowledged "people person", Dr. Campbell excelled in this respect. He addressed scores of community groups and was always available for the media including Peter Warren of CJOB fame who became a good friend. He was particularly interested in the relationship between the University and high schools and established the Articulation Council with representatives from the faculty and high schools to discuss student transition from high school to university and other related matters. Outreach awards were established to recognize meritorious service on the part of faculty and staff for community initiatives, and funding was provided for outreach activities.

Dr. Campbell's good nature and outgoing personality made him a well-liked figure on campus and in the community. To mark the end of his term as President, the University established the Dr. and Mrs. Ralph Campbell Outreach Award in recognition of his commitment to outreach activities. Dr. Campbell was also honoured in 1984 with the conferring of the degree Doctor of Laws (*honoris causa*).

Dr. Campbell's significant contributions to the University of Manitoba will forever be an important part of our history.

/jy

In Memoriam: Professor John Shewchuk

John Shewchuk, Professor of Mechanical Engineering, passed away on March 14, 2008. John was a pivotal figure in the history of the Faculty of Engineering.

During the 1960's, engineering research became the major focus of our teaching mission. Over the last 15 years, engineering education has changes, with a renewed emphasis on engineering design and the practise of engineering as a profession. John was a pioneer in this change, both in Manitoba and across Canada. When he introduced a capstone design course into Mechanical and Industrial Engineering over 30 years ago, the course was unique in the country. He instituted innovations such as peer evaluation, student management/leadership, industry mentoring, and professional reporting, concepts that are now being mandated and implemented at other schools in Canada. John, as a member of a small core of professors at the University of Manitoba, Faculty of Engineering, provided the model upon which NSERC based its Design Engineering Chair program. Generations of our students and students at other schools are better engineers because of John.

But John did not only teach engineering design, he was a consummate design engineer. He was forever coming up with new ways to make the world better. From medical devices to help in operations, to new rules for overtime hockey, to a device to help the do-it-yourself patio installer, there was a constant flow of creative ideas from his fertile imagination. The best know of these inventions is the "Safety Base", a device installed at the base of light standards that allows the standard to shear-off in the event of a collision. This device has saved countless lives and reduced injuries around the world.

John will also be remembered as a dedicated golfer – his love of the game is legendary – and an accomplished musician. Until well past retirement, he was capable of driving a golf ball 300+ yards and he was the motivating force behind the "Making Links Engineering Classic", a golf tournament sponsored by the Association of Professional Engineers and Geoscientists of Manitoba to raise money for the Faculty of Engineering and Departments of Geology in Manitoba. John was also a talented musician. He played many instruments and had a singing voice of rare quality. Further, he composed many songs, with lyrics, to celebrate the things he loved, including family, hockey, and golf.

John will be remembered as a great teacher, an outstanding engineer, and a very good person.

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 Scholarships, Bursaries or Fellowships*, such offers shall be submitted to Senate for approval. (Senate, April 5, 2000)

Observations

At its meeting of April 14, 2008, the Senate Committee on Awards approved eleven new offers and fourteen amended offers, and the withdrawal of four offers, as set out in Appendix A of the *Report of the Senate Committee on Awards*.

Recommendations

On behalf of Senate, the Senate Committee on Awards recommends that the Board of Governors approve eleven new offers and fourteen amended offers, and the withdrawal of four offers, as set out in Appendix A of the *Report of the Senate Committee on Awards* (dated April 14, 2008). These award decisions comply with the published guidelines of November 3, 1999, and are reported to Senate for information.

Respectfully submitted,

Dr. Rick Baydack
Chair, Senate Committee on Awards

Appendix A

MEETING OF THE SENATE COMMITTEE ON AWARDS April 14, 2008

1. NEW OFFERS

Agricultural and Food Sciences Centennial Entrance Scholarship

Alumni, faculty, agricultural industry and friends of the Faculty of Agricultural and Food Sciences contributed \$150,000 for an endowed scholarship during the 100th Anniversary of the Faculty, originally the Manitoba Agricultural College established in 1906. The department of Manitoba Agriculture, Food and Rural Initiatives of the Province of Manitoba has matched the funds of the endowment. The scholarship will be awarded to high school students who plan to complete a degree from the Faculty of Agricultural and Food Sciences or a diploma from the School of Agriculture at the University of Manitoba. The available annual income from the fund shall provide scholarships each valued at \$2,000. The number of annual scholarships shall be determined each year on the basis of available annual income. The first scholarship will be offered in the spring of 2008. For degree students, the funds will be held by the University of Manitoba until the recipient has completed University 1 and has enrolled in the first year of the agriculture degree program. The scholarship will be applied as a credit towards the student's tuition and incidental fees.

These scholarships shall be offered to high school students who:

- (1) will have graduated from a high-school in the Province of Manitoba with a minimum average of 75% on those courses considered for admission to the University of Manitoba, and who will be attending the University on a full-time basis in the year in which they apply for the Scholarship;
- (2) will enter into the Faculty of Agricultural and Food Sciences Agriculture degree program in their 2nd year (subsequent to University 1) or will enter the two-year Agriculture diploma program;
- (3) if enrolled in University 1, register for courses in biology, economics, and mathematics as well as two agriculture-specific courses: natural resources and primary agricultural production and production distribution and utilization of agricultural products. In addition, they will register for an agribusiness or chemistry course depending on the degree they wish to pursue;
- (4) have been pre-selected through an internal competition among applicants designated by the geographic boundaries of the various Growing Opportunity (GO) Teams within Manitoba Agriculture, Food and Rural Initiatives. The current geographic boundaries are found at <http://www.gov.mb.ca/agriculture/contact/agoffices.html>
- (5) demonstrate an interest and commitment to building vibrant rural communities and a strong interest in pursuing a career in the agri-food and rural economy sectors.

Successful applicants will be asked to be available for a media announcement.

Interested applicants will be required to submit an application to be reviewed by Manitoba Agriculture, Food and Rural Initiatives scholarship selection staff in the student's home area. The application will include a brief letter outlining the student's vision for rural Manitoba and her or his career goals in the agri-food and rural economy sectors supported with a personal reference from an employer, supervisor or other (not a family member, personal friend or MAFRI staff member). The successful nominees will be forwarded to the Faculty of Agricultural and Food Sciences Awards committee.

The eligibility criteria for the awarding of Scholarships will be reviewed as required by a committee known as the "Agricultural and Food Sciences Centennial Award Committee" composed of the Faculty of Agricultural and Food Sciences Award Committee and a representative of Manitoba Agriculture, Food and Rural Initiatives.

The selection committee will be the Agricultural and Food Sciences Centennial Award Committee.

Orval G. Caldwell and H. Ruth Gardner Caldwell Fellowship in Sustainable Agriculture/Agroecology

Dr. Orval G. Caldwell (M.Sc./34) and Mrs. H. Ruth Gardner Caldwell have established a trust fund (\$225,719) at the University of Manitoba to support graduate student research into sustainable agriculture and agroecology. The available annual income from the fund will be used to offer one fellowship to a student who:

- (1) is enrolled full-time in the Faculty of Graduate Studies, in any Master of Science degree program delivered by a Department in the Faculty of Agricultural and Food Sciences;
- (2) has obtained a minimum degree grade point average of 3.5 (or equivalent) based on the last 60 credit hours of study;
- (3) is pursuing a research program in the area of sustainable agriculture or agroecology.

The award may be renewed for one year provided that the recipient:

- (1) continues to be registered full-time in the Faculty of Graduate Studies, in any Master of Science degree program delivered by a Department in the Faculty of Agricultural and Food Sciences;
- (2) has maintained a minimum degree grade point average of 3.5 (or equivalent) based on the last 60 credit hours of study;
- (3) has received a satisfactory progress report from the his/her graduate supervisor.

Applicants will be required to submit an application which will consist of a one-page (maximum 500 words) description of their proposed or ongoing research and a letter of support from their Academic Advisor. Applications will be solicited in May, and the recipient will be announced by late June. The Fellowship will be tenable in the fall session following the announcement of the recipient.

Only one recipient may hold the Fellowship at any one time. Recipients may hold the Orval G. Caldwell and H. Ruth Gardner Caldwell Fellowship in Sustainable Agriculture/Agroecology concurrently with any other awards, consistent with policies in the Faculty of Graduate Studies.

Candidates will be assessed as follows: record of academic achievement (50%), research statement (30%), letter of support (20%).

The selection committee will be named by the Dean of the Faculty of Graduate Studies (or designate).

Collège Universitaire de Saint-Boniface Fund Scholarship

On the occasion of the 125th anniversary of the University of Manitoba, the Collège Universitaire de Saint-Boniface has established an endowment fund at the University. The award commemorates the historical ties between the Collège and the University. The available annual interest on the fund will be used to offer one scholarship to a graduate student who:

- (1) is enrolled full-time in the Faculty of Graduate Studies, in either the M.A. in French or the Ph.D. in French;
- (2) has achieved a minimum degree grade point average of 3.5 (or equivalent) based on the last 60 credit hours of full-time study;
- (3) is undertaking or has proposed to undertake thesis research in French language literature.

Preference will be given to candidates who are undertaking or who have proposed to undertake thesis research in Canadian francophone literature.

Candidates will be required to submit an application that will include a description of their proposed or ongoing research (maximum 500 words). The award is not automatically renewable but previous recipients may reapply. Master's students are eligible to hold the award in their first two-years of full-

time study and doctoral students are eligible to hold the award in their first four-years of full-time study. The maximum number of Scholarships one student may hold in his or lifetime is four (4).

Recipients may hold the Collège Universitaire de Saint-Boniface Fund Scholarship concurrently with any other awards, consistent with policies in the Faculty of Graduate Studies.

The selection committee will be named by the Dean of the Faculty of Graduate Studies (or designate).

Howie Goldberg Memorial Scholarship

In memory of Howard Goldberg, his family has established a fund at The Jewish Foundation of Manitoba. The fund will be used to offer an annual award at the University of Manitoba. The award is to be offered to the student who achieves the highest grade in Commercial Law or Commercial Law II in the I.H. Asper School of Business (currently numbered GMGT 3300 and GMGT 4110, respectively). The selection committee shall be named by the Dean of the I.H. Asper School of Business (or designate).

Hong Kong – Canada Business Association Exchange Scholarship

The Hong Kong – Canada Business Association has established an endowment fund of \$25,000 at the University of Manitoba, to assist students in the I.H. Asper School of Business who wish to achieve a working knowledge of international business relations in Hong Kong by experiencing the culture first-hand. The Manitoba Scholarship and Bursary Initiative has made a contribution to the fund. The purpose of the award is to develop closer ties between the Hong Kong business community in Manitoba and the I.H. Asper School of Business. The available annual income on the fund will be used to offer a scholarship to a student who:

- (1) is enrolled full time in the I.H. Asper School of Business;
- (2) has achieved a minimum degree grade point average of 3.0;
- (3) has been accepted to participate in the I.H. Asper School of Business International Exchange Program and has been selected to attend a Business School in Hong Kong or Mainland China;
- (4) has been ranked highest based on the strength of their Statement of Purpose for admission to the I.H. Asper School of Business International Exchange Program.

Preference shall be given to students who will participate in the exchange program for a full year.

The selection committee will be named by the Dean of the I.H. Asper School of Business and will include the Director and the Coordinator of the International Exchange Program, as well as a representative from the Hong Kong – Canada Business Association.

Sol Kanee Bursary in Law

Dr. Sol Kanee, OC, OM, has established an endowment fund at the University of Manitoba with a bequest of \$25,000. The fund will be used to offer bursaries to students entering their first year of study in the Faculty of Law. The available annual interest from the fund will be used to offer one or more bursaries to students who:

- (1) are enrolled in the first year of study in the Faculty of Law at the University of Manitoba;
- (2) have achieved a minimum cumulative grade point average of 2.5;
- (3) have demonstrated financial need on the standard University of Manitoba bursary application form.

The selection committee will have the discretion to determine the number and value of awards offered each year.

The selection committee will be the Faculty of Law Awards Committee.

Minister of Water Stewardship Scholarship for International Studies

Manitoba Water Stewardship has established an annual scholarship at the University of Manitoba, to assist graduate students in Manitoba to pursue studies and undertake research in water-related issues in Israel. Established as part of a larger cooperative initiative on water management between Manitoba and Israel, the goal of the award is to strengthen international co-operation and support scholarly development on a range of water resource issues as well as offering young Manitobans a unique international experience.

One scholarship, with a value of \$25,000, will be offered to a graduate student who:

- (1) is a Canadian Citizen or Permanent Resident (*i.e.*, landed immigrant) and holds an undergraduate degree in a relevant subject area; preference will be given to a graduate of a post-secondary institution in Manitoba who demonstrates the intention of returning to Manitoba upon completion of their studies;
- (2) is enrolled full-time in the Faculty of Graduate Studies in a Masters or Doctoral program;
- (3) has achieved a minimum degree grade point average of 3.0 (or equivalent) based on the last 60 credit hours of study;
- (4) is undertaking, has proposed, or is willing to undertake thesis research in Israel related to the management of water resources and has demonstrated a commitment to international co-operation in the field of water management.

The Scholarship is renewable for one year provided that the recipient:

- (1) continues to be registered full-time in the Faculty of Graduate Studies, in a Masters or Doctoral program;
- (2) has maintained a minimum degree grade point average of 3.0 (or equivalent) based on the last 60 credit hours of study;
- (3) is in good standing in his or her degree program.

Candidates will be required to submit an application that will include: (a) a current academic transcript(s); (b) two academic letters of reference from professors at a post-secondary institution, one of which must be from the student's academic advisor at the University of Manitoba; (c) a proposed research and study plan (maximum 1,500 words) that describes the field of study and the proposed research, including its applicability to water management in Manitoba.

The award is intended to be used only for student expenses associated with research and studies while the student is residing in Israel including: travel costs, visas, text books, living expenses, course fees, research expenses and other associated expenses.

Only one recipient may hold the Scholarship at any one time. Recipients may hold the Minister of Water Stewardship Scholarship for International Studies concurrently with any other awards, consistent with policies in the Faculty of Graduate Studies.

The selection committee will be named by the Dean of the Faculty of Graduate Studies and will include a representative of Manitoba Water Stewardship.

The Province of Manitoba will reserve the right to publish the names and pictures of Scholarship recipients.

Judge Jeff Oliphant Bursary

An endowment fund (\$4,800) has been established at the University of Manitoba in honour of Judge Jeff Oliphant. The available annual interest from the fund will be used to offer one bursary to a student who:

- (1) is a resident of the province of Manitoba;
- (2) is enrolled full-time in any year of study in the Faculty of Law at the University of Manitoba;
- (3) has achieved a minimum cumulative grade point average of 2.5;
- (4) has demonstrated financial need on the standard University of Manitoba bursary application form.

Preference will be given to a student who has graduated from a high school in rural Manitoba (i.e. outside the City of Winnipeg).

The selection committee shall be named by the Dean of the Faculty of Law.

Pinky Prize

The family of Professor Emeritus John W. Graham offers an annual prize of \$2,500 in honour of his memory and his specific contribution to education of students enrolled in the Environmental Design program, the introduction of the Theory of Design Plates. Professor Graham, who was affectionately referred to as "Pinky", was a primary force from the early days of the Faculty of Architecture, continuing until his retirement in 1980.

Professor Graham introduced the "Theory of Design Plates," which he had obtained from the Museum of Modern Art in New York, to the Environmental Design curriculum. The plates are a series of twenty-four poster-style lithographs, each of which effectively illustrates a particular element of design using photographs and minimal text. The "Pinky Plates," as they came to be known within the Faculty, were central tools in teaching the language of design to thousands of students in the Basic Design program in the Faculty. The Pinky Plates remain a significant part of the first year curriculum.

Beginning in 2007-2008, one prize with a value of \$2,500 will be offered annually for a period of ten years to an undergraduate student who:

- (1) has completed the first year of full-time study in the Environmental Design program in the Faculty of Architecture at the University of Manitoba;
- (2) has achieved the highest standing for the complete set of twenty-four Pinky Plates produced in the course Design Studio 1 (currently numbered EVDS 1630) and Design Studio 2 (currently numbered EVDS 1640) in the year in which the award is tenable.

The selection committee will be named by the Dean of the Faculty of Architecture and will include Mrs. Trudi Graham (or designate), the Department of Environmental Design Program Chair, the Chair for Design Studio 1 and 2, and the professional designer who grades the Pinky Plates in the year in which the award is tenable.

In the event that the Pinky Plates are discontinued within the curriculum of the Environmental Design program, the Graham family will consider other options for honouring Professor Graham.

Harjeet Kaur Sandhu-Kahlon Prize

Harjeet Kaur Sandhu-Kahlon's (M.Ed./77) daughters offer an annual award at the University of Manitoba to honour their mother's passion for, and dedication to, multicultural education and resolving issues related to integrating newcomers into Canadian society. Ms Sandhu-Kahlon retired in 2002 after teaching in the Manitoba public school system for 25 years. An annual prize of \$300 will be offered to an undergraduate student who:

- (1) is registered full-time in the Faculty of Education in any degree program leading to a Bachelor of Education degree;
- (2) has achieved a minimum degree grade point average of 3.5;
- (3) among those students who meet criteria (1) and (2), has achieved the highest standing in EDUA 1540 – *Cross-cultural education* or any other new course with a focus on multicultural education and/or dealing with issues related to integrating newcomers into Canadian society.

In the case of a tie, the award shall be given to the student who has attained the highest degree grade point average.

The selection committee will be the Academic Standing Committee of the Faculty of Education.

Silver Heights 50th Reunion Legacy Award

On the occasion of the 50th reunion of Silver Heights Collegiate, and to mark the closing of the Collegiate and its amalgamation with Sturgeon Creek Collegiate, students, friends and alumni have established an endowment fund of \$10,000 at the University of Manitoba. The available annual interest from the fund will be used to offer one entrance scholarship to an undergraduate student who:

- (1) is enrolled full-time (minimum 60 percent course load) in University 1 or any faculty or school of the University which admits students directly from high school;
- (2) has graduated from Sturgeon Creek Collegiate;
- (3) has achieved a minimum average of 70 percent on the courses considered for the University of Manitoba General Entrance Scholarship Program;
- (4) demonstrates, with proper documentation, a commitment to community service.

Each year, Sturgeon Creek Collegiate will nominate three candidates for the award. The nominations will be forwarded to the University of Manitoba by May 1. The selection committee will meet before June 15th to select the award recipient. The scholarship recipient will be announced in June to allow the winner to be honoured at the high school graduation ceremony.

The scholarship is only open to June high school graduates who are attending the University of Manitoba in the next fall or winter session. No deferrals will be allowed for subsequent sessions.

The selection committee will be named by the Director of Financial Aid and Awards.

2. Amendments

Edna and Carl Bjarnason Bursary

At the request of the donors, a number of amendments have been made to the terms of reference for the *Edna and Carl Bjarnason Bursary*, which has been and will continue to be offered to a graduate student in a program delivered by the Department of Icelandic Language and Literature.

- The value of the Bursary has been increased from: \$200 to: \$300.
- In any given year that no graduate student qualifies for the award, the Bursary will be offered to an undergraduate student. To be considered for the Bursary, an undergraduate student must be registered full-time in either the Major or Honours degree program in Icelandic, have achieved a minimum degree graduate point average of 3.5, and have demonstrated financial need on the standard University of Manitoba bursary application form.

The opening paragraph has been revised to clarify that the award is supported by an annual contribution made by members of the Bjarnason family, rather than a fund at the University.

Dr. William Bloom Prize

At the request of the donors, the opening sentence of the terms has been amended to read: "In memory of Dr. William Bloom, his wife Bertha, son and daughter-in-law David and Rosalind Bloom, and friends have established a prize fund at the University of Manitoba."

Ernst and Ingrid Bock Graduate Award

At the request of the Department of Chemistry and the Department of Physics and Astronomy, several amendments have been made to the term of reference for the *Ernst and Ingrid Bock Graduate Award*.

- Criterion (2) was revised from: "[who] have achieved a minimum cumulative grade point average of 3.5 (or equivalent) over the last two regular academic sessions completed," to:
[who] have achieved a minimum degree grade point average of 3.5 (or equivalent) over (i) the last two regular academic sessions completed, if they are students who are in their first two years of graduate studies or (ii) all graduate level sessions, if they are students who are beyond the first two years of graduate studies.
- A third requirement has been added to the terms of reference. Criterion (3) reads: "[who] have demonstrated exceptional research ability at either the undergraduate or graduate level."
- A paragraph has been added to specify that:
Research ability may be determined by research publications or presentations at local, national, or international scientific conferences. Chemistry students in the first year of graduate studies will be evaluated based on CHEM 4710 – *Research Project in Chemistry or Biochemistry* or an equivalent course.
- A statement has been added to stipulate that students in Chemistry must submit the Department of Chemistry's Application for Student Support in order to be considered for this award.
- A number of editorial changes have been made. Among these, several references to the Department of Physics have been updated to the Department of Physics and Astronomy.

Nicholas and Annie Dawyduk Scholarship in Ukrainian Studies

At the request of the donor, the terms of reference for the *Nicholas and Annie Dawyduk Scholarship in Ukrainian Studies* have been amended to ensure that the award is offered regularly. The Scholarship, which was formerly open only to undergraduate students in a Ukrainian Studies program or to graduate students in an interdisciplinary program in Ukrainian Studies, will now be offered to a student who:

- (1) is registered full-time in any Faculty or School at the University of Manitoba;
- (2) has completed at least one year of full-time studies in any degree program;
- (3) has achieved the highest grade point average on at least 12 credit hours of courses with significant Ukrainian cultural content and/or Ukrainian Canadian content, in fields such as History, Political Studies, Slavic Studies, and Ukrainian Studies, and based first on courses within the Ukrainian Canadian Heritage Studies program.

A statement has been added to specify that a recipient may hold the Scholarship only once.

Foundation for Registered Nurses of Manitoba Inc. Graduate Scholarship and Award

In 1999, the Foundation for Registered Nurses of Manitoba Inc. established an endowment fund at the University to offer the *Foundation for Registered Nurses of Manitoba Inc. Graduate Scholarship*

and Award. The annual income from the fund has been and will continue to be used to offer two Graduate Scholarships and six Graduate Awards. The donor now offers to provide from time-to-time an additional contribution to increase the number of Scholarships and Awards offered in any given year. The following paragraphs have been added to the terms of reference, to specify how the additional funds will be disbursed to students:

3. Additional Scholarships and Awards

In any given year, the Foundation for Registered Nurses of Manitoba Inc. may provide an additional contribution to increase the number of Scholarships and Awards offered that year. The Foundation will notify the Financial Aid and Awards Office, by March 31st each year, whether these additional funds will be available to be disbursed to students.

In any given year that these additional funds are available, a total of three Scholarships (Award #44753) valued at \$3,000 each and a variable number of Awards (Award #4475), with a minimum value of \$1,800 up to a maximum value of \$2,250 each, will be offered to students who meet the selection criteria set out in the preceding paragraphs. The selection committee will have the discretion to determine the number and value of Awards (Award #4475).

A number of editorial changes have been made.

Foundation for Registered Nurses of Manitoba Inc. Undergraduate Bursary

In 1999, the Foundation for Registered Nurses of Manitoba Inc. established an endowment fund at the University to offer the *Foundation for Registered Nurses of Manitoba Inc. Undergraduate Bursary*. The annual income from the fund has been and will continue to be used to offer a variable number of bursaries valued at \$500 to \$1,500 each. The donor now offers to provide from time-to-time an additional contribution to increase the number of bursaries offered in any given year. The following paragraph has been added to the terms of reference:

In any given year, the Foundation for Registered Nurses of Manitoba Inc. may provide an additional contribution to increase the number of Bursaries offered that year. The Foundation will notify the Financial Aid and Awards Office, by March 31st each year, whether these additional funds will be available disbursed to be disbursed to students.

The revised terms of reference specify that: "The number and value of awards will vary from year to year based on the available annual income, the value of the additional funds contributed by the Foundation, and the demonstrated financial need."

Mary Hamilton Johnston Memorial Bursary

At the donor's request, the terms of reference for the *Mary Hamilton Johnston Bursary* have been amended to allow the University to offer a second bursary when earnings on the fund permit. The revised terms specify that: "The status of the fund will be reviewed from time-to-time and, if the earnings on the fund permit, a second bursary with a minimum value of \$500 and a maximum value of \$1,000, will be offered."

Patty Kirk Memorial Scholarship

At the request of the Faculty of Education, the terms of reference for the *Patty Kirk Memorial Scholarship* have been revised to reflect recent curriculum changes. The requirement that the award be offered to a student entering the third year of the Bachelor of Education (Elementary) program has been amended to specify that the Scholarship will be offered to a student in the Faculty of Education, in Year 2 of the Early Years or Middle Years program.

Bernice D. Lough Psychology Graduate Award

At the request of the donors, the terms of reference for the *Bernice D. Lough Psychology Graduate Award* have been amended, to convert the award type from a scholarship to a bursary. A number of revisions follow from this change:

- The required degree grade point average has been lowered from: 3.5 to: 3.0.
- The requirement that the awards be offered to the three candidates with the highest academic standing has been deleted.
- A requirement that students must demonstrate financial need on the standard University of Manitoba bursary application form has been added.

Roderick McKenzie Scholarship

Mrs. Elizabeth and Dr. Leslie Shemilt have made a new gift to the University of Manitoba, to create an endowment fund (\$21,735) for the *Roderick McKenzie Scholarship*, which was established in 1930. The funds originally invested in the *Roderick McKenzie Memorial Fund* were lost during the defalcation of the University's investments, which came to light in 1932. In recent years, the Roderick McKenzie Scholarship has been offered using income from the *Isbister Fund*. The terms of reference have been revised to reflect the establishment of the endowment fund.

- To acknowledge the gift from Mrs. and Dr. Shemilt and to specify how the income from the fund is to be disbursed, the opening paragraph has been revised to read:

The scholarship was established in 1930 by the United Farmers of Manitoba as a memorial to the late Roderick McKenzie, one of the founders and, for many years, the secretary of that organization. In 2008, Mrs. Elizabeth Shemilt, daughter of Roderick McKenzie, established an endowment fund at the University of Manitoba with an initial gift of \$21,735. The Manitoba Scholarship and Bursary Initiative has made a contribution to this fund. In 2008, one scholarship of \$750 will be offered. Beginning in 2009-2010, the available annual income on the fund will be used to offer one scholarship to an undergraduate student.

- The course names and numbers for Crops and Soils (65.150), Genetics (39.252), and Statistics (5.100) have been updated to Natural Resources and Primary Agricultural Production (AGRI 1500), Genetics (PLNT 2520), and Basic Statistical Analysis (STAT 1000), respectively.

Manitoba Association of Plant Biologists Graduate Student Awards

At the donor's request, the terms of reference for the *Manitoba Association of Plant Biologists Graduate Student Awards* have been revised to reflect the amalgamation of the Departments of Botany and Zoology into the Department of Biological Sciences and to open the awards to graduate students in other Departments.

- Criterion (1), for both the fellowships and the bursaries, has been revised from: "[who] are enrolled full-time in the M.Sc. or Ph.D. program in either Botany or Plant Science at the University of Manitoba" to: "[who] are enrolled full-time in the Faculty of Graduate Studies at the University of Manitoba in an M.Sc. or Ph.D. program, with a thesis topic in any aspect of plant biology."
- Responsibility for naming the selection committee, which was formerly assigned to the Head of the Department of Botany, has been changed to the Dean of the Faculty of Graduate Studies (or designate). Membership of the selection committee will also include the Head of the Department of Biological Sciences (or designate) and will continue to include the Head of the Department of Plant Science (or designate) and members of the Manitoba Association of Plant Biologists Awards Committee.

A number of editorial changes have been made.

Mindel and Tom Olenick Research Award in Immunology Top-Up

At the request of the Department of Immunology, the terms of reference for the *Mindel and Tom Olenick Research Award in Immunology Top-up* have been significantly modified to offer graduate student entrance scholarships.

- The name of the award has been changed to: the *Mindel and Tom Olenick Research Award in Immunology (Entrance Scholarship)*.
- The available annual income from the endowment fund (which was previously used to top-up the value of an external award, the Mindel and Tom Olenick Research Award in Immunology) plus matching funds from the Edward Eric Hildebrand and Anne Palmer Hildebrand Memorial Scholarship Fund will now be used to offer a maximum of three entrance scholarships, valued at \$3,000 each.
- A note has been added to stipulate that: "Up to a maximum of \$2,000 will be available each year from the annual interest on the Edward Eric Hildebrand and Anne Palmer Hildebrand Memorial Scholarship Fund, if it is required to offer three scholarships of \$3,000 each. In any given year that the annual interest from Fund 615063 is greater than or equal to the total value of awards disbursed, no matching funds will be provided from the Edward Eric Hildebrand and Anne Palmer Hildebrand Memorial Scholarship Fund."
- Previous selection criteria matched those of the Mindel and Tom Olenick Research Award in Immunology. New criteria have been established to offer the awards to students who:
 - (1) are enrolled full-time in the first year of study in the Faculty of Graduate Studies, in a program delivered by the Department of Immunology
 - (2) have achieved an excellent academic record, with a minimum degree grade point average of 3.5 (or equivalent) in the last 60 credit hours of post-secondary study, and have demonstrated potential for research excellence;
 - (3) have proposed to conduct research in any area of Immunology.
- If there are no suitable candidates in a given year, the available funds will be held and used at the discretion of the selection committee to offer additional scholarships the following year.
- Membership of the selection committee will be named by the Dean of the Faculty of Medicine (or designate) and will include the Head of the Department of Immunology. Previously, selections were made by the selection committee for the Mindel and Tom Olenick Research Award in Immunology.

E.H. Price Graduate Award

At the request of the Faculty of Architecture, a number of amendments have been made to the terms of reference for the *E.H. Price Graduate Award*.

- The name of award has been revised to: the *E.H. Price Faculty of Architecture Recruitment Award*.
- The award has been opened to students who qualify for admission to, and who subsequently enrol full-time in the pre-Master's Qualifying Program in the Faculty of Architecture.
- A number of editorial changes have been made.

Val Simanavicius Memorial Scholarship

At the request of the Faculty of Music, the terms of reference for the *Val Simanavicius Memorial Scholarship* have been revised to permit the University to offer the award to graduate students in any year that no undergraduate students qualify for these renewable entrance scholarships. In such years, the Scholarships will be offered to graduate students who:

- (1) are entering the Faculty of Graduate Studies as full-time students and have been accepted into the Master of Music in Performance;
- (2) have achieved a minimum degree grade point average of 3.0 (or equivalent) based on the last 60 credit hours of study;
- (3) have demonstrated excellence in the study of, and performance in, violin as determined by the selection committee through the audition and interview process;
- (4) are recommended for scholarship by the Graduate Committee.

These graduate scholarships are renewable at the value initially offered in the second year of study at the University of Manitoba provided that the recipients:

- (1) continue to be registered full-time in the Faculty of Graduate Studies in the Master of Music in Performance;
- (2) have achieved a minimum degree grade point average of 3.0 (or equivalent) in the first year of the graduate program;
- (3) have continued to demonstrate excellence in the study of, and performance in, violin as determined by the Major Practical instructor and the Graduate Committee.

3. Withdrawals

F.W. Horner Paediatric Award

The *F.W. Horner Paediatric Award* has been withdrawn. The award, which was funded with an annual gift from the donor, has not been offered for a number of years.

SPSP/PHP Summer Field Placement Awards

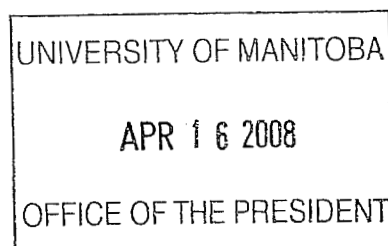
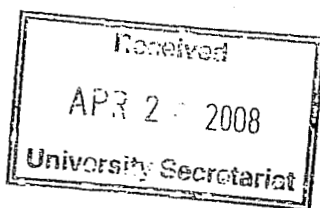
The *SPSP/PHP Summer Field Placement Awards* have been withdrawn. The award, which was offered from time-to-time when funding was available, has not been offered for a number of years.

A.W. Mitchell Scholarship

The *A.W. Mitchell Scholarship* has been withdrawn. The University no longer has contact information for the donor, who provided an annual contribution to support the scholarship.

Jack Speirs Verner Memorial Scholarship

The *Jack Speirs Verner Memorial Scholarship* is to be terminated, at the request of the donor. The endowed funds, including both capital and accumulated revenue, will be transferred to the endowment fund for the *University of Manitoba General Scholarships* (Engineering).



J. Lecker
J. Dering
H. Keselman
D. Ruth
D. Sandham
A. Jacopino

April 10, 2008

Dr. Richard Lobdell
Vice-Provost (Programs)
University of Manitoba
208 Administration Building
Winnipeg, MB R3T 2N2

Dear Dr. Lobdell:

On behalf of the Council on Post-Secondary Education, I am pleased to acknowledge receipt of the following Statements of Intent for new programs:

Master of Arts and Doctor of Philosophy (M.A. and Ph.D.) in Health Psychology
(submitted 19 February 2008)

Master of Science and Doctor of Philosophy (M.Sc. and Ph.D.) in Biomedical Engineering (submitted 19 February 2008)

Combined Doctor of Dental Medicine and Doctor of Philosophy (D.M.D. and Ph.D.) in Dental Medicine and Research (submitted 20 March 2008)

Please proceed to the development of full program proposals for the above programs, for Council's further consideration.

It is important to note that approval to proceed to a full program proposal does not mean that the program will be ultimately approved.

Sincerely,

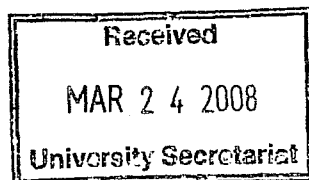
A handwritten signature in black ink, appearing to read "Sid Rogers". The signature is fluid and cursive, with a long horizontal stroke at the end.

Sid Rogers
Secretary



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

20 March 2008

Mr. Sid Rogers
Secretary
Council on Post-Secondary Education
410 - 330 Portage Avenue
Winnipeg, Manitoba
R3C 0C4

Dear Mr. Rogers,

**Statement of Intent:
Combined D.M.D. and Ph.D. in Dental Medicine and Research**

On behalf of The University of Manitoba, I am pleased to submit the attached Statement of Intent to establish a combined D.M.D. and Ph.D. program in Dental Medicine and Research.

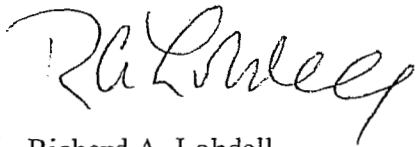
This new program is similar to the existing combined M.D. and Ph.D. program in the Faculty of Medicine. That is, students in the Faculty of Dentistry could choose to pursue simultaneously the D.M.D. program and a Ph.D. research degree.

The objectives of this unique program are: to develop dental clinician scientists who are able to take leadership roles in dental research and education both provincially and nationally; to train clinician scientists who will make significant advances in our understanding of oral infectious diseases; and to train scientists conversant in dental diseases who can translate basic research findings into clinically relevant diagnostic, preventive, and therapeutic methods. As shown in the Statement of Intent, graduates of this new program would be in very high demand by academic institutions.

Implementation of this new program would require no additional financial resources from COPSE.

My colleagues and I would be pleased to provide any additional other information your Council may require during its consideration of this Statement of Intent.

Yours sincerely,

A handwritten signature in black ink, appearing to read "R. Lobdell", written in a cursive style.

Richard A. Lobdell
Vice-Provost (Programs)

Encl.

cc: Emőke J.E. Szathmáry, President
Robert Kerr, Vice-President (Academic) and Provost
Jay Doering, Dean, Faculty of Graduate Studies
A.M. Iacopino, Dean, Faculty of Dentistry
✓ Jeff Leclerc, University Secretary

STATEMENT OF INTENT

Institution

- | | |
|--|--|
| <input type="checkbox"/> Brandon University | <input type="checkbox"/> Assiniboine Community College |
| <input checked="" type="checkbox"/> University of Manitoba | <input type="checkbox"/> University College of the North |
| <input type="checkbox"/> University of Winnipeg | <input type="checkbox"/> Red River College |
| <input type="checkbox"/> Collège universitaire de Saint-Boniface | |

Program Overview

- Program Name: Combined D.M.D. and Ph.D. in dental medicine and research
- Credential to be offered: D.M.D. and Ph.D.
- Does the program require accreditation from a licencing group? ☒ YES ☐ NO
If yes, name group Canadian Dental Association
- Length of the program: 6 ☒ Years ☐ Months ☐ Semesters
- Proposed program start date: 01/09/2009
Day/Month/Year
- Which department(s) within the institution will have responsibility for the program?
Dean's Office, Faculty of Dentistry
- As compared to other programs your institution will be proposing, is the priority of this program:
☒ High
☐ Medium
☐ Low
- Is this a new program? ☒ YES ☐ NO
- Is this a revision of an existing program: ☐ YES ☒ NO
If YES, name program
What are the impacts of changing this program?
- Will the program be available to part-time students? ☐ YES ☒ NO
- Will this program have a cooperative education component? ☐ YES ☒ 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 ☒ NO
Provide Details
- Will there be distance delivery options? ☐ YES ☒ NO
Provide Details
- Will this program be delivered jointly with another institution? ☐ YES ☒ NO
If YES, name the institution
- Are similar programs offered in Manitoba or other jurisdictions? ☐ YES ☒ NO
If YES, indicate why this program is needed (e.g., area of specialization)

●Describe the program and its objectives:

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 of qualified scientists to maintain the level of excellence of teaching and research at dental schools both provincially and nationally.
3. To train highly competent clinician scientists who will make significant advances in our basic understanding of oral infectious diseases.
4. To train scientists conversant in dental diseases who can translate basic research findings into clinically relevant diagnostic, preventive, and therapeutic methods.

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

The content of the program will provide the students with the required clinical background of the present undergraduate dental program interdigitated with the requirements and experience of the graduate level PhD research program. This will allow the student, upon graduation, to function as a dental clinician and to undertake research at the level of an independent investigator. Of paramount importance is the ability of a person trained through this program to focus on dentally-relevant research questions and to bring their research findings to the clinic situation with an ease not afforded by the traditional PhD training. Courses to be undertaken by DMD/PhD students will generally be drawn from those offered at the graduate level in Oral Biology or departments in the Faculty of Medicine. For example, Cell Biology (IMED 7090), Histology (ANAT 7360), Molecular Endocrinology (PHYG 7300) or Neurosciences (IMED 7100). Required credits will meet the requirements as set by the Faculty of Graduate Studies

2. Enrollment

●What is the program's initial projected enrollment? Probably only two students initially

●What is the projected enrollment for the 2nd and 3rd years? We would hope to ultimately have 2 students per year depending on financial support

●Describe the expected student profile?

The Faculty of Dentistry presently operates a BSc (Dent) program that provides two summers of undergraduate research experience for dental students. We have approximately 10 student enrolled in this program. We expect this program would act as a feeder program for the DMD/PhD. Thus the expected student profile would be from a population of undergraduate dental students who are motivated to expand their knowledge and experience in dental research.

3. Labour Market Information

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

There exists a dearth of research-trained dental clinicians both in the United States and in Canada. The American Dental Association identifies some 450 positions in the US that cannot be filled due predominantly to a lack of adequately trained dental clinicians. While the lack of training is not dental training per se, but rather a insufficient training such that the dental professional can function as an independent investigator at a high level in a research setting. Thus this program will address this severe shortfall by providing the opportunity to acquire both the clinical qualification as well as the research experience.

●Are there currently jobs in Manitoba in this field? ☒ YES ☐ NO

If yes, where (geographic location and industry)?

Research trained dental clinicians are required on a constant basis for the dental curriculum at the Faculty of Dentistry, University of Manitoba. Newly trained dentists are required for ongoing retirements in private dental clinics. Government employed dentists do a great deal of community work and provide dental services on reserves.

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

A supply of professionally trained dentists is always required. It is desirable to have as many of these individuals possessing some research background and experience. All trainees would be employed immediately upon graduation.

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

This program would be unique to Manitoba and indeed to Canada thus building on educational goals and providing highly qualified persons to support the economic development of the province. This reflects the innovation and skills training identified in the **7-Point Growth Strategy** presented in the throne speech as well as supporting the continued improvement in health care for Manitobans which is a top priority for the government.

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

Canadian Dental Association, Manitoba Dental Association, Universities of Marquette, Rochester, ADEA, Medical University of South Carolina and NIDCR

●Projected Program Revenue: Tuition Standard tuition
Other_
Total revenue

No budgetary implications arise from implementation of this program. No additional revenues will be generated.

Submitted by:

Dr. John (Jay) Doering
Name (print)

Dean, Graduate Studies
Position

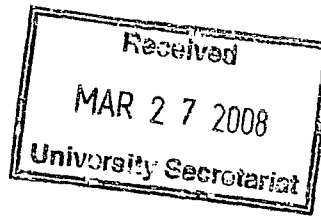
John Doering
Signature

Mar. 3/08
Date



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March 26, 2008

TO: Dr. Dean Sandham, Dean, Faculty of Medicine
FROM: Robert Kerr, Vice-President (Academic) & Provost
SUBJECT: Proposed "Centre for Healthcare Innovation"

I am pleased to acknowledge receipt of the proposal to establish a "Centre for Healthcare Innovation". Having reviewed this proposal and discussed this with my colleagues, I am now prepared to move forward.

As I understand it, the Centre's objective is to provide academic leadership in Healthcare System design and Quality in its drive to improve patient care in Manitoba and beyond. Because this Centre would have as its primary mandate activities other than research, it would not be governed by the Research Centres, Institutes and Groups Policy, but instead would be established under the auspices of the Vice-President (Academic) & Provost.

The "Centre for Healthcare Innovation" represents an exciting extension of your Faculty's long-standing interest in and concern for improving patient care. You and your colleagues are to be congratulated for this initiative. Accordingly, I am pleased to approve its establishment. By copy of this memo, I ask that Jeff Leclerc include it for information in an early Senate agenda.

