

Senate  
Senate Chamber  
Room 245 Engineering Building  
WEDNESDAY, December 4, 2002  
1:30 p.m.

## **AGENDA**

### **I 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.

### **II MATTERS RECOMMENDED FOR CONCURRENCE WITHOUT DEBATE**

1. Report of the Senate Committee  
on Curriculum and Course Changes: Part A Page 17
2. Report of the Faculty Council of Graduate Studies  
re: a proposed Master's  
Practicum Stream in Pathology Page 71
3. Proposed Academic Schedule for 2002-2003 Page 72

### **III MATTERS FORWARDED FOR INFORMATION**

1. Report of the Senate Committee on Awards Page 78
2. Program Accreditation - 2002 Update Page 85

### **IV REPORT OF THE PRESIDENT**

1. President's Report December 4, 2002 Page 107

### **V QUESTION PERIOD**

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

### **VI CONSIDERATION OF THE MINUTES OF THE MEETING OF NOVEMBER 6, 2002**

**VII BUSINESS ARISING FROM THE MINUTES**

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

1. Report of the Senate Executive Committee Page 130
2. Report of the Senate  
Planning and Priorities Committee

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

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

1.
  - a) Report of the Senate Committee  
on Curriculum and Course Changes: Part B Page 131
  - b) Report of the Senate  
Planning and Priorities Committee  
on Undergraduate Changes with  
Resource Implications or Course  
Additions Beyond Nine Credit Hours Page 154
2. Program Proposal - Faculty of Medicine  
Bachelor of Allied Health Science (Radiation Therapy) Page 160
  - a) Report of the Senate Committee on  
Curriculum and Course Changes Page 165
  - b) Report of the Senate Planning  
and Priorities Committee Page 171
  - c) Comments of the Senate Executive Committee Page 173
3. Program Proposals - Faculty of Environment  
Bachelor of Environmental Science  
Bachelor of Environmental Studies Page 174
  - a) Report of the Senate Committee on  
Curriculum and Course Changes Page 195
  - b) Report of the Senate Planning  
and Priorities Committee Page 198
  - c) Comments of the Senate Executive Committee Page 201

4. Diploma Proposal - Continuing Education Division  
Diploma in Labour Relations and Workplace Studies Page 202
- a) Report of the Senate Committee on  
Curriculum and Course Changes Page 213
- b) Report of the Senate Planning  
and Priorities Committee Page 214
5. Reports of the Senate Committee on Admissions
- a) re: Pharmacy Ranking Criteria Page 215
- b) re: Pharmacy Policy regarding repeated courses Page 216
- c) re: Education and removal of breadth requirement Page 217
- d) re: Bachelor of Allied Health Science  
(Radiation Therapy) admission requirements Page 218
6. Report of the Senate Committee on Appeals
- The Chair will make an oral report of the Committee's activities
7. Report of the Senate Committee on Academic Dress Page 221

X ADDITIONAL BUSINESS

XI ADJOURNMENT

/jml

October 8, 2002

## **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 in Section 8.21 of the *Senate Handbook*. SCCCC is "to recommend to Senate on the introduction, modification or abolition of undergraduate programs, curricula or courses".
2. Since last reporting to Senate, the Senate Committee on Curriculum and Course Changes (SCCCC) met on October 4, 10, 15, 22 and 24, 2002 to consider curriculum and course changes from Faculties and Schools.

### **Observations**

#### **1. General**

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

#### **2. Faculty of Agricultural and Food Sciences**

##### **Department of Animal Science**

The Department of Animal Science is deleting the course **035.071 Horse Production and Management** and reintroducing the course as **035.0AB Horse Production and Management**. The reason for the change is that the laboratory component of the course is being removed to accommodate this course being taught as an evening course. The credit hours are being reduced by one and the course is being introduced under a new number.

##### **Department of Plant Science**

The decision to offer 039.337 Environmental Horticulture on alternate years to 039.453 Woody Plants in the Prairie Landscape has implications to the Plant Systems Program. The Program Committee reviewed this and considered various ways of dealing with change. In the end it was decided that the best approach would be to move 039.453 Woody Plants in the Prairie Landscape into the Group 4 restrictive electives of the Plant Systems Program. This will still require students to have exposure to horticulture areas but



will allow them to select from three courses, two of which would be offered in any one year.

There has been a growing interest in agriculture in organic food production. The Department of Plant Science is proposing a new course **039.3XX Organic Field Crop Production** to enrich its course offerings and to meet a demand in an emerging area of agriculture.

### Department of Agribusiness

In order to cross list the course 61.351 Transportation Economics taught by the Department of Agribusiness with a course proposed by the I.H. Asper School of Business, the Department of Agribusiness is proposing to delete the course **061.351 Transportation Economics** and reintroduce the course as a new 3 credit course **061.2XY Transportation Principles**.

The Department of Agribusiness is proposing a new 3 credit course **061.2XX "World Agribusiness Study Tour."** The course will provide an understanding of world agribusiness including areas such as agri-marketing, agricultural trade, agri-finance, agricultural policy, risk management and economics of the environment and resources through an international study trip. A particular region of the world will be visited each time the course is offered. The course is intended to be offered in intersessions. Students will be required to pay a field course fee to cover the cost of the trip.

### Diploma Program

Diploma Council has recommended to the Curriculum Committee that the credit hours for **065.064 and 065.065 Management Plan 1 and 2** be changed from 4 credit hours each to 3 and 5 credit hours, respectively, to more accurately reflect the content in each course. Therefore, **065.064** and **65 .065** are being deleted and reintroduced as **065.0XA** and **065.0XB** respectively.

Diploma Council also recommended that 61.069 Agricultural Finance and Credit become a required course in the Business Management option along with 61.068 Ag Business Management and 61.072 Farm Business Management. The Restrictive Elective group would consist of three courses; 61.070 Merchandising and Sales, 61.071 Agricultural Policy, and 61.073 Financial Risk Management of which students must select at least one course.

The Faculty has deleted the maximum credit hours of 30 credit hours of transfer from diploma to degree. With the current curriculum, students could now transfer up to 39 credit hours from diploma into degree.

## 3. Faculty of Arts

### Anthropology

The department, in an effort to move away from the binary classifications of social and

physical anthropology, to enhance pedagogy and to account for research expertise of faculty is proposing the deletion of **076.109 World Ethnography (A)** and **076.244 Peasant Society and Culture (B)**; the introduction of courses **076.1XX Critical Cultural Anthropology**, **076.2AA Anthropology of Mass Communication (B)** and **076.2PS Peasantry in a Changing World (B)** and the modification of 076.239 Social Organization in Cross-Cultural Perspective (B), 076.239F Organisation sociale trans-culturelle: Introduction a l'ethnographie (B), 076.250 Culture, Environment, and Technology (B), 076.250F Culture, milieu et technologie (B), 076.251 Anthropology of Economic Systems (B) and 076.253 Anthropology of Political Systems (B).

The prerequisites for a number of courses are being modified to reflect the deletion of 076.109 and the introduction of 076.1XX, as are the program requirements for the General Major, Advanced Major and Minor programs.

### Asian Studies

**150.2AA Modern Japanese Literature in Translation** and **150.3AA Japanese Popular Culture** are being introduced to allow new faculty to have courses in their areas of research expertise.

150.177 Introduction to Japanese is being modified to allow students who have taken high school Japanese in Canada or abroad to enrol in the course with permission of the Instructor. Previously, students with high school Japanese could not enter the course.

The list of courses acceptable for Asian Studies Credit is also being revised to add recently introduced courses in Asian Studies, History and the School of Art.

### Canadian Studies

The list of Approved Courses in Canadian Studies is being modified by adding courses from Anthropology, History, Labour and Workplace Studies, Native Studies and Political Studies.

### Classics

Due to the popularity of the department's introductory courses in Modern Greek, **003.2AA Intermediate Modern Greek 1** and **003.2AB Intermediate Modern Greek 2** are being introduced.

### Economics

**018.358 Economics of the European Economic Community (EEC)** is being deleted and replaced with the three credit hour **018.2XX Economics of the European Union**. The new course, in addition to updates in content, is more easily offered as it is a half course.

018.242 Economics of the Labour Process and Labour Relations, and 018.351 Industrial Relations are being modified to note that they will be also offered as Labour and

Workplace Studies courses and as such, can not be held with the Labour and Workplace Studies courses. 018.336 Labour Economics is being modified by changing its prerequisites to include a newly introduced Labour and Workplace Studies course.

### English

Course **004.124 Representative Literary Works** is being deleted, as it was offered to Architecture Students in the past and is no longer part of the curriculum in the Environmental Design curriculum.

004.280 Principles and Methods of Literary Analysis is being removed from the second year requirements in the English Single and Double Honours program and is being replaced by both 004.253 A History of Critical Theory and 004.254 Contemporary Critical Theory.

### French, Spanish and Italian

Having been successfully offered as a special topics course for a number of years **044.3XX Études sur Beauvoir (B)** is being introduced.

044.127 Spanish Oral 1 is being modified to include a restriction of the recently introduced course 122.1AA Espagnol oral 1.

### Geography

In order to increase flexibility in course offerings, **053.243F Géographie politique (HS)** is being deleted and replaced with two-three credit hour offerings, **053.2XYF Géographie Politique 1 (HS)** and **053.2XZF Géographie politique 2 (HS)**. Resulting from these changes, course 053.243 Political Geography (HS) is being modified to exclude students from holding credit in 053.2XY or 053.2XZ.

Recognizing the importance of water as both resource and commodity, **053.3XYF Géographie de l'eau (PS)** and **053.3XZF L'eau, enjeu géostratégique (HS)** are being introduced.

### German and Slavic Studies

**008.3XXF Sujets particuliers** and **008.3XYF Deutsche sprachpraxis 1** are being introduced at CUSB. These German language courses have previously been offered in English and CUSB seeks to add them to their French offerings.

### Global Political Economy

The Global Political Economy program is proposing modifications to the wording of entrance requirements for the General and Advanced Major programs, and modifying their list of suggested electives to account for new courses in Anthropology.

### Icelandic

To accommodate the expertise of a staff member, and to increase the department's offerings, **012.2AA Icelandic Folktales** is being introduced.

### Philosophy

In order to reduce confusion regarding course prerequisites, **015.246 Philosophy of Law 1** and **015.247 Philosophy of Law 2** are being deleted and replaced with **015.2XX Philosophy of Law** and **015.2XY Philosophy and Law**, respectively.

### Political Studies

**019.3AA Gender and Politics in Canada** is being introduced to update departmental offerings in response to changes in the discipline and to take advantage of newly hired faculty research expertise.

### Psychology

Following many years being offered as a "Contemporary Issues" course, **017.4AB Behavioural Endocrinology** is being introduced, in part to highlight its future availability in the *Calendar*.

### Religion

A previous splitting of prerequisite course 020.240 into two half courses (020.216 and 020.217) necessitates the modification of 020.377 Paul the Apostle (A), 020.378 Selected New Testament Literature and Themes (A), 020.379 Prophets of Ancient Israel (A), 020.380 Selected Old Testament Literature and Themes (A) and 020.384 The Bible as Story (A).