I look forward to receiving an annual report on the work of this Centre.

Encl.

c ✓ Jeff Leclerc, University Secretary
Emöke. J.E. Szathmáry, President

Proposal For "Centre For Healthcare Innovation"

I. Executive Summary

A. *The Need for Innovation and Improvement in Healthcare*

Concerns about the Canadian healthcare system's ability to provide timely access and safe care continue to grow despite recurrent attempts to address its problems. Although our scientific and technical medical knowledge are the best they have ever been, and although our system delivers safe and appropriate care every day, Emergency Room overcrowding, long waiting times, difficult access to care in general, ever increasing costs and growing concerns about patient safety ^{(13),(24),(1),(33),(6)} have undermined the public's confidence in their healthcare system.

There is a growing realization that a new type of education with a focus on quality and understanding of healthcare as a complex system is required for health professionals ⁽²¹⁾. In Manitoba, this challenge has been placed at the University's door.

B. *Traditional Education Does Not Prepare Health Professionals for the Quality Challenge*

In its report: "Crossing the Quality Chasm: A New Health System for the 21st Century", the Institute of Medicine (IOM), listed six Aims for Improvement in Care ⁽¹³⁾:

1. *Safe*
2. *Effective*: Providing evidence based services to those likely to benefit
3. *Patient-centered*: Respectful and responsive to patients
4. *Timely*: Avoiding harmful delays for those who receive and provide care
5. *Efficient*: Avoiding waste, and
6. *Equitable*: Providing care irrespective of personal characteristics.

These are very different directions from traditional Medical Education, and place emphasis on Quality, System Design and Safety.

The role of Medical Schools in Quality and Safety.

To accomplish the Aims listed above, the Report suggests four areas for attention:

- o *Inter-professional education*
- o *Systems Design in Healthcare* (focus on Healthcare as a system)
- o *Healthcare Quality Improvement* (focus on delivering expected outcomes), and
- o *Health Informatics* (focus on Information Technology to assist in care).

In response to the call to action from the IOM, in 2001, the association for American Medical Colleges (AAMC) ⁽²⁾ initiated, and the Institute for Healthcare Improvement (IHI) formally instituted a collaboration known as the Health Professionals Education Collaborative (HPEC). The number of faculties has grown to 48 and extended

beyond Medicine, to include Nursing, Pharmacy and Health Administration. The University of Manitoba, including the Faculties of Medicine, Nursing, and Pharmacy is the only Canadian participant in HPEC ⁽²²⁾. The University of Manitoba is also a participant Health Canada's "Canadian Inter-professional Health Collaborative" (CIHC), and therefore, well underway in addressing the call for inter-professional education.

C.-The proposed Centre for Healthcare Innovation: Completing an improvement agenda at the University of Manitoba.

To complete the Aims for Improvement of Care, we propose the creation of a Centre for Healthcare Innovation (CHI). The CHI will champion the remaining recommended competencies: System Design, Healthcare Quality and Health Informatics, and in each, it will pursue the following Core Directions:

- Research
- Pedagogical activities
- Clinical application, and
- Outreach activities, in a broad sense.

Mission & Objectives

The Centre for Healthcare Innovation will provide academic leadership in Healthcare System Design and Quality in a never ending and continuous drive to improve patient care in Manitoba and beyond.

This will be accomplished by:

- *Bringing together under one academic umbrella:*
 - Healthcare expertise from the Faculties of Medicine, Pharmacy, Nursing and the School of Medical Rehabilitation,
 - Experts in quality improvement from the I.H. Asper School of Business,
 - System and process design engineers from the Faculty of Engineering,
 - Computer and measurement scientists from the Faculty of Science, and
 - Health Informatics Experts.
- *Having this multi-professional team of experts become the academic backbone of Healthcare Innovation in Manitoba, thus becoming a resource to:*
 - The Winnipeg Regional Health Authority
 - The Government of Manitoba
 - The Community
- *Undertaking Health Quality and System Design research, a new and difficult field.*
- *Become a pedagogical resource to all participating faculties in bringing Health Innovation through the teaching of:*
 - Undergraduates
 - Graduates

- Postgraduates
 - Continuing Professional Education
- *Becoming a resource to, and becoming actively involved in improving clinical care.*
- *Extending the benefits provided by this group beyond Manitoba through*
 - Consulting activities to institutions and organizations, and
 - Working with clinicians and communities
- *Advocating for academic recognition of this new and emerging role*
- *Supporting and complementing Patient Safety Activities*
- *Supporting and complementing Inter-Professional Education initiatives underway, and fostering Trans-Professional Education (beyond Healthcare Professionals).*

Manitoba's Advantage

Manitoba enjoys a very unique alignment of opportunities, which are not likely to, or would be very hard to be, replicated in other jurisdictions. They include:

- Participation of all healthcare faculties,
- Association with non-healthcare faculties,
- Strong clinical leadership, linking academic and clinical institutions,
- The partnership with the Winnipeg Regional Health Authority, and
- Support from the MB Government and the business community.
- Leadership roles and activities in Inter-Professional Education, and
- A Centre for Clinical Simulation at the Bannatyne Campus, about to be opened.

These all add up to a real opportunity to excel, more specifically:

Manitoba Health and the Manitoba Patient Access Network (MPAN)

As part of the Federal-Provincial accord directed at reducing waiting times, MB Health recognized, not only the need to fund additional resources, but also the need for system change to prevent backlogs from recurring. Presently, to drive this change, it created the Manitoba Patient Access Network (MPAN). There is general agreement regarding the positive influence of MPAN in the understanding and improvement of system problems contributing to waiting lists and system bottlenecks. There is a natural synergy between MPAN and the proposed CHI.

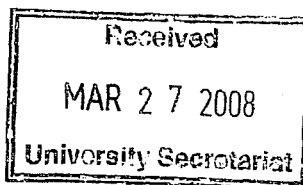
The Winnipeg Regional Health Authority & the CHI's physical home

As mentioned, this initiative is co-sponsored by the Dean of the Medical School and the President and CEO of the WRHA. He has committed to providing 5000 square feet of space in the Lennox Bell Building, at the Health Sciences Centre campus to house the CHI (see Appendix 7 for a current floor plan of the space and a picture of the building). This location provides ready access to the University of Manitoba, Bannatyne Campus, where the Faculty of Medicine currently resides and where the new Faculty of Pharmacy building is being built.



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March 26, 2008

TO: Dr. Anthony Iacopino, Dean, Faculty of Dentistry
FROM: Robert Kerr, Vice-President (Academic) & Provost
SUBJECT: Proposed "Centre for Oral-Systemic Health"

I am pleased to acknowledge receipt of the proposal to establish a "Centre for Oral-System Health". Having reviewed this proposal and discussed this with my colleagues, I am now prepared to move forward.

As I understand it, this Centre would pursue the advancement of oral-systemic science and its implementation including the following broad areas of innovation: education, research and surveillance, knowledge translation/dissemination and community. Because this Centre would have as its primary mandate activities other than research, it would not be governed by the Research Centres, Institutes and Groups Policy, but instead would be established under the auspices of the Vice-President (Academic) & Provost.

The "Centre for Oral-Systemic Health" represents an exciting extension of your Faculty's long-standing interest in and concern for oral-systemic health promotion. You and your colleagues are to be congratulated for this initiative. Accordingly, I am pleased to approve its establishment. By copy of this memo, I ask that Jeff Leclerc include it for information in an early Senate agenda.

I look forward to receiving an annual report on the work of this Centre.

Encl.

c ✓ Jeff Leclerc, University Secretary
Emöke. J.E. Szathmáry, President

Proposal "For a Centre For Oral-Systemic Health"

6. Scope of Centre's Activities

The Centre will operate as the master planning nucleus with responsibility for conceptualizing, strategizing and coordinating various initiatives related to the advancement of oral-systemic science and its implementation including the following broad areas of innovation:

- Education
 - Revision of current curriculum in pre-licensure education (dentistry and dental hygiene) to incorporate oral-systemic science including a baccalaureate degree hygiene track to prepare hygienists for advanced degree programs
 - Supplementation of pre-licensure education (medicine, nursing, pharmacy, allied healthcare and non-healthcare professions) to incorporate oral-systemic science
 - Establishment of specializations in oral-systemic health for dentistry, dental hygiene, medicine, nursing, pharmacy, allied healthcare and non-healthcare professions' students and practitioners
 - Redirection of the graduate periodontics program through increased concentration in the area of periodontal-systemic research and transdisciplinary practice innovation
 - Development and implementation of a curriculum, research experience, transdisciplinary clinical training, and relevant community-based transdisciplinary practice experiences specific to granting graduate degrees with specializations in oral-systemic health
 - Life-long learning initiatives through development of novel continuing education programs related to oral-systemic health for dentistry, dental hygiene, medicine, nursing, pharmacy, allied healthcare and non-healthcare professions (interprofessional teams will travel internationally to deliver programming and will be trained in teaching/educating various target audiences including public, paraprofessional, healthcare educators, health professions' students, and practicing health professionals)
- Research and Surveillance
 - Conceptualization, development and coordination of research initiatives unique to the advancement of oral-systemic health including basic biomedical, translational and demonstration projects related to testing the effectiveness of transdisciplinary models of care
 - Coordination of commercially funded clinical trials
 - Conceptualization, development and coordination of research initiatives targeting oral-systemic interventions through population based studies utilizing unique demographics which exist in Aboriginal communities (Inuit, Métis and First Nations People)
 - Conceptualization, development and coordination of research designed to evaluate clinical outcomes (in partnership with organizations such as the J.A. Hilde Northern Medical Unit operated by the Faculty of Medicine and the Centre for Community Oral Health operated by the Faculty of Dentistry) through surveillance and statistical

analysis of data tracked by unique alliances with currently existing organizations such as the Data Repository of the Manitoba Centre for Health Policy (tracks clinical data for nationalized healthcare), Great West Life and Blue Cross/Blue Shield (largest insurers of dental benefits in Manitoba), and the Manitoba Institute of Child Health (provides support for clinical and population based studies emphasizing partnerships with industry)

- Ongoing monitoring of outcomes related to internally generated research
- Ongoing monitoring and summarization of research activities related to oral-systemic health generated throughout the international community
- Knowledge Translation/Dissemination
 - Actualization of a university lecture series (Grand Rounds) to increase awareness of oral-systemic science throughout the professional communities within and outside the university community
 - Facilitation of the development of a think tank comprised of university faculty and independent practitioners to develop screening and treatment algorithms specific to medical-dental-nursing collaboration related to intervention of interrelated oral-systemic diseases/conditions
 - Creation and facilitation of a Canadian Oral-Systemic Consortium, organization of international symposia and consensus conferences
 - Development of appropriate consumer messaging for public relations campaigns focusing on increased awareness of oral-systemic links for dissemination to the public and acting as a resource for various media outlets
 - Development of the structure, marketing, and educational content for continuing education presented by a traveling team of experts for international dissemination of information related to oral-systemic health within the dental, medical, nursing, pharmacy, allied healthcare and non-healthcare professions communities
 - Development and management of a website specific to the activities of the Centre with the potential to offer continuing education (dental, medical, nursing, pharmacy, allied healthcare and non-healthcare professions), information and various distance learning programs
 - Development of consulting services to assist other universities/organizations in the development of curriculum and educational programming specific to oral-systemic health at both undergraduate and graduate levels
 - Development of consulting services to provide state-of-the-art counsel to commercial entities
 - Development of the architecture for a network and central point of coordination to connect researchers and academicians from around the world to facilitate future international research and demonstration projects
 - Development of a systematic repository/information bank for research accumulated through surveillance activities, in addition to grading the strength of evidence through a widely accepted evidence-based system (e.g., Oxford criteria)
 - Supplemental publications to disseminate information produced from pilot and demonstration projects designed to implement transdisciplinary practice models as well as conference proceedings, white papers, and practice guidelines
- Community
 - Conceptualization, design and actualization of novel and innovative practice models that develop healthcare environments which enhance patient accessibility and improve the overall health of patients. It is expected that the effectiveness of these models will be tested in the field in long-term care facilities (i.e., institutionalized care in the justice

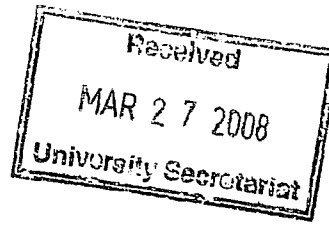
system, facilities for elder care, disabled children, mentally challenged persons, physical rehabilitation centres, homeless shelters, immunocompromised populations), Aboriginal and other underserved populations, hospitals, acute care facilities, private dental practices and centres of excellence (i.e., Diabetes Resource Centre for Children and Adolescents, Cancer Care Centre).

- o Conceptualization and actualization of unique partnerships with remote communities (i.e., Africa, South America), other academic institutions (dental and/or medical schools) and hospitals in endeavors related to advancement of oral-systemic science.



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March 26, 2008

TO: Dr. Dean Sandham, Dean, Faculty of Medicine
FROM: Robert Kerr, Vice-President (Academic) & Provost
SUBJECT: Proposed "Centre for Global Public Health"

I am pleased to acknowledge receipt of the proposal to establish a "Centre for Global Public Health". Having reviewed this proposal and discussed this with my colleagues, I am now prepared to move forward.

As I understand it, this Centre would pursue several objectives which include establishing global public health as an institutional priority and to develop appropriate administrative and academic structures. Because this Centre would have as its primary mandate activities other than research, it would not be governed by the Research Centres, Institutes and Groups Policy, but instead would be established under the auspices of the Vice-President (Academic) & Provost.

The "Centre for Global Public Health" represents an exciting extension of your Faculty's long-standing interest in and concern for global public health promotion. You and your colleagues are to be congratulated for this initiative. Accordingly, I am pleased to approve its establishment. By copy of this memo, I ask that Jeff Leclerc include it for information in an early Senate agenda.

I look forward to receiving an annual report on the work of this Centre.

Encl.

c ✓ Jeff Leclerc, University Secretary
Emöke. J.E. Szathmáry, President

Proposal for a Centre for Global Public Health at the University of Manitoba

A. Background and Rationale

With the rapid process of globalization and increased interest in global health issues, universities across North America are assiduously pursuing the development of global health programs. In the United States, a number of large universities, including Duke, Harvard and the University of Washington, have recently established centres for global health. In Canada, several universities are establishing Schools of Public Health, with the intention of mobilizing a strong global health component as a cornerstone of their educational and research programs. In fact, a number of the emerging public health schools see the development of a strong global health program as a critical success factor for their schools of public health.

The University of Manitoba (UM) is already a leader in global public health, with a portfolio of research and public health projects around the world that is the envy of many other academic institutions, including much larger and better funded ones. Together, these projects contribute substantially to the UM's achievements in research, public service, education and knowledge translation. Moreover, the UM's stellar reputation in this field enhances its ability to attract top students and faculty members, thereby strengthening its core education and research programs. However, to maintain and expand its global public health work, the UM must clearly establish global public health as an institutional priority and develop effective administrative and academic structures accordingly. To that end, this proposal presents a plan for the immediate establishment of a world-class "Centre for Global Public Health" with the goal of expanding the UM's leadership in global public health and elaborating the contributions of global public health initiatives to the UM's core mandates in research, education and knowledge translation. The specific objectives related to the development of the Centre are to:

1. establish an efficient and effective administrative and management structure to support existing programs and facilitate the development of new global public health initiatives;
2. develop a strong academic faculty core to expand the capacity for research, service delivery, education and knowledge translation; and
3. establish a program structure that will facilitate improved integration of global public health initiatives into the wider UM research and education programs.

B. Current Situation

Currently, the UM implements a large portfolio of international global public health projects. In India alone, since 2001, the UM has received grants and contracts for a dozen research and service projects with a total budget of more than CAD \$73 million. The recent expansion of global public health initiatives has illustrated some important constraints at the UM which hinder further development in this area. Perhaps the chief constraint is the lack of faculty depth in global public health. Until now, the development of these projects has depended primarily on the initiative of a small group of UM faculty members. For example, over the past five years there have been 16 international projects managed by two GFT physicians (Drs. Stephen Moses and James Blanchard). Moreover, the engagement of other senior faculty members has depended largely *ad hoc* support from sympathetic department chairs or deans. Current faculty members have a substantial challenge to manage existing projects, restricting their ability to take advantage of new strategic opportunities. Moreover, the heavy management responsibilities for these projects make it difficult for existing faculty to fully realize the academic potential of these global public health initiatives in the areas of research, training and knowledge translation.

A second key constraint is insufficient administrative and financial support. Currently, the bulk of the administration and financial management is provided by senior faculty members who are supported by a patch-work of financial and administrative support staff. The result is a reduction in efficiency, and perhaps more importantly, the utilization of a substantial proportion of academic faculty member time and effort in basic administrative functions, thus reducing their availability to contribute in other ways.

A third constraint is physical space. There is currently no designated location for those involved in global public health to interact efficiently and effectively. Instead, faculty and administrative staff are scattered across multiple departments and faculties.

C. “Centre for Global Public Health” – Concept and Structure

To address some of the constraints outlined above and to strengthen the UM’s leadership in global public health, it is proposed that the UM establish a new “Centre for Global Public Health”. The term “global” is used to denote the essentially global focus of this initiative, and could perhaps be interchanged with the term “international”. The topical focus of the proposed centre is on public health and public health sciences. In this context, “public health” is defined broadly according to John Last as *“the combination of skills, sciences, and activities directed to the maintenance and improvement of the health of all of the people through collective or social actions.”* In this regard, it is anticipated that the Centre would seek to harness scientists and skills from a range of disciplines that are most relevant for public health, including core public health sciences such as epidemiology, biostatistics and demography, along with anthropology, sociology and other social sciences.

This proposal seeks to address the immediate need to solidify and expand the UM's capacity and leadership in global public health, and is therefore limited in its scope. It is understood that this Centre could well become a key component and catalyst for a larger initiative in global health and development.

The proposed structure of the Centre is intended to build on existing institutional strengths and structures, promote achievement towards key objectives, and provide a consolidated and logical management structure. It is proposed that the new Centre be located within the Department of Community Health Sciences (DCHS) in the Faculty of Medicine. This institutional arrangement is logical given the focus of the Centre on public health, the fact that key faculty members are already appointed and physically located in the DCHS, and with several of the main international public health grants being currently held in that department.

Initially, the Centre will be comprised of three integrated components:

1. **International Projects Unit** – This Unit will be comprised of the diverse international research and development projects, with the mandate to develop and execute a strategic plan for further developing the portfolio of international public health projects.
2. **Research Unit** – The Research Unit will incorporate the existing Applied Public Health and Epidemiology Unit (APHERU), which is led by Dr. James Blanchard in the Department of Community Health Sciences, and supported by his Canada Research Chair in Epidemiology and Global Public Health, as well as a CFI grant. This core infrastructure and research program will be supplemented by existing and future public health research projects. This will provide a substantial critical mass of research funding, infrastructure and expertise. Research will not be restricted to global research projects, since domestic research projects will continue to be supported.
3. **Education and Knowledge Translation Unit** – This Unit will be focused on three main activities:
 - a. Developing and coordinating educational opportunities in global public health for UM and foreign students;
 - b. Promoting the translation of knowledge gained in global public health research and projects for application in international and domestic public health settings.
 - c. Development of a pro-active technical assistance program, whereby UM faculty and students provide capacity building and technical assistance to academic, governmental and non-governmental organizations in global public health programs.

These Units will be supported by a small, centralized Finance and Administration Unit.

Annual Report of the Senate Committee on Academic Computing

Preamble

1. The terms of reference for the Senate Committee on Academic Computing are found on the University Governance website at: www.umanitoba.ca/governance.
2. The Committee is charged with providing advice and recommendations to Senate on:
 - a) the University's general policies relating to the development and use of computing and networking in instruction and research;
 - b) prioritizing support for the development and delivery of computing and network services; and
 - c) computer services policies and their effect on faculty and students.

Observations

1. Members of the Committee for 2007-2008 were: Dr. D. Jayas, Mr. G. Miller, Ms. C. Presser, Dean D. Witty, Dean D. Collins, Professor G. Schreckenbach, Professor B. Luterbach, Professor M. Benbow, Professor M. Singer, Professor M. Brabston, Professor E. Scott, Mr. P. Tittenberger, Mr. K. Mendoza, Mr. S. Neethirajan, Ms. F. Chowdhury, and Dr. R. Lobdell as Chair.
2. No matters were referred to the Committee for consideration, therefore, no meetings were held during the reporting period.

Respectfully submitted,

Dr. R. Lobdell, Chair
Senate Committee on Academic Computing.

/lrj|

ANNUAL REPORT OF THE SENATE COMMITTEE ON ACADEMIC DRESS

Preamble

The Terms of Reference for the Senate Committee on Academic Dress are found on the University Governance website at: www.umanitoba.ca/governance.

Observations

1. The Senate Committee on Academic Dress did not meet during the reporting term.
2. Members of the Senate Committee on Academic Dress for the 2007-2008 reporting term were: Prof. C. Rabinovitch, Chair, Prof. L. Chalmers, Mr. N. Marnoch, Prof. L. Horne, Ms. C. Roos, and Ms. A. Murawski.

Respectfully submitted,

Dr. C. Rabinovitch, Chair
Senate Committee on Academic Dress

/lrjl

Annual Report of the Senate Committee on Academic Freedom

Preamble

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

Observations

1. The membership of the Committee for 2007-2008 included: Professor D. Fuchs (Social Work), Professor J. Anderson (member at large), Professor N. Subotincic (Architecture), Professor C. Morrill (Management), Professor M. Gabbert (Arts), Ms. A. Pochinco (Student), and Ms. M. Meade (Student).
2. The Committee did not meet during the reporting period.

Respectfully submitted,

Nada Subotincic, Chair
Senate Committee on Academic Freedom

/mb

Annual Report of the Senate Committee on Academic Review

Preamble

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

Observations

1. The membership of the Committee for 2007-2008 included: Dr. R. Lobdell, (Vice-Provost Programs), Dr. R. Kerr, (Vice-President Academic and Provost), Dean J. Doering (Graduate Studies), Dr. R. Mazurat (Dentistry), Dean D. Witty, (Architecture), Professor J. Van Rees (Science), Professor M. Ballance (Agricultural and Food Sciences), Professor J. Owens (Arts), Mr. P. Nawrot (Student) and Mr. A. Coolidge (Student).
2. The Committee met once during the reporting period on October 22, 2007. A report was drafted that provided an update on completed academic program reviews for the period July 2005 through September 2007. During the period under consideration, sixteen graduate program reviews were completed and nine undergraduate programs underwent accreditation visits. The report was endorsed by the Committee and approved by Senate on December 5, 2007.

Respectfully submitted,

Richard Lobdell, Chair
Senate Committee on Academic Review

/mb

ANNUAL REPORT OF THE SENATE COMMITTEE ON ADMISSIONS (SCADM) FOR THE YEAR FROM MAY 1, 2007 TO APRIL 1, 2008

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

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

The current committee membership is as follows:

<u>Incumbent</u>	<u>Position</u>	<u>Composition</u>
Dr. Dave Morphy	VP (Academic) & Provost	(1) VP (Academic) or designate , Chair
Ms Iris Reece Tougas	Lead Admissions Officer, Admissions	(2) Vice Provost (Student Affairs) or designate
Mr. Peter Dueck	Executive Director, Enrolment Services	(3) Executive Director (Enrolment Services)
Dr. Linda Wilson	Associate Dean/Professor, Faculty of Arts	(4) Dean, Faculty of Arts or designate
Dr. Betty Worobec	Associate Dean, Faculty of Science	(4) Dean, Faculty of Science or designate
Dr. John Perry	Associate Professor, Faculty of Dentistry	(4) Dean, Faculty of Dentistry or Medicine or designate
Dr. David Collins	Dean/Professor, Faculty of Pharmacy	(5) Senate-appointed dean/director
Dr. Christine Blais	Director, University 1	(5) Senate-appointed dean/director
Dr. Charles Mossman	Associate Dean, I.H. Asper School of Business	(6) Senate Appointee
Dr. Yuewen Gong	Associate Professor, Faculty of Pharmacy	(6) Senate Appointee
Dr. Laurie Connor	Associate Head, Faculty of Animal Science	(6) Senate Appointee
Dr. Lori Wallace	Associate Dean, Distance Education	(6) Senate Appointee
Prof. S. McLachlan	Associate Professor, Faculty of Enviro., Earth and Resources	(6) Senate Appointee
Dr. Judith Owens	Associate Professor, English	(6) Senate Appointee
Ms Naresh Redhu	Student, Faculty of Graduate Studies	(7) Student
Ms Morgan Campbell	Student, Faculty of Graduate Studies	(7) Student
Mr. Jason Zhang	Student, Faculty of Science	(7) Student
Vacant (Declined)	Declined	(8) Deputy Minister of Education (or designate)
Mr. Peter Brass	University Advisor, St. John's Ravenscourt	(8) Counsellor from a Manitoba High School

Subsequent to the 2007 Annual Report, SCADM met on April 12, 2007, May 14, 2007, August 30, 2007, January 15, 2007 and February 14, 2008. The following matters were addressed by the committee:

1. **Faculty of Education** – SCADM reviewed a proposal recommending changes to the formula for the calculation of grade point average for admission to the After-Degree Bachelor of Education Program, effective for the September, 2008 intake. Approved by the Senate Committee on Admissions, April 12, 2007. Approved by Senate, May 23, 2007.
2. **School of Art** – SCADM reviewed a proposal recommending that a portfolio review be part of the admissions criteria for all applicants, effective for the May, 2008 intake. Approved by the Senate Committee on Admissions, May 14, 2007. Approved by Senate, June 27, 2007.
3. **School of Medical Rehabilitation** – SCADM reviewed a proposal recommending the submission of a self-declaration of a Child Abuse Registry and an Official Adult Criminal Record Statement to the admission process for all applicants to the Bachelor of Physical Therapy program, effective for the September, 2008 intake. Approved by the Senate Committee on Admissions, August 30, 2007. Approved by Senate, October 3, 2007.

4. **Faculty of Human Ecology** – SCADM reviewed a proposal requesting the consideration of guaranteed admission on January 15, 2008. *The proposal was not approved by the Senate Committee on Admissions and the faculty later withdrew the proposal from future consideration by the committee.*

5. **Faculty of Social Work** – SCADM reviewed a proposal recommending many amendments to the admission categories, effective for the September, 2009 intake. Approved by the Senate Committee on Admissions, January 15, 2008. Approved by Senate, April 2, 2008.

6. **School of Dental Hygiene** – SCADM reviewed a proposal recommending the following changes to their admissions process: (1) adding as an admission eligibility requirement a three credit hour introductory level course (English 1310 or equivalent), with a minimum grade of C+; (2) raising the minimum AGPA threshold required for admission in the regular applicant pool from 2.5 to 3.0 and in the special consideration applicant pool from 2.0 to 2.5 and; (3) by reducing the number of seats reserved for applicants in the special consideration category from 23 percent of available seats (currently six places) to 17 percent of available seats (currently four), and by designating 50 percent of these seats (currently two) for qualified aboriginal students. These changes were recommended to be effective for the September, 2009 intake. Approved by the Senate Committee on Admissions on February 14, 2008. *Senate approval pending.*

Preamble

1. The terms of reference for the Senate Committee on Admission Appeals are found in Section 8.15 of the *Senate Handbook*.
2. The Committee is charged to hear and determine appeals from:
decisions of faculty and school Selection Committees;
administrative decisions affecting the admission process;
decisions related to the transfer of credit policy of the faculty/school; and
the possible granting of advance standing;
3. The Committee is to report to Senate on the determination of all appeals submitted to it; and recommend on any changes in admission policies and procedures which should be considered as a result of the appeal.

Observations

1. Members of the Committee for 2007 -2008 were Professor A. Sloane-Seale (Continuing Education), Professor J. Dean (Arts), Professor M. Abrahams (Science), Professor P. McVetty, (Science), Professor R. Burleson (Music), Professor B. Cohen (Nursing), Professor E. Milliken (Social Work), Professor M. Fricke (Medical Rehabilitation), Professor D. Mandzuk (Education), Mr. A. Das (Student), Mr. L. Baillie (Student), Mr. G. Saran (President UMSU) and Professor P. Osborne as Chair.

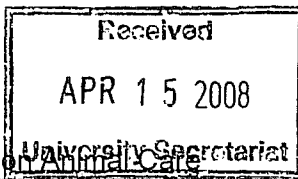
Sections 10.3.1 of the *Handbook* outlines the requirement that all Standing Committees of the Senate prepare an annual report to represented normally at the May meeting of Senate. The Senate Committee on Admission Appeals is one which reports to Senate on an ongoing basis as appeals are heard. These reports, which are contained in the Senate minutes are summarized below:

During the period from April 1, 2007 to March 31, 2008 the Committee received 6 appeals all being heard during this time period.

#	FACULTY	DECISION
1	Asper School of Business	Withdrawn
1	Graduate Studies	Denied
2	Medicine	Denied
1	Nursing	Denied
1	Social Work	Withdrawn

Respectfully submitted,

Professor P. Osborne
Chair of the Senate Committee on Admission Appeals



Preamble

The terms of reference for the Senate Committee on Animal Care (SCAC) can be found on the web at

http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/492.htm. SCAC is "To provide advice and recommendations to Senate and the University Administration regarding: the University's general policies relating to the development of facilities for and use of animals in research, teaching or testing; prioritizing support for the development and delivery of animal care services; and animal care and use policies and their effect on faculty members, staff and students".

Observations

1. Members of the Committee for 2007-2008 were:

Digvir Jayas, Associate Vice-President (Research) and Chair
Ed Kroeger (for Dean Sandham), Faculty of Medicine
Elizabeth Worobec (for Dean Whitmore), Faculty of Science
Tammy Ivanco (for Dean Sigurdson), Faculty of Arts
Michael Trevan, Faculty of Agricultural and Food Sciences
Kevin Coombs, Faculty of Graduate Studies
Elliot Scott, Faculty of Dentistry
Kees Plaizier/Martin Nyachoti, Department of Animal Science
Gary Anderson, Department of Biological Sciences
Alison Calder, Department of English
Terry Dick, Department of Biological Sciences
Susan Shefchyk, Department of Physiology
Robert Madziak, Central Animal Care Services
Randy Aitken, St. Boniface General Hospital Research Centre
Nora Lewis, Director, Animal Care and Use Program
Kris Klemchuk, Undergraduate Student Representative
Deborah Turner, Graduate Student Representative
Brent Thomas, Community Representative

2. During the reporting period the Committee met twice on:

- | | |
|-------------|---|
| May 3, 2007 | <ul style="list-style-type: none">▪ Protocol Management and Review Committees (PMRC) are functioning well.▪ University Research Grants Program and Thorlakson Foundation Fund scientific peer review processes now deemed as satisfactory, additional peer review no longer required.▪ Lab inspections were completed and minor problems were identified and quickly resolved. Very time consuming process. Suggestion was made to approach the Canadian Council on Animal Care (CCAC) to request that they consider waiving the requirement of annual lab inspections of well run labs. CCAC |
|-------------|---|

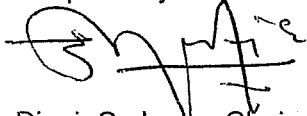
was approached in October 2007 and asked to consider this suggestion. To date, a response has not been received.

- An Emergency Response Manual has been developed for Central Animal Care Services. It will be used as a template for other animal care facilities to develop a manual for their facility accordingly.
- InfoEd is still being evaluated by ORS.
- Terms of Reference of Local Animal Users Committees need to be reviewed and revised.
- New and renewed PMRC membership was approved.

January 10, 2008

- Over \$400k was made available for infrastructure upgrades in 2007/2008.
- The CCAC conducted their site visit in May 2007. Once again, the University of Manitoba was found to be in full compliance.
- The committee agreed to reduce the number of meetings per year from two to one.
- In order to provide standardization for the animal care and use program, a process for the development and distribution of guidelines was agreed upon.
- The issue of whether or not to allow "E" category of invasiveness (coi) protocols to be conducted was discussed. A special meeting to further discuss this issue was held on February 29 2008. The committee recommended that Policy 1404 Care and Use of Animals be revised to read "Normally the University of Manitoba does not allow "E" coi protocols but in exceptional cases, approval may be granted." This recommendation is currently under review.

Respectfully submitted,



Digvir S. Jayas, Chair
Senate Committee on Animal Care

Preamble

1. The terms of reference for the Senate Committee on Appeals are found on page 10.16 of the *Senate Handbook* (Rev. 1992).
2. The Committee is charged to hear and determine appeals from:
 - a) decisions made by academic administrators involving Senate regulations in which faculty or school councils have no jurisdiction; and
 - b) appeals against decisions taken by Awards Selection Committees of faculties and schools.
3. The Committee is to report to Senate on the determination of all appeals submitted to it; and advise the Executive Committee of any Senate regulations affecting students which appear to be creating particular difficulties.

Observations

1. Members of the Committee for 2007-2008 were, Dean. J. Weins (Education), Dean M. Trevan (Agriculture and Food Science), Dean R. Mullaly, (Social Work), Dean I. Diallo (St. Boniface College), Professor A. Young (Arts, Vice-Chair), Professor M. Ballance (Agriculture and Food Science), Professor J. Welsh (Education), Professor J. Page (Science), Professor K. Levine (Social Work), Professor B. Amiro (Agriculture and Food Science), Professor D. McPherson (Law), Mr. P. Nawrot (Student), Mr. O. Asemota (Student), Mr. B. Monteiro (Student), Mr. L. Baillie (Student), Ms. J. Winter (Student) and Professor A. McNicol served as Chair.
2. Sections 10.3.1 of the *Handbook* outlines the requirement that all standing committees of Senate prepare an annual report to be represented normally at the May meeting of Senate. The Senate Committee on Appeals is one which reports to Senate on an ongoing basis as appeals are heard. These reports, which are contained in the Senate minutes are summarized below:

During the reporting period from April 1, 2007 to March 31, 2008 the Committee handled 20 appeals during the reporting period.

#	Faculty	Decision
2	Nursing	2 granted
5	Science	1 granted; 1 partially granted; 3 denied
2	Law	2 denied
1	Social Work	1 withdrawn
2	Arts	1 granted; 1 denied
5	Engineering	3 denied; 1 withdrawn; 1 returned to Faculty
1	University 1	1 denied
1	Management	1 partially granted
1	Education	1 pending

Respectfully submitted,

Dr. A. McNicol, Chair
Senate Committee on Appeals

Annual Report of the Senate Committee on Approved Teaching Centres

Preamble

The Terms of Reference for the Senate Committee on Approved Teaching Centres (SCATC) can be found on the web at:

http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/494.htm

Observations

1. Members of the Committee for 2007-2008 were: Professor B. Schwimmer (Arts), Ms. R. Gaywish (Extended Education), Professor T. Ivanco (Arts), Professor T. Chen (Arts), Professor R. Finnegan (Arts), Professor S. Brickey (Arts), Professor D. McCance (Arts), and Professor L. Ren    (Arts)
2. The current Approved Teaching Centres are:

Prairie Theatre Exchange
William and Catherine Booth College
3. In preparation for the 2007-2008 session, the SCATC conducted its regular spring business of reviewing cross-registered courses to be offered by the Approved Teaching Centres, together with the proposed instructors, and recommending the same to Senate at its June meeting.

Respectfully submitted,

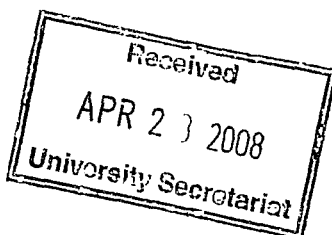
Senate Committee on Approved Teaching Centres

/mb



UNIVERSITY
OF MANITOBA

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Telephone (204) 474-9531
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ANNUAL REPORT TO SENATE FROM THE SENATE COMMITTEE ON AWARDS

Number of meetings

The Senate Committee on Awards met ten times (including one electronic poll) between May 1, 2007 and April 30, 2008.

Terms of Reference

Terms of Reference for the Senate Committee on Awards can be found on pages 10.10 to 10.11 in the *Senate Handbook*.

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 Scholarships, Bursaries or Fellowships*, such offers shall be submitted to Senate for approval. (Senate, April 5, 2000)

Committee Members

Academic Representatives:

Dr. Rick Baydack (Chair/Environment, Earth, and Resources)
Prof. Nicole Harder (Faculty of Nursing)
Dr. Pam Hawranik (Faculty of Nursing)
Dr. Philip Hultin (Faculty of Science)
Dr. Colleen Metge (Faculty of Pharmacy)
Dr. Greg Smith (Faculty of Arts)

Student Representatives:

Mr. Tidimogo Gaamanguve (Faculty of Graduate Studies)
Ms Andrea Rossnagel (Faculty of Graduate Studies)

Director, Financial Aid & Awards:

Ms Jane Lastra
Mr. Barry Stone (Acting Director)

Dean, Faculty of Graduate Studies:

Dr. Jay Doering
Ms Marcia Labiuk (alternate)

Consultants:

Mr. Peter Dueck (Enrolment Services)
Ms C. Richardson (Enrolment Services)
Dr. S. Coyston (Recording Secretary/Enrolment Services)

STUDENT
AFFAIRS

creating opportunities for student success

Observations

1. In 2007 – 2008, the Senate Committee on Awards approved the establishment of 86 new awards, amendments to 92 existing awards, and the withdrawal of 19 awards. Of the 86 new awards, 54 are scholarships, prizes, or fellowships, 30 are bursaries, 1 is a teaching award, and 1 is an outreach award offered to high school students.

(Appendix A)

2. The Senate Committee on awards recommended to Senate, for approval, requests to establish 4 new awards that appear to be discriminatory under the policy on the *Non-Acceptance of Discriminatory Scholarships, Bursaries or Fellowships*. In each case, the awards will provide support for Aboriginal students at the University.

Respectfully submitted,

Dr. R. Baydack, Chair
Senate Committee on Awards

APPENDIX A -

New Awards* Established Between May 1, 2007 and April 30, 2008 (Total = 86, including 2 Teaching/Outreach Awards)

* Scholarships, Prizes, Fellowships, and Bursaries

Undergraduate, Graduate, and Medicine	Entrance Awards	Renewable Entrance Awards	In-course and Graduating Awards	Total
Undergraduate	7	1	53	61
Graduate	2	2	12	16
Undergraduate or Graduate	-	-	7	7
Teaching Award/Outreach	-	-	-	2

New Awards* By Faculty, May 1, 2007 - April 30, 2008 (Total = 84) & May 1, 2006 - April 30, 2007 (Total = 63)

* Scholarships, Prizes, Fellowships, and Bursaries

Faculty or School	U 0708	G 0708	U/G 0708	Total 0708	U 0607	G 0607	U/G 0607	Total 0607
Agricultural & Food Sciences	8	1	1	10	4	4	-	8
Architecture	1	1	1	3	1	2	-	3
Art (Fine Arts)	2	-	-	2	-	-	-	-
Arts	1	4	1	6	4	1	-	5
Central [†]	6	-	2	8	4	-	4	8
Dentistry	2	-	-	2	1	-	-	1
Dental Hygiene	1	-	-	1	-	-	-	-
Education	5	-	1	6	-	-	-	-
Engineering	7	2	-	9	1	-	1	2
Environment, Earth, & Resources	-	-	-	-	3	-	-	3
Human Ecology	-	-	-	-	1	-	1	2
Interdisciplinary	4	3	-	7	1	1	-	2
Kinesiology & Recreation Management	1	-	-	1	2	-	-	2
Law	7	-	-	7	3	-	-	3
Management	7	-	-	7	-	-	-	-
Medical Rehabilitation	-	-	-	-	4	-	-	4
Medicine	2	1	-	3	6	-	-	6
Music	1	-	1	2	5	2	-	7
Natural Resources Institute	-	1	-	1	-	-	-	-
Nursing	2	1	-	3	-	1	-	1
Pharmacy	2	-	-	2	2	-	-	2
Science	1	2	-	3	2	1	1	4
University 1	1	-	-	1	-	-	-	-
Totals	61	16	7	84	44	12	7	63

U = Undergraduate, G = Graduate, U/G = open to Undergraduate and Graduate students

[†] Awards open to students in any faculty or school.

Annual Report of the Senate Committee on the Calendar

Preamble

1. The terms of reference for the Senate Committee on the Calendar are found on the web at http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/496.htm
2. The Committee is charged with preparing the University Calendars and providing advice on matters referred to it concerning the University Calendars.

Observations

1. Members of the Committee for 2007-2008 were: Professor P. Hultin (Science), Ms. J. Horner (Libraries), Ms L. Hamilton (*Calendar* editor), Ms. J. Ellis (Student), Mr. N. Marnoch (Registrar), Professor T. Hassard (Graduate Studies), Dean H. Secter (Law) and Mr. J. Leclerc as the Chair.
2. The Committee did not meet during the reporting period, however, the Committee will be meeting in June, 2008.

Respectfully submitted,

Mr. Jeff M. Leclerc, Chair
Senate Committee on the Calendar

/mb

Annual Report of the Senate Committee on Curriculum and Course Changes

Preamble

The terms of reference for the Senate Committee on Curriculum and Course Changes (SCCCC) can be found on the web at

http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/497.htm.

SCCC is "to recommend to Senate on the introduction, modification or abolition of undergraduate programs, curricula or courses".

Observations

1. Members of the Committee for 2007-2008 were: Professor E. Worobec (Science), Professor D. Schonwetter (Dentistry), Professor B. Ferguson (Arts), Professor D. Brownridge (Human Ecology), Professor H. Davidson (Extended Education), Professor H. Frankel (Social Work), Professor J. Welsh (Education), Dr. R. Lobdell (Vice-Provost (Programs), Ms. J. Horner (Libraries), Ms. H. Baert (Student), Ms. C. Chauvin (Student), Mr. J. Zhang (Student).
2. During the reporting period the Committee reported to Senate on:
 - May 25, 2007 - policy changes in the Faculties of Arts and Science regarding courses available for credit
 - October 1 & 15, 2007 - curriculum and course changes from departments totaling less than nine credit hours in various faculties and schools.
 - course changes from departments totaling beyond nine credit hours in various faculties and schools
 - Proposal for a Diploma in Aboriginal Environmental Stewardship
 - April 9, 2008 - course changes from departments totaling less than nine credit hours in various faculties and schools
 - Proposals: Bachelor of Science (Honours) in Forensic Science and Bachelor of Human Ecology (Indigenous Wellness)
 - Proposal for reform of the Undergraduate Environmental Design Program (Faculty of Architecture)

Respectfully submitted,

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

/mb

Preamble

The terms of reference for the Senate Committee on the Ethics of Research Involving Human Subjects (SCERIHS) can be found on the web at: http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/500.htm. SCERIHS is to "Provide advice and recommendations to Senate and the University Administration regarding the University's general policies relating to human subjects research and the effects of these policies on faculty members, staff and students."

Observations

1. Members of the Committee for 2007-2008 were:

Peter Cattini, Associate Vice-President (Research), (*ex-officio*), Chair
Edward Johnson, Faculty of Arts
Algernon Karim, Faculty of Dentistry
Tuula Heinonen, Faculty of Social Work
Maureen Heaman, Faculty of Nursing
Francine Morin, Faculty of Education
Sandra Ingram, Faculty of Engineering
Naresh Redhu, Faculty of Graduate Studies, graduate student
Katrina Broughton, University 1, undergraduate student
Scott Armstrong, community representative
John Irvine, Faculty of Law, lawyer

And, Research Ethics Boards (REBs) Chairs (*ex-officio*), appointed by SCERIHS:

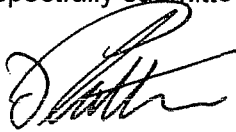
Nick Anthonisen, Faculty of Medicine, Chair of Biomedical Research Ethics Board (BREB)
John Arnett, Faculty of Medicine, Chair of Health Research Ethics Board (HREB)
Bruce Tefft, Faculty of Arts, Chair of Psychology/Sociology Research Ethics Board (PSREB)
Stan Straw, Faculty of Education, Chair of Education/Nursing Research Ethics Board (ENREB)
Wayne Taylor, Faculty of Arts, Chair of Joint-Faculty Research Ethics Board (JFREB)

2. A sub-committee of SCERIHS is the Ethics Policy Implementation Committee (EPIC). EPIC consists of the five REB Chairs, the two Human Ethics Coordinators and is chaired by Dr. Peter Cattini. Members of EPIC continue to investigate ways to provide educational opportunities for both reviewers and researchers alike, in an effort to improve the protocol submission and review process. Throughout the reporting period the Chairs and the Human Ethics Coordinators attended or presented at the request of various committees and groups on campus. In April 2007 a workshop was held for researchers, ethics committee members, students and other research support staff. The workshop addressed good clinical practice (GCP) regulations and Tri-Council Guidelines in the academic environment. The EPIC sub-committee met in response to issues as they occurred, and was available as a resource for the many questions that arose during the year.

Plans are underway to establish a quality assurance office in 2008. Standard Operating Procedures (SOPs) have been developed and approved for Bannatyne campus; and SOPs have been drafted for Fort Garry campus. Job descriptions for Quality Assurance Manager and Assistant positions have been prepared.

3. There were no instances of non-compliance with Policy #1406 (*The Ethics of Research Involving Human Subjects*) during the 2007-2008 year.
4. The five REBs meet and review protocols on a monthly basis. The two Bannatyne Campus REBs reviewed 455 protocols between January 1 and December 31, 2007. The three Fort Garry Campus REBs reviewed 391 protocols between January 1 and December 31, 2007.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Peter Cattini', with a stylized flourish at the end.

Dr. Peter Cattini, Chair
Senate Committee on the Ethics of Research Involving Human Subjects

2007 Annual Report
of the
University of Manitoba Fort Garry Campus
Research Ethics Boards

March 31, 2008

Stan Straw, Ph.D., Chair, Education/Nursing Research Ethics Board

Wayne Taylor, Ph.D., Chair, Joint-Faculty Research Ethics Board

Bruce Tefft, Ph.D., Chair, Psychology/Sociology Research Ethics Board

Maggie Bowman, REB Coordinator, Fort Garry Campus Research Ethics Boards

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Introduction & Background

The **Education/Nursing Research Ethics Board (ENREB)**, the **Psychology/Sociology Research Ethics Board (PSREB)** and the **Joint-Faculty Research Ethics Board (JFREB)** at the Fort Garry Campus were formed in September 2000 and are responsible for the review of human ethics submissions from members of all Fort Garry faculties, with the exception of Pharmacy (which submits to Bannatyne Campus). The three boards are also responsible for the review of some submissions from Winnipeg Regional Health Authority (WRHA) researchers following an agreement signed between WRHA and the University of Manitoba in July 2004.

The Fort Garry Campus Research Ethics Boards operate according to the principles and standards detailed in the *Tri-Council Policy Statement for Ethical Conduct for Research Involving Humans* and University of Manitoba Policy 1406 *The Ethics of Research Involving Human Subjects*.

Membership

ENREB

As of December 2007, ENREB was composed of 20 members with a diverse range of expertise from the University of Manitoba faculty, graduate students and the community.

Name	Affiliation
Dr. Stan Straw, Chair	Education
Dr. Marlene Atleo	Education
Dr. Carolyn Crippen	Education
Dr. Sandra Kouritzin	Education
Dr. Priya Mani	Education
Dr. Robert Renaud	Education
Dr. Dawn Wallin	Education
Dr. Brian Lewthwaite	Education
Mrs. Phyllis Hildebrandt	Education Grad Student
Dr. Laura Atkinson	Community Representative
Dr. Diana McMillan	Nursing
Dr. Ruth Dean	Nursing

Dr. Wanda Chernomas	Nursing
Ms Janna Kingdon	Nursing Grad Student
Ms Judy Inglis	Community Representative
Dr. Atlanta Sloane-Seale	Extended Education
Dr. Michael Heine	Kinesiology & Recreation Management
Ms Joanne Parsons	Kinesiology & Rec Management Grad Student
Ms Michelle Nelson	Pharmacy
Dr. Tarek Elmekaw	Engineering

PSREB

As of December 2007, PSREB was composed of 17 members with a diverse range of expertise from the University of Manitoba faculty, graduate students and the community.

Dr. Bruce Tefft, Chair	Psychology
Dr. Michael LeBow	Psychology
Dr. Todd Mondor	Psychology
Dr. Barry Mallin	Psychology
Dr. Gerry Sande	Psychology
Dr. Jacquie Vorauer	Psychology
Ms Lori Doan	Psychology Grad Student
Dr. Lori Wilkinson	Sociology
Prof. Frank Cormier	Sociology
Dr. Chris Powell	Sociology
vacant	Sociology Grad Student
Dr. Donald Stewart	Student Counselling & Career Centre
Dr. Michael Baffoe	Social Work
Dr. Don Fuchs	Social Work
Dr. Ranjan Roy	Social Work
Dr. Lawrie Deane	Social Work
Ms Juliana West	Social Work Grad Student
vacant	Community Representative
Dr. Neil Butchard	Community Representative

JFREB

As of December 2007, JFREB was composed of 17 members with a diverse range of expertise from the University of Manitoba faculty, graduate students and the community.

Dr. Wayne Taylor, Chair	Sociology
Dr. Susan Prentice	Sociology
Dr. Jarvis Brownlie	History
Dr. Susan Frohlick	Anthropology
Dr. Jill Oakes	Environment & Geography
Mr. Brian Barth	Student Advocacy
Ms Sharon Kuropatwa	Community Representative
Dr. Paul Earl	Supply Chain Management
Dr. Ed Bruning	Marketing
Dr. George MacLean	Political Studies
Dr. Gustaaf Sevenhuysen	Human Nutritional Sciences
Prof. Susan Close	Architecture
Dr. Cynthia Karpan	Architecture
Dr. Iain Davidson-Hunt	Natural Resources Institute
Mr. Jason Kelly	NRI Grad Student
Ms Roselle Miko	NRI Grad Student
Ms Cate Harrington	Community Representative

Operations

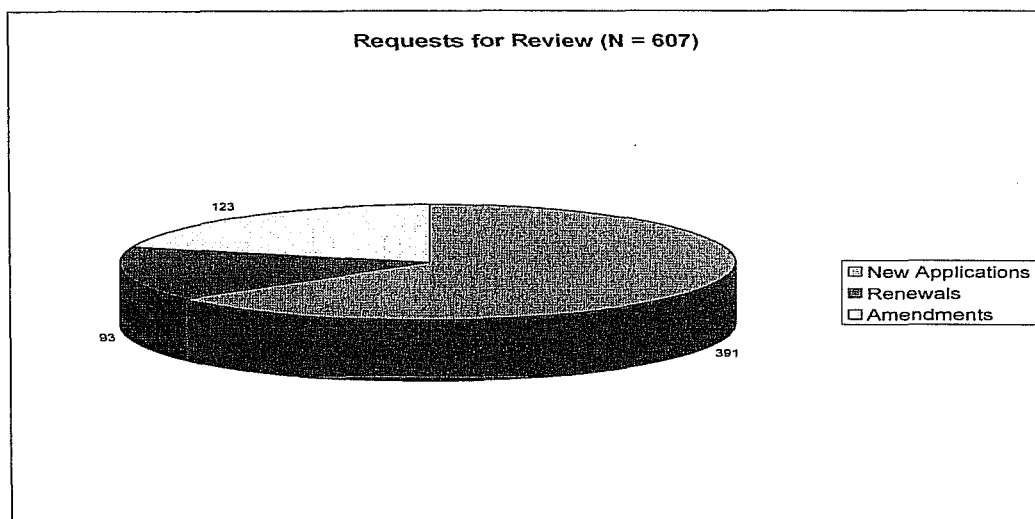
The Fort Garry REBs are supported by an REB Coordinator, and beginning December 2006, a .25 office assistant. The REB coordinator's primary responsibility is to act as a liaison between researchers and the three boards. This entails providing guidance to researchers with regard to questions they may have relating to new submissions, or amendment and/or renewal of existing submissions. It also involves coordinating the assignment of submissions to the 50+ volunteer reviewers who constitute membership of the three REBs. The office assistant provides clerical support to the REB coordinator by way of filing, faxing and photocopying.

The workload has greatly increased since inception in September 2000. The number of protocols received annually has grown from 316 in 2001, to 400 in 2005 (down slightly to 391 in 2007). This has necessitated the addition of the part-time office assistant, and with the approaching introduction of *InfoEd*, a comprehensive multi-department database, will require additional staff to ensure the highest quality service can be provided to University of Manitoba researchers while maintaining our goal of protecting the rights and well-being of human subjects in research.

	2001	2002	2003	2004	2005	2006	2007
JFREB protocols	128	136	193	185	166	150	162
ENREB protocols	103	102	108	112	131	115	95
PSREB protocols	85	97	91	97	103	123	134
Total	316	335	392	394	400	388	391

Statistics

Between January and December 2007 the Fort Garry Campus REBs received 391 new submissions: JFREB reviewed 162 new protocols; ENREB reviewed 95 new protocols; and PSREB reviewed 134 new protocols. In addition there were 93 Renewal Requests and 123 Amendment Requests to ongoing projects. Ninety-nine percent of the new protocols submitted to the Fort Garry Campus REBs were reviewed on an 'expedited' basis, (i.e., involving only minimal risk thereby requiring review by two primary reviewers plus the Chair). The remainder were reviewed on a 'full-review' basis, (i.e., involving more than minimal risk and thereby requiring review by the full committee plus the Chair).



Sponsorship

34% of research studies conducted in 2006 (involving human subjects) were sponsored, in full or in part, either by a provincial or federal funding agency, or by an internal grant. The remainder were self-funded.

Education

Section 1.1.2 of Policy #1406 (*The Ethics of Research Involving Human Subjects*) states "The [Human Ethics] Secretariat will promote awareness of the TCPS [Tri-Council Policy Statement] and of this policy, and educate researchers on campus on the ethical conduct of research through workshops, and other methods as deemed appropriate." In this regard, the REB Chairs and the Human Ethics Coordinator made several presentations in 2007 to various groups on campus, sometimes at individuals' requests, sometimes after identifying a problematic issue. An April 2007 workshop was held for researchers, ethics committee members, students and other research support staff. The workshop addressed good clinical practice (GCP) regulations and Tri-Council Guidelines in the academic environment.

Plans are underway to establish a quality assurance office in 2008. Standard Operating Procedures (SOPs) have been developed and approved for Bannatyne campus; and SOPs have been drafted for Fort Garry campus. Job descriptions for Quality Assurance Manager and Assistant positions have been prepared.

2007 Annual Report
of the
University of Manitoba Bannatyne Campus
Research Ethics Boards

April 16, 2008

Nicholas Anthonisen. MD., Ph.D. Chair, Biomedical Research Ethics Board (BREB)

John L. Arnett, Ph.D., Chair, Health Research Ethics Board (HREB)

Shelly Rempel-Rossum, REB coordinator Bannatyne Campus Research Ethics Board Office

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Introduction & Background

The **Biomedical Research Ethics Board (BREB)** and the **Health Research Ethics Board (HREB)** at the Bannatyne Campus were formed in February 2000 and are responsible for the review of submissions from members of the Faculties of Medicine, Dentistry, Pharmacy and School of Medical Rehabilitation as well as submissions that may be referred by the REBs on the Fort Garry Campus. The two boards are also responsible for the review of submissions from Winnipeg Regional Health Authority (WRHA) researchers following an agreement signed between WRHA and the University of Manitoba in July 2004. Research protocols involving biomedical clinical trials and other biomedical research interventions are referred to the BREB, while the research from the Bannatyne campus involving behavioral trials, non—pharmacological interventions databases, surveys, and examinations of medical records are referred to the HREB.

The Bannatyne Campus Research Ethics Boards operates according to the principles and standards detailed in the Tri-Council Policy Statement for Ethical Conduct for Research Involving Humans (TCPS), Division 5 of the Food and Drug Regulations, ICH Good Clinical Practice Guidelines, University of Manitoba Policy 1406 and other relevant laws and regulations.

Membership

As of December 2007, the BREB was composed of **16** regular members, **one** alternate member(expertise in law) and **one** ad-hoc member with a diverse range of expertise from the University of Manitoba faculty (Health Science Centre and St. Boniface Hospital), WRHA, CancerCare Manitoba and the community.

BREB membership

Name	Scientific Specialty	UM Affiliation(s)
Nicholas Anthonisen, MD, Ph.D. Chair	Respiratory	Professor
Arthur Braid, QC	Law	Professor
Corrie Billedeau	None (Patient Advocate)	None – Community Rep
*Brenlee Carrington Trepel, LL.B.	Law	Sessional Instructor
Gary Harding MD, FRCPC	Oncology , Bioethics	Assistant Professor
Martin Karpinski, MD, FRCPC	Nephrology	Assistant Professor
Bruce Light, MD, FRCPC	Internal Medicine, Infectious Disease	Assistant and Associate Prof.
Evelyn Lo, MD.(on mat leave)	Infectious Diseases	Assistant Professor
Ian MacLean, Ph.D.	Microbiology	Research Assistant
John McCoshen, PhD.	Obstetric, Gynecology	Professor
Patrick McDonald, MD MHSc., FRCSC	Neurosurgery and Bioethics	Assistant and Associate Prof.
Anthony Miller, MD, FRCPC	Cardiology	Associate Professor
Victor Ng, M.Sc.	Sports Medicine	Med Student
Joseph Polimeni, MD FRCPC	Psychiatry	Assistant Professor
Suzanne Ronald, B.Sc.	Student (Surgery)	Student
Owen Williams MD, FRCSC	Neurosurgery	Assistant Professor
Sharon Wilson, Ph.D.	Theology	None
Dr. Patrick Choy – Ad hoc committee Member for knowledge of Complementary Alternative Health Care		

* Denotes alternate member

**Denotes term expired during 2007 and was not a member as of December 31, 2007

In Dr. Anthonisen's absence Drs. Joe Polemeni or MacLean assumed the role of Acting Chair. Their assistance in assuming these responsibilities was highly valued.

HREB membership

As of December 2007, the HREB was composed of **13** regular members and **one** alternate member with a diverse range of expertise from the University of Manitoba faculty and the community.

Name	Scientific Specialty	UM Affiliation(s)
John Arnett, Ph.D. C. Psych., Chair	Clinical Health Psychology	Professor
Ann Booth, B.Sc. MBA	Occupational Therapy	Associate Professor
Anne Sophie Champod B.Sc. Psychology	Clinical Health Psychology	None – student with HSC
Katherine Choptain	Legislation RE PHIA, FIPPA (retired)	None
Kelly Dixon, LLB	Law	None
Malcolm Doupe, Ph.D.	Community Medicine	Research Associate
Brenda Elias, Ph.D.	Aboriginal Health, Population Health	Assistant Professor
Jane Evans Ph.D. , FCCMG	Genetics	Professor
**Evelyn Forget Ph.D.	Health Economics	Professor
Aviva Goldberg M.D.	Pediatric Nephrologist, Bioethicist	Assistant Professor
**Alice Holub B.S.C., MSc.	Clinical Health Psychology	Student
Spencer Gibson, Ph.D.	Cell Biology/Biochemistry	Professor
Algernon Karim, Ph.D.	Oral Biology & Medicine	Professor
**Barb Triggs-Raine Ph.D.	Biochemistry, Medical Genetics	Associate Professor
Noralou Roos	Epidemiology	Professor
Tony Szturm, Ph.D.	Neurology, Rehabilitation	Associate Professor
Herb Thompson. Comm. (retired)	B. Comm. (retired).	None Community rep.
Roberta Woodgate Ph.D., M.N.	Child Health & Illness; Qualitative	Associate Professor

*Denotes Alternate member

** Denotes term expired during 2007 and was not a member as of December 31, 2007

Full Board Meeting Dates

The HREB and BREB met every month in 2007 except for the month of July. The HREB met between 8:30 a.m. and 12:00 p.m. and the BREB met between 12:00 p.m. and 4:30 p.m. on the following dates:

- January 22, 2007
- February 26, 2007
- March 26, 2007
- April 20, 2007
- May 28, 2007
- June 25, 2007
- August 27, 2007
- September 24, 2007
- October 29, 2007
- November 26, 2007
- December 10, 2007

Operations

The Bannatyne REBs are supported by an REB Coordinator and two full time office assistants. The REB coordinator's primary responsibility is to act as a liaison between the researchers and the two boards to ensure all research proposed is conducted according to the highest ethical standards outlined in Tri-Council Policy Statement for Ethical Conduct for Research Involving Humans TCPS and to ensure regulatory requirements, privacy legislation and local institutional policies are followed. This entails providing guidance to researchers with respect to how to address ethical dilemmas for new submissions/amendments or questions raised by the committee's review; coordinating the review of all new applications and pre-reviewing all subsequent applications submitted for expedited review to ensure these standards are met. The office assistants provide clerical support to the REB coordinator by ensuring appropriate material is forwarded to board members for the monthly meeting as well as processing the letters of approval for researchers.

Increased regulatory, privacy and ethical scrutiny required for clinical research review coupled with an increasing number of quality assurance initiatives deemed to be more like "research" by funders/journal editors/REBs and student projects from the School of Medical Rehabilitation Occupational Therapy Master's program has greatly increased the workload of the office and REBs in the past couple of years. The REBs, in particular, the HREB, anticipate an increase number of protocol submission as the School of Medical Rehabilitation Physio Therapy Master's program begins enrolment. We will monitor the impact of this additional work on the REB members. In an effort to reduce the workload of the full committee, the HREB Chair has increased the number of studies considered for expedited review by the Chair within the criteria outlined in our Standard Operating Procedures.

Statistics

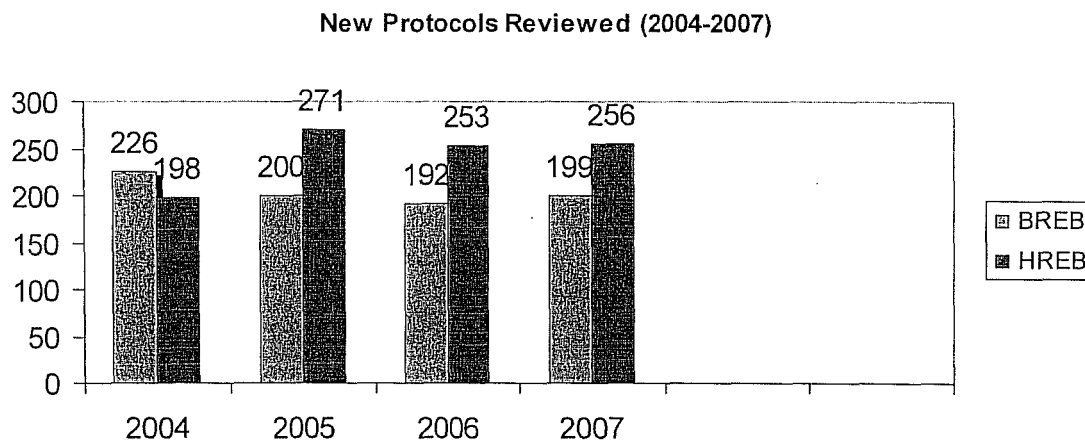
As of December 31, 2007, the BREB is responsible for the oversight of approximately **593** ongoing research projects with the HREB overseeing approximately **905**.

Overall Requests for Ethical Review

The BREB handled **5,259** and the HREB handled **1,250** requests for ethical review between January and December 2007. These numbers do not include inquiries to the office as to whether ethical review is required or e-mail correspondence to individual researchers with respect to specific projects or consultations.

New Protocols submitted for Ethical Review

Between January and December 2007, the Bannatyne Campus Research Ethics Boards reviewed **455** new protocols: the BREB reviewed **199** new protocols, and the HREB reviewed **256** new protocols. These numbers have remained consistent over the past three years.



Review Procedures:

In accordance with the Tri-council Policy Statement, submissions to the Bannatyne Campus REB's will receive proportionate review, based on the degree of risk. The depth and extent of the studies that involve no greater than minimal risk may undergo expedited or departmental review, while protocols that involve greater than minimal risk must undergo full REB review.

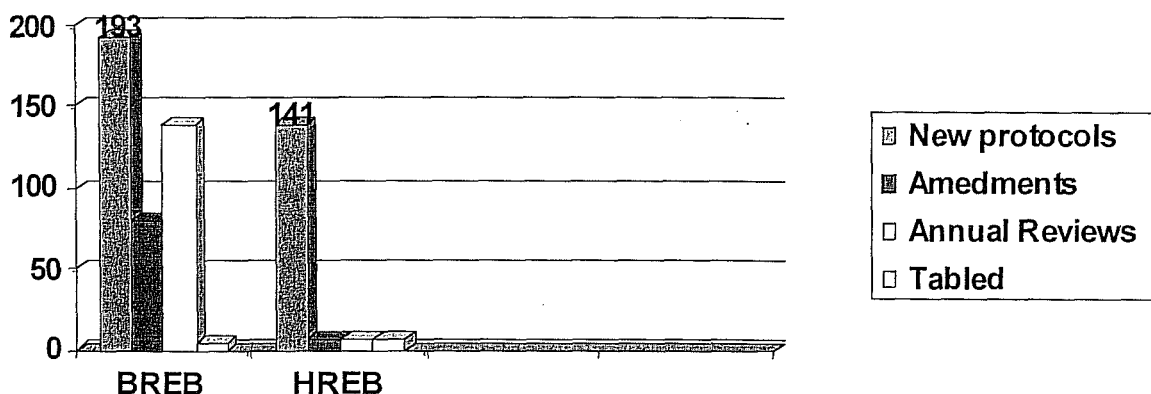
Full Board Review:

Standard Operating Procedure (SOP) REB 06(Initial Full Review) describes the procedure for initial full review of submissions to the Research Ethics Boards. Re-submissions of tabled studies and major amendments as outlined in SOPs REB 09 (Amendments) to approved studies are reviewed by the full board. Some sponsors also require that annual approvals and minor amendments are reviewed by the full board as per SOP REB 08 (Annual Review).

97% (193) of the new protocols submitted to the BREB were reviewed by the Full Board. **55% (141)** of the new protocols submitted to the HREB were reviewed by the full board.

Material reviewed at monthly REB meetings	BREB	HREB
New Protocols	193	141
Protocol Amendments	82	8
Re-submission of tabled studies	5	7
Annual Renewal of Approvals	140	8
Total Number of items reviewed by the Full Board	420	164

Materials Reviewed by Full Board Review(2007)



Expedited Review of New Protocols:

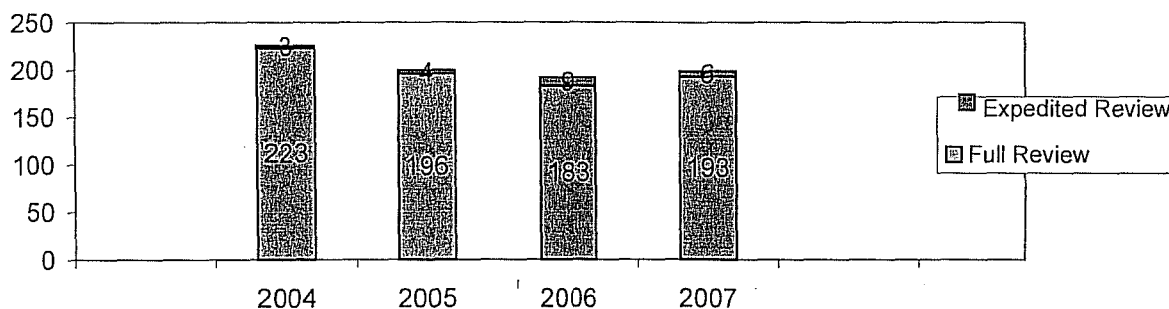
For new protocols to qualify for expedited review, they need to be assessed as "minimal risk"¹ and be outlined as one of the type of studies considered appropriate for expedited review outlined in SOP REB 06(Initial Expedited Review). These submissions are reviewed and approved by the Chairperson with the REB Coordinator and possibly one other member of the board.

Three percent (six) of the new protocols submitted to the BREB met expedited review criteria and were reviewed by the BREB Chair. **45 percent** (115) of the new protocols submitted to the HREB met expedited review criteria and were reviewed by the HREB Chair.

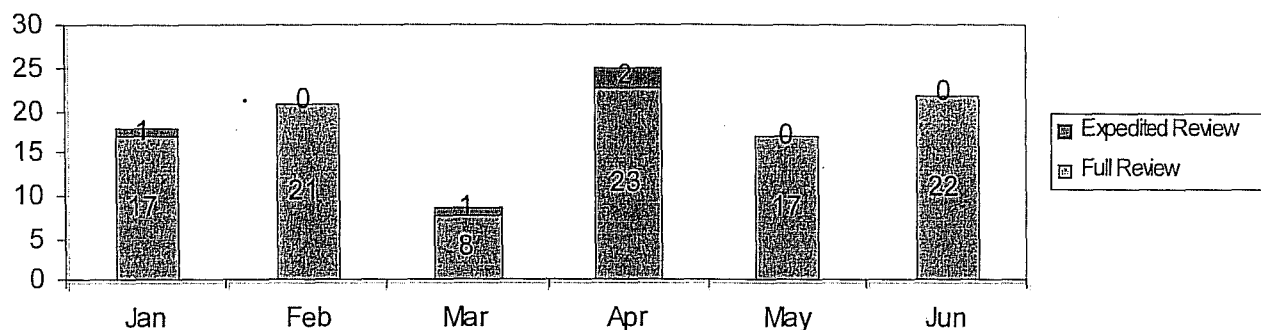
Biomedical Research Ethics Board

Expedited Review

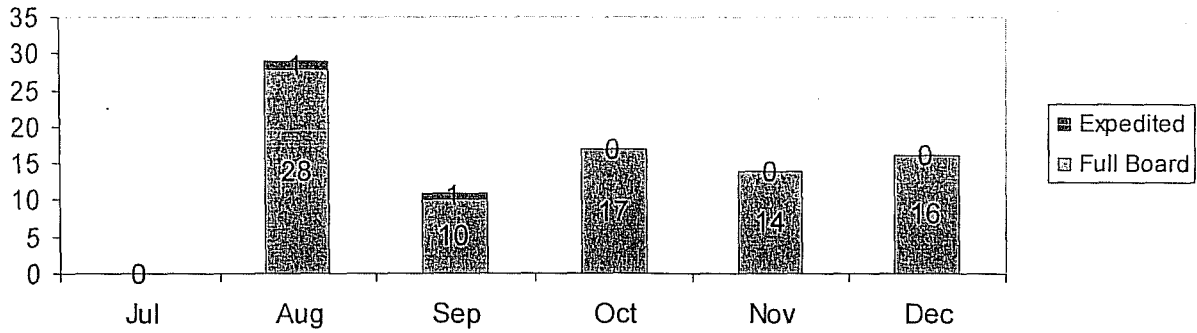
BREB review of New Studies (2004 - 2007)



BREB review of New Studies by Month (January - June 2007)

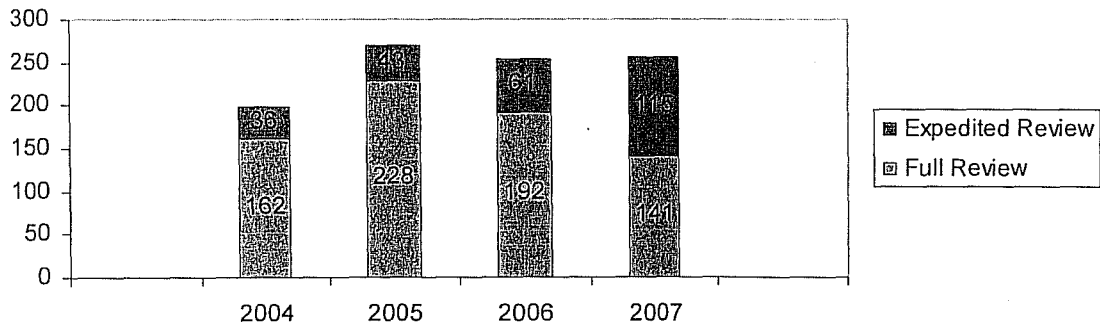


BREB Review of New Studies by Month (July - December 2007)

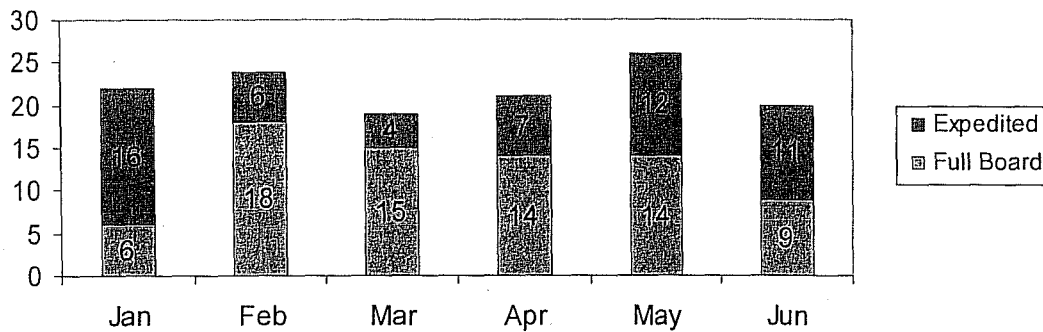


Health Research Ethics Board

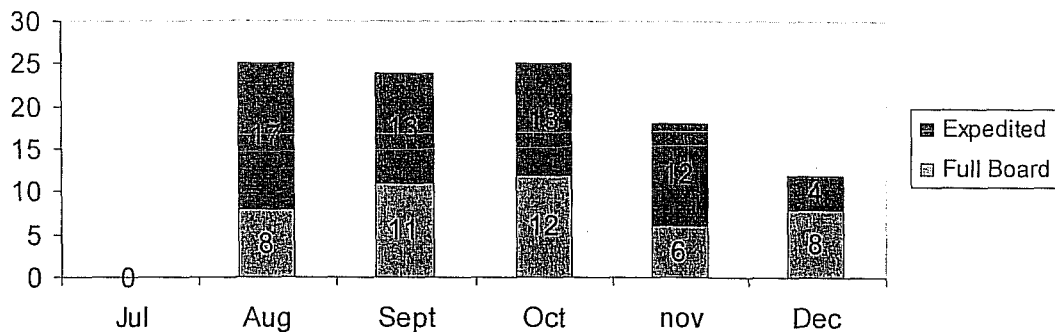
HREB review of New Studies (2004-2007)



HREB Review of New Studies by Month (Jan - June 2007)



HREB Review of New Studies by Month (July - December 2007)



Continuing Review:

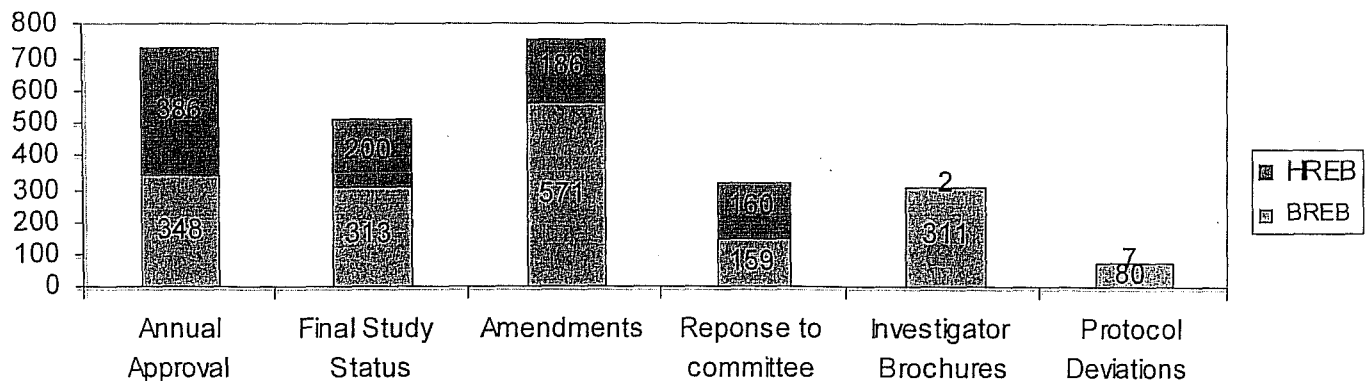
Correspondence reviewed and, if appropriate, approved via Expedited Review

The REB office receives correspondence on a daily basis regarding: responses to initial review, amendments to protocols and to consent forms, requests for annual renewal, notifications of study closure and serious adverse events (SAEs), protocol deviations, etc. Most correspondence is approved via expedited review procedures (i.e. processed in the REB office by the Chair and/or REB coordinator).

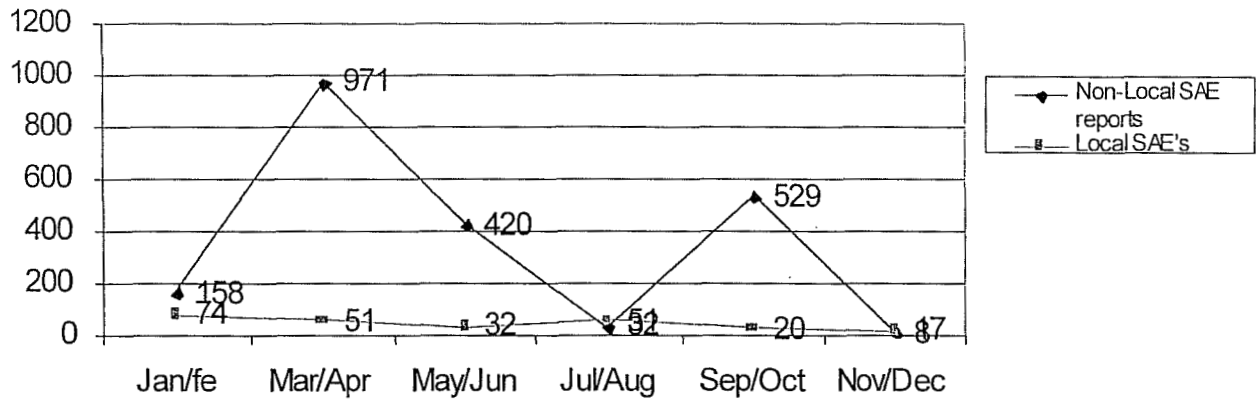
966 such pieces of correspondence underwent "expedited review" for the protocols initially approved by the HREB. In addition, **11** non-local and **three** local SAE report forms were reviewed.

2,185 such pieces of correspondence underwent "expedited review" for protocols initially approved by the BREB. In addition, for BREB studies, **2,406** non-local and **238** local SAE report forms were reviewed. **Each SAE report form can list as many as 25 - 50 individual SAE events.**

Expedited Review Materials by BREB and HREB



BREB Review of Local and Non-local Serious Adverse Event Reports



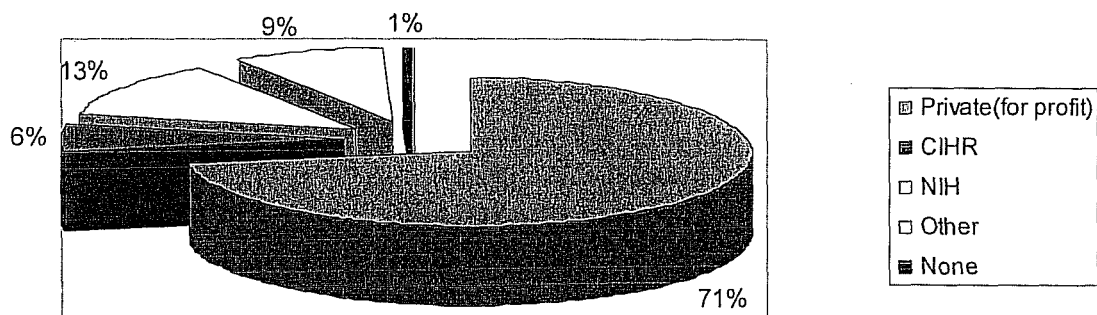
Non- local SAE reports may include as many 100 individuals SAE events.

Sponsorship

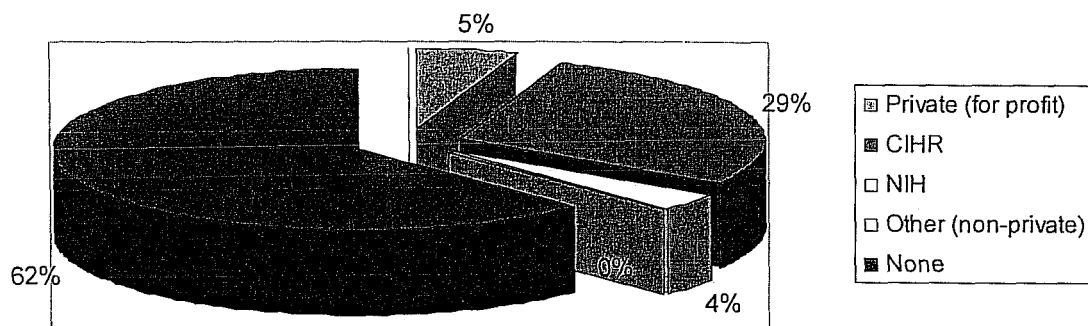
The majority of research protocols submitted to the Bannatyne REBs, with the exception of student projects, received funding to conduct the research. This funding came from the following organizations: provincial, national and international granting agencies, hospital or university departments, foundations, and the private sector (mostly pharmaceutical companies). Less than **one percent** of the protocols submitted to the HREB in 2007 were funded by the private sector. **72%** of the protocols submitted to the BREB were funded by the private sector. Overall, **33 %** of all the new protocols submitted to the Bannatyne REBs were sponsored by the private sector. (Partial sponsorships by private corporations were not included in this calculation).

Funding Source	BREB	HREB	Total
Private(including grant in aids)	144	7	151
Canadian Institute of Health Research (CIHR)	12	39	51
National Institute of Health (NIH) including COG	25	5	30
Other (non-private organizations)	17	120	137
None	1	85	86
Total	199	256	455

Funding Source for BREB (2007)



Funding Source for HREB (2007)



Ethical Standards and Services to REB members/Investigators/Students/ Research Coordinators

Presentations

In addition to reviewing individual protocol-related information, the chairpersons of the REBs and the REB coordinator consult with researchers, sponsors, government and other institutions on a regular basis. During 2007, the REB coordinator held four educational sessions at Health Science Centre, St. Boniface General Hospital, University of Manitoba, Aboriginal Centre and RedRiver Community College to update the research community on the Bannatyne Campus REB policies, application processes and international issues in research conduct.

Conference Attendance

The REB coordinator attended the National Council on Ethics in Human Research conference titled "*Empowering Research Participants*" held in Ottawa, on February 16-18, 2007. REB members were provided with a brief update by the REB coordinator at the March full board meeting regarding the national initiatives/reports presented at the conference from the various organization involved in research in Canada and internationally.

Policy Development

The REBs are actively involved in an ongoing process of developing policies and standard operating procedures to ensure consistent application of the Tri-Council Guidelines, Personal Health Information Act of Manitoba, Health Canada regulations, other applicable laws and regulations and international initiatives such as mandatory clinical trial registration. Combined meetings of the two REBs are held periodically where issues requiring clarification are discussed often leading to formal policies or procedures. This interaction of members of the two boards provides the opportunity for education as well as the opportunity to develop an understanding of the approach of each committee.

Standard Operating Procedures Bannatyne Research Ethics Boards Final Approval

25 Standard Operating Procedures received final approval on January 18, 2007. All members received either an electronic copy or paper copy of the SOPs and were required to sign off on the "Agreement to Comply with SOPs".