### Deaf Studies Program

The Deaf Studies Program (prerequisite) is being modified by adding the new 076.1XX as an acceptable prerequisite for the program.

### CUSB

CUSB is introducing two new Spanish language courses: **122.1AA Español oral 1** and **122.2XX El español a través del cine hispanoamericano**.

## 4. Asper School of Business

With the recent move of the Transport Institute into the Asper School of Business and

strong support from the transportation industry, the Faculty feels the next step is to officially introduce a major in this area. Combining two new course proposals with two courses already offered by the Asper School, the Faculty proposes to offer the Logistics and Supply Chain Management Major. Accordingly, **XXX.XX1 Transportation Policy** and **XXX.XX2 Selected Topics in Supply Chain Logistics** are being introduced.

5. **Faculty of Education**

**Department of Curriculum, Teaching and Learning**

In an effort to focus on teaching English as a Second Language rather than a broader range of second language teaching **132.163 Practicum in Second Language Teaching** is being deleted and **132.1PR Practicum in Teaching English as a Second Language (TESL)** is being introduced, as is **132.1HL Teaching a Heritage, Aboriginal or International Language**. Additionally, to provide a further three credit hours of theory and practice required for certification in teaching a Heritage, Aboriginal or International language, **132.2HL Teaching a Heritage, Aboriginal or International Language 2** is being introduced. **132.122 Teaching a Second Language in Senior Years** is also being deleted.

To qualify professionals in Canadian schools to work effectively with ESL children and youth, **132.5EC ESL and Content Instruction** is being introduced.

**132.550 Fundamentals of Language Instruction** is being deleted and replaced with the more specific **132.5FE Fundamentals of ESL (English Language Instruction)**.

Course **132.5VP Vocabulary and Pronunciation Instruction** is being introduced to provide some of the course content required for certification in teaching ESL.

**132.125 Teaching Mathematics in Senior Years 1** is being modified. This is a correction of an oversight in the description of the courses required of Senior Years Bachelor of Education students whose major or minor is mathematics. The course is an essential part of the Senior Years Mathematics Education concentration, as approved by the Senior Years team during program development.

**Department of Educational Administration, Foundations and Psychology**

In order to help teacher candidates increase their awareness, understanding and proficiency in communication and interpersonal relationships, **129.1XY Communication and Interpersonal Relationships** is being introduced.

6. **Faculty of Engineering**

**130.113 Introduction to Engineering** is being modified, it will no longer be a pass fail course. This modification will facilitate registration to University 1 students.

7. Faculty of Human Ecology

Department of Family Studies

The Faculty is introducing a minor in Family Studies, to allow students studying in other areas to acquire a higher degree of exposure to family studies than that which would come from introductory courses in Family Studies.

Department of Human Nutritional Sciences

030.432 Nutrition Management of Disease States is being modified by adding a laboratory section and by correcting the prerequisites for the course.

A number of courses in Human Nutritional Sciences are being modified by adding options in their prerequisites. These changes will make graduating students eligible to apply for subsequent training in professional programs. These added options are also being included as alternatives in the list of required courses for the Human Nutritional Science program.

8. Faculty of Physical Education and Recreation Studies

During the 2001/02 and 2002/03 academic years, a course titled Orthopedic Assessment and Management (068.276) was offered by the School of Medical Rehabilitation for both Physical Therapy and Athletic Therapy Students. The course was not fully suiting the needs of the Athletic Therapy students. Accordingly, the Faculty is introducing **057.330 Functional Assessment and Restoration**. This course will also assist in the process of accreditation with the Canadian Athletic Therapists' Association.

9. Faculty of Science

Warren Centre for Actuarial Studies and Research

The Actuarial Mathematics Honours program is being modified by the re-adding of 010.353 as a recommended elective in year 3 of the program.

Biology Program

**071.1AA Health and Health Professions** is being introduced. The course, which will be administered by University 1, will allow University 1 students to explore issues relating to health care (determinants of health, health consumers and paradigms of health care) as well as the various professions available in the health sector. The course is being recommended for approval with the understanding that by the end of the second year of its offering, the course will be reviewed by the Faculty of Science in consultation with all the stakeholder groups.

Botany

In an effort to make enrolment less restrictive, 001.342 Field Ecology is being modified by removing two course co-requisites.

### Chemistry

Courses **002.2XY Environmental Chemistry**, **002.3XY Environmental Analysis** and **002.4XY Aquatic Chemistry** are being introduced to take advantage of the research interests of new faculty and to expand upon the environmental focused courses in the Department of Chemistry. These courses are cross-listed with courses in the Environmental Science Program. Students having completed 002.3XY will not be permitted to take 002.347 Instrumental Methods of Analysis.

Courses 002.436 Signalling and Regulation of Gene Expression and 002.436F Signalisation et régulation de l'expression génétique are being modified by removing a restriction now deemed by the department to be inappropriate.

### Computer Science

**074.310 Concepts of Imperative Programming and Languages**, **074.348 Non-Imperative Programming Language Concepts**, and **074.371 User Interfaces** are being deleted to make way for new courses that will incorporate concepts currently presented by these courses. As a result, **074.3HC Human-Computer Interaction 1**, and **074.3PL Programming Language Concepts**, are being introduced.

To accommodate recent developments in the field, **074.4CS Computer Security** is being introduced, as are **074.4RT Real-Time Systems** and **074.4HC Human-Computer Interaction 2**. After being successfully offered as a topics course **074.4IP Industrial Project** is being introduced.

Resulting from a curriculum review, course 074.435 Software Engineering 2 is being modified, as are the Honours and Major Programs in Computer Science.

### Ecology Program

The Ecology Honours, Major and Major Cooperative Option programs are being modified as a result of course modifications in the Environmental Science Program and the addition of new cross-listed courses in Chemistry and the Environmental Science Program.

### Genetics Program

The Genetics Honours Program is being modified to include the newly introduced 060.4XY Virology course.

### Geological Sciences

To accommodate the research interests of Faculty and to provide students with a course in the field, course **007.3XX Gemology** is being introduced. The course description for

course 007.136 Environmental Earth Sciences is being modified to stress the introductory nature of the course, delete the pollution topic and to advise students that the course is now available by distance education. The course description for course 007.239 Environmental Geology is being modified as the correspondence section is no longer available. Also, as the course is now a required course for the Honours Geology students and no longer a required course for the environmental science students, the level of geological expertise required for the course is being increased.

### **Mathematics**

Course 136.102M Mathematics in Art is being modified by the addition of a restriction that prevents the course from being used as part of an Honours, Major, General or Minor program in the Mathematical Sciences.

136.151M Applied Calculus is being modified to account for a change in the grading system of prerequisite course 016.090.

136.260 Numerical Mathematics 1 and 136.260F Mathématiques numériques 1 are being modified to add "or consent of instructor" to the prerequisites.

136.330 Modern Algebra 1 is being modified by adding course 136.235 (or the former 013.235) as an alternative prerequisite.

Course 136.442 Finite Geometry is being modified by the removal of 136.440 as a co-requisite and the addition of 136.340 as a prerequisite.

The Honours Mathematics and the Four Year Major in Applied Mathematics Programs are being modified to account for course changes.

### **Mathematics-Actuarial Mathematics Joint Program**

Course 010.353 is being added as a recommended elective in the Mathematics-Actuarial Mathematics Joint Program.

### **Microbiology**

In order to improve undergraduate course choice, Course **060.4XY Virology** is being introduced. As a result, the Microbiology Honours and Major are being modified.

### **Microbiology-Chemistry Joint Biochemistry Program**

The Biochemistry Major and Honours programs are being modified to include the new 060.4XY Virology Course.

### **Microbiology-Chemistry Joint Biotechnology Program**

The Biotechnology Honours program is being modified to include the new 060.4XY



Virology Course and the deletion of 097.701 from the list of optional courses.

### Physics and Astronomy

Courses 016.102 M General Physics 1, 016.102F, M Physique générale 1, 016.105 Physics 1: Mechanics and 016.105 F Physique 1: La Mécanique are being modified as prerequisite course 016.090 is now a Pass/Fail course.

Due to the new Bachelor of Allied Health Science (Radiation Therapy) program and courses, 016.322 Medical Physics and Physiological Measurement is being modified by adding the restriction "not to be held with 163.3BX". Courses **016.2XX Fundamentals of Physics in Radiation Therapy**, **016.2XY Radiation Protection in Radiation Therapy** and **016.2XZ Radiation Biology** are being introduced as service courses for the Bachelor of Allied Health Science (Radiation Therapy) program. These courses are cross-listed with courses in Allied Health Science (Radiation Therapy).

The department is also proposing minor changes to their Honours and Major programs.

### Psychology

Newly introduced course 017.4AB Behavioural Endocrinology is being added to the B.Sc. (Honours) Psychology Program.

### Statistics

Having been successfully offered as a topics course, **005.4XY Lifetime Data Analysis** is being introduced.

In order to provide set lab times for St. Boniface students, 005.100F Analyse statistique de base 1 and 005.200F Analyse statistique de base 2 are being modified. To avoid duplication in prerequisites, 005.305 Introduction to Probability Theory and its Applications is being modified.

Course changes in this and other departments necessitate the modification of the Statistics Honours and Major programs.

### Statistics-Actuarial Mathematics Joint Program

Course 010.353 is being added as recommended elective in the Statistics - Actuarial Mathematics Joint Program.

### Zoology

In an effort to clean up restrictions and prerequisites, courses 022.133 Physiology of the Human Body, 022.253 Human Physiology 1, 022.253F Physiologie du corps humain 1, 022.254 Human Physiology 2, 022.254F Physiologie du corps humain 2, 022.345 Field

Ecology, 022.353 Control Systems Physiology and 022.354 Comparative Environmental Physiology are being modified.

**Courses offered in other faculties and schools acceptable for credit in the Faculty of Science**

Electrical and Computer Engineering courses 024.216 Electronics 2E and 024.222 Digital Logic Systems will be available and acceptable for credit for students in the Physics Major and Honours programs.

The Faculty of Science is also proposing that all four and five credit hour courses in other faculties be counted as three credit hour courses in Science.

The Faculty is also proposing that the initial assessment for second degree major students take place at 24 credit hours, and at every April and August examination series thereafter.

10. **Faculty of Social Work**

Due to needs in the community for an increased focus in Child and Family Services, the Faculty is introducing a specialization in Child and Family Services. Resulting from the Specialization are the introductions of three courses: **047.4AA Family Group Conferences, 047.4AB Addiction and CFS Practice and 047.4AC Crisis Intervention.** The proposed specialization has received support from students, the profession and the community.