NEW Standard Operating Procedures

Dr. Arnett, Chair of the HREB, has drafted three set of guidelines to assist both HREB members and researchers understand requirements for ethics review related to following protocol submissions:

- *Research or Quality Assurance (QA)/Quality Improvement (QI);*
- *Retrospective Chart Review ; and*

- *Research Ethics Board Guidelines For The Creation Of Research Databases and/or Tissue Banks*

These draft guidelines have been distributed to HREB members as well as University of Manitoba and WRHA researchers for consideration and comments. The HREB will prepare a draft SOP in consideration of the comments received and present to the BREB for discussion and final approval by the Bannatyne Campus REBs. Subsequently, the guidelines will require formal approval by the Senate Committee on the Ethics of Research Involving Human Subjects in Humans and posting on the REB website.

New Submission Forms

No changes to the REB submission forms occurred in 2007.

Research involving the REB and its members

The REBs have not participated in any research studies as a group in 2007 however, were invited on several requests as individual members to complete on-line surveys related to their roles and responsibilities as an REB members.

National and International Policy development and Emerging Issues

Human Research Protections in Canada Consultation Process “Moving Ahead”

The current system for human research participant protection in Canada faces increasing pressures related to issues such as governance, consistency, transparency and public accountability. To address these pressures, the research community needs a shared vision that will define and build a process that further develops a system to protect research participants while facilitating research that is important to society. Given the national and international implications, it is time for all players to work together toward common objectives based on an open and transparent process. The Sponsor Table for Human Research Participant Protection in Canada is a group of organizations that shares a common interest in promoting research involving humans that meets the highest standard in excellence and ethics. This group met and established an Experts Committee to provide independent analysis and recommendations and developed a draft document titled *“Moving Ahead”*. A public consultation went out to constituent groups and various stakeholders encouraging feedback on the content of the document.

The Associate Vice President, Research with the assistance of the REB coordinator, requested that REB Chairs, any interested REB members and researchers provide comments with respect to the document in preparation for a formal written response by The University of Manitoba. These individuals were also encouraged to submit each

of their individual responses as well. The Bannatyne REB Chairs, four REB members and three researchers from Bannatyne Campus formally responded to the Associate Vice President, Research request.

CIHR Guidelines for Health Research Involving Aboriginal People (2008)

The Guidelines prepared by the Ethics Office of the Canadian Institutes of Health Research (CIHR), in conjunction with its Institute of Aboriginal Peoples' Health, are developed to assist researchers and institutions in carrying out ethical and culturally competent research involving Aboriginal people. The intent is to promote health through research that is in keeping with Aboriginal values and traditions. The Guidelines will assist in developing research partnerships that will facilitate and encourage mutually beneficial and culturally competent research. The Guidelines will also promote ethics review that enables and facilitates rather than suppresses or obstructs research.²

At this time, local aboriginal groups in Manitoba have not formally accepted all components of the guidelines. The HREB and BREB, as per previous policy will continue to ensure the design of any study involving aboriginal people is in keeping with local Aboriginal values and traditions by ensuring appropriate approval or notification to conduct research is in place.

The International Committee of Medical Journal Editors (ICMJE) – Mandatory Clinical Trial Registration

Internationally, the research community has embraced clinical trial registration in response to ICMJE and the World Health Organization's (WHO) mandatory policies outlined in 2005. Initially, ICMJE only required clinically directive trials to be registered and excluded preliminary trials (phase I trials). However, the ICMJE recognized the potential benefits of having the information about preliminary trials in the public domain, because these studies can guide future research and signal safety concerns. The ICMJE will begin to implement the WHO expanded definition of clinical trials for all trials that begin enrollment on or after July 1, 2008. This definition states that a clinical trial is *"any research study that prospectively assigns human participants or groups of humans to one or more health-related interventions to evaluate the effects on health outcomes."* Updates to The University of Manitoba, Bannatyne Campus instructions and REB submission form are required in 2008 to ensure researchers are aware of these new requirements with respect to mandatory registration for publication.

The REB coordinator is the University of Manitoba administrator for local investigator initiated trials. Sponsors from the private industry and or large granting agencies assume the responsibilities of registering the trials in an appropriate registry. There are presently 24 local investigator initiated trials registered under the University of Manitoba account in clinicaltrials.gov

Administrative Functions by REB staff

Payroll Processing and Invoice Billing

The REB admin staff assumed the added responsibility for direct payroll entry in VIP and REB invoicing thorough Aurora previously conducted by the admin staff in the Dean of Medicine office. This has been progressing well within the office. Overdue account collections remain the responsibility of the Dean of Medicine, Admin staff related to potential conflict of interest in REB staff conducting this function.

REB Protocol Tracking Database – INFO ED

The Bannatyne Campus REB staff anxiously await final approval and implementation of the web based **INFO ED** ethics module research database. The present excel database for the Bannatyne Campus REBS has limited capabilities for tracking protocols and producing reports. The INFO ED database will initially increase the workload for the staff as it is anticipated there will be significantly more data entry required with each application. Additional staff will be required during the implementation of this system to ensure timely response to researcher's requests for approval are maintained during the transition period.

April 28, 2008

Annual Report of the Senate Committee on Honorary Degrees

Preamble

The terms of reference for the Senate Committee on Honorary Degrees are found in Section 8.25 of the *Senate Handbook* (revised 2000).

Observations

1. The membership of the Committee for 2007-2008 included: Dr. E. J. E. Szathmáry (President), Mr. B. Bowman (President of Alumni Association), Dr. J. Hoskins, (Warden, St. John's College), Dr. Judy Anderson (Medicine), Dean Ruth (Engineering), Dr. T.E. Anna (Arts), Mr. G. Sran (President of UMSU), Mr. J. August (community representative) and Dr. W. Norrie (Chancellor) as Chair.
2. The Committee on Honorary Degrees reports to Senate as required in closed session on candidates for honorary degrees, special convocations, and the naming of buildings, parts of buildings, roadways and special units.
3. During the period April 2007 to March 2007, the Committee reported to Senate on five occasions: May 23, 2007, September 5, 2007, October 30, 2007, December 5, 2007 and February 6, 2008. Details of these reports are available in the Office of the University Secretary (312 Administration Building) upon request by eligible members of Senate.

Respectfully submitted,

Dr. W. Norrie, Chair
Senate Committee on Honorary Degrees

Terms of Reference: *Senate Handbook* (revised 2000), Section 8.25.

/ki

Annual Report of the Senate Committee on Instruction and Evaluation

Preamble:

The terms of reference for the Senate Committee on Instruction and Evaluation (SCIE) are found on the web at:

http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/502.htm

Observations:

1. Members of the Committee for 2007-2008 were: Dr. Karen Grant, Chair, Professor Dieter Schonwetter (Dentistry), Professor Bonnie Luterbach (Extended Education), Professor Mark Lawall (Arts), Professor Zana Lutfyya (Education), Professor Emily Etcheverry (Medicine), Professor John Long (Education), Professor Elena Smirnova (Science), Ms. Jacqueline Hope (Student), Ms. Juliana West (Student), Ms. Helena Baert (Student), Ms. Morgan Campbell (Student). *Ex-officio* resource members of the Committee were: Dr. Cheryl Kristjanson, Mr. Neil Marnoch, Dr. Lynn Smith (designate Ms. Brandy Usick), and Mr. Garry Sran.
2. The Committee met on two occasions during the reporting period, on May 11, 2007 and January 30, 2008.
3. At its meetings on May 11, 2007 and January 30, 2008, the Committee:
 - a. approved changes to academic standing rules within faculties/schools;
 - b. received and reviewed a subcommittee report on the review of the SEEQ instrument; the Committee recommended to Senate the continuation of the use of the SEEQ as an evaluation instrument;
 - c. approved changes to the supplemental examination rules of the School of Dental Hygiene and the policy on Academic Assessment in the Division of Extended Education.
 - d. reviewed the discontinuation of the cp/sp designation on transcripts and agreed that no further action was required.

Respectfully submitted,

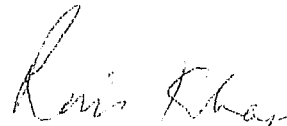
Dr. Karen R. Grant, Chair
Senate Committee on Instruction and Evaluation

May 14, 2008

Annual Report of the Joint Senate Committee for Joint Masters Programs 2007-2008

1. Current members of the JSC are: Rais Khan (UW), Chair; K. Jensen, Associate Dean, Faculty of Graduate Studies (UM), permanently delegated by J. Doering Dean of Graduate Studies (UM) ; George MacLean (UM); Mark Libin (UM); Zana Lutfiya (UM); Graduate Student – TBA (UM); S. Kirby, Acting Vice-President, Research and Graduate Studies (UW); Jeff Martin (UW); Melanie Nimmo (UW); Anna Stokke (UW); Graduate Student Christina Von-Schindler UW)
2. The JSC met three times during the 2007-2008 academic year for 2 hour meetings.
3. Most of the time at these meetings, and a lot more between them, was taken up with finalizing a template for the required periodic review of joint masters programs, a task started in 2006-2007. The Committee adopted the final policy and procedures guide at its meeting on April 22, 2008, for onward transmission to the Senates of the University of Manitoba and the University of Winnipeg for approval.
4. In an attempt to rejuvenate the moribund JMP in Religion, the JSC voted to resubmit, at the request of the Department of Religion at the University of Manitoba and the Department of Religions Studies at the University of Winnipeg, the governing document for the Program to the University of Manitoba Senate for approval. The University of Winnipeg Senate approved the document on February 2, 2002.
5. Following review of the proposed new JMP in Peace and Conflict Studies and its governing document, the JSC voted to recommend the proposal to the Senates of the University of Manitoba and the University of Winnipeg for approval with a request to please expedite the approval process. Participating units and departments at the two Universities hope to launch the new JMP, subject to Senate approval, in the Fall of 2009.

Respectfully submitted



Rais Khan
Chair, JSC/JMP

Annual Report of the Joint Senate Committee on Master's Programs Appeals

Preamble

The Terms of Reference for the Joint Senate Committee on Master's Programs can be found on the web at:

http://umanitoba.ca/admin/governance/governing_documents/sen_committees/504.htm.

Observations

1. Members of the Committee for 2006-2007 were: Dean J. Doering, Professor Z. Lutfiyya, Professor M. Libin, Professor G. MacLean, Professor S. Kirby, Professor J. Martin, Professor M. Nimmo, Dr. R. Khan, Ms. C. Von Schindler.
2. No appeals were referred to the Committee for consideration, therefore, no meetings were held during the reporting period.

/mb

Annual Report of the Senate Committee on the Libraries

Preamble

The Terms of Reference of this Committee enable it to make broad assessments of the status of the libraries, their fiscal support, and their effect on faculty and students (see http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/505.htm)

Observations

1. Members of the Committee for 2007-2008 were: Dr. R. Kerr, Chair, Dr. P. Cattini, Ms. C. Presser (Libraries), Dr. K. Jensen (Graduate Studies), Dean D. Collins (Pharmacy), Dean D. Ruth (Engineering), Professor H. Heller (Arts), Professor J. Van Rees (Science), Professor R. Barday-Goddard (Medical Rehabilitation), Professor P. Hawranik (Nursing), Professor K. Markstrom (Music), Professor V. Warne (Arts), Ms. T. Burrows (Student), Mr. S. Ima (Student), Mr. M. Norman (Architecture), Mr. M. Bagavathiarnan (Student).
2. The Committee did not meet during the reporting period.

Respectfully submitted,

Dr. Robert Kerr, Chair
Senate Committee on the Libraries

/mb



UNIVERSITY
OF MANITOBA

Faculty of Medicine



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To: Mr. Jeff Leclerc
University Secretary
312 Administration Bldg.
Fort Garry Campus

From: Dr. Heather Dean, MD, FRCPC
Associate Dean (Academic)

Date: April 14, 2008

RE: Annual Report of the Senate Committee on Medical Qualifications, May, 2007 - April, 2008

The Senate Committee on Medical Qualifications (SCMQ) considered two applications for registration and licensure with the College of Physicians and Surgeons of Manitoba under Section 64 of the Medical Act. The two applicants were:

- 1.) Dr. E. Peled, Pediatric Anesthesia, Department of Anesthesia
- 2.) Dr. A. Garland, Quality Improvement in Critical Care and Respiratory, Department of Internal Medicine

Members of the SCMQ are:

Dr. H. Dean, Chair, Dean of Medicine designate
Dr. K. Grant, Vice-President (Academic) designate
Dr. W. Pope, appointed by the College of Physicians and Surgeons of Manitoba
Dr. A. Chochinov, Faculty Member, Faculty of Medicine
Dr. M. Moffat, Faculty Member, Faculty of Medicine
Dr. E. Cowden, Faculty Member, Faculty of Medicine

Full minutes of the proceedings are available should you so require.

Annual Report of the Senate Committee on Nominations

Preamble

1. The Terms of Reference for the Committee are found on the University Governance website at www.umanitoba.ca/governance.
2. The Senate Committee on Nominations is responsible for recommending academic staff and student nominees for standing, *ad hoc* and special committees of Senate, as well as recommending Senate representatives on other University committees and outside boards. The Committee's recommendations are forwarded to Senate for consideration and approval.

Observations

1. Members of the Committee for 2007-2008 were: Dean D. Collins, Dean J. Doering, Professor C. Taylor, Professor K. Jensen, Professor E. Etcheverry, Professor M. Edwards, Professor M. Brabston, Professor D. Hrycaiko, Professor A. Young, Mr. P. Nawrot, Ms. A. Pochinco and Professor N. Hunter as Chair.
2. The Committee reported to Senate at the June 27, 2007 and November 7, 2007 Senate meetings to consider academic staff nominees for vacancies on standing committees of Senate.
3. Student nominees for standing committees of Senate are prepared by a special sub-committee. Membership of the sub-committee includes three members of the student Senate caucus, three members of UMSU Council and the President (or designate) of UMSU. A list of nominees was received from this group and recommendations were made by the Senate Committee on Nominations at the October 3, 2007 Senate meeting.

Respectfully submitted,

Professor N. Hunter, Chair
Senate Committee on Nominations

/lrj/

**Annual Report of the Senate Planning and Priorities Committee -
April 1, 2007 to March 31, 2008**

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

Observations

1. Membership of the Committee during the reporting period included:

Elected by Senate:

Prof. N.R. Hunter (Chair)	Prof. J. Long
Prof. M. Bartell	Prof. J. Blatz
Ms. A. Ducas	Prof. D. Smyth
Prof. E. Epp	
Prof. D. Fuchs	
Prof. M. Gabbert	
Prof. H. Janzen	

Student Members:

Mr. A. Briand
Mr. B. Latour
Mr. G. Sran

Ex-officio Members:

Dr. R. Lobdell Vice-Provost (Programs) – designate for President
Prof. K. Grant, Vice-Provost (Academic Affairs)
Mrs. D. McCallum, Vice-President (Administration)
Dr. D.R. Morphy, Vice-Provost (Student Affairs)
Dr. D. Jayas, Associate Vice-President (Research) – designate for VP (Research)

Others:

Ms. M. Brolley, Recording Secretary
Mr. J. Leclerc, University Secretary

2. The work of the Committee is carried out by three subcommittees:

Program and Curriculum Planning - chaired by D. Fuchs
Space Planning - chaired by E. Epp
Finance Planning - chaired by N. R. Hunter

3. During the period April 1, 2007 to March 31, 2008, the Senate Planning and Priorities Committee met on eight occasions; April 9, 2007, May 28, 2007, August 7, 2007, September 24, 2007, October 29, 2007, November 26, 2007, January 28, 2008, February 25, 2008. The appropriate reports of the Senate Planning and Priorities Committee are included in the Senate Minutes.
4. The Chair of SPPC and the members of the Finance Planning subcommittee are members of the President's Budget Advisory Committee (BAC). This committee contributed to discussion of the University Budget through a series of meetings in 2007 and 2008. These meetings involved extensive presentations from all budget units, academic and administrative, at the University. The Committee has had an opportunity to provide input on the University's budget at each step of the resource allocation process. The Committee has had the opportunity to review faculty priorities in the context of University planning and resource allocation. The Committee also commented on the list of capital priorities.
5. I wish to thank the members who served on SPPC during the period covered by this report for their hard work, enthusiasm and dedication to the task. The support to SPPC provided by the Recording Secretary and the University Secretary continues to be very valuable and is highly regarded by the members of SPPC. I also thank the University senior administration for attending meetings and providing the Committee with all pertinent information.

Respectfully submitted,

Norman R. Hunter, Chair
Senate Planning and Priorities Committee

Preamble

The terms of reference for the Committee on Rules and Procedures are found on page 10.22 of the *Senate Handbook* (1993).

1. The Committee is charged with providing advice and making recommendations to Senate on:
 - (a) proposed rules and procedures governing Senate and its Standing Committees; and
 - (b) proposed amendments to Faculty/School Council Bylaws.
2. On behalf of Senate, the Committee reviews new or amended bylaws proposed by department councils prior to consideration by a Faculty or School Council.

Observations

1. Members of the Committee for the 2007-2008 were: Dr. J. Long (Education), Prof. P. King (Science), Prof. T. Anna (Arts), Mr. Peter Nawrot (Student) and Dean H. Sector (Law) as Chair.
2. Requests to consider amendments to Faculty Council Bylaws were received from the Faculty of Social Work .
3. No requests to consider amendments to Department Council Bylaws were received .

Respectfully submitted,

Dean H. Sector, Chair
Senate Committee on Rules and Procedures



Preamble

The terms of reference for the Senate Committee on University Research (SCUR) can be found on the web at

http://umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/510.htm.

Observations

1. Members of the Committee for 2007-2008 were:

Joanne Keselman, Vice-President (Research), as Chair
Emőke J. E. Szathmáry, President and Vice-Chancellor
Karen Grant, Vice-Provost (Academic Affairs)
Peter Cattini, Associate Vice-President (Research)
Digvir Jayas, Associate Vice-President (Research)
Jay Doering, Dean, Faculty of Graduate Studies
Barbara Crutchley, Director, Research Grant and Contract Services
Douglas Ruth, Dean, Faculty of Engineering
Michael Trevan, Dean, Faculty of Agricultural and Food Sciences
Mark Whitmore, Dean, Faculty of Science
David Collins, Dean, Faculty of Pharmacy
David Barber, Clayton H. Riddell Faculty of Environment, Earth & Resources
Jim Davie, Department of Biochemistry & Medical Genetics
Michael Freund, Department of Chemistry
Rick Linden, Department of Sociology
Patricia Martens, Department of Community Health Sciences
Lea Stirling, Department of Classics
Karin Wittenberg, Faculty of Agricultural and Food Sciences
Roberta Woodgate, Faculty of Nursing
Suresh Neethirajan, Graduate Students' Association
Jason Kelly, Graduate Students' Association

2. During the reporting period the Committee met three times as outlined below:

May 15, 2007	Reviewed the Legal Research Institute and recommended to Senate its continuance for a five year period, beginning July 1, 2007.
	Reviewed the Health Leisure and Human Performance Research Institute and recommended to Senate its continuance for a five year period, beginning July 1, 2007.

Reviewed a proposal to establish a Professorship In Improved Healthcare Delivery to Rural, Remote and Underserved Populations of Manitoba and recommended to Senate its establishment.

Approved the creation of a standard template to be used in the preparation of five year reports required in the periodic review of research centres/institutes.

Approved the composition of the 2007 Selection Committee for the Dr. John M. Bowman Memorial Winnipeg Rh Institute Foundation Award.

October 31, 2007

Reviewed Institute of Industrial Mathematical Sciences and recommended to Senate its continuance for a three year period, commencing January 1, 2008.

Reviewed the Manitoba Nursing Research Institute and recommended to Senate its continuance for a three year period, beginning January 1, 2008 under the new name, the *Manitoba Centre for Nursing and Health Research*.

Reviewed a proposal to establish a Professorship in Spine Biomechanics and Human Neurophysiology and recommended to Senate its establishment.

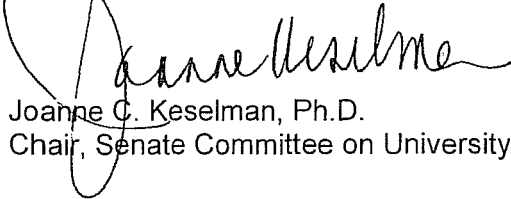
Learned of the recipient of the Dr. John M. Bowman Memorial Winnipeg Rh Institute Foundation Award for the year 2007; Dr. Robert Hill, Department of Plant Science.

January 17, 2008

Reviewed a proposal to establish an Endowed Chair in Gastroenterology and recommended to Senate its establishment.

Reviewed and endorsed proposed revisions to guidelines for Post-Doctoral Fellows.

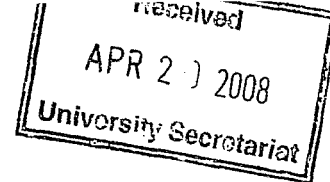
Respectfully submitted,



Joanne C. Keselman, Ph.D.
Chair, Senate Committee on University Research

/wc

PRESIDENT'S REPORT: May 14, 2008



My last report to Senate was submitted for its meeting on February 6, 2008. Part A of this report is organized into sections on General, Academic, Research, Administrative, and External matters. Part B contains a list of significant external engagements during the time period of this report.

I. GENERAL

1. Provincial Budget Announcements

The Provincial Budget, tabled on April 9, 2008, provided a 7% increase in operating funds to the Council on Post-Secondary Education (COPSE) for distribution to universities and colleges which is 2% more than the minimum 5% promised in budget 2006 when a three year commitment was made. The additional 2% equates to a 6% tuition fee increase.

The Province also announced the extension of the tuition freeze for one more year but will begin lifting the freeze next year to allow tuition to gradually return to 1999 levels. Currently students pay the 1999 level and receive a rebate of 10% such that the rate is at 90% of the 1999 level. The Province also announced the appointment of "a one-person commission to review the province's policy on affordability, accessibility and excellence to ensure it is achieving results by providing opportunities for people to achieve post-secondary success who otherwise would not have had a chance to do so."

I expressed publicly my appreciation for the provisions of the budget, in particular the ending of the tuition freeze. The commitment to universities is significant but needs to be viewed in the context of our budget estimates for 2008-2009, which indicated that in the absence of a tuition fee increase, an operating grant of 10.7% would be required to maintain the status quo. This large increase is necessary because the operating grant comprises only 56% of the University's operating budget. A 7% increase on the operating grant does not yield enough income to compensate for a 0% increase of 25% of the operating budget that is based on tuition.

Project Domino

On April 10, Honourable Diane McGifford, Minister of Advanced Education and Literacy, came to the Fort Garry Campus to announce that the Province will fund Project Domino in the amount of \$47 million over the next three years, beginning with a \$4 million allocation in this budget year. The re-development project will ultimately affect more than 13 units on the Ft. Garry campus. Lead projects will be the construction of a new residence and the renovation of Taché Hall to become a new home for music and art. The Taché Hall Auditorium which is now closed, will also be renovated, along with a number of other buildings that will be emptied as faculty and staff move from old facilities to newly retrofitted ones. At its heart, Project Domino is about sustainability using, with the exception of the new residence, existing buildings and maintaining their historic integrity. In expressing appreciation to Minister McGifford I said,

“thank you for your strength, your determination, and for acting on the knowledge deep in your bones that to remain indispensable to the people of Manitoba, the University of Manitoba requires the investment of Manitoba’s government. Please let Premier Doer know that his government’s confidence is not misplaced.”

Laboratory Upgrades

On April 8, the Province announced it was investing \$4.2 million to “modernize laboratories and upgrade equipment at Brandon University, the University of Manitoba and the University of Winnipeg”. The University will receive \$2.7 million for the purpose.

Council on Post-Secondary Education (COPSE) Allocations

The allocations by COPSE to individual universities for 2008-2009 as approved on April 15, can be assigned as follows:

For Post-Secondary Education (across the province)

- an increase of 8.0% for operating grants to the post-secondary sectors including new funding Strategic Programs and the College Expansion Initiative (compared to 7% for 2007-2008).
- the capital envelope for universities and colleges is \$13,070,600 (compared to \$11,720,600 in 2007-2008).

For the University of Manitoba

- the operating grant for 2008-2009 is:

Base Operating grant:	\$254,190,200
ACCESS programs	3,490,500
Strategic Programs funding approved in 2007/08	<u>25,300</u>
Total Operating grants	\$257,706,000

The operating grant increase is comprised of two components. The first is a 5.0% base grant increase of \$11,724,100. The second component is base increase of \$5,597,900 which recognizes that in, 2007/08, universities and colleges will maintain 2000/01 tuition fee levels. This represents 6.0% of tuition revenue projected by University of Manitoba for 2007/08. The two components represent an increase in operating grant of 7.4%.

- the capital grant allocation for renovations and equipment is \$3,020,000 (same level as previous years)

- major capital project funding is:

Fire Safety upgrades	\$500,000
Asbestos Abatement	919,200
Storm outfalls, sewer system upgrade	<u>500,000</u>

Total Major Capital Projects \$1,919,200

- tuition rebate grants will continue to be paid, based on invoices submitted for 10% of the tuition fees collected for credit programs.

Other

Other funding announced in the Budget of direct interest to the University:

- the Manitoba Bursary Fund, at \$8 million this year will double over the next three years to \$16 million
- the Manitoba Health Research Council will receive \$6 million , a 62% increase over last year's allocation of \$1.9 million. There is no increase in other research related allocations.

2. Spring Convocation

Five sessions of the 129th Spring Convocation will be held at the Fort Garry Campus (May 27-29, 2008), the 6th session will occur at the Bannatyne Campus for graduates of the Faculty of Medicine (May 16, 2008), and the 7th session will be held at Collège universitaire de Saint-Boniface (June 2, 2008). This year our honorary degree recipients will be:

- ▶ Michael Bancroft, University of Manitoba graduate in Science, Professor Emeritus of Chemistry at the University of Western Ontario, pioneer in synchrotron radiation, and leader in the establishment of the National synchrotron facility, the Canadian Light Source;
- ▶ Ivan Eyre, University of Manitoba graduate in Fine Arts, Professor Emeritus of Art, who has inspired many of his students and, who, as one of Canada's most renowned artists, has had over 65 solo and 250 group exhibitions; known for his generosity in donating many pieces to public galleries;
- ▶ Donald K. Johnson, University of Manitoba graduate who began his career as an electrical engineer and then pursued a successful career in the investment industry; known for his leadership role in lobbying the Federal Government to remove tax barriers for gifts of securities;

- ▶ Verna Kirkness, University of Manitoba graduate in Education who as a leading advocate of Aboriginal education was instrumental in introducing Cree and Ojibway as languages of instruction in Manitoba schools; served as the first director of the First Nations House of Learning at UBC;
- ▶ Richard H. Kroft, University of Manitoba graduate in Arts and Law; entrepreneur who established Conviron, a leader in the design of controlled environmental systems for plant research; member of the Canadian Senate (1998-2004);
- ▶ Hugh Smith, University of Manitoba graduate in Medicine, renowned cardiac researcher at the Mayo Clinic where he served as Chair of the Board of Governors from 1999-2005; instrumental in establishing the Minnesota Partnership for Biotechnology and Medical Genomics.

3. CAUBO Conference

The University will host the annual conference of the Canadian Association of University Business Officers (CAUBO), June 14 to 17. The Conference will give the University the opportunity to welcome more than 500 delegates to our campuses and to Winnipeg. The Organizing Committee, chaired by Debbie McCallum, Vice-President (Administration), has developed an exciting program based on the conference theme *"Making Connections"*. The program includes a series of day long pre-conference seminars, plenary speakers and concurrent sessions. Keynote speakers are: Stephen Lewis on "Global Issues - Local Impact"; Michael Wesch, Department of Cultural Anthropology at Kansas State University on "The Future of the University in the Culture of Web 2.0"; Leroy Little Bear, former Director of the American Indian Program at Harvard University on "Diversity in the Workplace: An Aboriginal Perspective". I will also participate in the "President's Panel" along with Claire Morris, President of the Association of Universities and Colleges of Canada, and Bonnie Patterson, President of Trent University.

II. ACADEMIC MATTERS

Faculty of Agricultural and Food Sciences

- Students and staff from the Department of Plant Science and from other units are in the process of planning a student garden for this summer - their project is entitled "University of Manitoba Student Community Garden. Taking gardening out of the box".
- Dr. Derek Brewin, Agribusiness and Agricultural Economics, was appointed to the Board of the Manitoba Rural Adaptation Council for a three-year term.
- Elijah Kiarie, recent Ph.D. graduate in Animal Science, won first place in the Graduate Student Oral Competitive Research Papers portion (Ph.D. division) of the Annual Midwestern American Society of Animal Science/American Dairy Science Association

(ASAS/ADSA) meeting in Des Moines, IA in mid-March. The award marked for the first time since the competition began in 1976 that a student from a Canadian university won the first place.

Faculty of Arts

- Carmin Cuppola, Instructor of Italian in the Department of French, Spanish & Italian, won an international literary award for his poetry. He received the first prize in the PREMIO ARDEN BORGHI SANTUCCI "UNA POESIA D'AMORE" - 4th edition in Italy.

Books

- Dr. Steven Lecce, Political Studies, *Against Perfectionism: Defending Liberal Neutrality*. (2008) Toronto: University of Toronto Press.
- Renée Hulan, Native Studies, and Dr. Renate Eigenbrod, Native Studies, Eds., *Aboriginal Oral Traditions. Theory, Practice, Ethics*. (2008) Winnipeg: Fernwood Publishing.
- Dr. John Loxley, Economics, Jim Silver, and Kathleen Sexsmith (Eds.), *Doing Community Economic Development*. (2007) Winnipeg: Fernwood Publishing.

School of Art

- Professor David McMillan, has had some of his photographs of suburbia featured with those of others in a National Gallery of Canada traveling exhibition entitled, "Is there a there, there."

Faculty of Engineering

- Dr. Emile Shehata of Wardrop Engineering, and Dr. Aftab Mufti, President, ISIS Canada, received the 2007 PL Pratley award of The Canadian Society for Civil Engineering (CSCE) for the best paper on bridge engineering published the *Canadian Journal of Civil Engineering*.

I.H. Asper School of Business

- Erin Yanchycki, Daniel Kozier and Steve Chamaa took First Place in the Technology Track at the McGinnis Venture Competition that was held from March 13-15 at Carnegie Mellon University. The students promoted their proposed company, CiviTech, to angel investors and venture capitalists from across the US. Other teams in the competition were from the University of Texas – Austin, University of Oregon, West Virginia University and the University of Michigan. The team received a \$20,000 investment in its business along with \$25,000 in legal and professional services from such firms as

Ropes and Gray, the number one intellectual property law firm in the US, and the David Jones Center. The group also earned a berth in the world business planning championships -- Global MOOT Corp. which will take place from April 30 -- May 3 in Austin, Texas.

- Taren Gesell and David Mowat won first place in the Fast Pitch Competition for their Company, Advotech, at the Cardinal Challenge of the University of Louisville Business Plan Competition held in February, 2008.

Faculty of Law

- On March 14, the Marcel A. Desautels Centre for Private Enterprise and the Law, together with the Asper Chair for International Business and Trade Law, hosted the 2008 Franchise Law Symposium. The symposium was conceived in connection with the Manitoba Law Reform Commission's call for a response to its consultation paper on franchise law. Panelists included practitioners, academics and industry leaders from across Canada. The symposium was organized by John Pozios, the Director of the Desautels Centre, and Dr. Bryan Schwartz, the Asper Chair.
- On February 29-March 3, the Faculty of Law hosted the Laskin National Moot Court Competition (a bilingual appellate moot) at the Manitoba Law Courts. The team of Kathrine Basarab, Roxanne Gagne, Meghan Campbell, and Courtney St. Croix was successful in winning the third prize for the best factum. The team was coached by Professors Gerald Heckman and Darcy MacPherson.
- On February 22-23, the Robson Hall team of Meaghan Daniel, Kevin Westell, Maegan Richards and Karen Poetker (coached by Tony Kavanagh of Manitoba Justice and Professor Debra Parkes) competed in the national Wilson Moot Competition in Toronto and took home the top prize for written advocacy.

Faculty of Medicine

- Dr. Dan Sitar, Pharmacology, has been selected as Editor-Designate of the *Journal of Clinical Pharmacology*. He will be the first Canadian and first non-physician to be Editor.

Faculty of Music

- The University Singers, under the direction of Dr. Elroy Friesen, have been chosen to compete in the National Finals of the CBC Choral Competition 2008.
- Dr. Robert Turner, Professor Emeritus, was recently named the recipient of the 2007 Manitoba Arts Council Award of Distinction, recognizing his significant contribution to the arts in our province and beyond.

- Two compositions by Dr. Gordon Fitzell, “Violence” and “Evanescence,” are featured on Eight Blackbird’s CD entitled “Strange Imaginary Animals.” The disc received two 2008 Grammy Awards.
- Dr. Michael Matthews was invited to be a guest composer/presenter at the 3rd Visiones Sonoras International Electro-Acoustic Music Festival in Mexico City and Morelia. The Festival was established to foster education in new music in Mexico. Dr. Matthews was also named by The International Society for Contemporary Music as one of seven composers whose compositions represented Canada at the 2008 World Music Days in Vilnius, Lithuania. A jury selected Dr. Matthews’ “The Language of Water (2006)”, scored for 22 solo strings, as one of Canada’s submissions to the international jury in Vilnius.
- Professor Orjan Sandred was invited to teach a three-day composition seminar at the European Course for Musical Composition and Technologies in Helsinki, Finland. This program is highly selective, with only five students chosen internationally.
- Dr. Laura Loewen performed in a concert tour with violinist Charles Castleman, a performer of international renown, who is co-chair of Eastman's string department, and has 18 recordings to his credit.

Faculty of Pharmacy

- Dr. Ruby Grymonpre is the recipient of the 2007 Pharmacist of the Year Award. This award is given annually to a Manitoba Pharmacist who has made a significant contribution to the profession during his/her career.
- Cynthia Lui, 4th year Pharmacy Student, has been selected as one of five pharmacy students in Canada to receive the inaugural Wal-Mart Canada/Association of Faculties of Pharmacy Canada (AFPC) Future Academic Leader Award.

III. RESEARCH MATTERS

Honours and Distinctions

- Dr. Randy Fransoo, Community Health Sciences, has been awarded the Canadian Institute of Health Researchers’ Institute of Health Services and Policy Research (IHSPR) Rising Star Award. This award is in recognition of Fransoo’s excellent, innovative and policy-relevant knowledge translation initiatives pertaining to child health inequalities. The IHSPR Rising Star Award was designed to recognize the excellence of Canadian knowledge translation.

Grants Received

- Dr. Eric Bibeau, Mechanical and Manufacturing Engineering, has received a Natural Sciences and Engineering Research Council (NSERC) two-year Strategic Supplement Grant of \$141,500 for his project, "Plug-in Hybrid Electric Trailer (PHET)."
- Dr. William Last, Geological Sciences, has received a NSERC two-year Strategic Supplement Grant of \$183,460 for his project, "Disappearing and Flooding Prairie Lakes: Solving an Aquatic Whodunnit."
- Dr. David Levin, Biosystems Engineering, has received a NSERC two-year Strategic Supplement Grant of \$195,500 for his project, "Metabolic Engineering for 3rd Generation Biofuels."
- Dr. Douglas Thomson, Electrical and Computing Engineering, has received a NSERC two-year Strategic Supplement Grant of \$192,800 for his project, "Field Modulated Conducting Polymers for Nanoelectronics."
- Dr. Feiyue Wang, Environment and Geography, has received a NSERC two-year Strategic Supplement Grant of \$199,998 for his project, "TiO₂ as a Cost Effective Uranium Getter for Uranium Contaminated Sites."
- The Canada Foundation for Innovation (CFI) awarded funding to support the following infrastructure projects at the University of Manitoba. The awards were made under the Leaders Opportunity Fund, which is designed to help universities attract and retain the very best of today's and tomorrow's researchers.
 - ▶ Dr. Frank Schweizer, Chemistry, was awarded \$364,894 in support of a versatile nuclear magnetic resonance console for biomedical research and materials science which will allow the development of carbohydrate-based antimicrobials against infectious diseases, as well as carbohydrate-based nutraceuticals and synthetic biomaterials for artificial tissue engineering.
 - ▶ Dr. Andrey Bekker, Geological Sciences, was awarded \$267,308 in support of a gas-source stable-isotope-ratio mass-spectrometer for multiple S and O isotope analysis of geological samples and S compounds from modern and ancient atmosphere, ocean, crust and mantle.
 - ▶ Dr. Wen Zhong, Textile Sciences, was awarded \$100,000 for support of a healthcare and medical textile research laboratory that will aid in the development of protective textiles against infectious diseases and biohazards.
 - ▶ Dr. Jitender Sareen, Psychiatry, was awarded \$98,808 for support of population-based studies laboratory focused on Aboriginal suicide prevention, military mental health and anxiety disorders.

Program Initiatives

- On March 26, 2008, about 130 people attended the fifth presentation in this year's *Get to Know Research at Your University* speaker series. The featured speaker was Dr. Gordon Goldsborough, Biological Sciences, who presented a lecture titled, "But Nary a Drop to Drink: Manitoba's Wetlands and Water in the 21st Century."

IV. ADMINISTRATIVE MATTERS

Ancillary Services

- Tim Horton's in the Frank Kennedy Centre opened on March 5, 2008.

Human Resources

- A 'pilot' project based on an updated/expanded emergency protocol is underway for the Bannatyne campus for the Basic Medical Sciences Building, in cooperation with Medicine, Physical Plant, Security Services, Information Services and Technology and Environmental Health and Safety Office (EHSO).
- A new national Committee for Environmental Health and Safety has been established by the Canadian Association of University Business Officers and Grant McCaughey Director of EHSO will represent Western Universities on the Committee.

Physical Plant

- Status of Building Projects:
 - **Aboriginal Centre** - The General Contractor will achieve substantial performance on April 11 and will demobilize the site during the week of April 14. IST will complete its portion of the work by mid May.
 - **Buller Building Redevelopment** - UMA is to provide updated duct layout for Level 100 by April 11. Partial floor slab replacement and new lab space at west end of corridor 100 is underway. Temporary fire alarm system will be repeated on levels 100 and 200. Ceiling tiles on Levels 100 and 200 have been removed under the asbestos abatement protocol. Overall project is 80% complete.
 - **Elizabeth Dafoe Library Storage Annex** - Physical Plant trades have been given orientation to new mechanical equipment, piping layouts and controls. Users should have full occupancy in mid-April.
 - **Pharmacy (Apotex Centre)** - Drywall is complete in the basement, main and second floors. Third floor is about 70% complete. Second floor taping is 80% complete. Painting is 80% complete in basement, 60% on main floor and 30% on second floor. Electrical rough in complete for basement, main floor and second floor, third floor is 95% complete. Plumbing is 100% complete in basement, main

and second floors and 90% complete on 3rd floor. South exterior masonry is complete up to the roof. Elevator installation is 30% complete. July 1 is the expected occupancy date.

- **St. John's College - Theatre Addition** - Foundation wall installation is complete and entry lobby stairs are being formed and poured. Floor joist installation has begun and steel columns and beams at the tiered seating are nearly complete. Occupancy is scheduled for July 15.

Smart Park

- **Eureka Project** - The Incubator space is full and the waiting list is currently at five. The provincial government has approved the second installment of funding which will fund operations in the short term.

V. EXTERNAL MATTERS

Alumni Affairs and Alumni Association, Inc.:

- Approximately 120 alumni, friends and university representatives attended an alumni reception in Brandon on Thursday, March 27, 2008. President and Vice-Chancellor Emőke Szathmáry and Alumni Association President Brian Bowman spoke at the event.

Public Affairs:

- Communications officer, Michael Marshall, conducted a "Writing for the Web" seminar for about 25 members of the Department of Family Medicine on March 25. Presentation topics included: defining Web 2.0, writing effective web copy, and implementing new media strategies.
- Public Affairs organized the visit of a reporter and a photographer from the *Winnipeg Free Press* to travel to the Amundsen to cover the Circumpolar Flaw Lead System Study. The two journalists spent nearly two weeks aboard the ship and filed daily stories to the paper's website and its hard copy. Peter Calamai, the science reporter from the *Toronto Star* and a journalist from CBC also spent time aboard the ship and filed numerous stories.
- Fred Beardy, one of the student bloggers in the *It's My Future* campaign, was chosen by UNESCO to be highlighted in the International Adult Learners' Week magazine. Fred has graduated from two Aboriginal Focus Programs and is now studying for his degree in Social Work.

Government Relations Office:

- A total of \$1.5 million was secured in federal and provincial funding in support of the University's Stormwater Pumping Station. This investment is made possible through the Canada-Manitoba Infrastructure Programs. A formal announcement was made on March

7, 2008 by the Honourable Christine Melnick, Manitoba Minister of Water Stewardship and Ms. Joy Smith, Member of Parliament for Kildonan-St. Paul. Mr. Raymond Simard, Member of Parliament for St. Boniface was also in attendance.

- *Breakfast and Brainstorms* featured Dr. Anita Brûlé-Babel, plant science, on March 11th at the Manitoba Legislative building. The topic was "Biofuels and Renewable Energy: Opportunities and Challenges".

Development and Advancement Services

- Total funds raised as of March 27, 2008: \$36.4 million, exceeding the goal of \$35 million.

External Relations On Bannatyne

- The Faculty of Dentistry held a successful alumni reception in Vancouver on March 6 in conjunction with the Pan Pacific Conference.

Part B - Notable Events (External)
Emőke J. E. Szathmáry
March 14, 2008 - April 16, 2008

Friday, March 14, 2008

- Attend “Spirit of Leadership” Luncheon recognizing Marjorie Blankstein, Yhetta Gold, June Menzies, Bernice Sisler and Muriel Smith for their significant, long-term commitment to leadership and to the advancement of women’s equality rights.
- Provide interview to *Canadian Lawyer* magazine contributor, Lisa Gregoire.

Monday, March 17, 2008

- Host a lunch meeting at Chancellor’s Hall regarding University of Manitoba initiatives in India for Mr. Faisal Beg, Trade Commissioner, Canadian High Commission, New Delhi; Dr. Kirti Narain, Principal, Jai Hind College, Mumbai, India; Keshav Sinh, Senior Management, Eduexcel; Ms. Pragya Kaushika, Journalist, The Times of India, New Delhi, India; Ms. Rahat Bano, Journalist, Hindustan Times, New Delhi; Dr. Digvir Jayas, Associate Vice-President (Research); Dr. James Dean, Executive Director, International Relations; and Mr. John Alho, Associate Vice-President (External).
- Host a reception at 37 King’s Drive for student volunteers in the student referendum program.

Wednesday, March 19, 2008

- Present remarks and host a reception at the University Club for faculty members whose promotion and/or tenure applications were approved in 2007, and their guests.

Thursday, March 20 2008

- Address media at press conference regarding Project Domino.
- Attend Open House Reception at the legislature for the Inauguration of the Manitoba Immigration Council, hosted by Labour and Immigration Minister Nancy Allan.

Thursday, March 27, 2008

- Attend Winnipeg Chamber of Commerce “State of the Nation” Luncheon featuring The Honourable Vic Toews, President, Treasury Board.

- Present remarks at a reception for University of Manitoba alumni in Brandon, Manitoba, hosted by the Alumni Association.

Friday, March 28, 2008

- Present remarks at the Engineering Access Program Graduation Dinner.

Saturday, March 29, 2008

- Present remarks at the Bison Sports' Year End Brown and Gold Awards Banquet.
- Present remarks at St. Paul's College Spring Formal for graduates.

Monday, March 31, 2008

- Attend the Association of Universities and Colleges in Canada (AUCC) Board of Directors Dinner in Windsor, Ontario.

Tuesday, April 1, 2008

- Attend the Association of Universities and Colleges in Canada (AUCC) Board of Directors Meeting in Windsor, Ontario.
- Attend the Association of Universities and Colleges in Canada (AUCC) Welcome Reception, in Windsor, Ontario.

Wednesday, April 2, 2008

- Attend a meeting of AUCC's Standing Advisory Committee on University Research, in Windsor, Ontario

Friday, April 4, 2008

- Present remarks at the luncheon held at the Ft. Garry Hotel in honour of the Stu Clark Centre for Entrepreneurship Gift Announcement. The speakers included Honourable Jim Rondeau, Minister of Science, Technology, Energy and Mines; Mr. Stu Clark, Donor; Mr. Leonard Asper, President and CEO, CanWest Global Communications Corp.; Dr. Glenn Feltham, Dean, I. H. Asper School of Business; and Mr. Rob Warren, Asper Executive Director.
- Present remarks at the launch of the Alan Klass Memorial Program for Health Equity, along with Dr. J. Dean Sandham, Dean, Faculty of Medicine, Dr. Arnold Naimark, Dr. Daniel Klass, Dr. Kim Wiebe, and Dr. Jeff Turnbull. Funding of the Memorial Program

is provided by the Tolkien Trust, and members of the Klass and Tolkien families were in attendance.

- Attend dinner to celebrate the launch of the Alan Klass Memorial Program for Health Equity.

Saturday, April 5, 2008

- Present remarks at the Engineering Students' Graduation Dinner and Dance.

Sunday, April 6, 2008

- Co-host, with Dr. Martin Brotman and Mrs. Farron Brotman, in San Francisco, a dinner attended by alumni of the University of Manitoba. Mrs. Elaine Goldie, Vice-President (External), and Ms. Barbara Becker, Associate Director, Development, External Relations were present.

Monday, April 7, 2008

- Meet with an alumnus and university benefactor in San Diego, along with Mrs. Elaine Goldie, Vice-President (External) and Ms. Barbara Becker, Associate Director, Development.
- Provide live radio interview to John Wells, CJOB, regarding government's announcement of the end of the tuition freeze.
- Attend dinner with university benefactors in San Diego, along with Mrs. Elaine Goldie, Vice-President (External) and Ms. Barbara Becker, Associate Director, Development.

Tuesday, April 8, 2008

- Meet with University benefactor, in San Diego, along with Mrs. Elaine Goldie, Vice-President (External) and Ms. Barbara Becker, Associate Director, Development.

Wednesday, April 9, 2008

- Attend the 2008 Manitoba budget presentation by Honourable Greg Selinger, Minister of Finance.

Thursday, April 10, 2008

- Present remarks at the Province of Manitoba announcement, by Honourable Diane McGifford, Minister of Advanced Education and Training, of funding for Project Domino.

Friday, April 11, 2008

- Meet with The Honourable Monte Solberg, Minister of Human Resources and Social Development, along with Mr. John Alho, Associate Vice-President (External).
- Attend luncheon to celebrate the Official Opening of the Clinical Learning and Simulation Facility, Faculty of Medicine.
- Present remarks at the Official Opening of the Clinical Learning and Simulation Facility, along with Dean J.D. Sandham, Honorable Teresa Oswald, Minister of Health, Honorable Jim Rondeau, Minister of Science, Technology, Energy and Mines, and Senior Stick Kam Birdi.

Tuesday, April 15, 2008

- Attend meeting of the Council of Presidents of Universities in Manitoba (COPUM).
- Present remarks and host a reception and dinner for major donors to the University of Manitoba, 1996 - 2008.

Wednesday, April 16, 2008

- Meet with Mr. John Wood, President, Navitas, along with Dr. Richard Lobdell, Vice-Provost (Programs), and Susan Dean, Principal, ICM.

Report of the Senate Executive Committee

Preamble

The Executive Committee of Senate held its regular monthly meeting on the above date.

Observations

1. Speaker for the Executive Committee of Senate

Dean Mark Whitmore will be the Speaker for the Executive Committee for the May meeting of Senate.

2. Nominations to the Senate Committee of 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 nominations to the Senate Committee on Nominations be approved by Senate for three-year terms ending May 31, 2009:

- a) Professor Pamela Perkins, representing Arts
- b) Professor Emily Etcheverry (Senator) (Re-appointment), representing Medicine & Dentistry
- c) Professor Mary Brabston (Senator) (Re-appointment), representing Management & Extended Education
- d) Education & Kinesiology and Recreation Management

Respectfully submitted,

Dr. Emőke Szathmáry, 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 April 24, 2008 is as follows:

1.	Agriculture & Human Ecology	Carla Taylor*	to	2009
2.	Architecture & Engineering	Jay Doering*	to	2010
3.	Arts	Arlene Young*	to	2008
4.	Science	Norm Hunter*	to	2010
5.	Law, Pharmacy & Environment, Earth and Resources	David Collins*	to	2010
6.	Medicine & Dentistry	Emily Etcheverry*	to	2008
7.	Education & Kinesiology and Recreation Management	Dennis Hrycaiko*	to	2009
8.	Management & Extended Education	Mary Brabston*	to	2008
9.	Music, Fine Art & Libraries	Karen Jensen	to	2009
10.	Nursing, Social Work & Student Affairs	Marie Edwards	to	2010
11.	Students (2)	Peter Nawrot	to	2008
	<i>(note: student terms end October 14)</i>	Aimee Pochinco	to	2008

* denotes member of Senate at time of appointment

The terms for Arlene Young, Emily Etcheverry, Mary Brabston and Dennis Hrycaiko are ending on May 31, 2008. Consequently, replacements are required for the following areas for the term June 1, 2008 to May 31, 2011.

1. Arts
2. Medicine & Dentistry
3. Management & Extended Education
4. Education & Kinesiology and Recreation Management

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 four of those members' terms are ending, two of the replacements will necessarily have to be a member of Senate at the time of election to the Senate Committee on Nominations.

Report of the Senate Committee on Course and Curriculum Changes Part B – Submitted to Senate for Ordinary 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. This part of the report contains observations and recommendations on course change proposals for units where the net increase is more than nine credit hours. The Senate Planning and Priorities Committee was provided with copies of these proposals as well.

Observations

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

Faculté d'Éducation

The Collège is proposing a revision to the Bachelor of Education Program. The proposed revision includes the deletion of one course **EDUA 3991 Éducation française en milieu minoritaire**; and the introduction of six new courses : **EDUA 3993 Éducation française en contextes minoritaire et d'immersion (3)**, **EDUA3303 Intégration et identité professionnelles (3)**, **EDUB 3013 Microenseignement et pratiques pédagogiques (3)**, **EDUA 3313 Perspectives autochtones en contexte scolaire (3)**, **EDUA 3323 La pratique réflexive dans la formation professionnelle (3)**, and **EDUB 4203 Didactiques: l'approche transdisciplinaire (6)**.

Recommendation

The Senate Committee on Curriculum and Course Changes recommends THAT Senate approve the curriculum and course changes from the units listed below:

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

Faculté d'Éducation

Respectfully submitted,
Professor H. Frankel, Acting-Chair
Senate Committee on Curriculum and Course Changes

/mb

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

Collège universitaire de Saint-Boniface

Faculté d'Éducation

Course deletion:

EDUA 3991 Éducation française en milieu minoritaire Cr. Hrs. 3 -3
[French Education in Minority Contexts]

Course introductions:

EDUA 3993 Éducation française en contextes minoritaire et d'immersion Cr.Hrs. 3 +3
[French Education in Minority Contexts and in Immersion]

Étude des aspects historique, démographique, culturel, linguistique, identitaire et des approches pédagogiques qui encadrent le phénomène de l'éducation française en milieu minoritaire au Manitoba (écoles d'immersion et écoles françaises).

EDUA 3303 Intégration et identité professionnelles Cr.Hrs. 3 +3
[Integration into the Teaching Profession]

Développement de l'habileté à faire le lien entre la pratique et la théorie et à mettre en œuvre une gestion efficace de sa pratique pédagogique.

EDUB 3013 Microenseignement et pratiques pédagogiques Cr.Hrs. 3 +3
[Microteaching and Instructional Practices]

Réflexions sur sa mise en pratique d'habiletés d'enseignement par l'analyse de leçon, d'activité ou de cours.

EDUA 3313 Perspectives autochtones en contexte scolaire Cr.Hrs. 3 +3
[Aboriginal Perspectives in School Settings]

Introduction aux perspectives culturelles autochtones et métisses en contexte scolaire : dimensions historique, anthropologique, éthique et pédagogique. Développement de compétences professionnelles relatives à l'enseignement dans un environnement autochtone et métis.

EDUA 3323 La pratique réflexive dans la formation professionnelle Cr.Hrs. 3 +3
[Reflective Practice and Professional Growth]

Analyse d'expériences vécues lors du stage pratique menant à une prise de conscience de son propre style d'enseignement.

EDUB 4203 Didactiques : l'approche transdisciplinaire Cr.Hrs. 6 +6
[Teaching Across the Curriculum]

Élaboration d'une unité d'enseignement menant à une synthèse de la formation initiale.

NET CHANGE IN CREDIT HOURS: +18

Proposal for an Undergraduate Program in

Indigenous Wellness Degree

Proposed by the

Faculty of Human Ecology

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Comments of the Senate Executive Committee:

The Senate Executive Committee endorses
the report to Senate.

Scope

The proposed 120 credit hour degree program is the Bachelor in Human Ecology - Indigenous Wellness (B.H.Ecol - Indigenous Wellness), which aims to create a broad, holistic understanding among people working for Aboriginal communities of the factors that affect health and wellness. Graduates can build careers in a large variety of agencies and businesses that plan or deliver social and health related services and products. The program can provide a foundation for students who have an interest in professional programs. The program offers a general course of studies and graduates will not achieve any professional status as a consequence of this degree.

Unique contribution

The program integrates Indigenous and Western world views and knowledge systems to increase the effectiveness of cross-cultural community service work that addresses the social, economic, environmental and political problems that people face. As a degree program it provides the theoretical foundations for advice and action in communities, which allows graduates to apply their knowledge in many different settings. The integration will combine knowledge gained through Indigenous ways of knowing, scientific methods, and other sources of evidence. The integration supports the promotion of health, including the ecological approach, which is the guiding principle of the Faculty of Human Ecology.

A world view reflects the ways people make sense of their lives. It encompasses the ideas and beliefs through which an individual interprets reality and serves as a framework for knowledge and causality that people perceive. For example, world views of linear cause and effect experience versus cyclical patterns of experience lead to different approaches in scientific thinking. These different views influence the ways in which people experience science, culture, politics, ethics and other realities of their lives.

Program Name

The name of the program stems from the proposed integration of different world views which is essential for effective cross-cultural community service work. The name also reflects the expectation that graduates are uniquely positioned to serve Aboriginal and Indigenous communities in Canada and elsewhere.

Wellness can be described as a state that combines health and happiness. Thus those factors that contribute to being healthy and happy also will be contributing to being well. The determinants of wellness are: feeling of control of destiny, health practices, spirituality, family, environment, work, money and security, health services, social support and leisure. Wellness is a view of health that emphasizes the state of the entire being and its ongoing development.

Wellness can be estimated from social and economic environments using as indicators for example the amount of money and access to goods and services that a person has. Wellness also encompasses freedom, use of art, environmental health and other factors which influence people's experience of life and estimating their impact relies in part on the connections between qualitative indicators and health experiences. Interventions to increase wellness of the population need to balance all of these factors.

This degree program allows excellent articulation with the Aboriginal Wellness Diploma offered by the Extended Education Division. Courses that can be transferred are detailed in "Admissions" on page 9.

Need for the program

The need for a degree in Indigenous Wellness is clear from the statistics published in *Aboriginal Peoples and Postsecondary Education*,¹ which show the continuing educational problems of Aboriginal students and the negative consequences for Canadian society if no action were taken. The proposed program responds to recommendations published in *A Call for Action for Upstream Investments*,² which show the necessary approaches to closing educational gaps.

The proposal is based on discussions between the representatives of the Assembly of Manitoba Chiefs and the Faculty of Human Ecology. Collective and respectful cooperation between these institutions is the basis for a partnership to build and deliver the program.

The unique goal of the Indigenous Wellness program differs substantially from the educational goals of current programs in Human Ecology. The B.Sc. (Human Nutritional Sciences) and B.Sc. (Textiles Sciences) programs lead to discipline specific health and social services that do not allow adequate time for a cross-cultural services focus. The discipline related specializations of the Family Social Sciences program do not leave enough credit hours to add Aboriginal services in the context of different world views. The goal of the B.H.Sc (Bachelor in Health Sciences) and B.H.St (Bachelor in Health Studies), which are offered jointly with the Faculties of Arts and Science, is to integrate the social and natural sciences in the study of health. These programs do not focus on the needs of Aboriginal communities because the content would require one or two additional years to a four-year program.

The proposed B.H.Ecol (Indigenous Wellness) has been discussed with representatives of several faculties and schools. The units consulted include:

- | | |
|--|--------------------------------------|
| ✧ Faculty of Science | ✧ Extended Education Division |
| ✧ Faculty of Arts - Department of Native Studies | ✧ Aboriginal Student Centre |
| ✧ Faculty of Nursing | ✧ Office of University Accessibility |
| ✧ Asper School of Business | ✧ Faculty of Social Work |
| ✧ Faculty of Kinesiology and Recreation Management | ✧ Faculty of Education |
| ✧ University I | |

Core aspects

The pedagogic principle is to create an awareness of multiple world views that explain the ideas and beliefs through which an individual interprets reality and serves as a framework for knowledge and causality that people perceive. The principle is based on the inherent values in different knowledge systems and leads to a holistic approach in the education of theory and practice, which is consistent with the interdisciplinary approaches in the Faculty of Human Ecology.

This principle is applied to the learning of the determinants of wellness which include feeling of control of destiny, health practices, spirituality, family, environment, work, money and security, health services, social support and leisure. Understanding those factors that contribute to being healthy and happy from the perspective of different world views will increase the understanding of wellness.

¹ Mendelson, Michael. 2006. *Aboriginal Peoples and Postsecondary Education in Canada*. Caledon Institute of Social Policy, Ottawa.

² Manitoba First Nations Health Human Resource Regional Strategic Framework. 2006. *A Call for Action for Upstream Investments*. Inter-governmental Committee on First Nation Health.

Relevance

The postsecondary education needs for students from Aboriginal communities are urgent and extensive. Providing opportunities to build careers at the University level, that are culturally relevant, will increase the success of other initiatives in the school system. This education is expected to enhance human resource capacity of Aboriginal communities.

The program will contribute to the outcomes of the Strategic Framework, which is stated as “*creating a sustainable and competent First Nation Health Human Resource Workforce³ that can meet the health, social and spiritual needs of First Nation clients and communities that is built upon holistic principles of learning, growth and development along the continuum from early learners to adult learners and professional practitioners*”. Specific outcomes given in the Strategic Framework include:

1. *Ensure the future of First Nations through the nurturing of healthy and empowered children as health care providers and leaders of tomorrow.*
2. *Provide holistic supports to families and educators to assist & cultivate continuous learning and healthy development of students.*
3. *Reduce discrimination and inequalities for First Nation students in mainstream academic institutions.*
4. *Assure that First Nation human resource development is supported by appropriate financing for education and training and competitive recruitment and retention strategies.*
5. *Promote life-long learning for community members and working professionals.*

These outcomes are relevant to the needs of many Aboriginal people and communities.

B.H.Ecol - Indigenous Wellness Program Structure

Key aspects of the structure include:

1. Basic knowledge in chemistry and biology, economics and statistics, psychology or sociology is needed for a foundation to understand wellness and choices for program foci.
2. The Wellness Core presents individual and family experience in a health context as a foundation for understanding wellness, and these courses will have Aboriginal culture content.
3. The Worldview Core offers learning experiences in which the same issues, related for example to health practices, spirituality, family, environment, work or social support, are presented in two world views: Indigenous and Western.
4. 30 credit hours of free electives allow students to focus their program in desired areas of study with course packages or minors.

It is intended to create intermediate end-points for students who are not able to complete the four years of study. Such students will not be eligible for a degree, but a formal certificate or diploma may be associated with either the time they have spent in the degree program or with the completion of a predefined set of courses. The design of such intermediate qualifications will take place in consultation with all stakeholders. A proposal for such qualifications will be prepared for consideration by the University Senate at a later date.

³ Aspects from the Manitoba First Nations Health Human Resource Regional Strategic Framework. 2006

STRUCTURE

Required Courses:**University I courses: 30 credits**

CHEM 1000 Understand World thr Chemistry, OR CHEM 1300Struc & Model in Chemistry	3 cr hrs
NATV 1220 Native Peoples of Canada I	3 cr hrs
NATV 1240 Native Peoples of Canada II	3 cr hrs
BIOL 1020 Biology I and BIOL 1030 Biology II, OR BIOL 1000 and BIOL 1340	6 cr hrs
ECON 1210 Intro Can Economic Issues AND ECON 1220 Intro Global Environ Issues/ Pol; OR ECON 1200 Principles of Economics	6 cr hrs
STAT 1000 Basic Statistical Analysis 1	3 cr hrs
PSYC 1200 Introduction to Psychology, OR SOC 1200 Introduction to Sociology	6 cr hrs

Wellness Core: 24 credits

HMEC 3500 Developmental Health	3 cr hrs
HMEC 2030W Human Ecology: Perspectives & Communication	3 cr hrs
HMEC 2050 Introduction to Research	3 cr hrs
NATV 2100 Aboriginal Spirituality	3 cr hrs
NATV 3100 Aboriginal Healing Ways	3 cr hrs
HNSC 1210 Nutrition for Health & Changing Lifestyles	3 cr hrs
FMLY 1020 Family Issues across the Lifespan	3 cr hrs
FMLY 1010 Human Development in the Family	3 cr hrs

Supporting: 18 credits

FMLY 1900 Families, Housing and Community: Intro OR FMLY 1420 Family Management Principles OR NURS 4420 Promotion of Health in Communities	3 cr hrs
NATV 2220 Native Societies and the Political Process	3 cr hrs
FMLY 2400 Family Financial Health	3 cr hrs
HMEC 3100 Communication for Professional Practice	3 cr hrs
GMGT 2070 Introduction to Organizational Behaviour	3 cr hrs
PHED 1200 Physical Activity, Health and Wellness	3 cr hrs

Worldview Core: 18 credits

WELL 3XXX Worldview: Natural Sciences& Research	3 cr hrs
WELL 3XXY Worldview: Economics & Business	3 cr hrs
WELL 3XXZ Worldview: Family & Community	3 cr hrs
WELL 3XYZ Worldview: Political economy	3 cr hrs
HMEC 4090 Practicum in Human Ecology	6 cr hrs

Elective courses: 30 credits

Free Electives total to 30 cr hrs

Students can choose to focus their programs with elective packages or minors

The required courses ensure that a minimum of 39 cr hrs is at 3rd & 4th level in any student program of 120 hours, which is greater than the 24 minimum credit hours at the 3rd and 4th year level in the Human Ecology program.

Similar Programs in Canada

The unique feature of the proposed program is the opportunity for students to apply their knowledge in the context of multiple world views. Programs in Canada similar to the one proposed here include courses reflecting the Indigenous world view. There do not appear to be any learning experiences explicitly aimed at bridging more than one world view.

Programs similar to the ones proposed are currently offered at:

- University of Northern British Columbia – Aboriginal Health Sciences offers a Diploma that includes Biology, Psychology, Research methods, Aboriginal medicines, First Nations health and healing, First Nations environmental Philosophy and Knowledge, Aboriginal Health management, chronic illness and healing practices.
- University of British Columbia – College of Health Disciplines and the Institute for Aboriginal health offer Inter-professional Health and Human Service courses that introduce UBC students to a holistic approach to health. Students gain knowledge and understanding of Aboriginal people and cultures.

Number of students

The expected enrolment in the first year in which the program is offered is 20 students. The second year, the enrolment is expected to increase to 30 students in the program. On average 40 students are expected to enroll each year in the program in subsequent years.

It is expected that students from many different backgrounds will enroll. First Nations, Metis, Canadian and international students from for example Australia, Guatemala, Bolivia and other countries, are expected to have an interest in the learning experiences of this program.

Market

A university level trained workforce to support services and products in Aboriginal communities has the potential to further community development. It also provides Aboriginal communities, particularly in Manitoba, with a larger pool of skilled human resources to manage and provide social and economic services. The University of Manitoba policies promote service to Aboriginal students and their communities.

Graduates from the B.H.Ecol - Indigenous Wellness can be employed in a wide variety of Aboriginal community programs. Many of these programs are delivered in teams to which graduates can contribute. The leadership of Aboriginal communities promotes these programs and many are related to health, with diabetes as a current emphasis. These programs include:

- Environmental health
- Health education
- Addiction and substance abuse prevention programs
- Brighter Futures
- Nutrition services

- Community health services
- Diagnostic and treatment services
- Other wellness related programs

Graduates will be able to provide a variety of services in high schools. The types of work could include Aboriginal Support Worker and Native Study Assistants. These employment opportunities exist today and the number is likely to increase in coming years.

With appropriate advising, students can make academic choices that incorporate teachable subjects to meet the major or minor requirements allowing students to apply for the After-Degree Bachelor of Education. The Indigenous Wellness background will allow the students to make important contributions to student success in high schools. Examples of teachables are: Native studies, Human Ecology-Home Economics, Developmental Studies through either Family Social Sciences or Psychology.

A number of graduates are expected to continue into a variety of graduate programs. An estimated 10% to 20% are expected to enter specialized programs such as Family Social Sciences, Native Studies Community Health Sciences or others.

Partnership

The program has been designed in a partnership between the Assembly of Manitoba Chiefs and the Faculty of Human Ecology. The Faculty, which is solely responsible for academic matters and quality, will benefit from this partnership. The input and advice from AMC Representatives can improve the services to students and ensure that the program meets community needs as much as possible. They could be involved in:

- Identifying prospective students
- Identifying community resources
- Providing advice on cultural content
- Identifying speakers and Elders for learning experiences
- Providing advice for new staff selection
- Serve as external community representative in a search process
- Providing input into course adaptations or course development
- Identification of additional student supports, counselors or tutors
- Identification of available bursaries and scholarships
- Identification of communities that are interested in community-based programming

Worldview and Wellness core courses will be team-taught by academic staff, Elders and Aboriginal consultants. The process of team teaching is intended to ensure that students learn the course content, the relevant concepts of wellness in the context of Aboriginal and Indigenous culture.

The academic staff will be responsible for the delivery of the course and the academic quality. The Aboriginal consultants will be involved in teaching as appropriate and ensure that the courses meet the needs of Aboriginal students. The Elders will be asked to contribute learning experiences that emphasize the meaning of the wellness related course content for students, for example stories or demonstrations. Student evaluations will include a variety of tools, which can include formal examinations, performance in practice settings, creative work, projects and others. Academic staff members take responsibility for the adequacy of student evaluation in the context of University academic standards and expectations for excellence.

Student advising

The Faculty of Human Ecology Student Affairs office will create course packages that students can choose to focus their program. The particular combinations of electives will be created with advice from Faculties and other units. In addition, the preferred timing of required courses will be explained, such as sequencing pre-requisite courses and 4th year courses being taken by senior students. The Student Advisor will work with staff, Aboriginal consultants and tutors to deliver the most appropriate services.

There are several other units on campus that can provide important assistance to the students of this program, including:

- University 1: has experienced staff assisting with the recruitment of Aboriginal students and the issues of support for students who need assistance when they come to the University campus.
- Aboriginal Student Centre: has extensive and practical experience in increasing retention and fostering success among Aboriginal students from a large variety of backgrounds.
- University Accessibility: has long-standing experience with the contributions of elders to academic programs and integrating their knowledge in academic learning.
- The Asper School of Business has experience in supporting students in the Aboriginal Business Program. Complementary actions to support students in both programs could be implemented.
- Faculty of Education delivers courses with cross-cultural emphasis related to Aboriginal education and counseling, supported by extensive research experience in this area.
- Extended Education Division has long-standing experience in ensuring success of Aboriginal students in diploma programs.

Solutions and practices to deal with the needs of Aboriginal students and communities have been developed over the years by many groups, agencies and institutions. The information and practices are directly relevant to the service to students in this program, as well as the communities in which the students are expected to work. For example, the use of indigenous knowledge in Aboriginal justice programs will not only inform course content but also create a context for the service to students.

Academic content and quality

The B.H.Ecol – Indigenous Wellness is the responsibility of the Human Ecology Program Committee. Recommendations from the Human Ecology Program Committee are considered by the Human Ecology Faculty Council.

Staff members from all three departments in the Faculty contribute to the delivery of the Human Ecology program. Academic staff members include members with extensive experience in Aboriginal culture and cross-cultural work. These staff members also conduct research that ensures renewal and excellence for the program. Several staff members from the department of Family Social Sciences have experience with the enhancement of courses with content culturally appropriate for Aboriginal students and communities.

New resources for the work to enhance all of the courses in the Wellness Core and create courses in the World View Core have been made available by the First Nations and Inuit Health Branch, Health Canada. The AMC and the Faculty are collaborating to ensure that these course preparations will be completed by the summer of 2008. The work involves a number of institutions with extensive knowledge of Aboriginal culture and the needs of Aboriginal students.

Evaluation of the program will be ongoing. Current administrative systems will be used to monitor short-term criteria that may include, but are not limited to, the following:

- Number of applications
- Number enrolled
- Retention from year to year
- Number of graduates
- Degree Grade Point Averages and outliers

In addition, mechanisms to track long-term performance will be established with criteria that may include, but are not limited to, the following:

- Number of graduates obtaining employment in the area of study
- Employment type three years after graduation
- Perception of students and employers about the relevance of skills obtained from the program

The Faculty of Human Ecology works with the Office of Institutional Analysis and the Alumni Association to create statistics about student performance and satisfaction. The faculty has an annual survey of graduates that supplements the information and the data is used for planning recruitment activities. Where necessary, the Faculty will make available resources to strengthen the process of tracking relevant data for students in all of the faculty's programs, including this proposed program.

Admissions

Following University 1, all students apply to the Faculty of Human Ecology. The entrance criteria are: A minimum adjusted GPA of 2.0 in at least 24 credit hours of University I, including 6 credit hours from Arts and 6 credit hours from Science.

Admissions are capped at 80 students per year per program in the Faculty of Human Ecology. If more than 80 applications are received for any one program, students with the highest Adjusted GPA have priority for admission in that program.

The proposed program is designed to overlap with the Aboriginal Wellness Diploma from the Extended Education Division in order to facilitate the continuation of students from the diploma into the Indigenous Wellness Degree program. At a minimum, students who have completed the diploma will be able to obtain credit for 21 credit hours:

- NATV 1220 3 cr. hrs
- NATV 1240 3 cr. hrs
- NATV 2100 3 cr. hrs
- PSYC 1200 6 cr. hrs
- HNSC 1210 3 cr. hrs
- PHED 1200 3 cr. hrs

Electives in the Aboriginal Wellness Diploma include 9 credit hours of courses that are required in Indigenous Wellness Degree program:

- FMLY 1900 3 cr. hrs
- FMLY 1020 3 cr. hrs
- NATV 3100 3 cr. hrs

With appropriate advising from staff members in the faculties of Extended Education and Human Ecology the student in the Diploma program can select courses that can be transferred as electives to the Degree program. The Degree program includes 30 credit hours of free electives, therefore the Diploma student could potentially transfer as many as 60 credit hours.

In addition, students who are eligible to enter the program but need more time to complete some of the courses, such as chemistry, biology or statistics, will have access to tutors. This support is intended to increase the likelihood that students can pass the first year and achieve success. The support from University 1 will be important to ensure strong recruitment and effective retention.

Prior Learning is recognized and will be used as a way to obtain academic credit for previous experience. Students can be eligible for credit based on: Transfers, Course exemptions, Certificate Credit for seminar study, Challenge for credit and Prior Learning Assessment. The Prior Learning assessment will include reviews of the extent to which the student work experience, workshops, courses or training programs meet the objectives of the program. The assessment process will be defined with the University's Office of Prior Learning before the start of the program to ensure consistent decisions for equivalent experience and allow maximum credit for individual experience. Information from students will be a key part of the assessment process. The Faculty will make resources available as necessary to carry out the assessments.

Administration

The dean's office of the Faculty of Human Ecology will carry out day-to-day administration of the programs, including admissions, student advising, student appeals and related aspects for all students in the B.H.Ecol - Indigenous Wellness program.

The key aspect of delivering the program is creating a welcoming environment that will:

1. Promote student success
2. Ensure that a high number of students return each year
3. Facilitate high quality student work

The Faculty will work with the AMC, University 1, the Aboriginal Student Centre, the Extended Education Division and the University Office of Accessibility to promote a welcoming environment. Creating a welcoming environment involves a number of small activities that are integrated in the work of the academic and support staff of the faculty to ensure a positive student experience. Current activities in the Faculty to increase cross-cultural awareness for all staff will continue.

The program will be supported by a dedicated Aboriginal Liaison/ Administrative position and Aboriginal Tutors to provide services to students, particularly those who need additional advising time, more time on course contents or who need additional support to manage the urban and university environments. This Aboriginal Liaison person, initially part-time, will work with the Tutors to assist in the delivery of courses. The Faculty is also considering establishing the position of Elder-in-Residence. Such a position could be created in collaboration with another Faculty.

Library resources

The majority of library resources that are required to support the program are in place. (A statement on library resources needed to support the program is included).

New resources required

New resources are needed to deliver four new courses, provide support to students, provide administrative support, and deliver other courses where physical resources or staff time limit enrolment.

Need	Resources required
4 Worldview courses require time from several different teaching staff and Aboriginal consultants to deliver a variety of course contents	Annual salary cost equivalent to a full-time assistant professor (approx. \$60,000)
Aboriginal Liaison / Administrative position to support the program and its delivery	Annual salary cost equivalent to a full-time assistant professor (approx. \$60,000)
Aboriginal Tutors for additional support to meet student needs	Annual salary cost \$30,000
Costs associated with field experiences, integrating First Nations course content, participation of Elders and guest speakers, and other curriculum support.	Annual costs of \$ 30,000 per year

New resources for the work to enhance all of the courses in the Wellness Core and create courses in the World View Core have been made available by the First Nations and Inuit Health Branch, Health Canada.

Curriculum example

Sample Menu of Courses for B. H. Ecol. (Indigenous Wellness) Degree Program

University 1	cr. hrs	Year 2	cr. hrs	Year 3	cr. hrs	Year 4	cr. hrs	total cr. hrs
CHEM 1310	3	WELL 3XXX	3	WELL 3XXY	3	WELL 3XXZ	3	12
NATV 1220	3	HMEC 2030	3	NATV 3100	3	WELL 3XYZ	3	12
NATV 1240	3	HMEC 2050	3	NATV 2220	3	HMEC 4090	6	15
BIOL 1020	3	NATV 2100	3	HMEC 3500	3	NURS 4420	3	12
BIOL 1030	3	PHED 1200	3	HMEC 3100	3	GMGT 2070	3	12
STAT 1000	3	HNSC 1210	3	FMLY 2400	3		0	9
ECON 1210	3	FMLY 1020	3		0		0	6
ECON 1220	3	FMLY 1010	3		0		0	6
SOC 1200	6		0		0		0	6
		Free electives	6	Free electives	12	Free electives	12	30
	30		30		30		30	120

Course description:

Students study the process of understanding the world from more than one world view. Each learning experience about research methods will integrate Indigenous and Western ways of knowing in series of selected case-studies or learning scenarios. The case studies of scenarios deal with research that can benefit individual and community health and quality of life. Restricted to students in the Indigenous Wellness degree.

Pre-requisites:

BIOL 1030 or BIOL 1340, and PSYC 1200 or SOC 1200, NATV 1240, HMEC 2050, and STAT 1000, or consent of instructor

Course objectives:

The goal of the course is to present different world views using content that students have learned in other course as examples in the discussion of the world views. Students will study the natural world using the ways of knowing of the Indigenous and Western world views. The components of different knowledge systems will be used to highlight or contrast the theoretical background to research and its application in generating new insights.

The student will be able to:

1. Explain key contrasts in the ways of knowing of Indigenous and western worldviews
2. Describe the role of research in generating and maintaining different knowledge systems
3. Describe how research and knowledge of the natural world can change the effectiveness of interventions aimed at improving the health and quality of life of individuals and communities

In the course students will:

- Read and discuss 5 case studies that form the basis for 5 assignments
- Use Indigenous and Western world views to generate an understanding of issues in the case study
- Support the understanding with information from the appropriate literature
- Highlight the theoretical background to research and its application in different world views
- Use problem-based learning methods to address the problem statement in each case study
- Discuss a variety of approaches to addressing the issues or problem in each case study
- Complete an assignment that addresses the problem statement in each case study

Example of case study:***Case:***

Organisms given the collective name "plankton" are an essential part of the food supply for higher level animals and people. The chemistry, biochemistry and physical structure of these organisms determine the biological functions of each type of plankton. These functions in turn determine the role of each type in maintaining plankton populations and hence their collective roles in maintaining their contributions to the world's food supply.

Problem statement:

The functions of these organisms are affected by global warming. It is not known to what extent, or which parts, of the global food supply would be affected. Information is needed for plans to mitigate the effects.

Assignment:

Identify the approaches from both Indigenous and Western world views that could generate new information about the effects of global warming on plankton and the global food supply.

Required readings:

Custom handbook package with limited materials will be available for purchase through the Bookstore. Students will need to access library holdings for additional research on assignments.

Course requirements and Grading:

Case-study 1	20%
Case-study 2	20%
Case-study 3	20%
Case-study 4	20%
Case-study 5	20%

Note: Selected case studies may be available to staff who can contribute to the delivery of this course. In addition, appropriate case studies can be purchased.

COURSE OUTLINE:

WELL 3XXY

Worldview: Economics & Business

Course description:

Students study the process of understanding economic systems and business from more than one world view. Each learning experience about business, resource allocations and wealth creation will integrate Indigenous and Western ways of knowing in a series of case-studies and scenarios. The case studies and learning scenarios deal with issues of economic growth that can benefit individual and community health and quality of life. Restricted to students in the Indigenous Wellness degree.

Pre-requisites:

ECON 1210 & ECON 1220 or ECON 1200, NATV 1240, PSYC 1200 or SOC 1200, or consent of instructor

Course objectives:

The goal of the course is to present different world views using content that students have learned in other course as examples in the discussion of the world views.

Students study the business world from the perspectives of Indigenous and Western world views. Students will use these different contexts explain or create a variety of business models. The business potential of communities with different resource bases will be explained in the context of world views.

The student will be able to:

1. Explain key aspects of the Canadian economic system using Indigenous and Western worldviews
2. Describe the role of private business in the economic system in generating wealth for individuals, families and communities
3. Describe the potential for economic development and business success of a variety of communities with different resource bases and guide by a variety of world views

In the course students will:

- Read and discuss 5 case studies that form the basis for 5 assignments
- Use Indigenous and Western world views to generate an understanding of issues in the case study
- Support the understanding with information from the appropriate literature
- Highlight the theoretical background to research and its application in different world views
- Use problem-based learning methods to address the problem statement in each case study
- Discuss a variety of approaches to addressing the issues or problem in each case study
- Complete an assignment that addresses the problem statement in each case study

Example of case study:

Case:

The economic systems in communities include the concept of ownership of resources. Theoretically resources can be all privately owned or all publicly owned. In most cases a mixture of type of ownership is accepted by the community members. The mixture can influence the health and quality of life of members. The effect of this influence depends on the level of total resources available in the community, political processes and social norms.

Problem statement:

The most beneficial balance of types of ownership under differing social conditions is not clear.

Assignment:

What aspects of a community economic system are more likely to protect health and quality of life than other aspects?

Required readings:

Custom handbook package with limited materials will be available for purchase through the Bookstore. Students will need to access library holdings for additional research on assignments.

Course requirements and Grading:

Case-study 1	20%
Case-study 2	20%
Case-study 3	20%
Case-study 4	20%
Case-study 5	20%

Note: Selected case studies may be available to staff who can contribute to the delivery of this course. In addition, appropriate case studies can be purchased.

COURSE OUTLINE: WELL 3XXZ Worldview: Family & Community

Course description:

Students study the factors that determine the functioning families and communities from more than one world view. Each learning experiences will integrate Indigenous and Western ways of knowing in series of selected case-studies or scenarios. The case-studies and scenarios deal with community functioning as a determinant of health and quality of life. Restricted to students in the Indigenous Wellness degree.

Pre-requisites:

FMLY 1020, FMLY 1010, NATV 1240, and PSYC 1200 or SOC 1200, or consent of instructor

Course objectives:

The goal of the course is to present different world views using content that students have learned in other course as examples in the discussion of the world views.

Students study families and communities functioning from the perspective of Indigenous and Western world views. Students will gather evidence for adequate and inadequate functioning in the context of these world views. They will identify the supports needed to ensure adequate functioning and potential interventions for situations where support is not adequate.

The student will be able to:

1. Explain key aspects of Indigenous and Western worldviews that affect social interactions and ethical perceptions
2. Describe the community as a determinant of family health and the ways this function can be enhanced
3. Describe the potential for interventions to support family and community functioning aimed increasing quality of life in a variety of world views

In the course students will:

- Read and discuss 5 case studies that form the basis for 5 assignments
- Use Indigenous and Western world views to generate an understanding of issues in the case study
- Support the understanding with information from the appropriate literature
- Highlight the theoretical background to research and its application in different world views
- Use problem-based learning methods to address the problem statement in each case study
- Discuss a variety of approaches to addressing the issues or problem in each case study
- Complete an assignment that addresses the problem statement in each case study

Example of case study:

Case:

Conflict is part of family and community life. Situations that can not be handled by the individuals involved in the conflict require support or intervention from others in the family or the community. The appropriateness of the support or intervention depend on the social norms, culture and world views of the people involved in the conflict.

Problem statement:

Consensus on appropriate intervention in a dispute between neighbors that involved physical harm requiring hospital treatment is difficult in a multi-cultural society.

Assignment:

Apply principles of justice from different world views to identify possible interventions.

Required readings:

Custom handbook package with limited materials will be available for purchase through the Bookstore. Students will need to access library holdings for additional research on assignments.

Course requirements and Grading:

Case-study 1	20%
Case-study 2	20%
Case-study 3	20%
Case-study 4	20%
Case-study 5	20%

Note: Selected case studies may be available to staff who can contribute to the delivery of this course. In addition, appropriate case studies can be purchased.

COURSE OUTLINE:

WELL 3XYZ

Worldview: Political economy

Course description:

Students study political systems from more than one world view. Each learning experience will integrate Indigenous and Western ways of knowing in a series of selected case studies or learning scenarios. The case-studies and scenarios deal with current political issues related to Aboriginal communities. Restricted to students in the Indigenous Wellness degree.

Pre-requisites:

ECON 1210 & ECON 1220 or ECON 1200, NATV 1240, PSYC 1200 or SOC 1200, or consent of instructor

Course objectives:

The goal of the course is to present different world views using content that students have learned in other course as examples in the discussion of the world views.

Students study the political process from the perspective of Indigenous and Western world views. Students will explain decisions on a variety of current issues, such as land claims, child care, environmental protection, access to employment in the world view contexts. The potential for different world views to build longer-term solutions will be discussed.

The student will be able to:

1. Explain key aspects of the political process in Canada using Indigenous and Western worldviews
2. Describe the role of citizens and institutions in protecting ethical practices, political power, and influence on public decisions
3. Describe the potential for solutions to political problems inherent in the different world views of Indigenous and western cultures

In the course students will:

- Read and discuss 5 case studies that form the basis for 5 assignments
- Use Indigenous and Western world views to generate an understanding of issues in the case study
- Support the understanding with information from the appropriate literature
- Highlight the theoretical background to research and its application in different world views
- Use problem-based learning methods to address the problem statement in each case study
- Discuss a variety of approaches to addressing the issues or problem in each case study
- Complete an assignment that addresses the problem statement in each case study

Example of case study:

Case:

Political processes are used to influence public decisions. In communities where all members know each other the political process can be fully transparent. By contrast, in urban areas social institutions ensure transparency. The expectations that people have of influencing public decisions will differ in these two settings.

Problem statement:

In both settings culture and world views determine the expectations of people which may differ and be a source of conflict.