**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**

Department of Animal Science  
Department of Plant Science  
Department of Agribusiness  
Diploma Program

**Faculty of Arts**

Anthropology  
Asian Studies  
Canadian Studies  
Classics  
Economics  
English  
French, Spanish and Italian  
Geography  
German and Slavic Studies

Global Political Economy  
 Icelandic  
 Philosophy  
 Political Studies  
 Psychology  
 Religion  
 Deaf Studies Program  
 CUSB

### **Asper School of Business**

### **Faculty of Education**

Department of Curriculum, Teaching and Learning  
 Department of Educational Administration, Foundations and Psychology

### **Faculty of Engineering**

### **Faculty of Human Ecology**

Department of Family Studies  
 Department of Human Nutritional Sciences

### **Faculty of Physical Education and Recreation Studies**

### **Faculty of Science**

Warren Centre for Actuarial Studies and Research  
 Biology Program  
 Botany  
 Chemistry  
 Computer Science  
 Ecology Program  
 Genetics Program  
 Geological Sciences  
 Mathematics  
 Mathematics-Actuarial Mathematics Joint Program  
 Microbiology  
 Microbiology-Chemistry Joint Biochemistry Program  
 Microbiology-Chemistry Joint Biotechnology Program  
 Physics and Astronomy  
 Psychology  
 Statistics  
 Statistics-Actuarial Mathematics Joint Program  
 Zoology  
 Courses offered in other faculties and schools acceptable for credit in the Faculty of Science

### **Faculty of Social Work**

Respectfully submitted,

Professor B. L. Dronzek, Chair  
Senate Committee on Curriculum and Course Changes

/jml

**Faculty of Agricultural and Food Sciences**

**Department of Animal Science**

Course to be deleted:

035.071 Horse Production and Management (0-0: 3-L) 4 -4

Course to be introduced:

035.0AB Horse Production and Management +3  
Principles of horse production, including genetics and breeding, reproductive management, nutrition and health. Applications to major sections of the horse industry. *Prerequisite: 035.042 or equivalent. Students may not hold credit for 035.0AB and the former 035.071 or the former 035.066*

**NET CHANGE IN CREDIT HOURS: -1**

**Department of Plant Science**

Course to be introduced:

039.3XX Organic Field Crop Production (0-0:3-0) +3  
Management principles and practices involved in the production of organic field and forage crops with a focus on the Canadian prairie region. *Prerequisite: 39.250 and 40.351 or consent of instructor.*

039.453 Woody Plants in the Prairie Landscape will be moved in to the Group 4 restrictive electives of the Plant Systems Program.

**NET CHANGE IN CREDIT HOURS: +3**

**Department of Agribusiness**

Course to be deleted:

061.351 Transportation Economics -3

Courses to be introduced:

061.2XX Transportation Principles +3

Demand forecasting, cost analysis, regulation of carriers, role of transport in economic development, project appraisal, and transport planning. Not to be held with the former 061.351 or 018.354. Also offered as XXX.XX1 Transport Institute / I.H. Asper School of Business.

061.2XY World Agribusiness Study Tour +3  
World Agribusiness Study Tour (03S Intersession) 3 Provides an understanding of world agribusiness, including areas such as agri-marketing, agricultural trade, agri-finance, agricultural policy, risk management, and economics of the environment and resources through an international study trip. A particular region of the world will be visited each time the course is offered. Offered at the discretion of the Department of Agribusiness. *Pre-requisite:* Approval of instructor.

**NET CHANGE IN CREDIT HOURS: +3**

**Diploma Program**

Courses to be deleted:

065.064	Management Plan 1	-4
065.065	Management Plan 2	-4

Courses to be introduced:

065.0XA Management Planning Project 1 +3  
Development of an objectives-driven plan that deals with production, personnel, marketing and financial management of a farm or off-farm business. *Students may not hold credit for 065.0XA and the former 065.062 or 065.064.*

065.0XB Management Planning Project 2 +5  
Refinement of the plan developed in Management Planning Project 1 with emphasis on generating and analyzing a complete set of financial statements for a farm or off-farm business. Presentation of the management plan, in both written and verbal form. On-site visits will be used to illustrate and reinforce management principles and practices and address issues raised in class. *Prerequisite:* 65.0XA. *Students may not hold credit for 065. 0XB, the former 065.062 or 065.065.*

061.069 Agricultural Finance and Credit is now a required course in the Business Management option along with 06.068 Ag Business Management and 061.072 Farm Business Management. The Restrictive Elective group will now consist of 061.070 Merchandising and Sales, 061.071 Agricultural Policy, and 061.071 Financial Risk Management, of which students must select at least one course.

**NET CHANGE IN CREDIT HOURS: +0**

Students can now transfer up to 36-39 credit hours from the diploma into the degree program

**Faculty of Arts**

Anthropology

## Courses to be deleted:

076.109	World Ethnography (A)	-3
076.244	Peasant Society and Culture (B)	-3

## Courses to be introduced:

076.1XX	<u>Critical Cultural Anthropology (A)</u>	+3
An introduction to social cultural anthropology that critically examines production and exchange systems, age, gender, kinship and other social distinctions, belief systems, politics, and interactions between cultural systems. Learning and performance assessment is based upon supervised reading and essay writing. Students may not hold credit for both 076.1XX and 076.120 or 076.122.		
076.2AA	<u>Anthropology of Mass Communication (B)</u>	+3
This course focuses on media production and dissemination and on images of the world created by media. Media practices and products are addressed in relation to the formation of social relations and identities, the shaping of peoples' sense of time and space, and media's role in the construction of communities and in processes of socio-economic and cultural change. <i>Prerequisite:</i> a grade of "C" or better in one of: 076.120, 076.122, 076.1XX or the former 076.109 or written consent of instructor.		
076.2PS	<u>Peasantry in a Changing World (B)</u>	+3
Anthropological approaches to the study of peasant societies as part of larger political economies. Attention is given to peasant economies, social and political organizations and belief systems, and their articulation with wage-labour and cash crop markets. Students may not hold credit for both 076.2PS and the former 076.244. <i>Prerequisite:</i> a grade of "C" or better in one of: 076.120, 076.122, 076.1XX or the former 076.109 or written consent of instructor.		

## Courses to be modified:

076.239	<u>Social Organization in Cross-Cultural Perspective (B)(6)</u>	
Kinship, gender, class and political structures are examined to consider variations, continuities, and changes in relationships among individuals, groups and societies around the world. <i>Prerequisite:</i> a grade of "C" or better in one of: 076.120, 076.122, 076.1XX or the former 076.109 or written consent of instructor.		
076.239F	<u>Organisation sociale trans-culturelle: Introduction à l'ethnographie (B) (6)</u>	
Ce cours porte sur le système de parenté, les distinctions de genre, les structures de stratification et d'autorité politique dans leurs divers effets sur les rapports interindividuels, les groupes et les sociétés à travers le monde. <i>Préalable:</i> une note minimale de C dans un des cours suivants: 076.120, 076.122, 076.1XX, l'ancien 076.109 ou l'autorisation écrite du professeur.		
076.250	<u>Culture, Environment, and Technology (B)(3)</u>	

Study of ecological systems, focussing on processes of adaptation in societies differing in organization and in views of technology. Demographic and technological changes are examined in relation to cultural, political and ideological factors. *Prerequisite:* a grade of "C" or better in one of: 076.120, 076.122, 076.1XX or the former 076.109 or written consent of instructor.

076.250F Culture, milieu et technologie (B)(3)

Ce cours porte sur les systèmes écologiques, particulièrement sur les processus d'adaptation dans les sociétés dont l'organisation et les conceptions technologiques diffèrent entre elles. Les changements démographiques et technologiques sont analysés en fonction des facteurs culturels, philosophiques et idéologiques. Donné au Collège universitaire de Saint-Boniface. Préalable: une note minimale de C dans un des cours suivants : 076.120, 076.122, 076.1XX, l'ancien 076.109 ou l'autorisation écrite du professeur.

076.251 Anthropology of Economic Systems (B)(3)

A comparative study of factors bearing upon production, exchange, and consumption of goods, practices and ideas in varying social contexts. The course also examines the articulation of economic systems in the global political economy. *Prerequisite:* a grade of "C" or better in one of: 076.120, 076.122, 076.1XX or the former 076.109 or written consent of instructor.

076.253 Anthropology of Political Systems (B)(3)

Analysis of political institutions and their changing nature in diverse societies and forms of society, with attention to authority, leadership, decision-making, power and its disguises, and forms of resistance. *Prerequisite:* a grade of "C" or better in one of: 076.120, 076.122, 076.1XX or the former 076.109 or written consent of instructor.

**The following course descriptions must be modified to include 076.1XX in their lists of restricted courses:**

076.120	Introductory Anthropology (A)(6)
076.120F	Introduction à l'Anthropologie (A)(6)
076.122	Cultural Anthropology (A)(3)
076.122F	Anthropologie culturelle (A)(3)

**076.1XX can be used in place of 076.122 for entrance to General Major, Advanced Major and Minor programs. The University 1 year of the Anthropology chart shown on page 92 of the 2002-2003 Calendar should be modified accordingly.**

**The following course descriptions should be modified to include 076.1XX in their lists of prerequisite options:**

076.201F	Langage et culture (B)(3)
076.203F	Introduction à la muséologie (B)(6)

076.204	Native North America: A Sociocultural Survey (B)(3)
076.204F	Les Amérindiens de l'Amérique de nord: un étude socioculturelle (B)(3)
076.235	Ethnology of Sub-Saharan Africa (B)(3)
076.235 F	Ethnologie de l'Afrique sous-saharienne (B)(3)
076.237	Language and Culture (B)(3)
076.238	Art, Symbols, Cultures (B)(3)
076.239	Social Organization in Cross-Cultural Perspective (B)(6)
076.239F	Organisation sociale trans-culturelle: Introduction à l'ethnographie (B)(6)
076.250	Culture, Environment, and Technology (B)(3)
076.250F	Culture, milieu et technologie (B)(3)
076.251	Anthropology of Economic Systems (B)(3)
076.253	Anthropology of Political Systems (B)(3)
076.255	Culture and the Individual (B)(3)
076.256	Anthropology of Illness (B)(3)
076.269	Peoples and Cultures of Contemporary Latin America (B)(3)
076.283F	Méthodes en ethnologie (B)(3)
076.321	Culture Change (B)(3)
076.321F	Evolution de la culture (B)(3)
076.332	Women in Cross-Cultural Perspective (B)(3)
076.332F	Femmes, sociétés et cultures (B)(3)
076.346	Native North American Ethnology (B)(3)
076.346F	Ethnologie des Amérindiens de l'Amérique de Nord (B)(3)
076.350	Peoples of the Arctic (B)(3)
076.350F	Peuples de l'Arctique (B)(3)
076.368	Anthropological Perspectives on Current Issues in Latin America (B)(3)
076.381	Anthropology of Belief Systems (B)(3)
076.381F	Anthropologie des systèmes de croyances (B)(3)
076.397	Ethnography of a Selected Region (B)(3)

**The following course descriptions must be modified to indicate 076.109 as "the former" in their lists of prerequisites:**

076.203F	Introduction a la muséologie (B)(6)
076.204	Native North America: A Sociocultural Survey (B)(3)
076.204F	Les Amérindiens de l'Amérique de nord: un étude socioculturelle (B)(3)
076.238	Art, Symbols, Cultures (B)(3)
076.239	Social Organization in Cross-Cultural Perspective (B)(6)
076.239F	Organisation sociale trans-culturelle: Introduction à l'ethnographie (B)(6)
076.250	Culture, Environment, and Technology (B)(3)
076.250F	Culture, milieu et technologie (B)(3)
076.251	Anthropology of Economic Systems (B)(3)
076.253	Anthropology of Political Systems (B)(3)
076.255	Culture and the Individual (B)(3)
076.256	Anthropology of Illness (B)(3)
076.332	Women in Cross-Cultural Perspective (B)(3)
076.332F	Femmes, sociétés et cultures (B)(3)
076.346	Native North American Ethnology (B)(3)
076.346F	Ethnologie des Amérindiens de l'Amérique de Nord (B)(3)



076.350	Peoples of the Arctic (B)(3)
076.350F	Peuples de l'Arctique (B)(3)
076.381	Anthropology of Belief Systems (B)(3)
076.381F	Anthropologie des systèmes de croyances (B)(3)

**NET CHANGE IN CREDIT HOURS:**

**+3**

**Asian Studies**

Courses to be introduced:

150.2AA Modern Japanese Literature in Translation +3

This course is intended as an introduction to Japanese Literature from the Meiji era (1868-1912) to the present day. Although some attention will be paid to poetry, the emphasis will be on short stories and the novel.

150.3AA Japanese Popular Culture +3

This course examines various examples of popular culture in contemporary Japan, including popular literature, film, television, popular music, and leisure activities.

Attention will also be paid to popular culture theory and methods of analysis.

Prerequisite: a grade of "C" or better in 150.262 or written consent of instructor.

Course to be modified:

150.177 Introduction to Japanese (6)

An introduction for non-Japanese speakers to Hiragana, Katakana, and some Kanji. Students will be taught pronunciation, grammar, vocabulary, and about 250 written characters. Students may not hold credit for both 150.177 and the former 099.092. Not open to students who have previously obtained credit for the former 099.102, the former 099.212, or 150.277, 150.377. Students who have obtained Grade 12 Japanese in Canada or abroad must obtain written consent of instructor.

**Revisions to List A****Added material****List A Courses Acceptable for Asian Studies Credit**

Course No.		Credit Hours
<b>Faculty of Arts</b>		
<i>Anthropology</i>		
076.245	Ethnology of China	3
<i>Asian Studies - Asian Languages</i>		
150.176	Introduction to Chinese (Mandarin)	6
150.177	Introduction to Japanese	6
150.178	Basic Sanskrit	6
150.179	Basic Hindi-Urdu	6
150.234	Special Studies in Epic and Pauranic Sanskrit 1	3
150.235	Special Studies in Epic and Pauranic Sanskrit 2	3
150.236	Mandarin Comprehension	6
150.276	Intermediate Chinese (Mandarin)	6
150.277	Intermediate Japanese	6
150.278	Intermediate Sanskrit	6
150.279	Intermediate Hindi-Urdu	6
150.366	Advanced Mandarin Comprehension	6
150.376	Advanced Chinese (Mandarin)	6
150.377	Advanced Japanese	6
150.379	Advanced Hindi-Urdu	6
<i>Asian Studies - Other Asian courses</i>		
150.141	Asian Civilizations (Same as 011.141)	6
150.142	Asian Civilizations to 1500 (Same as 011.142)	3

150.143	Asian Civilizations from 1500 (Same as 011.143)	3
150.207	South Asian Civilization	6
150.211	East Asian Civilization	6
150.257	History, Culture and Society in Chinese Film	3
150.258	Women in Chinese Film	3
150.262	Japanese Civilization	3
150.263	Chinese Civilization	3
150.266	Modern Chinese Literature in Translation	6
<u>150.2AA</u>	<u>Modern Japanese Literature in Translation</u>	<u>3</u>
150.348	Selected Topics in Asian Studies 1	3
150.349	Selected Topics in Asian Studies 2	3
<u>150.3AA</u>	<u>Japanese Popular Culture</u>	<u>3</u>
<i>Geography</i>		
053.249	Geography of Modern China	3
053.359	Geography of Developing Countries	6
<i>History</i>		
011.141	Asian Civilizations (Same as 150.141)	6
011.142	Asian Civilizations to 1500 (Same as 150.142)	3
011.143	Asian Civilizations from 1500 (Same as 150.143)	3
<u>011.2AA</u>	<u>History of India (B)</u>	<u>6</u>
011.205	South Asia Since 1947	3
011.213	Emergence of Modern South Asia: 1757-1947	3
011.265	Modern China and Japan	6
011.309	Studies in Asian History	3
011.358	Topics in Recent World History 1(M)	3
	[Acceptable for credit only when the topic is Asia related]	
011.396	China, 1911 to the Present	3
011.398	Nationalism on the Indian Sub-Continent in the Twentieth Century	3
011.420	Modern South Asia: Colonialism, Nationalism and Modernization	3
011.494	Revolutionary China: A Century of Upheaval, 1870s to Present	
<i>Political Studies</i>		
019.202	Asian Politics	6
<i>Religion</i>		
020.132	Introduction to World Religions / Introduction aux religion du monde	6
020.254	Modern Movements in World Religions	6
020.257	Indian Religious Art and Architecture	3
020.266	Religions of Indian Origin	6
020.270	Religions of China and Japan	6
020.374	Studies in Asian Religions	6
020.375	Topics in Indian Religious Art and Architecture	3
020.441	Masters of Spiritual Life	6
020.445	Topics in Comparative Religion	6
<i>Sociology</i>		
077.369	Sociology of the Developing Societies	3
<b><u>School of Art</u></b>		
<u>054.210</u>	<u>Survey of Asian Art</u>	<u>3</u>
<u>054.323</u>	<u>Chinese Art and Architecture</u>	<u>3</u>
<u>054.324</u>	<u>Japanese Art and Architecture</u>	<u>3</u>
<u>054.359</u>	<u>Islamic Art and Architecture</u>	<u>3</u>

**NET CHANGE IN CREDIT HOURS:****+6****Canadian Studies**

Modify the List of Approved Courses in Canadian Studies by adding the following courses:

- 076.391 Archaeological Field Training (D,E) 6  
 011.406 Gender History in Canada (C) (H) 6  
 153.3XX Industrial Relations 6  
 032.207 The Native Peoples of the Subarctic 3  
 032.208 Inuit Society and Culture 3  
 019.3AA Gender and Politics in Canada 3

**Classics**

Courses to be Introduced:

- 003.2AA Intermediate Modern Greek 1 +3  
 Continued study and practice in oral and written communication in Modern Greek. Course work includes conversation, prose composition and reading of selected texts from Greek literary works and popular media. *Prerequisite:* a grade of 'C' or better in 003.107 or written consent of department head. Not for credit towards a major or minor in Classical Studies.
- 003.2AB Intermediate Modern Greek 2 +3  
 Continued study and practice in oral and written communication in Modern Greek. Course work includes conversation, prose composition and reading of selected texts from Greek literary works and popular media. *Prerequisite:* a grade of 'C' or better in 003.2AA or written consent of department head. Not for credit towards a major or minor in Classical Studies.

**NET CHANGE IN CREDIT HOURS****+6****Economics**

Course to be deleted:

- 018.358 Economics of the European Economic Community (EEC) -6

Course to be introduced:

- 018.2XX Economics of the European Union +3  
 A brief overview of the history of European unification from the Second World War to the Economic and Monetary Union. Performance and policies in the areas of labour markets, social welfare and cohesion, agriculture, environment, competition, public finance, monetary integration, and trade relations with non-Members. Students may not hold credit for 018.2XX and either of 018.261 when titled European Union, or the former 018.358. *Prerequisite:* none.

Courses to be modified:

- 018.242 Economics of the Labour Process and Labour Relations (6)  
 Theoretical approaches to the labour process, the formation and reproduction of the labour force, the structure of the labour market, labour institutions and the economy. Applications to Canadian and alternative economic systems. Students may not hold credit for both 018.242 and 153.2XX. *Prerequisite:* a grade of "C" or better in 018.120, or both 018.121 and 018.122, or both 153.127 (the former 099.127) and 153.128 (the former 099.128).

**018.336 Labour Economics (6)**

The labour force, labour markets, wage theories and wage determination, theories of employment, social insurance. Prerequisite: a grade of "C" or better in one of the following (combination of) courses: 018.245 (or 018.270) and one of 018.246 (or 018.370), 018.247 (or 018.280), 018.248 (or 018.380); 027.316 or 018.242 (or 153.2XX) is recommended.

**018.351 Industrial Relations (6)**

A study of comparative employer-employee relationships in Canada and other selected countries as affected by market forces, social traditions, and government action.

Students may not hold credit for both 018.351 and 153.3XX. Prerequisite: a grade of "C" or better in one of the following: 018.120; 018.121 and 018.122; 153.127 (the former 099.127) and 153.128 (the former 099.128).

**NET CHANGE IN CREDIT HOURS:****-3****English**

Course to be deleted:

004.124 Representative Literary Works -6

Modify Year 2 of Honours Single and Honours Double programs:

Added material

Deleted material

8.11.3 English, Department Code: 004			
UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
HONOURS SINGLE <sup>1,5</sup>			
004.120 or 004.126 or both 004.131 and 004.134	<ul style="list-style-type: none"> <li>• <u>004.253, 004.254</u> <del>004.289</del> (in Year 2)</li> <li>• 24 credit hours of Literature Prior to the Twentieth Century, of which 12 credit hours is to be in literature prior to 1700 selected from the following English courses: 004.206, 004.210, 004.215, 004.305, 004.306, 004.310, 004.311 004.315, 004.316 <sup>6</sup>.</li> <li>• 6 credit hours in Canadian literature, selected from the following English courses: 004.288, 004.289, 004.388 <sup>6</sup></li> <li>• 12 credit hours in other literature after 1900, selected from the following English courses: 004.285, 004.287, 004.283, 004.284, 004.391, 004.392 <sup>6</sup>.</li> <li>• 9 credit hours in Honours seminars (400 level)<sup>7</sup> in Years 3 and 4. Honours seminars that are double-numbered with a graduate course will be limited to fourth-year Honours students.</li> <li>• 9 credit hours in other English courses</li> <li>• 24 credit hours in ancillary options</li> </ul>		
HONOURS DOUBLE <sup>1,3</sup>			
004.120 or 004.126 or both 004.131 and 004.134	<ul style="list-style-type: none"> <li>• <u>004.253, 004.254</u> <del>004.289</del> (in Year 2)</li> <li>• 18 credit hours of Literature Prior to the Twentieth Century</li> <li>• 6 credit hours in other English courses</li> <li>• 6 credit hours in Honours seminars (400 level)<sup>7</sup>. Honours seminars that are double-numbered with a graduate course will be limited to fourth-year Honours students.</li> <li>• 36 credit hours in second honours field</li> <li>• 6 credit hours in ancillary options</li> </ul>		
NOTES:			
<p>1 See "(B) Introductory Courses" below for restrictions on the number of courses numbered at the 100 level chart may be taken for credit.</p> <p>2 Students may offer up to 6 credit hours in Film Studies courses, with the exception of 152.129 (or the former 099.129) and 152.130 (or the former 099.130), toward both the 3-year and the 4-year Major in English. Any Film Studies course so applied may not also be offered toward a Minor in Film Studies.</p> <p>3 Film Studies course 152.228 may be used as an English course to satisfy the English course requirements. If it is used as such, it may not also be applied to a minor in Film Studies or as an ancillary option in Honours.</p> <p>4 Credit in 004.200 may be offered toward the 48 hours in general courses required for a Major (Advanced).</p> <p>5 Film and Theatre courses, other than Introductory (100 level), may be used for credit towards an Honours programme (Single).</p> <p>6 Certain courses that vary in content from year to year, such as Honours seminars and Special Topics courses, may also satisfy this requirement, as determined by the Department.</p> <p>7 Registration in any course numbered at the 400 level requires an average of 3.00 or better in previous English courses. For courses at the 400 level, students must attain a grade of "B" or better.</p>			