Assignment:

Define the expectations of people of political processes in the context of different world views and the potential for conflict.

Required readings:

Custom handbook package with limited materials will be available for purchase through the Bookstore. Students will need to access library holdings for additional research on assignments.

Course requirements and Grading:

Case-study 1	20%
Case-study 2	20%
Case-study 3	20%
Case-study 4	20%
Case-study 5	20%

Note: Selected case studies may be available to staff who can contribute to the delivery of this course. In addition, appropriate case studies can be purchased.

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: Human Ecology

Specialization: Bachelor of Human Ecology
– Specialization in Aboriginal Wellness

Course no. and names: WELL.3XXX Worldview: Natural Sciences & Research
WELL.3XXY Worldview: Economics & Business
WELL.3XXZ Worldview: Family & Community
WELL.3XYZ Worldview: Political Economy

SUPPORT STATEMENT

PREPARED BY: Jan Horner (Bibliographer)

APPROVED BY: Jan Horner
Coordinator, Collections Management

[Signature]
Director of Libraries

DATE: 20 August 2007

University of Manitoba Libraries
INTER-DEPARTMENTAL CORRESPONDENCE

Date: 15 August 2007

To: Dr Gustaaf Sevenhuysen, Dean, Faculty of Human Ecology

From: Jan Horner, Coordinator, Collections Management, University of Manitoba Libraries

Subject: **Library Support for a Bachelor of Human Ecology - Specialization in Aboriginal Wellness**
WELL.3XXX Worldview: Natural Sciences & Research
WELL.3XXY Worldview: Economics & Business
WELL.3XXZ Worldview: Family & Community
WELL.3XYZ Worldview: Political Economy

The University of Manitoba Libraries (UML) has a strong collection in the area of Aboriginal wellness and Native studies in general. The results of the following assessment show that it is certainly capable of supporting the proposed undergraduate program specialization, including the four new Worldview courses. However, the Libraries appreciate the Faculty's willingness to provide modest additional funds to strengthen its holdings in international Indigenous traditions, especially as they might support the Worldview courses.

Description of Curriculum Changes

From the documentation you provided, I understand the proposed Specialization in Aboriginal Wellness will work mostly with existing courses in Arts, Human Ecology, Management, Nursing, Kinesiology & Recreation Management, and Science. The specialization will introduce four new Worldview courses which will explore the process of understanding the world from more than one world view, integrating Indigenous and western ways of knowing in a series of selected case studies or learning scenarios. This assessment pays special attention to the materials in the Libraries' collections that support Aboriginal approaches to natural science and research, economics and business, family and community, and political economy.

Method of Assessment

In order to assess the Libraries' holdings in the general area of Aboriginal wellness and Native studies, four types of analyses were conducted:

1. a review of relevant library assessments carried out in the last five years,
2. a check of the Libraries' holdings of titles cited in *Honoring the Medicine: The Essential Guide to Native American Healing*¹,
3. a check of the Libraries' holdings of publications cited in 11 monographs on topics covered by the four new Worldview courses (natural science and research, economics and business, family and community, and political economy),
4. and a review of electronic resources and data collections accessible through the Libraries.

Previous Assessments

Relevant library statements completed in the last five years were reviewed. Findings reproduced in the following table indicate that the collection is at a graduate level² (ranging from 3c or Master's level to 4 or research level support).

¹ Cohen, Kenneth "Bear Hawk". *Honoring the Medicine: The Essential Guide to Native American Healing*. New York: Ballantine Books, 2003. Sections checked include: General Native American culture & values, Regional Native American culture, Facts of life: changes & demographics, Native American healing & Indigenous science, Women's medicine, Biographies & autobiographies, Voices of the elders, Native herbal medicine, and Global healing traditions.

Department	Course or Program	Date	Level	
Native Studies	Undergraduate Program Review	2006	books 3b-4	journals 4
Community Health Sciences	Graduate Program Review : (section on Aboriginal health)	2006	Books 3c	Journals 4
Native Studies	032.3xx Indigenous Cultural Studies & Environmental Discourse	2005	books 3c	journals 3c
Native Studies	PhD in Native Studies	2004	books 3b-4	journals 4
Native Studies	032.7xx Graduate Seminar in Contemporary & Historical Metis Issues	2004	books 3c	journals 3c
Native Studies	032.7xx Directed Readings in Native Studies	2003	books 3c-4	journals 3c-4
Native Studies	032.3xy Aboriginal Healing Ways	2003	books 3c	
Native Studies	032.4xa Missionaries Colonialism & Aboriginal Peoples	2002	books 3c	journals 3c
Native Studies	032.7xb Traditional Teachings	2002	books 3c	journals 3c

Aboriginal Health Collection

The Aboriginal Health Collection at the Neil John Maclean Health Sciences Libraries will offer valuable support for this new specialization. It brings together a diverse collection of reports, background papers, theses and dissertations, and community-based studies. Significant works on the health of Native Americans, Aboriginal Australians, and other Indigenous people are collected for comparative analysis. Janice Linton, the Aboriginal Health Librarian has written "The collection supports a holistic view of health, bringing together documentation of research and epidemiology about Aboriginal peoples with works on community healing, traditional knowledge, practical health programs, and consumer health resources. The collection also includes a comprehensive collection of health promotion videos created since the 1980s by and for Aboriginal people in Canada."¹

Honoring the Medicine

Checking of the bibliography in *Honoring the Medicine* revealed that the Libraries holds 66% of the books cited (182 of 277). Of these 86% are found in the Elizabeth Dafoe Library and 32% at the Neil John Maclean Health Sciences Library (NJMHSL), with 14 of the titles cited being uniquely available at NJMHSL. This bibliography includes works on Native American cultural values as well as works dealing with healing, Indigenous science and Native herbal medicine. These results affirm previous assessment findings that the Libraries' monograph collection for Native studies and Aboriginal health are at a Master's level.

Monograph Collection: Worldview Courses:

Eleven texts were chosen as particularly relevant to the themes of the four Worldview courses and their bibliographies or reference lists were checked. Of the 1,087 monographs cited in of the 11 texts, the Libraries holds 791 or 73% (see Appendix A). According to the Libraries' assessment guidelines, this result indicates a collection capable of supporting Master's level research (3c). Of the 791 titles held, the Elizabeth Dafoe Library holds 81% of them, the Law Library 14%, and the Neil John Maclean Health Sciences Library 9%. Other units at UML have supporting collections, the main ones being: the Father Harold Drake Library, St. Paul's College and the St. John's College Library. It should be noted that the Libraries' holdings of monographs on Indigenous traditions outside North America are not as strong, though probably sufficient for undergraduate study. I understand, however, that the Faculty will be able to provide the Libraries with additional funds (\$300 to \$500 a

² According to the "UML Collection Assessment Guidelines" (revised 2003) a collection should have at least 50% of the titles on a standard bibliography or list in order to provide intermediate instruction or upper undergraduate support, at least 65% to provide advanced instructional (Master's level) support, and at least 80% to provide research (doctoral level) support.

³ Quoted from library assessment prepared by J. Blanchard for the proposed PhD in Native Studies (2004).

year) to ensure that our coverage of international Indigenous traditions is sufficient for the changing focus of the Worldview courses.

NJMHSL has many unique items in its Aboriginal Health Collection. The Law Library's holdings are particularly strong in materials relating to Aboriginal treaties, property rights, and resource management.

UML has a request option available through the online catalogue Bison. Books available at another library or campus can be requested and delivered to the library unit of the requestor's choice. Some of the monographs and many of the government publications cited are available electronically. The Libraries has begun to acquire major collections of e-books, notably in the last year two relevant sets from the Canadian Electronic Library: the *Canadian Health Research Collection* and the *Canadian Public Policy Collection*.

Journal Collection: Worldview Courses & Aboriginal Health

UML has a good collection of journals and newspapers related to Native or Aboriginal studies as documented in assessments completed over the last five years. Appendix B provides a list of current journals and magazines held by the Libraries and relevant to the specialization and its Worldview courses. Appendix B also lists some major journals related to Aboriginal wellness in the Aboriginal Health Collection at NJMHSL or online. Journals covering public and community health, consumer health, rural health, and in the general areas of medicine will also be useful for students doing research in this area.

The Department of Community Health Sciences has a vibrant Aboriginal health research stream in its graduate program. In the Libraries' 2006 report for the department's graduate program review, journal support was in part assessed on the Libraries' holdings of:

- Medline references to articles on Aboriginal health
- and, journal references in the bibliography of *Aboriginal Health in Canada: Historical, Cultural, and Epidemiological Perspectives* (2nd ed. 2006).

The checking results indicated that the Libraries' journal collections for Aboriginal health were at a research (doctoral) level of support.

Five of the texts with bibliographies used in the assessment of monographs for the Worldview courses have references to journal publications. Of the 405 references checked, the Libraries holds 324 of them, or 80%, indicating a collection capable of supporting a doctoral level program. Of the 324 held, 220 or 68% are available in electronic form. The Libraries' strong journal holdings in anthropology, economics, law, medicine, Native studies, and science were evident in this analysis, and should provide ongoing support for this new specialization.

Web and Other Resources

The Libraries subscribes to a number of databases that provide access to journal literature, e-books, and other research materials. The following resources are currently accessible through the Libraries' E-Library menus:

- *Ageline*
- *AMED: Allied and Complimentary Medicine*
- *America: History and Life*
- *ATLA Religion Database*
- *Bibliography of Native North Americans*
- *Business Source Premier*
- *Canadian Reference Centre*
- *CBCA Reference*
- *CINAHL*
- *CPI.Q* (formerly Canadian Periodical Index)
- *Criminal Justice Abstracts*

- *Digital Dissertations*
- *Early Encounters in North American: Peoples, Cultures and the Environment*
- *Ebscohost Academic Search Elite*
- *EconLit*
- *EHRAF Collection of Ethnography*
- *EMBASE*
- *ERIC*
- *Family & Society Studies Worldwide*
- *Health Reference Centre – Academic*
- *Native Health Databases*
- *OECD Health Data*
- *PAIS International*
- *Philosopher's Index*
- *PsycArticles*
- *PsycInfo*
- *PubMed/Medline*
- *Science Citation Index*
- *SciFinder Scholar*
- *Scopus*
- *Social Sciences Citation Index*
- *Social Services Abstracts*
- *Social Work Abstracts*
- *Sociological Abstracts*
- *Worldwide Political Science Abstracts*

Many of the above databases provide access to the full text of journal articles. The implementation of "UM Links" in the E-Library databases has facilitated linking to full text and provides an option to request an item from Document Delivery when no online full text or print holding in the Libraries is available. The Libraries provides free Document Delivery service for materials not available locally.

Through its Data Services primarily located in the Elizabeth Dafoe Library, the Libraries provides access to aggregate, survey, and spatial data that may be important to interdisciplinary research. This data is from various sources: the Data Liberation Initiative (Statistics Canada), the ICPSR (Inter-University Consortium for Political and Social Research), the International Social Survey Program among others. Some examples of data resources are the Canada Census of Population data, the Canadian Community Health Survey, the Participation and Activity Limitation Survey, and the Aboriginal Peoples Survey II.

Conclusion

UML has strong collections in the areas of Aboriginal wellness and Native studies. The results of this assessment show that our collections are sufficient to support the proposed undergraduate Specialization in Aboriginal Wellness. The Libraries' ongoing commitment to the development of its e-journal and e-book resources will continue to facilitate access from multiple locations to information in this interdisciplinary area. Finally, the Libraries wishes to express its gratitude for the Faculty's offer to provide additional funding to support coverage of international indigenous traditions for this new specialization.

c.c. J. Blanchard, Acting Head and Native Studies Bibliographer, Elizabeth Dafoe Library
 A. Ducas, Head, Health Sciences Libraries
 J. Linton, Aboriginal Health Librarian, Neil John Maclean Health Sciences Library
 A. Yoshida, Bibliographer for Human Ecology, Elizabeth Dafoe Library

Appendix A: Checking for Aboriginal Wellness Specialization, Worldview Courses

Note: Web sites, dissertations, and unpublished works found in the bibliographies or reference lists of the texts listed below were not checked.

Source of bibliography	Monographs			Journals				
	checked	held	%	checked	held	%	no. online access	% online access
<i>Red earth white lies</i>	65	48	74%	35	26	74%	17	
<i>Native science</i>	133	77	58%					
<i>Indigenous knowledges in global</i>	145	96	66%	76	55	72%	31	
<i>Native American worldviews</i>	56	43	77%					
<i>Circle of life</i>	34	22	65%					
<i>Native voices in research</i>	79	54	68%	35	26	74%	11	
<i>Aboriginal family trends</i>	31	26	84%					
<i>The other side of the frontier</i>	247	205	83%	113	94	83%	59	
<i>Living rhythms</i>	30	26	87%					
<i>Self-determination: the other path</i>	216	152	70%	146	123	84%	102	
<i>Trusteeship in change</i>	51	42	82%					
Total	1,087	791	73%	405	324	80%	220	68%

Source of Bibliography/Reference Lists:

Audlin, James David. *Circle of Life: Traditional Teachings of Native American Elders*. Santa Fe, NM: Clear Light Publishers, 2006.

Cajete, Gregory. *Native Science: Natural Laws of Interdependence*. Santa Fe, NM: Clear Light Publishers, 2000.

Castellano, Marlene Brant. *Aboriginal Family Trends: Extended Families, Nuclear Families, Families of the Heart*. Ottawa, ON: Vanier Institute of the Family, 2002.

Deloria, Vine. *Red Earth White Lies: Native Americans and the Myth of Scientific Fact*. N. Y.: Scribner's, 1995.

Gill, Jerry H. *Native American Worldviews: An Introduction*. Amherst, NY: Humanity Books, 2002.

Indigenous Knowledges in Global Contexts: Multiple Readings of our World. Ed. George J. Sefa Dei et al. Toronto, ON: OISE/U of Toronto P, 2000. [Reference lists for chapters 1,2,6-9,14 only.]

Native Voices in Research. Ed. Jill Oakes et al. Winnipeg MB: Aboriginal Issues Press, 2003. [selected chapters in sections III Ethics & Methodology, IV Consultation & Public Policy, and V Traditional Knowledge in Planning were checked.]

The Other Side of the Frontier: Economic Explorations into Native American History. Ed. Linda Barington. Boulder CO: Westview Press, 1999.

Self-determination: The Other Path for Native Americans. Ed. Terry L. Anderson et al. Stanford CA: Stanford UP, 2006.

Trusteeship in Change: Toward Tribal Autonomy in Resource Management. Ed. Richmond Clow and Imre Sutton. Boulder, CO: U of Colorado P, 2001.

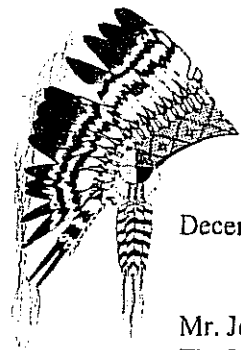
Wuttunee, Wanda. *Living Rhythms: Lessons in Aboriginal Economic Resilience and Vision*. Montreal/Kingston: McGill-Queens UP, 2004.

Appendix B: Native Studies Journals Current Subscriptions

Journal title	Print holdings	Electronic Access
<i>American Indian</i>	Dafoe: 1998+	
<i>American Indian Art Magazine</i>	Arch/FA: 1975+	
<i>American Indian Culture & Research Journal</i>	Dafoe: 1983+	
<i>American Indian Law Review</i>	Law: 1973-1986	HeinOnline: 1973-2006
<i>American Indian Quarterly</i>	Dafoe: 1974/75	JSTOR: 1974-2001; Muse 2000+
<i>Australian Aboriginal Studies</i>	Dafoe: 1993+	
<i>Canadian Journal of Native Education</i>	Dafoe: 1980/81+	CBCA Education: 1998+
<i>Canadian Journal of Native Studies</i>	Dafoe: 1981+	Free online: 1981-1996
<i>Drum</i>	Dafoe: 2000+	
<i>Ethnohistory</i>	Dafoe: 1954-2004	JSTOR: 1954-99; Muse: 1999+
<i>European Review of Native American Studies</i>	Dafoe: 1987+	
<i>First Nations Gazette</i>	Law: 1997+	
<i>First Perspective</i>	Dafoe: 1996+	
<i>Indian Life</i>		CPI.Q 2001+
<i>Indigenous Law Bulletin (Australia)</i>	Law: 1998+	
<i>Indigenous law journal of the U of T Faculty of Law</i>	Law: 2001+	HeinOnline: 2002+
<i>Journal of Aboriginal Economic Development</i>	Mgmt: 1999+	
<i>Justice as Healing: newsletter on Aboriginal concepts of justice</i>	Law: 2001+	
<i>Landmark: a publication of the Indian Claims Comm.</i>	DafoeGovtPubs: 1998+	
<i>Native Americans</i>	Dafoe: 1995/96-2004 Also under other names, 1989-1994	
<i>Native Studies Review</i>	Dafoe: 1984/85-2005	
<i>News from Native California</i>		Academic Search Elite 2002+
<i>Polar Record</i>	Sci/Tech: 1931+	Cambridge UP: 2003+
<i>Studies in American Indian Literatures</i>	Dafoe: 1980-2004	Muse 2004+; Free online: 1977+
<i>Tribal College: j. of American Indian Higher Education</i>	Dafoe: 1989+	
<i>Wicazo Sa Review</i>	Dafoe: 1997+	Muse 2000+
<i>Windspeaker</i>	Dafoe: 1983+	

Aboriginal Wellness Journals Current Subscriptions

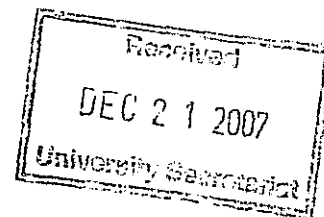
Journal title	Print holdings	Electronic Access
<i>Aboriginal and Islander Health Worker Journal (Australia)</i>	NJMHSL: 1991+	
<i>The Aboriginal Nurse (Canada)</i>	NJMHSL: 1992+	
<i>American Indian & Alaska Native Mental Health Research</i>	NJMHSL: 1987-1999 Also under other names 1981-84	Free online: 1998+
<i>First Nations and Inuit Control (Health Canada)</i>	DafoeGovtPubs: 1999+	
<i>First People's Child & Family Review</i>	NJMHSL 2004+	DOAJ 2004+
<i>The IHS Primary Care Provider [U.S. Indian Health Service]</i>		Free online: 1994+
<i>International Journal of Circumpolar Health</i>	NJMHSL: 2006+ Also under other name 1984-1996	Free online: 2002+
<i>Journal of Aboriginal Health</i>	NJMHSL: 2004+ Seven Oaks Gen Hosp Library: 2004+	Free online 2004+
<i>Pimatzwin: journal of Aboriginal & Indigenous community health</i>	NJMHSL: 2003-2005	Free online 2003+



ASSEMBLY OF MANITOBA CHIEFS SECRETARIAT INC.

200-260 St. Mary Avenue • Winnipeg, Manitoba • R3C 0M6 • Telephone: (204) 956-0610 • Fax: (204) 956-2109

December 14, 2007



Mr. Jeff Leclerc
The University Secretary
312 Administration Building
University of Manitoba
Winnipeg, MB R3T 2N2

Dear Mr. Leclerc:

Re: B.H.Ecol- Indigenous Wellness Degree Program

The Assembly of Manitoba Chiefs (AMC) is writing to express support for the Indigenous Wellness Degree program. We wish to confirm that this program was developed in consultation with and support from First Nation communities, health and education professionals. AMC recognizes that this degree will meet the goals of the Aboriginal Health and Human Resource Initiative:

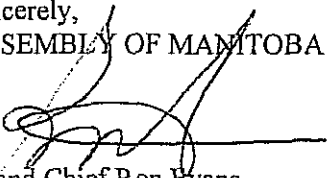
- To provide conditions for optimizing the future supply mix and distribution of the First Nations Health workforce in the area of Human Services and Aboriginal Health.
- To achieve and maintain an adequate supply of qualified First Nations health care providers who are appropriately educated, distributed, deployed and supported to ensure culturally competent and safe health care for First Nations.
- To facilitate the adaptation of health care educational curricula so that the cultural competence of health care providers is improved.

The Assembly of Manitoba Chiefs currently has a contractual agreement with the University of Manitoba for the purpose of developing and designing a four year Bachelor program through the Faculty of Human Ecology. This involves the enhancement of six existing university credit courses with material to ensure cultural competence of graduates from the proposed program. As well, the program involves the development of four worldview courses and the Faculty recognizes that this requires Traditional Spiritual/Elders knowledge.

Both AMC and the Faculty of Human Ecology have collaborated with various stakeholders to ensure Indigenous perspectives are respected in the development of the program.

We strongly urge the Senate to support the Indigenous Wellness program given the positive impact it will have for potential students pursuing their studies in Human Ecology.

Sincerely,
ASSEMBLY OF MANITOBA CHIEFS


Grand Chief Ron Evans

cc: Dr. G. P. Sevenhuysen, Dean of Faculty of Human Ecology, University of Manitoba

First Nations and Inuit Health Program
300 - 391 York Avenue
Address Loc: G800
Winnipeg, Manitoba
R3C 4W1



January 16, 2008

Dr. Gustaaf Sevenhuysen
Dean, Faculty of Human Ecology
University of Manitoba
35 Chancellor's Circle
Winnipeg, Manitoba R3T 2N2

Dear Dr. Sevenhuysen,

Re: Support for the Indigenous Wellness Degree Program

Please accept this letter of support for the Aboriginal Health Human Resources Initiative (AHHRI) Project, *Indigenous Wellness Degree Program*, on behalf of First Nation & Inuit Health.

Darrin Stevenson (AHHRI Program Manager) has informed me that you are in partnership with the Assembly of Manitoba Chiefs and are near completion of culturally adapting curricula for the degree program. I am supportive of your efforts to develop the program and have it approved by the University Senate for implementation funding.

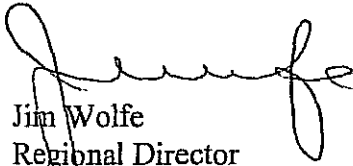
The program would certainly enhance capacity for First Nation community-level health care workers and would directly benefit First Nation community members in health care administration, coordination and service delivery.

I understand that should the university approve funding, AHHRI would provide funding for student support services in order to assist students during the first two years of implementation.

/2...

Should you or your colleagues have any questions or concerns, please contact Darrin Stevenson at (204) 984-4616 (work) or (204) 470-4385 (cell).

Sincerely,

A handwritten signature in black ink, appearing to read 'Jim Wolfe', with a stylized, flowing script.

Jim Wolfe
Regional Director
First Nations and Inuit Health Program
Manitoba Region

c.c.: Lora Sanderson, Assembly of Manitoba Chiefs
Shirley Fontaine, Assembly of Manitoba Chiefs
Darrin Stevenson, FNIHP - MB Region
File - IMC

From: Harvy Frankel [frankel@ms.umanitoba.ca]
Sent: Wednesday, September 26, 2007 10:44 AM
To: Gustaaf Sevenhuysen
Subject: Aboriginal Wellness

Dear Dean Sevenhuysen:

I am pleased to inform you that the Faculty Council of the Faculty of Social Work unanimously passed a motion supporting the Faculty of Human Ecology's proposal for an Undergraduate Program in Aboriginal Wellness. Please let me know, if you would like a more formal letter to that effect.

Good luck with the proposal.

--

Harvy Frankel, MSW, PhD
Associate Dean, Faculty of Social Work
University of Manitoba
Winnipeg Manitoba Canada R3T 2N2
Ph: (204) 474.8378
Fax: (204) 474.7594
Email: frankel@ms.umanitoba.ca



UNIVERSITY
OF MANITOBA | Department of Economics

Winnipeg, Manitoba
Canada R3T 5V5
Telephone (204) 474-9207
Fax (204) 474-7681
economics@umanitoba.ca

August 10, 2007

Gustaaf Sevenhuysen
Professor and Dean
Faculty of Human Ecology
University of Manitoba

Dear Dean Sevenhuysen:

I have reviewed and discussed with you the proposed program on Aboriginal Wellness. The Department of Economics supports this initiative.

Sincerely,

Wayne Simpson
Professor and Head



UNIVERSITY
OF MANITOBA

Faculty of Nursing

Office of the Associate Dean
Undergraduate Programs
Helen Glass Centre for Nursing
Winnipeg, Manitoba
Canada R3T 2N2
Telephone: (204) 474-6375
Fax: (204) 474-7682

August 9, 2007

Dr. Gustaaf Sevenhuysen
Dean, Faculty of Human Ecology
University of Manitoba
Winnipeg, MB R3T 2N2

Dear: Dr. Sevenhuysen

Re: Proposal for an Undergraduate Program in Aboriginal Wellness

Upon review of the draft proposal for the above noted undergraduate program by the Faculty of Human Ecology (dated April 7, 2007), and following our meeting on May 9, 2007 in which we discussed the proposed program, the Faculty of Nursing is pleased to provide a letter of support for the ongoing development and implementation of this program. We wish your Faculty all the best in this endeavor.

Most sincerely,

Christine Ateah, RN PhD
Associate Dean, Undergraduate Programs

cc Dr. Dauna Crooks, Dean, Faculty of Nursing



UNIVERSITY
UNIVERSITY
OF MANITOBA

Aboriginal Student Centre



Aboriginal Student Centre
537 University Centre
Winnipeg, Manitoba R3T 2N2
Phone (204) 475-8850
Fax (204) 475-3142
Email: asc@umanitoba.ca
1-800-432-1960 ext. 8850
asc@umanitoba.ca

Dr. Gustaaf Sevenhuysen, Dean
Faculty of Human Ecology
208 Human Ecology Building
University of Manitoba

August 13, 2007

Dear Dr. Sevenhuysen;

I am pleased to submit this letter of formal endorsement for the proposed Aboriginal Wellness undergraduate degree program. I have read the proposal and have spoken to you in regards to this worthwhile endeavor and am supportive of the initiative.

It is encouraging to find such a commitment to work with our communities to assist us in such an imperative area as the Aboriginal Wellness Program being proposed. I am especially pleased with the scope in which the proposal has taken. The ability to include Traditional Aboriginal worldviews along side of western worldviews is empowering and promising. I would also like to acknowledge the efforts to link with Indigenous communities and organizations in order to collaborate on such an important initiative.

The inclusive nature of the proposal and stringent attempts to ensure Aboriginal representation at all levels is to be commended. Any Aboriginal program proposal needs to have Aboriginal involvement at all levels and at all stages of development to ensure success. The proposed program by Human Ecology has accomplished this and I have trust in your commitment to the objectives outlined. We, at the Aboriginal Student Centre, offer our support and involvement to this exciting and worthwhile project.

In education, miigwetch!

Kali Storm, Director
Aboriginal Student Centre





UNIVERSITY
OF MANITOBA

Extended Education

The University of Manitoba Downtown:
Aboriginal Education Centre
11 The Promenade (north of Portage Place)
Winnipeg, MB R3B 3J1
Telephone: 982-4233
Facsimile: 982-6290
Toll free: 1-866-330-0133

August 17, 2007

To: Gustaaf Sevenhuysen, Dean Faculty of Human Ecology
From: Howard S. Davidson, (Interim) Area Director, Aboriginal Focus Programs, Extended Education
Re: Support for the proposed Aboriginal Wellness degree proposed by the Faculty of Human Ecology
C.C: Lori Wallace, Dean, Extended Education

I am pleased to write this memo supporting the proposed Aboriginal Wellness Degree, and I feel confident adding that the degree will be welcomed by Aboriginal students, stakeholders, and sponsors participating in the University of Manitoba Aboriginal Community Wellness Diploma delivered through Aboriginal Focus Programs.

The proposed degree provides graduates of the Aboriginal Community Wellness Diploma an opportunity to further their education in this field of study. The structure of the revised diploma will enable the diploma's Curriculum and Management Committee, in consultation with the Faculty of Human Ecology, to prepare a specialization of the diploma that articulates fully with the proposed degree. Diploma graduates in other specializations will benefit from a minimum of 21 credit hours that overlap between the diploma and the degree.

We have discussed with the Faculty of Human Ecology how we might run a diploma cohort at the Aboriginal Education Centre for students who see the diploma as a first step in their journey towards achieving an undergraduate degree that is culturally relevant, meets the educational needs of First Nation communities, and integrates indigenous perspectives into the courses and the full curriculum. The diploma may function well as a way to transition students into the Wellness degree. AFP has extensive experience with transition programming with Aboriginal students and understands the academic and personal supports they require. Students choosing the Wellness degree may welcome the opportunity to begin within the context of the diploma. The articulation between the diploma and the degree will make it possible for diploma graduates to experience a smooth transition into the degree with as much as 60 degree credit hours.

It is our intention to work closely with the Faculty of Human Ecology to maximize the possibilities the proposed Wellness degree creates for Aboriginal student.

Aboriginal Focus
Programs






Winnipeg, Manitoba
Canada R3T 2N2

UNIVERSITY OF MANITOBA | Faculty of Physical Education
and Recreation Studies

June 18, 2007

To: Dr. Gustaaf Sevenhuysen, Dean
Faculty of Human Ecology
208A Human Ecology Bldg.

From:  Dr. Dennis Hrycaiko, Dean
Faculty of Kinesiology and Recreation Management
104 Frank Kennedy Centre

Re: Aboriginal Wellness Program

The Faculty of Kinesiology and Recreation Management supports the proposal by the Faculty of Human Ecology to introduce an Undergraduate Program in Aboriginal Wellness. Our Faculty also believes in the unique and important contributions that the University of Manitoba can make in educating graduates to serve Aboriginal communities, and is working toward that goal. We are especially pleased to note the link with the Aboriginal Wellness Diploma (Extended Education), with whom we are partnered. The introduction of the Undergraduate Program in Aboriginal Wellness will provide many opportunities for collaboration between our Faculties as we both seek to promote health and wellness to all citizens of Manitoba and Canada.

THE UNIVERSITY OF MANITOBA
Faculty of Science
249 Machray Hall

INTER-DEPARTMENTAL CORRESPONDENCE

DATE: August 2, 2007
TO: Gustaaf Sevenhuysen, Dean, Faculty of Human Ecology
FROM: Elizabeth Worobec, Associate Dean, Faculty of Science
RE: **Aboriginal Wellness Program**

Thank you for meeting with me and providing answers to the questions and concerns raised in my June 28, 2007 memo. I am satisfied with the explanations provided and revisions you have made in the July 25, 2007 draft of this proposal.

The Aboriginal Wellness Program is well suited to fill community needs and provides students completing the Aboriginal Wellness Diploma the means of expanding their university based training.

The Faculty of Science supports your initiatives and wishes you much success in the deliverance of this program.

EW/mas



UNIVERSITY
OF MANITOBA

Department of Native Studies

204 Isbister Building
Winnipeg, Manitoba
Canada R3T 2N2
Telephone (204) 474-9266
Fax (204) 474-7657

October 24, 2005

Dr. Gustaaf Sevenhuysen
Acting Dean, Faculty of Human Ecology
409 Human Ecology Building
University of Manitoba
Winnipeg, Manitoba



Re: Interdisciplinary Health Undergraduate Curriculum

This program proposal is supported by the Department of Native Studies for a variety of reasons. It is well-thought out and forms a creative partnership within the university.

Health issues are critical for the Aboriginal population and this set of degrees offers flexibility in meeting needs more immediately with the Bachelor's degree while the opportunity for more advanced education is promoted. A number of our courses are available in the selection of courses to students in these proposed degrees.

The Native Studies contribution to the proposed curriculum is relevant, timely and important for any health sector participant in Manitoba and in many parts of Canada where often a high percentage of clientele are of Aboriginal heritage.

This proposed program sets the stage for a difference to be made in the quality of health care providers and their patients.

Respectfully,

Dr. Wanda Wuttunee



Report of the Senate Committee on Curriculum and Course Changes on a Proposal to Introduce a Bachelor of Human Ecology (Indigenous Wellness) Degree

Preamble

1. The terms of reference for the Senate Committee on Curriculum and Course Changes (SCCCC) are found on the website at:
http://www.umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/497.htm.
2. The Senate Committee on Curriculum and Course Changes considered a proposal to introduce a Bachelor of Human Ecology (Indigenous Wellness) Degree at its meeting on April 9, 2008.

Observations

1. This program has been designed in partnership with the Assembly of Manitoba Chiefs and the Faculty of Human Ecology.
2. The program is designed to overlap with the Aboriginal Wellness Diploma from the Division of Extended Education in order to facilitate the continuation of students from the diploma in to the Indigenous Wellness Degree program. At a minimum, students who have completed the diploma will be able to obtain credit for 21 credit hours. Based on electives, it is possible for a student to transfer as many as 60 credit hours from the diploma to the degree program.
3. The pedagogic principle is to create an awareness of multiple world views that explain the ideas and beliefs through which an individual interprets reality and serves as a framework for knowledge and causality that people perceive. The program is not exclusive to the indigenous peoples of Canada but is appropriate for Indigenous people from around the world.
4. The postsecondary education needs for students from Aboriginal communities are urgent and extensive. Providing opportunities to build careers at the University level, that are culturally relevant, will increase the success of other initiatives in the school system. This education is expected to enhance human resource capacity of Aboriginal communities.
5. Graduates can be employed in a wide variety of Aboriginal community programs. The leadership of aboriginal communities promotes these programs and many are related to health and include: environmental health, health education, addiction and substance abuse prevention programs, Brighter Futures, nutrition services, community health services, diagnostic and treatment services and other wellness related programs. Students will be able to make academic choices which will allow them to apply for the After-Degree Bachelor of Education program. Graduate school would also be an option.

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

6. Letters of support have been received from the Assembly of Manitoba Chiefs Secretariat, First Nations and Inuit Health Program, Faculties of Social Work, Nursing, Science, and Kinesiology and Recreation Studies, the Native Studies program, the Department of Economics, the Aboriginal Student Centre, and Extended Education.
7. The Faculty is proposing the introduction of four new courses: **WELL 3XXX Worldview: Natural Sciences & Research (3)**, **WELL 3XXY Wordview: Economics & Business (3)**, **WELL 3XXZ Worldview: Family & Community (3)**, and **WELL 3XYZ Worldview: Political Economy (3)**.

Recommendation

The Senate Committee on Curriculum and Course Changes recommends THAT:

Senate approve and recommend to the Board of Governors, the proposal to introduce a Bachelor of Human Ecology (Indigenous Wellness) Degree.

Respectfully submitted,

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

Faculty of Human Ecology

Course introductions:

WELL 3XXX Worldview: Natural Sciences & Research Cr.Hrs. 3 +3
Students study the process of understanding the world from more than one world view. Each learning experience about research methods will integrate Indigenous and Western ways of knowing in a series of selected case-studies or learning scenarios. The case-studies and scenarios deal with research that can benefit individual and community health and quality of life. Priority registration given to students in the Indigenous Wellness degree. Prerequisites: [BIOL 1030 or BIOL 1340] and [PSYC 1200 or SOC 1200], NATV 1240, HMEC 2050, and STAT 1000 or consent of instructor.

WELL 3XXY Worldview: Economics & Business Cr.Hrs. 3 +3
Students study the process of understanding economic systems and business from more than one world view. Each learning experience about business, resource allocations and wealth creation will integrate Indigenous and Western ways of knowing in a series of selected case-studies or learning scenarios. The case-studies and scenarios deal with issues of economic growth that can benefit individual and community health and quality of life. Priority registration given to students in the Indigenous Wellness degree. Prerequisites: [(ECON 1210 and ECON 1220) or ECON 1200] and NATV 1240 and [PSYC 1200 or SOC 1200] or consent of instructor.

WELL 3XXZ Worldview: Family & Community Cr.Hrs. 3

+3

Students study the factors that determine the functioning of families and communities from more than one world view. Each learning experience about the family will integrate Indigenous and Western ways of knowing in a series of selected case-studies or learning scenarios. The case-studies and scenarios deal with community functioning as a determinant of health and quality of life. Priority registration given to students in the Indigenous Wellness degree. Prerequisites: FMLY 1020, FMLY 1010, NATV 1240 and [PSYC 1200 or SOC 1200] or consent of instructor.

WELL 3XYZ Worldview: Political Economy Cr. Hrs. 3

+3

Students study political systems from more than one world view. Each learning experience will integrate Indigenous and Western ways of knowing in a series of selected case-studies or learning scenarios. The case-studies and scenarios deal with current political issues related to Aboriginal communities. Priority registration given to students in the Indigenous Wellness degree. Prerequisites: [(ECON 1210 and ECON 1220) or ECON 1200] and NATV 1240 and [PSYC 1200 or SOC 1200] or consent of instructor.

/mb

Report of the Senate Planning and Priorities Committee on the Proposal to Introduce a Bachelor of Human Ecology Indigenous Wellness Degree

Preamble

1. The terms of reference of the Senate Planning and Priorities Committee (SPPC) are found in the *Senate Handbook*, Section 8.32, wherein SPPC is charged with making recommendations to Senate regarding proposed academic programs.
2. The Council of the Faculty Human Ecology has approved the proposal for a Bachelor of Human Ecology Indigenous Wellness Degree and recommends that Senate approve the proposal.

Observations

1. The proposal has evolved from discussions between the Assembly of Manitoba Chiefs and the Faculty of Human Ecology about the need to address the educational gaps faced by aboriginal peoples in Manitoba relating particularly to the development of human resources in the field of First Nations Health. The Faculty is proposing a 120 credit Human Ecology degree program in Indigenous Wellness which aims "to create broad holistic understanding among people working in Aboriginal communities of the factors that affect health and Wellness".
2. The proposed program is not designed to replace professional programs but to provide a foundation for students who have an interest in health professional programs. It is designed to attract students from Manitoba, other part of Canada and internationally from indigenous communities in other countries.
3. The program is articulated with the current Aboriginal Wellness Diploma Program and would provide an additional resource option for students enrolled in this diploma program enabling them to continue their program of study in the area indigenous health and wellness.
4. The Faculty has consulted widely with several related organizations, faculties and schools in preparing their proposal and has provided letters of support from The Assembly of Manitoba Chiefs, Faculties of Science, Social Work, Kinesiology and Recreation Management, Nursing, Arts (Department of Economics), Extended Education (Aboriginal Focus Programs) and the Aboriginal Student Centre.
5. The committee noted that proposal provided documentation which indicated that the University of Manitoba Libraries has a strong collection of holdings in the area Aboriginal Health and Native Studies and that their assessment indicated that their holdings would be sufficient to support the proposed new degree program. In addition the Faculty of Human Ecology agreed to provide additional funding to international indigenous traditions holdings for the specialization.

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

6. The committee noted that new resources in the amount of \$180,000 baseline funds would be required to deliver the new degree program. This would include: 1 FTE Academic for \$60,000, 1 FTE Aboriginal Liaison/Administrative position for \$60,000, Aboriginal Tutors for additional student support for \$30,000 and Cost associated for integrating First Nations course content, field experiences, participation of Elders, guest speakers and other curriculum support for \$30,000.
7. In addition the proposal identified no new space requirements.

Recommendations

THAT Senate approve and recommend to the Board of Governors that it approve the introduction of a Bachelor of Human Ecology Indigenous Wellness Degree Program but that the Vice-President (Academic) and Provost not implement the program until satisfied that sufficient new funding is in place to fund the implementation and on-going operation of the program.

Respectfully submitted,

Norman Hunter, Chair
Senate Planning and Priorities Committee

Proposal to Reform the Undergraduate Program in Environmental Design

EXECUTIVE SUMMARY

Faculty of Architecture • University of Manitoba

Revised December 2007

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

1. Program Description

In our opinion, the future of design education is about 'the design of the world ...not the world of design'.

The Faculty of Architecture is in the process of advancing substantial program reforms to make the Environmental Design Program more vital, responsive, and flexible. The reforms include a reconfiguration of program offerings, including four courses (12 credit hours) to be delivered in the University 1 program (approved by Senate in 2006/07); introduction of an 'Interdisciplinary Design option'; and introduction of a new degree: Aboriginal Design and Planning, to be delivered within the Environmental Design Program. These reforms are intended to be phased and are described below.

The new program framework supports a four year program of studies rather than the current three years. The proposed Environmental Design Program is composed of two years of Foundation Studies and two years of Intermediate Studies leading to the Bachelor of Environmental Design Degree. Environmental Design is a pre-professional degree that permits students to move directly into professional design degrees at the University of Manitoba and around the world. It also permits students to enter the design workforce in professional offices and industry. It is projected that the Environmental Design enrollments will increase from approximately 300 to 480 students, not including student enrollment in the ED / U1 program. Subsequently, graduates may elect to pursue advanced (professional) studies in our graduate planning and design programs or elsewhere, or pursue other graduate studies in allied disciplines and professions.

FOUNDATION STUDIES

ED 1 / U1

ED 2

INTERMEDIATE STUDIES

ED 3

ED 4

ADVANCED STUDIES

Masters 1

Masters 2

The reforms include a new program of studies and the reconfiguration of three 'Core' program options: Phase 1 - Architecture, Interior Environments, Landscape + Urbanism, and two new program options, namely; Phase 2 - Interdisciplinary Design Option and; Phase 3 - Aboriginal Design + Planning Degree. These program changes will be implemented sequentially in three stages, building on the completed changes to the ED 1 / U1 program of studies described in the 2007-08 Undergraduate Calendar. * Please refer to Fig.1 Existing ED Program and Fig.2 Proposed ED Programs and to Fig.3 Implementation Concept overleaf.