NET CHANGE IN CREDIT HOURS:

-6

**French, Spanish and Italian**

Course to be introduced:

**044.3XX      Études sur Beauvoir (B)**

+3

Le but de ce cours est d'étudier l'œuvre et la pensée de Simone de Beauvoir dont l'importance dans les études féministes continue d'être très marquée. Un choix de textes sera effectué parmi ses essais philosophiques, ses romans et son autobiographie. *Prerequisite:* a grade of "B" or better in any 200-level French course or written consent of department head. 044.261 may not be used as a prerequisite.

Course to be modified:

**044.127      Spanish Oral 1 (3)**

For students who do not have native oral fluency in Spanish and who wish to improve their understanding and correctness in spoken Spanish. Intensive oral practise in the classroom and language laboratory at the intermediate level discussing contemporary issues and topics relating to Hispanic current events, politics and culture. Students may not hold credit for both 044.127 and 122.1AA. *Prerequisite:* a grade of "C" or better in 044.126 or written consent of department head.

**NET CHANGE IN CREDIT HOURS:**

+3

**Geography**

Course to be deleted:

**053.243F      Géographie politique (HS)**

-6

Courses to be introduced:

**053.2XYF      GÉOGRAPHIE POLITIQUE 1 (HS)**

+3

Étude des relations qui existent entre l'État et son territoire: sa localisation, ses frontières et ses disparités régionales. On ne peut pas se faire créditer à la fois le 053.2XY et le 053.243. Donné au Collège universitaire de Saint-Boniface. *Préalable:* une note minimale de C dans un minimum de 3 crédits de géographie de niveau 100 ou l'autorisation écrite du professeur.

**053.2XZF      GÉOGRAPHIE POLITIQUE 2 (HS)**

+3

Étude des rapports de force entre les États et leurs relations à l'espace, aux ressources, à la population et aux groupes ethniques. On ne peut pas se faire créditer à la fois le 053.2XZ et le 053.243. Donné au Collège universitaire de Saint-Boniface. *Préalable:* une note minimale de C dans le 053.2XY ou l'autorisation écrite du professeur.

**053.3XYF      GÉOGRAPHIE DE L'EAU (PS)**

+3

L'eau, élément essentiel de la géographie physique: bilan d'eau, cycle hydrologique, infiltration, percolation et écoulement, eaux souterraines, hydrologie fluviale et marine: cours d'eau, lacs et océans, environnement. Donné au Collège universitaire de Saint-Boniface. *Préalable:* une note minimale de C dans le 053.129 ou l'autorisation écrite du professeur.

**053.3XZF      L'EAU, ENJEU GÉOSTRATÉGIQUE (HS)**

+3

L'eau, un enjeu stratégique d'importance: un survol historique des enjeux liés à l'eau et les enjeux actuels, La répartition inégale de la ressource "eau" et son partage équitable, les solutions techniques, économiques, institutionnelles et juridiques envisagées et le droit international. Donné au Collège de universitaire de Saint-Boniface. *Préalable:* une note minimale de C dans le 053.128 et les deux le 053.2XY et le 053.2XZ (ou le

053.243), ou l'autorisation écrite du professeur.

Course to be modified:

**053.243      Political Geography (HS) (6)**

A study of the relationships existing between land and the state - its location, boundaries, and regional differences; elements of strength in relation to space, resources, population, and ethnic groups at international, national and local levels. Students may not hold credit for 053.243 and either 053.2XY or 053.2XZ. *Prerequisite:* a grade of 'C' or better in a minimum of three credit hours from Geography courses numbered at the 100 level, or written consent of department head.

**NET CHANGE IN CREDIT HOURS:**

**+6**

**German and Slavic Studies**

Courses to be introduced:

**008.3XXF      SUJETS PARTICULIERS**

**+3**

Le contenu de ce cours peut varier selon les besoins et les intérêts des étudiants et du professeur. Donné au Collège universitaire de Saint-Boniface. Préalable: l'autorisation écrite du professeur.

**008.3XYF      DEUTSCHE SPRACHPRAXIS 1**

**+6**

Approfondissement, au moyen d'exercices pratiques, de la conversation et de la traduction (français - allemand), de l'allemand parlé et écrit, à l'aide de textes variés. L'accent sera mis sur l'étude du vocabulaire et des particularités de structure et de style. L'étudiant ne peut pas se faire créditer à la fois le 008.320 et le 008.321 ou l'ancien 008.225 ou l'ancien 008.226. Donné au Collège universitaire de Saint-Boniface. Préalable: une note minimale de C dans le 008.210 (l'ancien 008.120) ou le 008.211 (l'ancien 008.123).

**NET CHANGE IN CREDIT HOURS:**

**+9**

**Global Political Economy**

Add the following courses to the List of Suggested Electives:

076.1XX      Critical Cultural Anthropology (A)  
076.2PS      Peasantry in a Changing World (B)

Modify wording of entrance requirements for the General and Advanced Major programs:

Added material

~~Deleted material~~

**8.16.1 Program Information**

For entry to the Major, the prerequisite is a grade of "C" or better in any 612 credit hours from the following: 018.120 (or 018.121) and 018.122; 077.1207; 019.150; ~~and 6 credit hours from the following: (no more than 6 credit hours from) 011.137, 011.138, 011.150, 011.238, 011.272.~~



Icelandic

Course to be introduced:

012.2AA Icelandic Folktales

+3

An introduction to Icelandic and Icelandic-Canadian folk- and fairytales; including stories of ghosts, trolls, elves, huldufolk and sea-monsters. Open to all students: taught in English.

**NET CHANGE IN CREDIT HOURS:**

**+3**

Philosophy

Courses to be deleted:

015.246 Philosophy of Law 1

-3

015.247 Philosophy of Law 2

-3

Courses to be introduced:

015.2XX Philosophy of Law

+3

An introduction to the philosophy of law and to rule systems generally. Sample topics include the concept of law (law and religion; natural law; the "laws of the books"); the connection, if any, between law and morality; and the politics of law in Canada and elsewhere. Students may not hold credit for both 015.2XX and the former 015.246.

015.2XY Philosophy and Law

+3

An inquiry into the philosophy of law, on issues not covered in 015.2XX. Students will examine such topics as: guilt and responsibility; theories of punishment; the right to dissent; legal reasoning; and, "professional ethics". Students may not hold credit for both 015.2XY and the former 015.247.

**NET CHANGE IN CREDIT HOURS:**

**+0**

Political Studies

Course to be introduced:

019.3AA Gender and Politics in Canada

+3

This course introduces the principal themes in the study of gender and politics in Canada. Topics may include women's political organizing and activism, representation in political institutions, the gendered division of labour in the private and public spheres, gender and public policy, and the gendered nature of political behaviour.

**NET CHANGE IN CREDIT HOURS:**

**+3**

**Psychology**

Course to be introduced:

017.4AB Behavioural Endocrinology +3

A comparative approach is adopted to examine how hormones influence a diversity of behaviours through their actions on brain function, the physiological substrates of the behaviours, and their development as evolutionary adaptations. Techniques used by behavioural neuroscientists to study the behavioural and neuroendocrine interactions are surveyed. *Prerequisite:* a grade of "C" or better in 017.333 and written consent of department head.

**NET CHANGE IN CREDIT HOURS: +3**

**Religion**

Courses to be modified:

020.377 Paul the Apostle (A) (6)

The ministry of Paul the Apostle in the light of modern historical study, his importance in the formation of Christianity, and examination of selected Pauline letters from the New Testament. *Prerequisite:* a grade of "C" or better in both 020.216 and 020.217 (the former 020.240), or written consent of instructor or department head.

020.378 Selected New Testament Literature and Themes (A) (6)

An intensive study of selected documents and/or themes from the New Testament. *Prerequisite:* a grade of "C" or better in both 020.216 and 020.217 (the former 020.240), or written consent of instructor or department head.

020.379 Prophets of Ancient Israel (A) (6)

The nature and role of prophets in ancient Israelite religion, study of selected examples of Old Testament prophetic literature. *Prerequisite:* a grade of "C" or better in both 020.216 and 020.217 (the former 020.240), or written consent of instructor or department head.

020.380 Selected Old Testament Literature and Themes (A) (6)

An intensive study of selected writings or themes of the Old Testament (the Tanach). *Prerequisite:* a grade of "C" or better in both 020.216 and 020.217 (the former 020.240), or written consent of instructor or department head.

020.384 The Bible as Story (A) (6)

A study of the manner in which biblical storytellers present their tales and the ways in which these narratives have been retold ever since. Particular attention will be paid to Midrash, the tradition of creative retellings of biblical tales. *Prerequisite:* a grade of "C" or better in both 020.216 and 020.217 (the former 020.240), or written consent of department head.

**NET CHANGE IN CREDIT HOURS: +0**

**Deaf Studies Program**

Modify Deaf Studies Program (prerequisite) — U of M

**Added material**

Deaf Studies Program (prerequisite) - U of M

126.120	Introduction to Linguistics	6
076.122	Cultural Anthropology (A)	3
<u>or</u>		
076.1XX	Critical Cultural Anthropology (A)	3
	Math (science)	3
	Total Hours	12

**CUSB**

Courses to be introduced:

122.1AA Espagnol oral 1 +3  
 Ce cours s'adresse aux étudiants de niveau intermédiaire qui ne parlent pas couramment l'espagnol et souhaitent perfectionner leurs compétences orales (compréhension, correction grammaticale). Pratique intensive de la langue parlée en classe et au laboratoire de langue à partir de thèmes de discussion contemporains et de sujets d'actualité, de politique et de culture, en rapport avec le monde hispanique. On ne peut se faire créditer le 122.1AA et le 044.127. Donné au Collège universitaire de Saint-Boniface. Préalable: au moins C dans le 122.126 (044.126) ou l'autorisation écrite du professeur.

122.2XX El español a través del cine hispanoamericano +3  
 Ce cours vise à familiariser les étudiants avec les cultures espagnole et latino-américaine à partir d'oeuvres cinématographiques issues de ces cultures. L'accent sera mis sur la discussion et l'expression orale. Donné au Collège universitaire de Saint-Boniface. Préalable: au moins C dans le 122.1AA (044.127) ou l'autorisation écrite du professeur.

**NET CHANGE IN CREDIT HOURS: +6**

**Asper School of Business****Logistics and Supply Chain Management Major****Proposed Courses Required for the Major:**

xxx.xx1	Transportation Principles (3 cr. hrs.)
xxx.xx2	Selected Topics in Supply Chain Management (3 cr. hrs.)
027.463	Production and Inventory Systems (3 cr. hrs.)
118.336	Supply Chain Logistics (3 Cr. hrs.)

**Recommended Electives/Options for the Major:**

027.220	International Management PREQ: none
027.244	Human Resource Management PREQ: none
027.345	Labour and Employment Relations PREQ: none
027.312	Regulation PREQ: none
027.316	Managerial Economics PREQ: 018.120 or equivalent
027.4 16	Seminar in Business-Government Relations PREQ: none
027.340	Intermediate Management Science PREQ: 27.215 or permission from instructor
009.350	Database Management Systems PREQ: 009.200 (C+)
009.351	Systems Analysis and Design PREQ: 009.350 and 74.101
009.352	Data Communications and Networking PREQ: 009200 (C+)
009.450	Management Information Systems and Strategy PREQ: at least two of the following: 009.350, 009.351, 009.352, 09.353, 009.425
098.405	Readings in Management PREQ: none
098.407	Management Research 1 PREQ: none
098.408	Management Research 2 PREQ: none
118.322	Marketing Research PREQ: 118.221 and 005.100 or consent of instructor
118.334	Services Marketing PREQ: 118.221
118.332	Competitive Intelligence PREQ: 009.111, 009.200, 118.322
118.441	Business to Business Marketing PREQ: 118.221
053.380	Geography of Transportation Development PREQ: C or better in another GEOG course above 53.100 or written consent of instructor
018.245	Microeconomic Theory and Its Applications I PREQ: C or better in 018.120 or both 018.121 and 01 8.122 or written consent of department head
018.246	Microeconomic Theory and Its Applications 2 PREQ: C or better in 018.245 (or 018.270)

**Courses to be introduced:**

**XXX.XX1      Transportation Principles      +3**  
 This introductory course establishes an overview of one of the critical areas in the major. Transportation modes, economics, policy, and regulation are broad areas explored in this course. It establishes a fundamental understanding of the creation of time, place, and form utility. The orientation of the course is both societal as well as managerial. The course has 18.120 as a prerequisite which is required of all Management students. The course is also offered by the Department of Agribusiness and Agricultural Economics as 061.XXX. Students may not hold credit for both 061.XXX and XXX.XX1.

**XXX.XX2      Selected Topics in Supply Chain Logistics      +3**  
 The Selected Topics course is the third element in the major. It is proposed to allow flexibility in the delivery of subject matter to students in the major. Enclosed with the course proposal form are two course outlines (Global Supply Chain Logistics and Transport Regulation and Policy) that provide an idea of the kinds of courses that could

be offered under the Selected Topics number. The prerequisites are either the Transportation Principles or the Supply Chain Logistics course.

**NET CHANGE IN CREDIT HOURS:**

**+6**

**Faculty of Education**

**Department of Curriculum, Teaching and Learning**

Courses to be introduced:

**132.1PR      Practicum in Teaching English as a Second Language (TESL)      +3**  
 Practical second language teaching experiences, including: observing recorded and live teaching, planning lessons and units, micro and live teaching, and reflective practice. May not be held with the former 132.163. *Pre-requisites or co-requisites.- 132.162, 132.164, and 132.165. Pass/Fail Course*

**132.1HL      Teaching a Heritage, Aboriginal, or International Language 1      +3**  
 Curriculum principles and procedures in teaching a language other than English or French. *Senior Years.- co-requisite: 132.150, 132.198, Curriculum and Instruction for major/minor,- pre- or co-requisite 129.180, 129.181, 132.151, 132.199; Integrated B.Mus./B.Ed. and B.HEc./B.Ed., pre-requisite: Year 1-4 inclusive. Early/Middle Years. Elective; pre-requisite.- 18 credits in a language other than English or French. May not be held with 132.122, or 063.409, or 063.323.*

**132.2HL      Teaching a Heritage, Aboriginal, or International Language 2      +3**  
 Curriculum applications and practice in teaching a language other than English or French. *Senior Years: pre-requisite: successful completion of year 1, 132.1HL or 132.122; co-requisite: 132.250, 132.298, Curriculum and Instruction for Year 2 major/minor; pre- or co-requisite: 129.280, 129.281, 132.251; Early/Middle Years: Elective; pre-requisite: 132.1HL or 132.122.*

**132.5EC      ESL and Content Instruction      +3**  
 Principles and procedures of teaching ESL/bilingual students in subject-area classrooms, using content-based language instruction and language sensitive content instruction.

**132.5FE      Fundamentals of ESL (English Second Language) Instruction      +3**  
 Examination of principles and demonstration of procedures for teaching ESL in Canada and EFL overseas. Not to be held with the former 132.550 or the former 063.586.

**132.5VP      ESL Vocabulary and Pronunciation Instruction      +3**  
 Principles and procedures in teaching English vocabulary and pronunciation for effective communication (sounds, spellings, word and sentence stress, rhythm, intonation, connected speech, integration). Not to be held with 132.164.

Course to be modified:

132.125 Teaching Mathematics in Senior Years 1 (3)

A study of curriculum and instructional approaches relevant to teaching mathematics at the Senior Years level. Senior years: *core requisite*: 132.150, 132.198, Curriculum and Instruction for Major/minor; pre- or *corequisite*: 129.180, 129.181, 132.151, 132.199, 132.180. Integrated B.Mus/B.Ed. and B.H.Ec./B.Ed.: *prerequisite*: Year 1-4 inclusive."

Courses to be deleted:

132.122	Teaching a Second Language in Senior Years	-3
132.163	Practicum in Second Language Teaching	-3
132.550	Fundamentals of Language Instruction	-3

**NET CHANGE IN CREDIT HOURS: +9**

**Department of Educational Administration, Foundations and Psychology**

Course to be introduced:

129.1XY Communication and Interpersonal Relationships In Education +3

The purpose of this course is to help teacher candidates increase their awareness, understanding, and proficiency in communication and interpersonal relationships. Emphasis in this course is on the integration of theory, research, and practice in the areas of communication and interpersonal relationships.

**NET CHANGE IN CREDIT HOURS: +3**

**Faculty of Engineering**

Course to be modified:

130.113 Introduction to Engineering (1-0:0-0) 1 or (0-0: 1-0) 1

The Engineering Profession from the perspective of Students and practising Professionals. Academic, Legal and Ethical Considerations. *Prerequisite*: Acceptance to Engineering or permission of the Instructor.

**NET CHANGE IN CREDIT HOURS: +0**

**Faculty of Human Ecology**

**Department of Family Studies**

Minor to be introduced:

Minor in Family Studies: 18 credit hours in Family Studies, distributed as:  
6 credit hours in Family Studies at the 100 level, and at least 3 credit hours in Family Studies at the 200 level, and at least 3 credit hours in Family Studies at the 300 and/or 400 level, with no more than 6 credit hours at the 100 level.

## Department of Human Nutritional Sciences

Courses to be modified:

### 030.432 Nutrition Management of Disease States (3) L

Nutritional assessment and dietary management of acute and chronic disease states.

*Pre- or co-requisites* 30.330, 30.331 and 30.332. Not to be held with the former 30.423 and 30.424.

### 030.214 Basic Principles In Human Nutrition (3)

The scientific principles underlying nutrient function and dietary requirements.

*Prerequisites:* 002.277 or 002.236 or 060.236, and 030.121, and 030.120; or 002.277 or 002.236, and 078.250; with a grade of C or higher in 002.277 or 002.236. Not to be held with the former 030.325.

### 030.330 Vitamins and Minerals In Human Health (3)

The physiological importance of vitamins and minerals in the human body, including factors affecting dietary requirements, metabolism and roles in disease progression and prevention. *Prerequisites:* 002.278 or 002.237, and 030.214, and 022.133 or 022.254.

Not to be held with the former 030.426.

### 030.331 Macronutrients and Human Health (3)

Macronutrient functions and metabolic roles in human health, including the prevention and pathogenesis of various diseases. *Prerequisites:* 002.278 or 002.237, and

030.214, and 022.133 or 022.254. Not to be held with the former 030.325.

### 030.333 Ingredient Technology for Designed Foods (3)

Chemical and functional properties of ingredients and their application in designed foods: low fat, low calorie, high fibre, high energy and innovative food products.

*Prerequisites:* 002.278 or 002.237, and 030.215; or 078.250 and 002.222.

### 030.215 Composition, Functional and Nutritional Properties of Foods (3)

Food composition, food market forms, food composition data for nutritional assessment and labelling. *Prerequisites:* 030.120, and 030.121, and 002.131 or 002.132. Not to be

held with the former 030.327.

### 030.216 Principles of Food Preparation and Preservation (3) L

Food preparation, preservation, handling and storage; quality and safety implications; scientific basis for culinary practice; use and application of equipment.

*Prerequisites:* 030.120, and 002.131 or 002.132. Not to be held with the former 030.211 or 30.324.

The required course list for the Human Nutritional Science Program should now read as follows:

1. Students can take either 2.132 University 1 Chemistry: An Introduction to Organic Chemistry, or 2.131 University 1 Chemistry: An Introduction to Physical Chemistry.

2. Students can take either 2.277 Elements of Biochemistry 1, or 2.236 Biochemistry 1: Biomolecules and an Introduction to Metabolic Energy.
3. Students can take either 2.278 Elements of Biochemistry 2, or 2.237 Biochemistry 2: Catabolism, Synthesis, and Information Pathways.
4. Students can take either 22.133 Physiology of the Human Body, or 22.253 Human Physiology 1 and 22.254 Human Physiology 2.

**NET CHANGE IN CREDIT HOURS:**

**+0**

**Faculty of Physical Education and Recreation Studies**

Course to be introduced:

057.330      Functional Assessment and Restoration      +6  
 Assessment of acute and chronic musculo—skeletal injuries and rehabilitation techniques to ensure full restoration of function. Prerequisites: 68.149, 68.150, 22.253 and 22.254.

**NET CHANGE IN CREDIT HOURS:**

**+3**

**Faculty of Science**

**Warren Centre for Actuarial Studies and Research**

Actuarial Mathematics 010.353 has been re-added as an elective in Year 3 of the Actuarial Mathematics Program

**Biology Program**

Course to be added:

071.1AA      Health and Health Professions      +3  
 Students discuss the inter-relationship between health, health determinants, and the impact that science, health-science, and behavioral-social sciences, and technology, have on health care and the health professions. Participants will consider their own role as health care consumers. Open only to students who have completed less than six credit hours.