2. Implementation Strategy

PHASE 1	Core Program [currently seeking approvals for 2008-09 implementation] ED 1 / University 1 [approved 2006-07] ED 2 ED 3 + 4 / Architecture ED 3 + 4 / Interior Environments ED 3 + 4 / Landscape + Urbanism
PHASE 2	ED 3 + 4 Interdisciplinary Design Option [seeking approvals tba]
PHASE 3	ED 3 + 4 Aboriginal Design + Planning Degree [seeking approvals tba]

3. Reform Rationale

The Environmental Design Reform Proposal addresses 5 KEY issues, namely:

3.1 Responding to Market Demand

- Respond to the increasing demand to provide a 4 year undergraduate design degree in order to ensure access to graduate design programs nationally and internationally.
- Address the on-going demand for entry into the ED Program. Note that there are 290-310 qualified applicants to the ED Program annually for 110 seats. Note also that 4 courses [totaling 1700 seats] were offered by the ED Program in the 2007-08 U1 Program – 1600 seats were filled.
- Address existing and projected market demand / shortfall for design graduates in local, national and global settings. Note 59% of practicing architects in Canada are over 50 years old [*UM Partners Program, 2007*].
- Build on the significant momentum created by the re-emergence of design discourse and role of design in future decision-making in industry and government [*Roger Martin, Dean, Rotman School of Management*].
- Ensure that our graduates have the skill sets needed to enter the workforce or graduate programs, globally.
- Prepare design professionals to replace the estimated 80% of the existing built environment that will have to be replaced by 2030 [*ACSA and CELA Administrators Conference 2007, Preparing for the Inconvenient Truth*].

3.2 Meeting Accreditation Requirements

- Address successive professional accreditation concerns, to provide more directed professional studies at an earlier level in a 2+2+2 study environment [particularly Architecture, Interior Design].
- Respond to changes in the workplace with renewed emphasis on technology and communication studies [Architecture, City Planning, Interior Design, Landscape Architecture].

3.3 Building Academic Integrity

- Reduce the over reliance on Sessional and part-time Instructors in the ED Program. Currently Sessional Instructors deliver 66% of the ED program while the other 34% 'part-time' instructors are composed of faculty members from the graduate programs who have primary commitments to their accredited programs [Accreditation teams have questioned the over reliance upon Sessionals].
- Recruit exceptional full-time tenure track faculty to deliver, maintain, and advance an interdisciplinary environmental design agenda through dedicated teaching, research, and community service.
- Implement a more accountable departmental governance model to advance shared interests and ambitions [currently Faculty of Architecture Council serves as the ED Program Council].

3.4 Reinventing Design Culture

- Develop a program with an emphasis on "the design of the world, not the world of design" [Bruce Mau, *Massive Change*, 2004].
- Advance 'sustainability by design' [within an inter-disciplinary academic / research framework] as a new epistemological construct in light of global issues including climate change, resource depletion, global economics, and social inequity.
- Support the formation of the USA National Academy of Environmental Design [similar in nature to the National Academies of Science or Medicine, and related initiatives in Canada [ACSA / AIA, 2007].

3.5 Enhancing U of M Programs and Reputation

- Enhance the international reputation of the Environmental Design Program by extending program offerings [graduates are sought after by other schools including UT (Canada), MIT (USA), Cambridge (England)].
- Provide access to an exceptional education by ensuring the undergraduate degree better addresses emerging environmental needs through investment in more appropriate courses and options.
- Attract and retain the best students by offering a high quality pre-professional design degree and associated new program options in Interdisciplinary Design [university-wide] and in Aboriginal Design and Planning.
- Ensure that our four professionally accredited graduate programs continue to receive exemplary accreditation reviews, by providing a more rigorous 2+2+2 studies framework.

4. Resource Requirements

In the 1990's, in response to growing financial constraints facing the University and as part of the impending retirements in the Faculty, the Environmental Design Program was re-structured from a department to a program with no dedicated faculty members. ED Program faculty were initially drawn from the graduate departments, but as these departments became more research focused, including the introduction of a PhD in Design and Planning, and more responsive to accreditation requirements [note that the Faculty of Architecture routinely undertakes accreditation reviews from four different professional bodies], fewer full-time faculty were available to teach in the ED Program. As a result, the Faculty has resorted to rely upon Sessionals for undergraduate instruction, particularly in ED1 and ED2. A review of OIA *Institutional Data, Table 12 [2007]*, indicates that the Faculty of Architecture is the most 'efficient' in total program costs per credit hour. That efficiency relates to a number of factors, including the heavy reliance on Sessional appointments. The continued reliance upon Sessionals to deliver the ED Program, over recent years, has proven to be unsustainable administratively, pedagogically, and professionally.

4.1 Staffing

Phase 1: Implement the Foundation Studies and related Core Program Options [Architecture, Interior Environments, Landscape + Urbanism].

This reform is critical to our continued accreditation in Architecture and Interior Design. Without the proposed reforms, accreditation will be challenging because the current 2+1 model is not able to address the technical/professional needs of those two disciplines. Four FTE Positions have been identified to help meet the current and, more importantly, the projected demands of the Foundation Studies in the ED Program. It is considered essential to hold at least 4 full-time positions within the proposed Foundation Studies to ensure undergraduate program integrity [Fig.3].

2008-09

- | | |
|------------|--|
| Position 1 | Teaching and research focus on Ecological Design and Biomimicry. Courses include Ecology and Design; Design Studios 1 and 2. |
| Position 2 | Teaching and research focus on Media and Communications. Courses include Visual Media 1 and 2; Design Studios 1 and 2. |

2009-10

- | | |
|------------|--|
| Position 3 | Teaching and research focus on Technology. Courses include Materials, Structures, Assemblies; Natural + Human Systems, Design Studios 1 and 2. |
| Position 4 | Teaching and research focus on History and Theory. Courses include Intro to ED; Tectonic Precedent; Design Studios 1 and 2. |

Four Tenure-track positions @ \$65,000 = \$260,000. The Faculty proposes to fund a portion of one of these positions (i.e. \$45,000) from the current monies directed to Sessionals. As a result, the Faculty will be seeking three new positions from COPSE/SIP and additional support to cover the difference between the Faculty's contribution and actual cost. Some Sessionals will continue to be used to assist, primarily in design studio.

Phases 2 and 3

The Faculty of Architecture has proposed Phase 2: Interdisciplinary Design Option and Phase 3: Aboriginal Design and Planning Degree. However, based upon recent discussions with SCCCC and SPPC, the Faculty seeks guidance on the appropriate phasing and implementation of the Interdisciplinary Design Option and the Aboriginal Design and Planning Degree.

Implement the Interdisciplinary Design Option

Currently the Faculty of Architecture is in discussions with the Faculty of Engineering and the Clayton H. Riddell Faculty of Environment, Earth, and Resources to offer a joint Interdisciplinary Design program option. The concept for the program option emphasizes 'sustainable' design' at all scales of development. Specific staffing resource requirements and placement are also under consideration.

Four FTE positions have been identified, relating to shared areas of teaching and applied research interests. Specific staffing proposals will be developed through collaborative discussions between the three Faculties.

Implement the Aboriginal Design and Planning Degree

Four FTE Positions have been identified to meet the projected demands of the two specialisation years in three and four of the Aboriginal Design and Planning Degree. It is essential to provide at least 4 full-time positions to ensure program integrity and appropriate mentoring and advising in a faculty to student ratio of 1:12, assuming that there are +20 Aboriginal students in U1/ED1 and ED2 and 30 students in the Aboriginal Design and Planning Degree. The proposed program option will be composed of University 1 (12 credits), Department of Native Studies courses (27 credits), Department of Geography course (3 credits), Environmental Design Program courses (48 credits), and 39 new credits developed for the new degree.

4.2 Space Requirements

There are no new student lecture room or studio space requirements in Phase 1 of the Environmental Design Program Reforms. Two new faculty offices are required for Phase 1.

For the increased enrollment of ED2 students from 110 to 180, larger lecture rooms will be sought on campus for related courses. Technical/projection requirements for the lecture rooms will not change. Existing studio space will be utilized more efficiently. Existing technical support infrastructure will be reviewed.

For the Interdisciplinary Design Option [90 students in ED3 and ED4], existing lecture rooms will be used. Additional studio space¹ of 3,960 sq.ft. will be required. Existing technical support infrastructure will be reviewed. Four new faculty offices will be required.

For the Aboriginal Design and Planning Degree [30 students in ED3 and ED4], existing lecture rooms will be used. Additional studio space of 1,320 sq.ft. will be required. Existing technical support infrastructure will be reviewed. Four new faculty offices will be required.

It is projected that, when the full ED Program reforms are implemented, undergraduate student numbers will rise from 300 to 480 requiring a total of 21,120 sq.ft. of studio space. The shortfall of 8,360 + sq.ft. will require a combination of more efficient use of existing studio space, noted above, and allocation of additional studio space. Specific space needs will be addressed through detailed discussions with the UM Administration.

¹ Undergraduate studio space is allocated @ 44 sq.ft. per student

Environmental Design Program Reform

CURRICULUM OUTLINE + COURSE DESCRIPTIONS

PHASE 1 [seeking Senate approval for 2008-09]

Foundation Studies

Year 1 ED1 / U1 [approved]

Year 2 ED2

Intermediate Studies

Year 3 +4 ED / Architecture Option

Year 3 +4 ED / Interior Environments Option

Year 3 +4 ED / Landscape + Urban Option

Foundation Studies

Years 1 + 2 Foundation Studies

environmental design 1/University 1

Required (Fall and/or Winter)*

EVDS 1600	[3]	Environmental Design
EVDS 1602	[3]	Visual Literacy
EVDS 1660	[3]	History of Culture, Ideas + Environment 1
EVDS 1670	[3]	History of Culture, Ideas + Environment 2

Required (Fall and/or Winter)

XXXX	[3]	Arts
XXXX	[3]	Arts
XXXX	[3]	Science
XXXX	[3]	Science
XXXX	[3]	Arts/Science/Environment
XXXX	[3]	Arts/Science/Environment

30 credit hours

*Approved 1998 and 2006

environmental design 2

Pre-Fall Term

EVDS 2400	[3]	Urban Media Lab
-----------	-----	-----------------

Fall Term

EVDS 2200	[3]	Ecology and Design
EVDS 2300	[3]	Materials, Structures + Assemblies
EVDS 2400	[3]	Visual Media 1
EVDS 2500	[6]	Design Studio 1

Winter Term

EVDS 2600	[3]	Tectonic Precedent
EVDS 2700	[3]	Natural + Human Systems
EVDS 2800	[3]	Visual Media 2
EVDS 2900	[6]	Design Studio 2

33 credit hours

Architecture Option

Years 3 + 4 Intermediate Studies

environmental design 3

Fall Term

EVAR 3XXX	[3]	Pre-Modern Arch History + Theory 1
EVAR 3XXX	[3]	Arch Technology 1
EVAR 3XXX	[9]	Arch Design Studio 1
EVAR 3XXX	[3]	Elective

Winter Term

EVAR 3XXX	[3]	Pre-Modern Arch History + Theory 2
EVAR 3XXX	[3]	Arch Technology 2
EVAR 3XXX	[9]	Arch Design Studio 2

33 credit hours

environmental design 4

Fall Term

EVAR 4XXX	[3]	Modern Arch History + Theory 1
EVAR 4XXX	[3]	Arch Technology 3
EVAR 4XXX	[9]	Arch Design Studio 3
EVAR 4XXX	[3]	Elective

Winter Term

EVAR 4XXX	[3]	Modern Arch History + Theory 2
EVAR 4XXX	[3]	Arch Technology 4
EVAR 4XXX	[9]	Arch Design Studio 4

33 credit hours

Interior Environments Option

Years 3 + 4 Intermediate Studies

environmental design 3

Pre-Fall Term

EVIE 3XXX [3] Field Studies

Fall Term

EVIE 3XXX [3] Interior design History and Theory 1
EVIE 3XXX [3] Materials, Assemblies, and Detailing
EVIE 3XXX [3] Interior Design Media
EVIE 3XXX [9] Interior Design Studio 3.1

Winter Term

EVIE 3XXX [3] Interior Light and Colour
EVIE 3XXX [3] Human Factors + Environmental Experience
EVIE 3XXX [3] Topics in Interior Design
EVIE 3XXX [6] Interior Design Studio 3.2

33 credit hours

environmental design 4

Fall Term

EVIE 4XXX [3] Interior Design History and Theory 2
EVIE 4XXX [3] Indoor Systems 1
EVIE 4XXX [3] Design Method and Processes
EVIE 4XXX [3] Digital Media
EVIE 4XXX [6] Interior Design Studio 4.1

Winter Term

EVIE 4XXX [3] Indoor systems 2
EVIE 4XXX [3] Advanced Interior Design Media
EVIE 4XXX [6] Interior Design Studio 4.2
EVIE 4XXX [3] Elective

33 credit hours

Landscape + Urbanism Option

Years 3 + 4 Intermediate Studies

environmental design 3

Fall Term

EVLU 3XXX	[3]	History of Designed Environments
EVLU 3XXX	[3]	Site Planning
EVLU 3XXX	[3]	Ecology + Design 2
EVLU 3XXX	[9]	Studio 3: Dwelling [Precinct] Everyday Life

Winter Term

EVLU 3XXX	[3]	Landscape + Urbanism Theory
EVLU 3XXX	[3]	Site Morphology + Grading OR
EVLU 3XXX	[3]	Option / Placing Fundamentals
EVLU 3XXX	[9]	Studio 4: Networks + Infrastructures

33 credit hours

environmental design 4

Fall Term

EVLU 4XXX	[3]	Philosophy, Ethics + Aesthetics
EVLU 4XXX	[3]	Construction Materials OR
EVLU 4XXX	[3]	Option / Inquiry by Design OR
EVLU 4XXX	[3]	Option / Special Topics in Community Design
EVLU 4XXX	[3]	Plants, Ecosystems + Design OR
EVLU 4XXX	[3]	Option / Community Design
EVLU 4XXX	[3]	Process + Method: Advanced
EVLU 4XXX	[9]	Studio 5: Possible Urbanisms

Winter Term

EVLU 4XXX	[3]	History of Landscape + Urbanism
EVLU 4XXX	[3]	Principles of Urban Design
EVLU 4XXX	[9]	Studio 6: Emergent Futures

33 credit hours

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: Architecture
Department: Environmental Design
Program: Restructuring of the Environmental Design Program

SUPPORT STATEMENT

PREPARED BY: Mary Lochhead (Bibliographer)

APPROVED BY: Jan Horner
Coordinator, Collections Management

Compton
Director of Libraries

DATE: 20 August 2007



UNIVERSITY
OF MANITOBA

Architecture / Fine Arts Library

Russell Building
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Winnipeg, Manitoba
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Fax (204) 474-7539

August 20, 2007

To: Professor Eduard Epp, Chair, Environmental Design, Faculty of Architecture

From: Mary Lochhead, Head, Architecture/Fine Arts and Music Libraries

Re: Restructuring of the Environmental Design Program

M. Lochhead

Thank you for providing me with the course statements of the restructured Environmental Design Program. These statements include descriptions of the proposed courses in the new Interdisciplinary Stream.

Based on the assessment described below the Libraries can support the restructured Environmental Design program and the courses outlined in the new Interdisciplinary Stream.

Assessment Methodology

The course descriptions included both required and recommended readings for most courses. Some statements, primarily studio courses, indicated that readings would be distributed at the time of the course and would depend on the selected design problem or topic.

Bibliographic checking and evaluation were undertaken using the lists of required and recommended readings and bibliographies from key texts included on the lists provided. The evaluation of the results of the checking follow the Conspectus methodology for collection assessment, developed by the Research Libraries Group in the U.S. and used to evaluate university library collections. The UML *Collection Assessment Guidelines* assign Conspectus "levels" to a library collection by measuring holdings: e.g., 3a - Basic Instructional Support (30%-49%), 3b - Intermediate Instructional Support (50%-64%), 3c - Advanced Instructional Support or Master's Level (65%-79%), 4 - Research Support or Doctoral Level (80%-94%).

The results of recently completed assessments for the proposed program in Aboriginal Design and Planning (2006) and the accreditation process for Architecture (2003), Landscape Architecture (2004), Interior Design (2005) and City Planning (2007) have also been considered in this review. See Appendix II.

Monographs

The total number of monographs in the sources checked was 983 of which 864 (88%) are held in the University of Manitoba Libraries. According to the UML *Collection Assessment Guidelines* this percentage indicates support at Level 4 or Research Level. See Appendix I for a summary of checking results.

Of the total monographs checked, 82 were from readings listed in the new courses proposed for the Interdisciplinary Stream. 77 or 94% are held by the Libraries. The bibliographies of three recommended texts for this Stream formed part of the assessment (Architecture for Humanity, Leach and Mau). The results also indicate support at the Research Level.

Journals

The lists of required and recommended readings included only nine journal titles, eight of which are held by the Libraries or 89%. Journals were also part of a bibliography from a key text (Zeisel 2006). References to 80 journal citations were checked. The Libraries hold 73 or 91%. Journal titles and references to journal articles have been checked extensively in previous assessments and the results show support at the Master's and Research levels. See Appendix II.

Sustainability is a growing theme in all design and planning journals. Some relatively new titles of specific interest to the Interdisciplinary Stream include *Dwell: at home in the modern world*, with a focus on green technology and living, and *Journal of Green Building* available in both print and electronic format. Titles such as *Environmental Design and Construction* and *Urban Forestry and Urban Greening* are available in electronic format only, the result of subscriptions to comprehensive packages with specific publishers or through consortial agreements facilitated by the Canadian Research Knowledge Network.

Access to journal literature is provided by a wide array of bibliographic and full-text databases found under "E-Library" on the Libraries' website.

Other Formats

The Architecture/Fine Arts Library acquires dvds at the request of faculty members for use in the classroom and for individual study. Two new titles of relevance to the Environmental Design program are *Design ep2: the economies of being environmentally conscious* and *The 2030 challenge: environmental design in the face of climate change*.

Slides and digital images are also provided through the Libraries. The Slide Collection contains over 122,000 35mm slides which are available to both faculty members and students. Users may request a digital scan of individual slides from the collection. This service supports research and teaching activities as defined within the Copyright Act.

The Libraries also subscribes to *ARTstor*, a digital database containing hundreds of thousands of images relevant to the study and teaching of art, architecture, design, cultural studies, the humanities, etc. *ARTstor* also provides online tools for faculty members to directly access images for lectures and study.

The Libraries provides access to some of the resources of LEED (Leadership in Energy and Environmental Design - Green Building Rating System). The *LEED Reference Package for New Construction and Major Renovations* (2003) is available online through BISON. The *LEED Canada Reference Packages for New Construction and Commercial Interiors* (2005) are currently on order.

The Libraries offers access to a broad range of geographic information systems (GIS) and remote sensing products. Further information on GIS resources at the University of Manitoba Libraries can be found at <http://www.umanitoba.ca/libraries/units/datalib/gis/gis.shtml>.

Information Literacy

Providing instruction for students to navigate the increasingly complex world of both print and electronic resources is absolutely critical. Our discussions with you and other professors related to a progressive program of information literacy sessions, to meet the evolving research needs of students throughout the 4 year program, have been very encouraging. Liv Valmestad, Reference Librarian, was successful in her application for funding to develop an virtual learning program and we hope to launch the first component in the fall of 2007. This training would be in conjunction with Liv's existing program of in-class instruction. In the past fiscal year she reached 440 Faculty of Architecture students in 6 sessions. We look forward to working with the Faculty in the further development of this initiative.

Conclusion

The Libraries' collections can support the proposed restructured Environmental Design program and the new Interdisciplinary Stream. The Libraries realize that programs of study are becoming more and more interdisciplinary and have an ongoing commitment to the development of its e-journal and e-book resources that will facilitate access from multiple locations to scholarly and scientific information. It is also my understanding that new faculty members will teach the new Interdisciplinary Stream and they will undoubtedly come with requests for new material to support their courses. We will consider these requests within the parameters of our existing acquisitions budget at that time.

cc. C. Presser, Director of Libraries
J. Horner, Coordinator, Collections Management

Appendix I

Methodology and Checking Results

The UML *Collection Assessment Guidelines* assigns Conspectus "levels" to a library collection by measuring holdings: e.g., 3a – Basic Instructional Support (30%-49%), 3b – Intermediate Instructional Support (50%-64%), 3c – Advanced Instructional Support or Master's Level (65%-79%), 4 – Research Support or Doctoral Level (80%-94%).

In checking the bibliographies from the sources tabled, the holdings of all University of Manitoba Libraries were taken into account. Earlier or later editions of the titles cited were considered held. Titles not currently held but now on order were counted as held. Excluded from the checking were some government documents, dissertations, lectures, conference reports, industry reports, company reports, incomplete citations, duplicate titles, basic reference sources (e.g., dictionaries, style guides), titles clearly out of scope, and unpublished material. References to internet sites were also not checked. Journals were checked only when forming a significant part of the bibliography (e.g. Zeisel). Journals formed a substantive part of previous assessments. See Appendix II.

Summary of Bibliographic Checking and Assessment

Source	Journals/ Monographs	Total Checked	Total Held	% Held	Level
Required and Recommended Readings	Monographs	374	361	97%	4
Course Related Monographs by*					
Architecture for Humanity	Monographs	67	47	70%	3c
Braham	Monographs	49	45	92%	4
Knowles	Monographs	97	84	87%	4
Leach	Monographs	150	128	85%	4
Mau	Monographs	31	25	81%	4
Towers	Monographs	24	15	63%	3b
Zeisel	Journals	80	73	91%	4
	Monographs	191	159	83%	4
TOTAL	Journals	80	73	91%	4
	Monographs	983	864	88%	4

continued on next page ...

* Architecture for Humanity. *Design like you give a damn*. New York: Metropolis Books, 2006.

Braham, W.W. (ed.) *Rethinking technology*. London: Routledge, 1997.

Knowles, R. *Ritual house: drawing on nature's rhythms for architecture and urban design*. Washington: Island Press, 2006.

Leach, N. (ed.) *Rethinking Architecture*. London: Phaidon, 2004.

Towers, J. *An introduction to urban housing design: at home in the city*. London: Elsevier, 2005.

Zeisel, J. *Inquiry by design*. Rev. Ed. New York: Norton, 2006.

Appendix II

Summary of Previous Bibliographic Checking and Assessment

Year	Program	Journals/ Monographs	Total Checked	Total Held	% Held	Level
2007	City Planning Accreditation	Journals	2,313	2,052	89%	4
		Monographs	3,846	3,020	79%	3c
2006	Aboriginal Design and Planning	Journals	182	155	85%	4
		Monographs	225	188	84%	4
2005	Interior Design Accreditation	Journals	1,464	1,067	73%	3c
		Monographs	2,999	2,164	72%	3c
2004	Landscape Architecture Accreditation	Journals	1,401	1,236	88%	4
		Monographs	5,205	4,338	83%	4
2003	Architecture Accreditation	Journals	1,014	793	78%	3c
		Monographs	6,007	4,525	75%	3c

Report of the Senate Committee on Curriculum and Course Changes RE: the Proposal to Reform the Undergraduate Program in Environmental Design, Faculty of Architecture

Preamble

1. The terms of reference for the Senate Committee on Curriculum and Course Changes (SCCCC) are found on the website at:
http://www.umanitoba.ca/admin/governance/governing_documents/governance/sen_committees/497.htm.
2. The Senate Committee on Curriculum and Course Changes considered the proposal to reform the Undergraduate Program in Environmental Design, Faculty of Architecture, at its meeting on April 9, 2008.

Observations

1. This proposal as submitted is composed of three phases: phase 1 is reform of the existing program, phase 2 is introduction of an interdisciplinary stream, and phase 3 is the introduction of a new degree: Aboriginal Design and Planning. This report deals only with phase 1.
2. Phase 1 of the proposed reform would involve the reconfiguration of content for the current student body. Students currently in their second year of study will be transitioned into the new program while those students entering their final year in September 2008 will continue in the existing program.
3. The proposed reform would provide more directed professional studies at an earlier level in the program. This would respond to the increasing demand to provide a four year undergraduate design degree and ensure access to graduate design programs nationally and internationally.
4. The current program is heavily dependent on sessional instructors with 66% of courses offered this way. The addition of full time tenure track instructors would allow for improved governance of the program (currently Faculty of Architecture Council serves as the ED Program Council) and the advancement of an interdisciplinary environmental agenda through dedicated teaching, research, and community service. The continuity provided by full time faculty would be beneficial in long term planning and administration of the undergraduate program.
5. All of the proposed changes are resource dependent.
6. The Faculty is proposing the deletion of the following courses: *Effective 2008/2009:* EVDS 1610 Theory of Design 1 (3), EVDS 1620 Theory of Design 2 (3), EVDS 1630 Design Studio 1 (5), EVDS 1640 Design Studio 2 (5), EVDS 1650 Communication and Information Technology 1 (3), EVDS 1680 Environmental Technology (3), EVDS 1690 Construction Materials and Assemblies 1 (3), EVDS 1700 Construction Materials and Assemblies 2 (3), EVDS 2610 Theory of Design 3 (3), EVDS 2620 Theory of Design 4 (3), EVDS 2630 Design Studio 3 (3), EVDS 2640 Design Studio 4

Comments of the Senate Executive Committee:

The Senate Executive Committee endorses the report to Senate.

(5), EVDS 2650 Communications and Information Technology 2 (3), EVDS 2670 Environmental Controls (3), EVDS 2690 Design Since 1800 (3), EVDS 2700 Construction Materials and Assemblies (3), *Effective 2009/2010*: EVAR3330 Canadian Architecture (3), EVAR 3470 Process, Method and Theory 1 (3), EVAR 3480 Process, Method and Theory 2 (3), EVAR 3560 Technology 4 (3), EVAR 3570 Technology 5 (3), EVAR 3680 Design Studio 5 (6), EVAR 3690 Design Studio 6 (6), EVLA 3210 Process and Landscape Form (3), EVLA 3220 Site Grading Technology (3), EVLA 3240 Plants, Landscape and Design (3), EVLA 3680 Design Studio 5 (6), EVLA 3690 Design Studio 6 (6), EVLA 3720 Introduction to Landscape Arch Theory (3), EVLA 3730 Introduction to Ecology in Landscape Arch (3), EVLA 3750 History of Landscape Architecture before 1900 (3), EVDS 3250 Advanced Computing in Environmental Design (3), EVDS 3740 Introduction to Autocad in Design (3), EVIE 3610 Sensory Technology 1 (3), EVIE 3620 Sensory Technology 2 (3), EVIE 3630 Sensory Technology 3 (3), EVIE 3640 Design Inquiry (3), EVIE 3650 The Interior Dimension 1 (3), EVIE 3660 The Interior Dimension 2 (3), EVIE 3670 Digital Design Media (3), EVIE 3680 Design Studio 5 (6), EVIE 3690 Design Studio 6 (6).

7. The Faculty is proposing the introduction of the following courses: *Effective 2008/2009*: EVDS 2100 Media Studies (3), EVDS 2200 Ecology + Design (3), EVDS 2300 Materials, Structures + Assemblies (3), EVDS 2400 Visual Media 1 (3), EVDS 2500 Design Studio 1 (6), EVDS 2600 Tectonic Precedent (3), EVDS 2700 Natural + Human Systems (3), EVDS 2800 Visual Media 2 (3), EVDS 2900 Design Studio 2 (6), EVAR 3XXX Pre-Modern Architectural History and Theory 1 (3), EVAR 3XXX Architectural Technology 1 – Structural and Sustainable Use of Materials (3), EVAR 3XXX Architecture Design Studio 1 (9), EVAR 3XXX Pre-Modern Architectural History and Theory II (3), EVAR 3XXX Architectural Technology 2– Building Construction, Structures & Envelopes (3), EVAR 3XXX Architecture Design Studio 2 (9), EVIE 3XXX Field Studies (3), EVIE 3XXX Interior Design History and Theory 1 (3), EVIE 3XXX Materials, Assemblies and Detailing (3), EVIE 3XXX Interior Design Media (3), EVIE 3XXX Interior Design Studio 3.1 (6), EVIE 3XXX Interior Light and Colour (3), EVIE 3XXX Human Factors and Environmental Experience (3), EVIE 3XXX Interior Design Studio 3.2 (6), EVIE 3XXX Topics in Interior Design (3), EVLU 3XXX History of Designed Environments (3), EVLU 3XXX Site Planning (3), EVLU 3XXX Ecology + Design 2 (3), EVLU 3XXX Studio 3: Dwelling | Precinct | Everyday Life (9), EVLU 3XXX Landscape + Urbanism Theory (3), EVLU 3XXX Site Morphology + Grading (3), EVLU 3XXX Placemaking Fundamentals (3), EVLU 3XXX Studio 4: Networks and Infrastructure (9), *Effective 2009/2010*: EVAR 4XXX Modern Architectural History and Theory I (3), EVAR 4XXX Architectural Technology 3 – Building Systems (3), EVAR 4XXX Architecture Design Studio 3 (9), EVAR 4XXX Modern Architectural History and Theory II (3), EVAR 4XXX Arch Tech 4: Comprehensive Design Technology Report (3), EVAR 4XXX Architecture Design Studio 4 (9), EVAR 3XXX Architecture Technology Preparation: Structural Concepts (3), EVAR 3XXX Drawing: Freehand/Digital (3), EVIE 4XXX Interior Design History and Theory 2 (3), EVIE 4XXX Indoor Systems 1 (3), EVIE 4XXX Design Methods and Processes (3), EVIE 4XXX Interior Design Studio 4.1 (6), EVIE 4XXX Indoor Systems 2 (3), EVIE 4XXX Advanced Interior Design Media (3), EVIE 4XXX Interior Design Studio 4.2 (6), EVIE 4XXX Digital Media (AutoCAD) (3), EVLU 4XXX Philosophy, Ethics + Aesthetics (3), EVLU 4XXX Construction Materials (3), EVLU 4XXX Inquiry by Environmental Design: Researching Space-Place Transformation (3), EVLU 4XXX Special Topics in Community Design (3), EVLU 4XXX Plants, Ecosystems + Design (3), EVLU 4XXX

Community Design Process and Method: Advanced Placemaking (3), EVLU 4XXX Studio 5: Possible Urbanism[s] (9), EVLU 4XXX History of Landscape + Urbanism (3), EVLU 4XXX Principles of Urban Design (3), EVLU 4XXX Design Studio 6: Emergent Futures (9).

Recommendation

The Senate Committee on Curriculum and Course Changes recommends THAT:

Senate approve the curriculum and course changes from the Faculty of Architecture contained in the proposal to reform the undergraduate program in Environmental Design (Phase 1).

Respectfully submitted,

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

/mb

Faculty of Architecture

Course deletions:

EVDS 1610 Theory of Design 1 Cr.Hrs. 3	-3
EVDS 1620 Theory of Design 2 Cr.Hrs. 3	-3
EVDS 1630 Design Studio 1 Cr.Hrs. 5	-5
EVDS 1640 Design Studio 2 Cr.Hrs. 5	-5
EVDS 1650 Communication and Information Technology 1 Cr.Hrs. 3	-3
EVDS 1680 Environmental Technology Cr.Hrs. 3	-3
EVDS 1690 Construction Materials and Assemblies 1 Cr.Hrs. 3	-3
EVDS 1700 Construction Materials and Assemblies 2 Cr.Hrs. 3	-3
EVDS 2610 Theory of Design 3 Cr.Hrs. 3	-3
EVDS 2620 Theory of Design 4 Cr.Hrs. 3	-3
EVDS 2630 Design Studio 3 Cr.Hrs. 5	-5
EVDS 2640 Design Studio 4 Cr.Hrs. 5	-5
EVDS 2650 Communications and Information Technology 2 Cr.Hrs. 3	-3
EVDS 2670 Environmental Controls Cr.Hrs. 3	-3
EVDS 2690 Design Since 1800 Cr.Hrs. 3	-3
EVDS 2700 Construction Materials and Assemblies Cr.Hrs. 3	-3
EVAR3330 Canadian Architecture Cr.Hrs. 3	-3
EVAR 3470 Process, Method and Theory 1 Cr.Hrs. 3	-3
EVAR 3480 Process, Method and Theory 2 Cr.Hrs. 3	-3
EVAR 3560 Technology 4 Cr.Hrs.3	-3
EVAR 3570 Technology 5 Cr.Hrs. 3	-3

EVAR 3680 Design Studio 5 Cr.Hrs. 6	-6
EVAR 3690 Design Studio 6 Cr.Hrs. 6	-6
EVLA 3210 Process and Landscape Form Cr.Hrs. 3	-3
EVLA 3220 Site Grading Technology Cr.Hrs. 3	-3
EVLA 3240 Plants, Landscape and Design Cr.Hrs. 3	-3
EVLA 3680 Design Studio 5 Cr.Hrs. 6	-6
EVLA 3690 Design Studio 6 Cr.Hrs. 6	-6
EVLA 3720 Introduction to Landscape Arch Theory Cr.Hrs. 3	-3
EVLA 3730 Introduction to Ecology in Landscape Arch Cr.Hrs. 3	-3
EVLA 3750 History of Landscape Architecture before 1900 Cr.Hrs. 3	-3
EVDS 3250 Advanced Computing in Environmental Design Cr.Hrs. 3	-3
EVDS 3740 Introduction to Autocad in Design Cr.Hrs. 3	-3
EVIE 3610 Sensory Technology 1 Cr.Hrs. 3	-3
EVIE 3620 Sensory Technology 2 Cr.Hrs. 3	-3
EVIE 3630 Sensory Technology 3 Cr.Hrs. 3	-3
EVIE 3640 Design Inquiry Cr.Hrs. 3	-3
EVIE 3650 The Interior Dimension 1 Cr.Hrs. 3	-3
EVIE 3660 The Interior Dimension 2 Cr.Hrs. 3	-3
EVIE 3670 Digital Design Media Cr.Hrs. 3	-3
EVIE 3680 Design Studio 5 Cr.Hrs. 6	-6
EVIE 3690 Design Studio 6 Cr.Hrs. 6	-6

Course introductions:

EVDS 2100 Media Studies Cr.Hrs. 3	+3
An introduction to visual methods of representation and related media including drawing, photography and video. The intention is to critically engage the urban and suburban contexts as a laboratory for investigating cultural values, aesthetic issues, design principles, and representational techniques, 'prerequisite' to undertaking design studio work.	
EVDS 2200 Ecology + Design Cr.Hrs. 3	+3
An examination of principles of Ecology and Design works in which these tenets are considered, engaged, and/or demonstrated. Topics fundamental to the science of Ecology will theoretically structure the course content. Emphasis will be placed on understanding the forces and systems working within and between natural, social and human environments.	
EVDS 2300 Materials, Structures + Assemblies Cr.Hrs. 3	+3
This course provides an introduction to applied statics, construction materials and construction system assemblies for landscape, building, and interior constructions. Construction material properties and applications, including impacts on resource depletion and on sustainable building practices will be introduced along with basic strategies and methods to analyze and calculate forces in simple structures.	
EVDS 2400 Visual Media 1 Cr.Hrs. 3	+3
An introduction to technical and free-hand drawing processes and techniques, and in various media – to develop, to express, and to communicate design intentions. The focus will be directed to abstract and concrete methods of representation. Emphasis will be placed on the integral relationship between thinking, drawing, and making in relation to critically observing the world at large, and in relation to design studio work.	

- EVDS 2500 Design Studio 1 Cr.Hrs. 6 +6
An introduction to the elements and principles of visual and spatial design, design process and techniques, requisite methods of representation and communication, and design intentions. Studio work will explore different ways of space and form-making, beginning at the site of the body, in both abstract and environmental contexts.
- EVDS 2600 Tectonic Precedent Cr.Hrs. 3 +3
An examination of seminal built works of environmental design, at a range of scales, from the 19th and 20th centuries, with an emphasis on examples that are representative of diverse positions on key issues in contemporary design practice. Methodologically, this course endeavours to critically evaluate the relationships between perception, intention, and making, through the exploration of the material and tectonic nature of the work[s].
- EVDS 2700 Natural + Human Systems Cr.Hrs. 3 +3
An application of the scientific principles embodied in the natural laws which govern environmental design. Aspects of bio-physical factors, energy, human physiology and perception, comfort, and resource management are reviewed in the context of sustainable planning and design practices.
- EVDS 2800 Visual Media 2 Cr.Hrs. 3 +3
This course bridges technical and freehand drawing introduced in Visual Media 1, with computer/digital media. This course advances contemporary digital media in relation to emerging modes of 2, 3, and 4 dimensional modes of representation, in the context of design studio work, and in relation to graphic standards associated with professional design practice.
- EVDS 2900 Design Studio 2 Cr.Hrs. 6 +6
An exploration of the fundamental relationships between space, form and order in the context of the built environment. Studio work will examine design issues at various scales in the built environment, from body to place. Pedagogical emphasis will be directed towards design process, cultural intentions, and environmental accountability. Prerequisite: EVDS 2500.
- EVAR 3XXX Pre-Modern Architectural History and Theory 1 Cr.Hrs. 3 +3
Provides a historical and theoretical understanding of early Greek, Roman, Gothic, and non-western architectural topics and their influence. Content is explored using primary texts where possible, and through critical analysis of selected topics. May not be held for credit with EVDS 2690, EVDS 2610, ARCH 6320, ARCH 6420.
- EVAR 3XXX Architectural Technology 1 – Structural and Sustainable Use of Materials +3
Construction materials and structural theory in the analysis of design of simple wood-frame, masonry and light steel construction; including fundamental passive energy systems and design strategies for material and energy reduction. May not be held for credit with EVDS 1690, EVDS 1700 or ARCH 6480
- EVAR 3XXX Architecture Design Studio 1 Cr.Hrs. 9 +9
An architectural study of the human condition in relation to the natural and built environment through design oriented research, exploration, analysis, evaluation and interpretation of a selected subject of inquiry. Various ways of seeing and making are applied as tools for critical thinking to align content with modes of representation. May not be held for credit with EVDS 2630 or ARCH 6380.

- EVAR 3XXX Pre-Modern Architectural History and Theory II Cr.Hrs. 3 +3
Provides a historical and theoretical understanding of Gothic and Renaissance architectural topics and their influence, up to the work of Claude Perrault. Content is explored using primary texts where possible, and through critical analysis of selected topics. May not be held for credit with EVDS 2620 or ARCH 6430.
- EVAR 3XXX Architectural Technology 2–Building Construction, Structures & Envelopes +3
Architectural, environmental and technical aspects of construction focusing on low-rise and medium sized wood, steel and masonry construction including issues of: material production/manufacturing, soils, foundations, envelope systems, basic mechanical systems and their integration and acoustic concerns. May not be held for credit with EVDS 2670, EVDS 2700, ARCH 6520 or ARCH 6530.
- EVAR 3XXX Architecture Design Studio 2 Cr.Hrs. 9 +9
Building upon first term explorations, architectural propositions are developed that seek to clarify relations between human inhabitation and the physical environment in a regional context. Design principles influenced by programmatic, theoretical, historical, technological, material and environmental criteria are examined. May not be held for credit with EVDS 2640 or ARCH 6390.
- EVAR 4XXX Modern Architectural History and Theory I Cr.Hrs. 3 +3
Provides a historical and theoretical understanding of the origins of modernity in architecture. Content is explored using primary texts where possible, and through critical analysis of selected topics. May not be held for credit with EVAR 3700, EVAR 3470, ARCH 6460 or ARCH 6450.
- EVAR 4XXX Architectural Technology 3 – Building Systems Cr.Hrs. 3 +3
Integrated building systems focusing on multi-story steel and concrete construction including: passive and active heating, cooling, and ventilation systems, strategies and designs; electrical, water, communication, security, fire protection, and vertical transportation systems; and building code constraints. May not be held for credit with EVAR 3560, EVAR 3570, ARCH 6500, ARCH 6510.
- EVAR 4XXX Architecture Design Studio 3 Cr.Hrs. 9 +9
This studio focuses on the broader cultural implications of social interaction and the collective inhabitation of the built and natural environments. Architectural design explorations are influenced by a thorough examination of programmatic, theoretical, historical, technological, material and environmental criteria. May not be held for credit with EVAR 3680 or ARCH 6400.
- EVAR 4XXX Modern Architectural History and Theory II Cr.Hrs. 3 +3
Provides an historical and theoretical understanding of 20th century topics in architecture (western and non-western). Content is explored using primary texts where possible, and through critical analysis of selected topics. May not be held with EVAR 3330, EVAR 3480, ARCH 6440 or ARCH 6470.
- EVAR 4XXX Arch Tech 4: Comprehensive Design Technology Report Cr.Hrs. 3 +3
A technical knowledge project-based course integrating with Arch Studio 4. Comprehensive technology issues include: site; material; energy; structures; construction; sustainability; environmental factors; building code; life safety. Student's work will include analysis, technical drawings and calculations. Co-requisite: EVAR 4XXX Arch Studio 4.

- EVAR 4XXX Architecture Design Studio 4 Cr.Hrs. 9 +9
The previous term's investigations are further developed and synthesized into a comprehensively designed environment. Architectural propositions seek to clarify specific relations between details and the overall design, through the integration of complex social, cultural, programmatic, theoretical, historical, technological, material and environmental principles, systems and criteria. May not be held for credit with EVAR 3690 or ARCH 6410.
- EVAR 3XXX Architecture Technology Preparation: Structural Concepts Cr.Hrs. 3 +3
A preparatory block course introducing the fundamentals of structural concepts in architecture that prepares students for the foundation technology courses in architecture. May not be held for credit with EVDS 2300, EVDS 1690, EVDS 1700 or ARCH 6480.
- EVAR 3XXX Drawing: Freehand/Digital Cr.Hrs. 3 +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 EVDS 3XXX Advanced Media Studies, ARCH 6532 or ARCH 6370.
- EVIE 3XXX Field Studies Cr.Hrs. 3 +3
This course introduces students to the field of Interior Design through firsthand experience and study of innovative and significant examples of historic and contemporary work from interior design and related fields, in a major design centre. The course consists of lectures and a field trip. Locations may vary from year to year.
- EVIE 3XXX Interior Design History and Theory 1 Cr.Hrs. 3 +3
Examination of concepts, theories and writings related to the development of Interior Design as a discipline, to Modernism. May not be held with EVIE 3650 (or the former 079.365).
- EVIE 3XXX Materials, Assemblies and Detailing Cr.Hrs. 3 +3
Workshop and lecture course on materials, joinery and invention. Review of the principles of framing, bracing, and tension applied to casegoods and furniture; exploration of a variety of soft and hard materials and constructions with an emphasis on sustainability. May not be held with EVIE 3630 (or the former 079.363).
- EVIE 3XXX Interior Design Media Cr.Hrs. 3 +3
This course develops a student's ability to use drawing as a reflective, problem-solving, designing and visual communication tool; interfaces with digital photography; figure drawing, techniques for representing volume, depth and scale, and interfaces with digital photography and media are the focus.
- EVIE 3XXX Interior Design Studio 3.1 Cr.Hrs. 6 +6
Interior Design studio exploring the body as the primary reference in design, and the semantic and cultural meanings of objects and architectural elements as mediators of space. Integration of drawing, design and making through projects.
- EVIE 3XXX Interior Light and Colour Cr.Hrs. 3 +3
This course examines interior lighting and colour theories and concepts emphasizing human and ecological issues; exploration of spatial design strategies and practices. May not be held with EVIE 3610 (or the former 079.361).