**NET CHANGE IN CREDIT HOURS:**

**+3**



**Botany**

Course to be modified:

001.342 Field Ecology (3)L

Problems, techniques and assumptions involved in measuring parameters of biological populations and environmental variables. A field trip will be held prior to the start of classes. Students must register in the department office by August 2. This course is also given in Zoology as 022.345. *Prerequisites:* 001.237 (022.237 or 065.237), and 005.200.

**NET CHANGE IN CREDIT HOURS:**

**+0**

**Chemistry**

Courses to be introduced:

002.2XY Environmental Chemistry I +3

An introduction to the chemistry of the environment. Emphasis will be on the composition of the natural environment and the processes of natural and human-introduced chemical species that take place within it. The course will provide students with the chemical basis for understanding the environment and environmental problems. Not to be held with 128.2XY. *Prerequisite:* 002.131 (C).

002.3XY Environmental Analysis I +3

An introduction to classical and modern techniques for the sampling, sample pre-treatment, and analysis of chemical substances in aquatic, atmospheric and terrestrial environments and the interpretation of data obtained from such analyses. Not to be held with 002.347 or 128.3XY. *Prerequisite:* 002.2XY (128.2XY) (C) or permission of the instructor.

002.4XY Aquatic Chemistry +3

An examination of biogeochemical processes affecting the distribution, speciation and bioavailability of chemical substances in the aquatic environment. The theoretical basis for the chemical behaviour of natural water systems is discussed, as well as the description of processes involved in wastewater treatment. Offered in 2004-05 and in alternate years thereafter. Not to be held with 128.4XY. *Prerequisite:* A grade of 'C' in one of 002.347, 002.3XY or 128.3XY or permission of the instructor.

Courses to be modified:

002.347 Instrumental Methods of Analysis 6L

A course designed to follow a classical analytical chemistry course; the theory and use of standard instruments are discussed. Not to be held with 002.3XY or 128.3XY. *Prerequisite:* 002.247

002.436 Signalling and Regulation of Gene Expression 3  
 The biochemistry of cell response to external stimuli, with emphasis on animals. Cell surface receptors and ligands; signalling to the nucleus; phosphorylation and proteolysis; transcription; gradients in cell patterning. *Prerequisite:* 002.237 (060.237) (or the former 002.235 (060.235)).

002.436F Signalisation et régulation de l'expression génétique 3  
 Biochimie de la réponse cellulaire aux stimuli externes, en mettant l'accent sur les animaux. Les récepteurs à la surface des cellules, les ligands, la signalisation au noyau, la phosphorylation, la protéolyse, la transcription et les gradients dans le type cellulaire. *Préalable:* le 002.237 (060.237) (ou l'ancien 002.235 (060.235)).

**NET CHANGE IN CREDIT HOURS:**

**+9**

**Computer Science**

Courses to be deleted:

074.310	Concepts of Imperative Programming Languages	-3
074.348	Non-Imperative Programming Language Concepts	-3
074.371	User Interfaces	-3

Courses to be introduced:

074.3HC Human-Computer Interaction 1 +3  
 Human-computer interaction: human factors and usability, user-centered design, prototyping, usability evaluation. Not to be held with the former 074.371. *Prerequisite:* 074.214 (or the former 074.206) or 074.206F. A course in cognitive psychology (such as 017.248) is recommended.

074.3PL Programming Language Concepts +3  
 An introduction to major concepts involved in the design of modern programming languages. The imperative, functional, and logical families and differences between them. Facilities for high level data and control structures, modular programming, data typing, and other topics will be covered. Not to be held with the former 074.310 or 074.348. *Prerequisite:* 074.214 (or the former 074.206) or 074.206F.

074.4CS Computer Security +3  
 Computer security and information management. This course will examine state-of-the-art knowledge about the issues relevant to data and computer security. *Prerequisite:* 074.343.

074.4HC Human-Computer Interaction 2 +3  
 Advanced issues in the field of human-computer interaction. Topics will be selected from current research and development issues in the field of HCI. *Prerequisite:* 074.3HC (or the former 074.371). A course in cognitive psychology (such as 017.248) is recommended.

074.4IP Industrial Project +3

Students will work in teams on an industrial project. Projects are supplied by the Department. *Prerequisites:* 074.335 and Departmental permission.

#### 074.4RT Real-Time Systems

+3

An introduction to the theory and practice of real-time systems. Topics include the design of real-time systems, scheduling, event based processing, and real-time control. *Prerequisites:* 074.343 and 074.337.

Course to be modified:

#### 074.435 Software Engineering 2(3)

Advanced treatment of software development methods. Topics will be selected from requirements gathering, design methodologies, prototyping, software verification and validation. *Prerequisite:* 074.335 (or the former 074.331).

\*Modifications to the Computer Science Honours and Major Programs

### DEPARTMENT OF COMPUTER SCIENCE

#### Program Change

2003-2004

#### Proposed Program:

##### Area Specializations

For students who wish to increase their specialization within certain areas of Computer Science, below are recommended courses for each area.

##### Numerical Computing

074.219, 074.312, 074.314, 074.349, 074.449, 074.453. Also, 136.170 is a useful option.

##### Computational Discrete Mathematics

074.312, 074.313, 074.414, 074.422, 074.427, 074.434.

##### Theoretical Computer Science

Especially recommended: 074.430, 074.434, 074.442.

The following courses are also recommended:

074.312, 074.313, 074.414.

##### Artificial Intelligence

074.319, 074.3PL, 074.419, 074.434, one or both of 074.420, 074.436. Related courses: 074.312, 074.335, 074.338, 074.362, 074.442.

##### Computer Systems

074.309, 074.337, 074.343, 074.430, 074.451. Related courses: 074.329, 074.338, 074.429, 074.438, 074.453.

##### Human Interfaces

074.219, 074.349, 074.3HC. Related courses: 074.338, 074.362, 074.449.

##### Software Engineering

074.216, 074.301, 074.304, 074.335, 074.338, 074.362, 074.3HC, 074.405, and one of 074.435, 074.438, 074.4HC, 074.4IP.

#### 4.5.3 Computer Science, Department Code: 074

UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
<b>HONOURS<sup>5</sup> 120 CREDIT HOURS</b>			

074.101 and 074.102 (B)	074.208, 074.213, 074.214,	074.303, 074.317, 074.335,	21 credit hours of 400 level
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Plus 136.130 <sup>1</sup> and 136.150 <sup>1</sup> , with	074.215, 074.222, 074.223	074.337, 074.343	Computer Science courses
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a (C) average <sup>4</sup>		Plus 3 credit hours of 300 level	
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Plus 6 credit hours from the		Computer Science courses	
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Faculty of Arts, which should

include the "W" course

005.100 (C)<sup>2</sup> which must be taken in University 1 or Year 2

A "W" course must be taken in University 1 or Year 2

30 Hours	30 Hours	30 Hours	30 Hours
<b>HONOURS COOPERATIVE OPTION<sup>3,5</sup> 120 CREDIT HOURS</b>			
074.101 and 074.102(B)	074.208, 074.213, 074.214,	074.303, 074.317, 074.335,	21 credit hours of 400 level
136.130 <sup>1</sup> and 136.150 <sup>1</sup> , with a (C,	074.215, 074.222, 074.223	074.337, 074.343	Computer Science courses

average <sup>4</sup>	Plus 3 credit hours of 300 level Computer Science courses
Plus 6 credit hours from the Faculty of Arts, which should include the "W" course 005.100(C) <sup>2</sup> , which must be taken in University 1 or Year 2	074.298, 074.398, 074.498 must be completed prior to the last academic term
A "W" course must be taken in University 1 or Year 2	
30 Hours	30 Hours
<b>FOUR YEAR MAJOR <sup>3,7</sup> 120 CREDIT HOURS</b>	
074.101 and 074.102(C+)	074.208, 074.213, 074.214, 074.215, 074.222, 074.223
Plus 136.130 <sup>1</sup> and 136.150 <sup>1</sup> , with a (C) average <sup>4</sup>	074.335, 074.343
Plus 6 credit hours from the Faculty of Arts, which should include the "W" course 005.100, which could be taken University 1 or Year 2	Plus 24 credit hours of 300 or 400 level Computer Science courses of which 6 credit hours must be at the 400 level
A "W" course must be taken in University 1 or Year 2	Plus 9 credit hours approved by the department <sup>5</sup>
<b>MAJOR COOPERATIVE OPTION <sup>3,5,7</sup> 120 CREDIT HOURS</b>	
074.101 and 074.102(C+)	074.208, 074.213, 074.214, 074.215, 074.222, 074.223
Plus 136.130 <sup>1</sup> and 136.150 <sup>1</sup> , with a (C) average <sup>4</sup>	074.335, 074.343
Plus 6 credit hours from the Faculty of Arts, which should include the "W" course 005.100, which could be taken University 1 or Year 2	Plus 24 credit hours of 300 or 400 level Computer Science courses of which 6 credit hours must be at the 400 level
A "W" course must be taken in University 1 or Year 2	074.298, 074.398, 074.498 must be completed prior to the last academic term
<b>THREE YEAR GENERAL</b>	Plus 9 credit hours approved by the department <sup>5</sup>
074.101 and 074.102 <sup>6</sup>	074.214
	Plus a minimum of 9 credit hours from 200 and (or) 300 level Computer Science courses
<b>MINOR</b>	
074.101 and 074.102 <sup>6</sup>	074.214
	Plus a minimum of 9 credit hours from 200 and (or) 300 level Computer Science courses

## NOTES:

<sup>1</sup> 136.131 may be taken in place of 136.130; 136.151, 136.152, 136.153 or 136.169 may be taken in place of 136.150.<sup>2</sup> It is recommended that 005.200 be taken as an elective.<sup>3</sup> Entry to the Honours Cooperative Option and four-year Major Cooperative Option is in third year. Employment terms follow 3A (September-December), 3B (May-August) and 4A (January-April). Students in the Cooperative Option must complete three employment terms and receive a passing grade in 074.298, 074.398 and 074.498 prior to the last academic term.<sup>4</sup> The courses required in this program will satisfy the university mathematics requirement.<sup>5</sup> Additional information on how students may select their courses can be found at the end of this section.<sup>6</sup> Note that 074.102 has a corequisite requirement of 136.130<sup>1</sup> and 136.150<sup>1</sup>.<sup>7</sup> IMPORTANT: The four year Major need not be completed in the manner prescribed in the chart above. The chart indicates one possible arrangement of the required courses and is meant to be a guide around which students can plan their program. Students in the Cooperative Option should be aware that while other arrangements are possible, they may jeopardize their chances of obtaining employment by selecting such arrangements. Students

should discuss their planned sequence of courses with the department prior to making adjustments to the sequence above.

<sup>8</sup> **IMPORTANT:** at most 90 credit hours of computer science, statistics and mathematics courses can be included in a majors or honours programme.