- EVIE 3XXX Human Factors and Environmental Experience Cr.Hrs. 3 +3
Theoretical and practical issues related to human characteristics, needs, behaviours, and interactions with and within the built interior environment.
- EVIE 3XXX Interior Design Studio 3.2 Cr.Hrs. 6 +6
An in-depth investigation, by design, of the nature of interior including the physical and perceptual, spatial elements and order, human involvement and experience. Exploration and development of spatial solutions using a variety of visual media. May not be held with EVIE 3680 (or the former 079.368).
- EVIE 3XXX Topics in Interior Design Cr.Hrs. 3 +3
This course will explore topics at the cutting edge of interior design, examining political, economic, sociological and technological influences on current and future directions in interior design; examination of current research, writing, projects and works from related and diverse fields.
- EVIE 4XXX Interior Design History and Theory 2 Cr.Hrs. 3 +3
Examination of concepts, theories and writings related to the development of Interior Design as a discipline and profession, from Modernism to the present day. May not be held with EVIE 3660 (or the former 079.366). Prerequisite: EVIE 3XXX Interior Design History and Theory 1.
- EVIE 4XXX Indoor Systems 1 Cr.Hrs. 3 +3
In-depth, whole building examination of various integrated active and passive environmental controls systems. Focus on working with existing commercial building construction and environmental systems when integrating new interior design and ecological concepts and strategies. Introduction to building performance assessment, construction drawings and schedules. May not be held with EVIE 3620 (or the former 079.362). Prerequisite: EVIE 3XXX Materials, Assemblies and Detailing and EVIE 3XXX Interior Light and Colour, Co-requisite: EVIE 4XXX Interior Design Studio 4.1.
- EVIE 4XXX Design Methods and Processes Cr.Hrs. 3 +3
Development of knowledge and abilities to collect, analyze, synthesize, interpret, and apply information for the purpose of identifying and solving interior design problems. May not be held for credit with EVIE 3640 (or the former 079.364).
- EVIE 4XXX Interior Design Studio 4.1 Cr.Hrs. 6 +6
Projects that explore the interaction between urban context, programmatic requirements and design concept; integration of building technology and three-dimensional spatial development; development of communication skills and methods. May not be held for credit with EVIE 3690 (or the former 079.369). Prerequisite: EVIE 3XXX Interior Design Studio 3.2. Co-requisite: EVIE 4XXX Indoor Systems 1.
- EVIE 4XXX Indoor Systems 2 Cr.Hrs. 3 +3
Broad exploration of a variety of contemporary and innovative building technologies and their integration with interior design. Focus on ecological, new building construction concepts and measures, delivered in the context of integrated design team processes and building systems innovation. Integration and coordination of interior architectural elements with active and passive building systems. Prerequisite: EVIE 4XXX Indoor Systems 1.

- EVIE 4XXX Advanced Interior Design Media Cr.Hrs. 3 +3
Advanced visual communications media for interior designers, focusing on 3D computer-aided design and presentation. Development in the use of a selected range of drawing and rendering software applications. Further development in integrating hand and digital methods.
Prerequisite: EVIE 4XXX Digital Media, or consent of instructor.
- EVIE 4XXX Interior Design Studio 4.2 Cr.Hrs. 6 +6
Design studio with the potential for collaboration, exploring regional and global influences, communication technology, history and temporality in the design of interior environments.
- EVIE 4XXX Digital Media (AutoCAD) Cr.Hrs. 3 +3
Drafting and designing for Interior Design students with AutoCAD. The course will focus on using AutoCAD Release 200X, with exposure to Autodesk's Architectural Desktop and Revit Version X. The course is set up to take students from the basics of using the program to being able to produce a conventionally correct working drawing and a rendered 3D representation. May not be held for credit with EVIE 3670 (or the former 079.367).
- EVLU 3XXX History of Designed Environments Cr.Hrs. 3 +3
A critical examination and appraisal of design for dwelling in the context of settlement with emphasis on representation of diverse positions on key issues in design practice. Studies will include consideration of cross cultural precedents and lessons from around the world.
- EVLU 3XXX Site Planning Cr.Hrs. 3 +3
An investigation of the relationship between natural and cultural processes in the formation of the built environment, including a review of the methods and strategies employed for site programming, inventory, analysis, and development at different scales of intervention.
- EVLU 3XXX Ecology + Design 2 Cr.Hrs. 3 +3
This course will focus on an examination of ecological and technological perspectives on the planning, design and making of the physical environment. This will include a meshing of predication and advocacy concerning new models of sustainable urbanization, focusing on green technology and infrastructure. Key theories and their application to landscapes at varied scales will be considered along with salient literature, current issues, design precedents and potentials for creative expression and interpretation. Prerequisite: EVDS 2200.
- EVLU 3XXX Studio 3: Dwelling | Precinct | Everyday Life Cr.Hrs. 9 +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. Prerequisite: EVDS 2640.
- EVLU 3XXX Landscape + Urbanism Theory Cr.Hrs. 3 +3
An examination through lectures, readings, seminars and essay assignments, of twentieth and twenty first century philosophical thinking, which has been influential in the theory and practice of landscape architecture, planning and urbanism. Emphasis is on ideas, paradigms, and manifestos. This will include a study of the social, political, religious, cultural, technological, and aesthetic forces behind landscape and urbanism, and the forms that these forces have generated.

- EVLU 3XXX Site Morphology + Grading Cr.Hrs. 3 +3
An examination of the means and methods used to create landscapes that are shaped by earthwork grading. This will include the study of the forces, principles, and techniques in the modeling and manipulation of the ground plane and the resolution of cultural, ecological, and hydrological design considerations implicit in landform design.
- EVLU 3XXX Placemaking Fundamentals Cr.Hrs. 3 +3
An introduction to placemaking as an integrated community-based application of landscape and urbanism concepts, based on topical themes, such as The Great Neighbourhood or Edens Lost and Found.
- EVLU 3XXX Studio 4: Networks and Infrastructure Cr.Hrs. 9 +9
A critical exploration of analytical, conceptual, and developmental aspects of design of the public realm in an experimental studio setting. Social, political, economic, communication, and ecological networks will be studied at the scale of neighbourhood and community in the urban realm.
- EDLU 4XXX Philosophy, Ethics + Aesthetics Cr.Hrs. 3 +3
An examination of philosophical issues and debates regarding ethics and aesthetics, and their influence and potential upon urban design and urban form in the past and present, and to speculate upon the future. Prerequisite: EDLU 3XXX Landscape + Urbanism Theory.
- EVLU 4XXX Construction Materials Cr.Hrs. 3 +3
A comprehensive introduction to construction materials, methods and processes. Examination of regulatory issues of human safety and techniques for communicating construction proposals with application to how this information is incorporated into contracts. Field trips to nurseries, quarries, lumber yards, and urban sites where students can observe materials transformed to comply with the requirements of designers. Prerequisite: EDLU 3XXX Site Morphology + Grading.
- EVLU 4XXX Inquiry by Environmental Design: Researching Space-Place Transformation +3
An exploration of the design/research relationship, from a critical and creative thinking perspective will be the core of this course, viewing design and research as linked forms of inquiry into space-place transformation. A focus will be on the design/research methods and approaches appropriate to informing and investigating designed environments and community design contexts.
- EVLU 4XXX Special Topics in Community Design Cr.Hrs. 3 +3
This course will involve a critical examination of specific topics such as: health and community design; inner city environments; and Canadian community planning and design, and its contexts.
- EVLU 4XXX Plants, Ecosystems + Design Cr.Hrs. 3 +3
The examination of cultural and technical aspects of designing with plants will be explored in an urban context through field investigations, lectures, seminars and assignments. Issues of plant identification, planting design types, their application to contemporary landscape architecture, technical requirements, planting details and ecological integration in the urban environment will be included.

EVLU 4XXX Community Design Process and Method: Advanced Placemaking Cr.Hrs. 3 +3
An introduction to the integration of perception, intention and placemaking associated with manifestations of community, especially communities of interest, and systems of 'communities of communities'. A consideration of the relationship of space-place transformation and placemaking, via participatory design processes will be examined as part of a critical design and planning process.

EVLU 4XXX Studio 5: Possible Urbanism[s] Cr.Hrs. 9 +9
A radical exploration of analytical, conceptual, and socio-political aspects of urban public place in an experimental studio setting. An emphasis will be placed on design as mediation between competing demands. The studio incorporates the theory and application of three dimensional simulation technology in design.

EVLU 4XXX History of Landscape + Urbanism Cr.Hrs. 3 +3
An historical survey of human made landscapes and urban settlement form, patterns, and types, including major themes and movements. Prerequisite: EVLU 3XXX History of Designed Environments.

EVLU 4XXX Principles of Urban Design Cr.Hrs. 3 +3
This course will examine urban design principles, practices, and applications including political and social systems, and their impacts on the contemporary urban condition.

EVLU 4XXX Design Studio 6: Emergent Futures Cr.Hrs. 9 +9
This studio integrates planning and design from the scale of urban infrastructure through to design detail in the context of landscape and urbanism. An emphasis is placed on the challenges of relevant equitable environmental and social design in the post-industrial world. The studio incorporates the theory and application of CAD and GIS technology in design.

Report of the Senate Planning and Priorities Committee on the Proposal to Reform the Undergraduate Program in Environmental Design: Faculty of Architecture

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 Faculty Council of Architecture has approved the Proposal to Reform the Undergraduate Program in Environmental Design
3. The Faculty Council of Architecture recommends that Senate approve the Proposal to Reform the Undergraduate Program in Environmental Design

Observations

1. This proposed program reform is part of a larger plan developed by the Faculty of Architecture which is aimed at updating, and revitalizing the environmental design program to ensure it is responsive to changing needs of the profession and the community. The proposed reform will assist the Department to better prepare the growing numbers of students to enter the environmental design workforce.
2. The committee noted that the Faculty has only requested approval for the first phase of a three phased process of program reform. The first phase is aimed at reforming the core program options to provide a more appropriate base of foundational studies for the current undergraduate program. When phase 2 and phase 3 of program reform are forwarded to SPPC for review they will be considered on their own merit and without prejudice.
3. The committee noted that the first phase of the proposed program reform will require a significant amount of additional resources primarily the addition of four new tenure track positions. The Faculty is committed to funding one of these positions but will need additional baseline funds in the amount of \$210,000 to implement the reforms that they are proposing in phase 1 of this three phase process.
4. The committee noted that the proposal provided documentation which indicated that the University of Manitoba Libraries staff have reviewed the library resource needs for the proposed restructured Environmental Design program and have indicated that the libraries current collections can support the proposed program changes.
5. The committee observed that the proposed program restructuring required no new student lecture or studio space in the first phase. However the changes would require two new faculty offices which would be provided from the Faculty's current office space resources.

Comments of the Senate Executive Committee:

The Senate Executive Committee endorses
the report to Senate.

Recommendations:

The SPPC recommends that:

Senate approve the First Phase of the Proposal to Reform the Undergraduate Program in Environmental Design: Faculty of Architecture. The Senate Committee on Planning and Priorities recommends that the Vice-President (Academic) and Provost not implement the first phase of program reform until he is satisfied that there would be sufficient new funding to support the ongoing operation of the program.

Respectfully submitted,

Norman Hunter, Chair
Senate Planning and Priorities Committee

Report of the Senate Committee on Admissions concerning a proposal from the School of Dental Hygiene to add English as an admission requirement, to raise minimum AGPA thresholds, and to reduce the proportion of seats reserved for applicants in the special consideration category (2008.02.14)

Preamble

The School of Dental Hygiene's admission selection committee met on June 8, 2007, and reviewed its admissions processes. Four changes were proposed; two of these were designed to improve the ability of qualified applicants to communicate both orally and in writing, one would increase the GPA threshold required for admission, and another would slightly reduce the proportion of seats reserved for applicants in the special consideration category. These motions were passed by Dental Faculty Council on November 19, 2007, with the hope that the changes could be effective for the admission cycle for students entering the program in September 2009.

The Senate Committee on Admissions reviewed the proposal with Professor Salme Lavigne, Director of the School of Dental Hygiene, on February 14, 2008. After some discussion it was agreed to remove one of the four recommendations, specifically the one requiring all applicants to have their writing skills assessed at a mandatory orientation session; nevertheless, this left recommendations in each of the three areas outlined above.

Observations

1. Based on observations over the past several years by the dental hygiene faculty, students struggle in their written communication with spelling and grammatical issues. This appears to be interfering with their ability to develop care plans, document findings, and write letters of referral and other correspondence to other health care providers. Since one of the dental hygiene program end competencies required for graduation is the ability to communicate effectively in both the oral and written form, this poses a problem. In most dental hygiene programs across North America, an English writing course is required as either a prerequisite for entry into the program or then included within the program. Although the dental hygiene program includes a communications course within its curriculum, its focus is not on grammar. It is believed that asking students to take an introductory English course as an eligibility requirement for admission will help those who are admitted to meet their communication requirements while in school as well as their competency requirements for graduation from the program.

2. It has been observed for the past five years that, although the published entrance AGPA requirement of the dental hygiene program has been 2.5 for the regular applicant category, the lowest AGPAs accepted have ranged between 3.6 and 3.8. To avoid giving false hope to those with AGPAs around 2.5, it is recommended to raise the AGPA to a more reasonable minimum of 3.0. In addition, it has been demonstrated over the past several years that those accepted in the special consideration category with AGPAs of less than 2.5 have consistently had major academic performance problems within the program. The special consideration category was originally created to provide admission opportunities for those individuals with less competitive AGPAs who could point to work experience in a health or dental profession. It was not intended to accept individuals in

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

this category who would not be capable of completing the program or who would struggle in it.

3. The students having the most amount of difficulty within the program generally have been those accepted in the special consideration category. These students typically require excessive amounts of attention and take away from time that should be spent with all of the students. The Admissions Committee agreed that since almost one quarter of the class was selected from this category, a reduction to 17 percent would be reasonable while providing sufficient opportunity for the inclusion of students from this category.

Recommendations

The Senate Committee on Admissions recommends to Senate that, effective for the September 2009 (i.e., 200990) intake, the School of Dental Hygiene be permitted to modify its selection process for the Diploma in Dental Hygiene program:

1. By adding as an admission eligibility requirement a three credit hour introductory level course (English 1310 or equivalent), with a minimum grade of C+;
2. By raising the minimum AGPA threshold required for admission in the regular applicant pool from 2.5 to 3.0 and in the special consideration applicant pool from 2.0 to 2.5; and
3. By reducing the number of seats reserved for applicants in the special consideration category from 23 percent of available seats (currently six places) to 17 percent of available seats (currently four), and by designating 50 percent of these seats (currently two) for qualified aboriginal students. (Should the class size change in the future, this percentage formula will be applied.)

Respectfully submitted,
Dr. D.R. Morphy, Chair, Senate Committee on Admission

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

Report of the Senate Committee on Admissions concerning a proposal from the Faculty of Medicine to revise the admission criteria for the Undergraduate Medical Education Program (2008.04.17)

Preamble

A comprehensive review of the admissions policies and processes has been undertaken by the Faculty of Medicine, culminating in a series of substantive changes to a process that has been essentially unchanged since the last review of 1994. An *internal* review commenced in 2001 with the mandate of reviewing four aspects of the admissions process: Medical College Admissions Test (MCAT), Adjusted Grade Point Average (AGPA) including pre-requisite premedical course requirements, the Special Considerations Category, and the Personal Assessment Score (PAS). Each realm was reviewed by a separate subcommittee chaired by a member of the Admissions Committee; the deliberations were integrated by the Assistant Dean Admissions Dr. Fred Aoki, and then reviewed and revised by the Admissions Committee. An *external* review was initiated in 2007 and Dr. Keith Brownell (University of Calgary) and Dr. Harold Reiter (McMaster University) were engaged to conduct a comprehensive review of the admissions process and progress to date on the internal review: broad consultations were undertaken with stakeholders including faculty and University academic leadership, students, regional health authorities, and government representatives including the Minister of Health. Recommendations were received regarding specific admission criteria and processes, as well as guidance on the structure and function of the Admissions Committee. A copy of the report has been provided to the Chairperson of the Senate Committee on Admissions.

The five recommendations for revised admissions criteria were accepted in principle by the Admissions Committee in December 2007, ratified by the Admissions Committee in January 2008, and subsequently approved by Faculty Executive Council and Faculty Council on March 5, 2008. It has been further recommended that the revised admissions criteria be implemented forthwith, and be in effect for the applicants of the academic year 2009-2010.

Observations

The recommendations for revised admissions criteria are a series of five interwoven components. Each component is identified as contributing to the selection of candidates who have the academic capacity and personal attributes not only to proceed through the curriculum to successful registration for the practice of medicine, but also to contribute to the health human resources necessary for the Faculty to fulfill its social contract.

The observations that support the recommendations are presented in thematic areas. The appendices include a comparison of recommended and current admissions criteria, and supportive documentation where referenced.

A. Regarding Diversity

Diversity has been described by the AAMC in a 2008 publication entitled: "Roadmap to Diversity: Key Legal and Educational Policy Foundations for Medical Schools" has recommended that the term "diversity" be defined " in a broadly inclusive manner, ... which may include personal attributes, experiential factors, demographics, or other

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

considerations. It may also include a focus on race and ethnicity, to be sure, but it must do so in the context of broader, diversity-related educational interests and goals that the school clearly explains in its policies."

Since the internal review process began, three noteworthy reports have been published that frame the need to revise the admissions policies to enhance diversity within the student body.

1. In October 2004, an area of partial noncompliance with accreditation standards regarding admissions was cited in the "Final Report of the Accreditation Survey of The University of Manitoba, Faculty of Medicine", conducted April 17 – 21, 2004 by the Committee on Accreditation of Canadian Medical Schools (CACMS) and the Liaison Committee on Medical Education (LCME). LCME Standard MS-8 states: "Each medical school should have policies and practices ensuring the gender, racial, cultural, and economic diversity of its students." The LCME annotation on standard MS-8 continues as follows: "The standard requires that each school's student body exhibit diversity in the dimensions noted. The extent of diversity needed will depend on the school's missions, goals, and educational objectives, expectations of the community in which it operates, and its implied or explicit social contract at the local, state, and national levels." The 2004 Accreditation report cited that faculty goals for student diversity with respect to Aboriginal enrollment have not been met in spite of numerous initiatives to accomplish that end. LCME and CACMS have monitored progress of the Faculty in addressing Standard MS-8 through mandated biannual reporting, including requests for documents and outcomes from the internal and external reviews
2. In May 2005, the Association of Faculties of Medicine of Canada (AFMC) released the report of the Aboriginal Health Task Group entitled "Recommendations to the Council of Deans Concerning Social Accountability Aboriginal Health". This had been commissioned as part of the AFMC commitment to the Social Accountability of Medical Schools Initiative. The report was formally adopted by the AFMC Council of Deans. Among its nine recommendations is one that is specifically within the realm of the Admissions Committee, namely, to..."increase the number of Aboriginal medical graduates." This report reinforced the need for the admissions process to address the area of partial non-compliance identified by the accreditation committee. The recommendation identifies that Aboriginal applicants will be evaluated and ranked in a separate pool by a four person panel. The applicants shall have the same academic prerequisites as the regular pool, but shall compete with other Aboriginal applicants and not against the entire applicant pool. Specific weighting of the Personal Assessment Score will selectively credit non-academic personal attributes and life experiences.
3. The Society of Rural Physicians of Canada Policy Paper "Admission of Rural Origin Students to Medical School: Recommended strategies", was published in 2005. It emphasized the need for medical schools in Canada to contribute to addressing the problem of inequitable access to medical services in rural parts of Canada by admitting students who are likely to select rural practice as their career choice. The specific recommendation addressing diversity in demographic factors will selectively advantage those who have demonstrated success in adapting to and living in a rural or remote area.

The Faculty of Medicine maintains the objective of enriching its student body and the physician workforce by recruiting individuals with a variety of advanced education backgrounds, and interprofessional and collaborative practice in a previous health related practice. The recommendation speaks to assessment of all applicants equitably in these domains rather than continuing a Special Consideration Category.

The Faculty of Medicine at the University of Manitoba has an historical commitment to the Canadian Forces, and this commitment will be maintained through criteria specific to this and other previously noted experiential and personal attributes.

The recommended incremental increase in weighting of the Personal Assessment Score will emphasize the non-academic personal attributes of all applicants, hence contribute to diversity within the admitted students, irrespective of the assignment of value for individuals with rural and remote experience, advanced education, previous health related occupation, and affiliation with the Canadian Forces.

B. Regarding Equity

The University of Manitoba Senate Committee of Admissions Appeals has previously identified to the Faculty of Medicine that the existence of separate sets of Medical College Admission Test (MCAT) & Adjusted Grade Point Average (AGPA) score thresholds for applicants in the Regular Category and the Special Consideration Category creates inequity amongst applicants. Harmonization of the AGPA and MCAT threshold for all applicants was the primary recommendation for immediate implementation by the authors of the external review. The proposed recommendation establishes a single set of thresholds.

C. Regarding Evidence

It is recognized that the predictive validity of the MCAT ranges from small to medium for both medical school performance and licensing examination measures. However, it has been identified in meta-analysis that the biological sciences and verbal reasoning subtests have greater predictive validity for success in preclinical and clerkship components of the curriculum than do the physical sciences and writing sample subtests. Key references are appended. Retrospective reviews at the University of Manitoba identify that a gender bias will be introduced if only the biological sciences and verbal reasoning subtests are used. The recommendation for incremental relative weighting in favour to the biological sciences and verbal reasoning subtests is a reflection of the literature and local experience.

D. Regarding Due Diligence

Historically the interview panel considered information regarding breaches of professionalism by the applicant (particularly academic dishonesty or criminal records), and made recommendations to the Admissions Committee. The panel interview process was replaced by the Multiple Mini Interview (MMI), hence creating a void when consideration of issues of professionalism arises. The Admissions Committee has recommended a sub-committee of the Faculty be created to review such information and to ensure professionalism remains a primary consideration. It is anticipated that the same subcommittee would be referenced in the formalization of self-declaration processes for criminal record and vulnerable sector reviews, in keeping with policies in

place with the Faculty of Medicine School of Medical Rehabilitation, and the Faculties of Nursing, Education, Pharmacy and Social Work.

Modifications of the admissions criteria are not unheralded for prospective applicants. The University of Manitoba Course Calendar and Registration Guide summarizes the requirements for admission to the Faculty of Medicine; readers are referred to the Faculty's Applicant Information Bulletin for complete admission requirements. The current Calendar submission identifies that the admissions process is under review. The current Applicant Information Bulletin states: "The Admissions process and criteria are currently under review. Please check the Applicant Information Bulletin available in June for current information." Similar notations were posted in the previous year.

Recommendations

The Senate Committee on Admissions recommends to Senate that, effective for the September 2009 (i.e., 200990) intake, the Faculty of Medicine be permitted to modify its selection process for the Undergraduate Medical Education Program as follows:

A. Regarding Diversity

1. Abolish the Special Consideration Category.

Criteria will be established and a score assigned for all applicants regarding the following personal attributes, experiential factors, and demographics:

- Demonstrated success in adapting to and living in a rural or remote area.
 - Demonstrated excellence & success in interprofessional collaborative work, especially with patients in the health care spectrum.
 - Demonstrated excellence & success in advanced education (beyond a bachelor degree) especially in the fields of biomedical science and health care.
 - Demonstrated contribution and excellence during 2 or more years of full-time service in the Canadian Forces. Applicants who receive personal attribute credits for this service must be residents of Manitoba and must provide evidence that their education is being sponsored by the Department of National Defence as a condition of their acceptance into the Faculty of Medicine.
2. Aboriginal applicants will be evaluated and ranked in a separate pool by a four person panel. The applicants shall have the same academic prerequisites as the regular pool, but shall compete with other Aboriginal applicants and not against the entire applicant pool. The Composite Score for Aboriginal applicants will be calculated as follows:

MCAT	20%
AGPA	10%
PAS Written information	20%
Panel interview, MMI	50%

The panel will recommend for admission all those Aboriginal applicants who it deems likely to succeed in the curriculum. All the remaining spots will be allocated for the remaining applicants.

3. Change the weights allocated to the domains used to calculate the Composite Score to reflect an increased emphasis on the Personal Assessment Score (PAS) and Medical College Admission Test (MCAT), and a relative decrease in Adjusted Grade Point Average (AGPA) as follows:

MCAT 40%

AGPA 15%

PAS 45%

The PAS shall be based on: personal attributes, experiential factors, and demographics as identified in A.1 above; an evaluation of required written material which may include the application form and letters of reference; and results from the interview.

B. Regarding Equity

4. A single set of academic prerequisites Medical College Admission Test (MCAT), and a relative decrease in Adjusted Grade Point Average (AGPA) shall be established as follows:

MCAT Score shall be calculated as follows:

Verbal Reasoning	30%
Biological Sciences	30%
Writing Sample	20%
Physical Sciences	20%
TOTAL	100%

With no individual score < 7.

AGPA: The minimum AGPA score must be ≥ 3.30 . The current method of calculating the AGPA shall be maintained.

C. Regarding Due Diligence:

5. Establish a subcommittee of the Faculty to review the applications of individuals who have demonstrated inappropriate behaviour that may be predictive of future breaches of professionalism including but not limited to: a criminal conviction, inclusion in a child abuse registry, a record of academic discipline, and a significantly negative letter of reference. The subcommittee will be able to recommend against granting an admission interview to an applicant considered unsuitable to the profession.

Respectfully submitted,

Dr. D.R. Morphy, Chair, Senate Committee on Admission

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

APPENDIX I

Comparative Admissions Criteria Data

Recommendation	Current Policy																				
A. Prerequisites																					
<p>MCAT Score calculated as follows:</p> <table> <tr> <td>Verbal Reasoning</td><td>30%</td></tr> <tr> <td>Biological Sciences</td><td>30%</td></tr> <tr> <td>Writing Sample</td><td>20%</td></tr> <tr> <td>Physical Sciences</td><td>20%</td></tr> <tr> <td>TOTAL</td><td>100%</td></tr> </table> <p>With no individual score < 7.</p> <p>AGPA</p> <p>AGPA score must be ≥ 3.30.</p>	Verbal Reasoning	30%	Biological Sciences	30%	Writing Sample	20%	Physical Sciences	20%	TOTAL	100%	<p>MCAT Score calculated as follows:</p> <table> <tr> <td>Verbal Reasoning</td><td>25%</td></tr> <tr> <td>Biological Sciences</td><td>25%</td></tr> <tr> <td>Writing Sample</td><td>25%</td></tr> <tr> <td>Physical Sciences</td><td>25%</td></tr> <tr> <td>TOTAL</td><td>100%</td></tr> </table> <p>Regular Category: no individual score < 7; average ≥ 8.0</p> <p>Special Consideration Category: no individual score < 6; average ≥ 7.0</p> <p>AGPA</p> <p>Regular Category: AGPA score must be ≥ 3.60</p> <p>Special Consideration Category: AGPA score must be ≥ 3.00</p>	Verbal Reasoning	25%	Biological Sciences	25%	Writing Sample	25%	Physical Sciences	25%	TOTAL	100%
Verbal Reasoning	30%																				
Biological Sciences	30%																				
Writing Sample	20%																				
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Verbal Reasoning	25%																				
Biological Sciences	25%																				
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B. Composite Score																					
<table> <tr> <td>MCAT</td><td>40%</td></tr> <tr> <td>AGPA</td><td>15%</td></tr> <tr> <td>PAS</td><td>45%</td></tr> </table>	MCAT	40%	AGPA	15%	PAS	45%	<table> <tr> <td>MCAT</td><td>50%</td></tr> <tr> <td>AGPA</td><td>10%</td></tr> <tr> <td>PAS</td><td>40%</td></tr> </table>	MCAT	50%	AGPA	10%	PAS	40%								
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C. Aboriginal Applicants – Composite Scores																					
<p>Unchanged:</p> <table> <tr> <td>MCAT</td><td>20%</td></tr> <tr> <td>AGPA</td><td>10%</td></tr> <tr> <td>PAS</td><td>70%</td></tr> </table>	MCAT	20%	AGPA	10%	PAS	70%	<table> <tr> <td>MCAT</td><td>20%</td></tr> <tr> <td>AGPA</td><td>10%</td></tr> <tr> <td>PAS</td><td>70%</td></tr> </table>	MCAT	20%	AGPA	10%	PAS	70%								
MCAT	20%																				
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PAS	70%																				

APPENDIX II

Validity of the Medical College Admission Test for predicting medical school performance. Julian ER. Acad Med. 2005 Oct;80(10):910-7.

Medical College Admission Test, Association of American Medical Colleges, 2450 N Street, N.W., Washington, DC 20037-1127, USA.

PURPOSE: Since the introduction of the revised Medical College Admission Test (MCAT(R)) in 1991, the Association of American Medical Colleges has been investigating the extent to which MCAT scores supplement the power of undergraduate grade point averages (uGPAs) to predict success in medical school. This report is a comprehensive summary of the relationships between MCAT scores and (1) medical school grades, (2) United States Medical Licensing Examination (USMLE) Step scores, and (3) academic distinction or difficulty. **METHOD:** This study followed two cohorts from entrance to medical school through residency. Students from 14 medical schools' 1992 and 1993 entering classes provided data for predicting medical school grades and academic difficulty/distinction, while their peers from all of the U.S. medical schools were used to predict performance on USMLE Steps 1, 2, and 3. Regression analyses assessed the predictive power of combinations of uGPAs, MCAT scores, and undergraduate-institution selectivity. **RESULTS:** Grades were best predicted by a combination of MCAT scores and uGPAs, with MCAT scores providing a substantial increment over uGPAs. MCAT scores were better predictors of USMLE Step scores than were uGPAs, and the combination did little better than MCAT scores alone. The probability of experiencing academic difficulty or distinction tended to vary with MCAT scores. MCAT scores were strong predictors of scores for all three Step examinations, particularly Step 1. **CONCLUSIONS:** MCAT scores almost double the proportion of variance in medical school grades explained by uGPAs, and essentially replace the need for uGPAs in their impressive prediction of Step scores. The MCAT performs well as an indicator of academic preparation for medical school, independent of the school-specific handicaps of uGPAs.

APPENDIX III

The predictive validity of the MCAT for medical school performance and medical board licensing examinations: a meta-analysis of the published research. Donnon T, Paolucci EO, Violato C. *Acad Med.* 2007 Jan;82(1):100-6.

Medical Education and Research Unit, Department of Community Health Sciences, Faculty of Medicine, University of Calgary, Calgary, Canada.
tldonnon@ucalgary.ca

PURPOSE: To conduct a meta-analysis of published studies to determine the predictive validity of the MCAT on medical school performance and medical board licensing examinations. **METHOD:** The authors included all peer-reviewed published studies reporting empirical data on the relationship between MCAT scores and medical school performance or medical board licensing exam measures. Moderator variables, participant characteristics, and medical school performance/medical board licensing exam measures were extracted and reviewed separately by three reviewers using a standardized protocol. **RESULTS:** Medical school performance measures from 11 studies and medical board licensing examinations from 18 studies, for a total of 23 studies, were selected. A random-effects model meta-analysis of weighted effects sizes (r) resulted in (1) a predictive validity coefficient for the MCAT in the preclinical years of $r = 0.39$ (95% confidence interval [CI], 0.21-0.54) and on the USMLE Step 1 of $r = 0.60$ (95% CI, 0.50-0.67); and (2) the biological sciences subtest as the best predictor of medical school performance in the preclinical years ($r = 0.32$ 95% CI, 0.21-0.42) and on the USMLE Step 1 ($r = 0.48$ 95% CI, 0.41-0.54). **CONCLUSIONS:** The predictive validity of the MCAT ranges from small to medium for both medical school performance and medical board licensing exam measures. The medical profession is challenged to develop screening and selection criteria with improved validity that can supplement the MCAT as an important criterion for admission to medical schools.

Table 2
Random-Effects Model of the MCAT Predictive Validity Coefficients (r) With Medical School Performance Measures, from a Meta-Analysis of Studies of the MCAT, 1991-2006

1991 to 2006	8		4		
MCAT	6 (1)	7,419	0.39 (0.21-0.54) 0.43*	3 (46)	6,215
					0.34 (0.29-0.39) 0.39
Biological sciences subtest	3 (4)	990	0.32 (0.21-0.42) 0.40	1 (1)	275
					0.12 (0.00-0.23) 0.15
Physical sciences subtest	3 (1)	990	0.23 (0.09-0.36) 0.26	1 (NA)	275
					0.06 (-0.05-0.18) 0.07
Verbal reasoning subtest	3 (5)	990	0.19 (0.12-0.25) 0.24	1 (1)	275
					0.14 (0.02-0.25) 0.18
Writing sample subtest*	1 (NA)	126	-0.13 (-0.30-0.05)	1 (NA)	275
					0.07 (-0.05-0.19)

* Rosenthal's file drawer method is used to determine the number of unpublished studies (FD) with a mean observed effect of zero that would be needed to make the effect size no longer significant. NA = not applicable.

* Mean (95% confidence interval), SD.

* Adjusted effect size for restriction of range²² = $p_i^2 = \frac{p_i^2(\sigma_i/\sigma_1)^2}{1 + p_i^2(\sigma_i/\sigma_1)^2 - p_i^2}$

* The writing sample subtest uses a letter system where standard deviations are not quantified numerically by the Association of American Medical Colleges. Standard deviations for the other subtests were acquired from (www.aamc.org/data/facts/2004/mcatgoabymaj1.htm).



UNIVERSITY
OF MANITOBA | Faculty of Medicine

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April 30, 2008

Mr. Jeff Leclerc
University Secretary
312 Administration Building
University of Manitoba
Fort Garry Campus

Dear Mr. Leclerc:

RE: Senate approval for registration and licensure of Dr. Alan Garland
under Section 64 of the Medical Act of Manitoba

On April 2, 2008 Senate approved the registration and licensure of Dr. Alan Garland who is an expert in Quality Improvement in Critical Care. It has been brought to Senate Committee on Medical Qualification's attention that Dr. Garland holds a specialty in Respiriology as well as in Critical Care.

Therefore, we are respectfully resubmitting Dr. Garland's application for certification by the Senate of the University of Manitoba as required under Section 64 of the Medical Act of Manitoba. His academic appointment will be in the Department of Internal Medicine, Faculty of Medicine. The SCMQ met on Oct 2, 2008 to consider this request. The committee members included Dr. H. Dean (Chair), Dr. S. Barakat (Faculty of Medicine), Dr. A. Chochinov (Faculty of Medicine), Dr. K. Grant (Vice-Provost), Dr. W. Pope (College of Physicians and Surgeons of Manitoba). Drs. M. Moffatt and A. Zoniak, invited guests, gave informed opinions but were nonvoting. The committee voted unanimously to approve the recommendation based on his exceptional qualifications as a clinician scientist in the field of Critical Care and Respiriology.

Dr. Garland has been in Manitoba since August 2007 working as clinician scientist in Quality Improvement in Critical Care and Respiriology. He was appointed as Associate Professor in the Department of Internal Medicine, division of Critical Care. The Faculty supported his full registration with the College of Physicians and Surgeons of Manitoba under Section 10 of the Medical Act which gives him full registration for 1 year ending in August 2008.

We have reviewed various options for registration with the College of Physicians and Surgeons of Manitoba after August 2008. There are 3 possible options: 1) conditional registration using Section 64 as recommended by the SCMQ, with the condition that he maintain his practice as a GFT at the University, 2) conditional registration with his American Board qualifications necessitating a practice advisor and chart audits for 5 years as a GFT at the University, or 3) full registration using academic certification by the Royal College of Physicians and Surgeons of Canada. Dr. Garland and the Department of Internal Medicine have requested option #1 and the Faculty supports this decision.

Comments of the Senate Executive Committee:

The Senate Executive Committee endorses the report to Senate.

Applicant: Dr. Alan Garland

Area of Expertise: 1) Quality Improvement in Critical Care Medicine
2) Respiriology

Department: Internal Medicine

Department Head: Dr. D. Roberts

Academic rank at the
University of Manitoba: Associate Professor

Summary of Training.

Master of Science in Physics, Harvard
MD, University of Chicago
American Board certifications in Internal Medicine,
Critical Care, Respiratory Medicine

Letters of reference:

Dr. A.F. Connors, Professor, Case Western
Dr. A.T. Scardella, Assoc. Prof., Robert Wood Johnson
Dr. E. Warren, Division Chief, Critical Care, Case Western

Local letters of support:

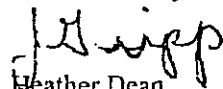
Dr. D. Roberts
Dr. B. Wright

Exceptional Merit: Critical Care Medicine
Quality Improvement Research

Plans for further qualification in Canada: None

On behalf of the Faculty of Medicine and Senate Committee on Medical Qualifications, I request that you consider this application of **Dr. Alan Garland** for academic licence under Section 64 of the Manitoba Medical Act with specialties in Critical Care and Respiriology. He will then apply for conditional registration by the College of Physicians and Surgeons of Manitoba, the condition being that he will hold an academic position in the Faculty of Medicine at the University of Manitoba.

Yours sincerely,



Heather Dean
Chair, Senate Committee on Medical Qualifications
Associate Dean (Academic)

Enclosures:

Letters of Reference
Advertisement
Curriculum Vitae

Report of the Senate Committee on Nominations

Preamble

1. Since last reporting to Senate November 7, 2007, the Senate Committee on Nominations (SCN) met on April 30, 2008 to consider nominations to fill vacancies on the standing committees of Senate.
2. The terms of reference for the SCN are found on the University Governance website.

Observation

1. Below are listed all committees having vacancies to be filled, along with the names of the nominees being proposed, their faculty/school, and the expiry date of their terms.

Recommendation

1. THE SCN recommends to Senate the following list of nominees:

Committee	Nominee(s)	Faculty/School	Term Ending
Senate Committee on Academic Freedom	Prof. Ryan Cardwell	Agricultural & Food Sciences	2011.05.31
	Dean Edmund Dawe	Music	2011.05.31
Senate Committee on Academic Review	TBA		2011.05.31
Senate Committee on Admissions	Prof. Alex Wright	Social Work	2011.05.31
	Dean David Collins	Pharmacy	2011.05.31
	Prof. Lori Wallace	Extended Education	2011.05.31
	TBA		2011.05.31
Senate Committee on Admission Appeals	Prof. Brenda Hann	Science	2009.05.31
	Prof. Michael Matthews	Music	2011.05.31
Senate Committee on Animal Care	Prof. Kees Plaizier	Animal Science	2011.05.31
	Prof. Elliott Scott	Dentistry	2011.05.31
Senate Committee on Appeals	Prof. John Page	Science	2011.05.31
	Prof. Diana McMillan	Nursing	2011.05.31
Senate Committee on Awards	Prof. Laura Loewen	Music	2011.05.31
	Prof. Phil Hultin	Science	2011.05.31
	Prof. David Kuhn	Engineering	2011.05.31
Senate Committee on Curriculum and Course Changes	Prof. Harvy Frankel	Social Work	2011.05.31
	Prof. Danny Mann	Agricultural & Food Sciences	2011.05.31
	TBA		2011.05.31
	Prof. Theresa Sullivan	Medical Rehabilitation	2011.05.31

Report of the Senate Committee on Nominations

Committee	Nominee(s)	Faculty/School	Term Ending
Senate Committee on the Ethics of Research Involving Human Subjects	Prof. Ed Johnson	Arts	2011.05.31
Senate Committee on Instruction & Evaluation	Prof. Bonnie Luterbach	Extended Education	2011.05.31
	Prof. Tee Boon Goh	Agricultural & Food Sciences	2011.05.31
Joint Senate Committee on Masters Programs	Dean Jay Doering	Graduate Studies	2011.05.31
	Prof. Zana Lutfiyya	Education	2011.05.31
Senate Committee on the Libraries	Dr. Shelley Sweeney	Libraries	2011.05.31
Senate Planning and Priorities Committee	Prof. John Young	Education	2012.05.31
	Prof. Mark Gabbert	Arts	2012.05.31
	Prof. Marvin Bartell	Asper School of Business	2012.05.31
	TBA		2010.05.31
Senate Committee on Rules & Procedures	Prof. John Anderson	Science	2011.05.31
	Prof. Mary Brabston	Asper School of Business	2011.05.31
	Dean Jay Doering	Graduate Studies	2011.05.31
Senate Committee on University Research	Dean Mark Whitmore	Science	2011.05.31
	Prof. David Barber	Environment, Earth & Resources	2011.05.31
	Prof. Pat Martens	Medicine	2011.05.31
	Prof. James Davie	Medicine	2011.05.31
Senate Committee on Medical Qualifications	Prof. Andrew MacDiarmid	Medicine	2011.05.31
UDC Nominating Committee	Prof. Norm Hunter	Science	2009.08.31
	Prof. Susan Prentice	Arts	2009.08.31
	Prof. Rod Kueneman	Arts	2009.08.31

Respectfully submitted,

Prof. N. Hunter, Chair

/rjl