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

The changes are:

1. Statistics 005.100, Computer Science 074.215 and 074.335 have been added as required courses in the Major and Major Cooperative programs and the number of unspecified credit hours of 300 or 400 level Computer Science courses have been reduced from 27 to 24. As a result of the additional specified courses, the number of credit hours approved by the department in Years 3 and 4 have been reduced from 15 to 9.
2. The department is recommending that students in the Major and Major Cooperative programs be allowed to take up to 48 credit hours of courses outside the Faculty of Science with departmental permission, despite the faculty maximum of 36 credit hours. The permission would typically be granted if a student is completing a minor outside of Science and may have completed a variety of electives outside the Faculty prior to declaring a minor in one department.
3. Computer Science 074.215 and 074.335 have been added as required courses in the Honours and Honours Cooperative programs and the number of 300 level Computer Science options reduced from 6 credit hours to 3.
4. The "Artificial Intelligence" stream has been modified by removing 074.348, a deleted course, and replacing it with 074.3PL, Programming Language Concepts.
5. Computer Science 074.371 has been deleted from the "Human Interfaces" and "Software Engineering Streams" and replaced by 074.3HC Human-Computer Interaction 1.
6. The requirement of "one of 074.335, 074.438 or 074.452 in the 'Software Engineering' stream " has been changed to "One of 074.4HC (Human-Computer Interaction 2), 074.435, 074.438, 074.4IP (Industrial Project)."
7. Footnote 8 has been amended to include statistics courses.
8. The Major and Honours (including both Cooperative Options) text has been changed to include Statistics courses in the 90 credit hour limit. The paragraph will now read: "Students can take at most 90 credit hours of computer science, statistics and mathematics courses. Outside of computer science, mathematics, and statistics courses, students are encouraged to select courses such that their programmes include at least 15 credit hours of study in science, engineering, or business, and at least 9 credit hours of study in the humanities or social sciences."

**NET CHANGE IN CREDIT HOURS:**

**+9**

**Ecology Program**

Modification to the Honours, Major and Major Cooperative Option programs

The following courses are deleted from the options list for the Honours, Major and Major Cooperative Option programs:

- 128.310      Environmental Conservation Issues (3)L  
 128.410      Environmental Conservation Strategies (3)L

and replaced by:

- 128.3BB      Environmental Conservation and Restoration (3)L  
 128.4CC      Critical Thinking and the Environment (3)L

The following new courses are added to the options list:

- 002.2XY/128.2XY      Environmental Chemistry (3)L  
 002.3XY/128.3XY      Environmental Analysis (3)L  
 002.4XY/128.4XY      Aquatic Chemistry (3)

**Genetics Program**

\*Modification to the Genetics Honours program

Microbiology 060.4XY (Virology) is added to the list of options in the Genetics Honours Program.

**Geological Sciences**

Course to be added:

- 007.3XX      Gemology      +3L  
 An introduction to the scientific study of natural and synthetic gem materials, methods of their identification and principles of gemstone appraisals. Laboratory: Identification of gemstones using optical methods. *Prerequisites:* 007.250 and 007.260.

Courses to be modified:

- 007.136      Environmental Earth Sciences(3)  
 An introduction to environmental Earth Science, with emphasis on an integrated approach to Earth system science and the geology of natural hazards. Also available by correspondence. Not to be held with the former 007.132. *Prerequisite:* one of 007.123, 007.134, 007.144, or 007.225 (or the former 007.126, 007.127, or 007.133).

- 007.239      Environmental Geology (3)  
 Examination of environmental effects of the extraction of rocks and minerals,

water and energy resources from geosphere. *Prerequisites:* one of 007.123, 007.124, 007.134, 007.144 or consent of instructor.

**NET CHANGE IN CREDIT HOURS:**

**+3**

\*Modification to the Geology Honours Program

Course 128.310 is being replaced by 128.3BB in the list of optional courses for the Honours Geology Program.

**Mathematics**

Courses to be modified:

**136.102M     Mathematics in Art (3)**

Specific theory, structuring systems, and mathematical methods and principles used in works of art from various historical periods and contexts will be explored in relation to Euclidean and non-Euclidean geometries. Topics include: linear perspective, shapes, patterns, balance and symmetry; ratio, proportion and harmony; and order, dynamics and chaos. The course will be one half art and one half mathematics, team-taught by faculty from the School of Art and the Department of Mathematics. This course is also given in the School of Art as 054.102. Not to be held with 054.102. This course cannot be used as part of an Honours, Major, General or Minor program in the mathematical sciences. No prerequisite.

**136.151M     Applied Calculus(3)L**

Functions and graphs; limits and continuity; differentiation of functions defined explicitly, implicitly, and parametrically; applications of derivatives to velocity and acceleration, related rates, maxima and minima; differentials, indefinite and definite integrals, application of integration to area. Physical applications in this course make it especially suitable for students intending to take programs in engineering. Not to be held with 136.150, 136.152, 136.153, 136.168, 136.169, or the former 006.125, 010.115, 013.128, 013.129, 013.139, or 013.159. *Prerequisite:* a minimum grade of 60 per cent in Pre-calculus Mathematics 40S or the former Mathematics 40S (300), or a grade of "C" or better in either 136.100 or the Mathematical Skills course taught by the Continuing Education Division, Physics 40S (300) or Pass (P) in 016.090.

**136.260     Numerical Mathematics 1(3)**

Elementary techniques of numerical solution of mathematical problems: solution of equations, finite differences, interpolation, systems of equations, numerical differentiation and integration. Not to be held with the former 010.344, 006.220 or 006.331. *Prerequisites:* 136.130 or 136.131 (or the former 013.146), 136.169, 136.170 or 136.171 or 136.173 (or the former 006.126 or 013.149 or 013.159) and 074.101 or equivalent, or consent of instructor.

**136.260F      Mathématiques numériques 1(3)**

Techniques élémentaires de solution numérique de problèmes mathématiques: solution d'équation; différences finies, interpolation, systèmes d'équations; différentiation numérique; intégration numérique. L'étudiant ne peut se faire créditer à la fois 136.260 et les anciens 010.344, 006.220 ou 006.331. *Préables:* 136.130 ou 136.131 (ou l'ancien 013.146), 136.169 ou 136.170 ou 136.171 ou 136.173 (ou les anciens 006.126 ou 013.149 ou 013.159) ou son équivalent, ou consentement du professeur.

**136.330      Modern Algebra(3)**

Introduction to the concepts and structures of modern algebra, including groups, rings and fields; substructure, isomorphism, quotients. Not to be held with 136.206 (or the former 013.229), 136.335 (or the former 013.345) or the former 013.333. *Prerequisites:* 136.230 (or the former 013.246) or 136.235 (or the former 013.235) and an additional 6 credit hours of 200 level mathematics courses or consent of instructor.

**136.442      Finite Geometry(3)**

Finite fields, finite affine and projective planes, partial geometries and related configurations. *Prerequisite:* 136.335 (or the former 013.345) and 136.340 (or the former 013.347).

**136.461      Introduction to Finite Elements and Boundary Elements(3)**

Introduction to finite element and boundary element techniques for solving differential equations. Not to be held with the former 006.448. *Prerequisites:* 136.360 (or the former 006.320) and either 136.375 or 136.376 (or the former 013.332 or 013.340).

\*Modifications to the Honours Mathematics and the Four Year Major in Applied Mathematics Programs

**Proposed Program:**

UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
<b>APPLIED MATHEMATICS FOUR YEAR MAJOR WITH COMPUTER SCIENCE OPTION <sup>49</sup> 120 CREDIT HOURS</b>			
136.120, 136.130 <sup>1</sup> ,	136.230, 136.260,	136.240, 136.360, 136.370, 136.375, 136.380,	
136.150 <sup>1</sup> and	136.270, 136.271,	136.381, 136.382	
136.170 <sup>1</sup> (or	136.280, 074.214		
136.169), 074.101,			
074.102			
Plus 6 credit hours	Plus 005.100 and 005.200; plus an additional 6 credit		
from the Faculty of	hours from options list; plus one of the following		
Arts, which may	patterns:		
include the "W"	Graphics: 074.219, 074.349, 074.449;		
course	or Software: 074.215, 074.3PL, and one of 074.216,		
	074.338 or 074.3HC;		
	or Theoretical Computer Science: 074.208, 074.213,		
	074.317 or 074.453;		



or Hardware: 074.222, 074.223, 074.337 or 074.343;

or Artificial Intelligence: 074.319, two of: 074.419,

074.420, 074.436

A "W" course must be taken in University 1 or Year 2

30 Hours

30 Hours

30 Hours

30 Hours

The change is:

1. Computer Science 074.310, 074.348 and 074.371 has been replaced by 074.215, 074.3PL and one of 074.216, 074.338 or 074.3HC.

**NET CHANGE IN CREDIT HOURS:**

**+0**

### Mathematics-Actuarial Mathematics Joint Program

\*Modification to the Mathematics-Actuarial Mathematics Joint Honours program

Actuarial Mathematics 010.353 has been added as a recommended elective in the Mathematics-Actuarial Mathematics Joint Honours Program.

### Microbiology

Course to be introduced:

060.4XY Virology

**+3L**

A comprehensive examination of fundamental properties of viruses, virus taxonomy, and the different ways in which viruses replicate. The ways viruses cause disease and experimental methods used in virology also will be examined. Not to be held for credit by students who have already taken 097.701. *Prerequisites:* 060.301 and 060.341.

\*Modification to the Microbiology Honours and Major programs

### **Proposed Program:**

#### **Option List\* for All Microbiology Programs:**

*Botany:* 001.218, 001.221, 001.229, 001.237, 001.246, 001.301, 001.322, 001.325, 001.346, 001.405, 001.412, 001.413, 001.416, 001.421

*Chemistry:* 002.228, 002.229, 002.238, 002.247, 002.339, 002.347, 002.436, 002.437, 002.462, 002.463

*Environmental Science:* 128.218

*Zoology:* 022.215, 022.218, 022.237, 022.253, 022.254, 022.306, 022.307, 022.350, 022.353, 022.354, 022.400, 022.414, 022.415, 022.427, 022.460

*Food Sciences:* 078.413, 078.428

*General Agriculture:* 065.218

*Mathematics:* 136.201

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

**Three Year General**

As prescribed with all other faculty regulations in Section 3.2, students in this program must select 30 credit hours of 200 and (or) 300 level courses from two Science departments. To satisfy the requirement in the Department of Microbiology, students must take a minimum of 12 credit hours of Microbiology courses as prescribed in the chart below.

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

Students must have successfully completed 071.125 (C), and 002.130 and 002.131.

The regulations for the B.Sc. (General) degree allow election of up to 42 credit hours from a single department. Students are therefore encouraged to elect additional Microbiology courses above the required minimum.

Microbiology 060.277 and 060.278 (002.277 and 002.278) are not available in this program.

**Minor**

Students must complete 12 credit hours at the 200 and (or) 300 level. Note that 071.125 (C) and 002.131 or 002.132 are prerequisites to 060.210.

**4.11.3 Microbiology, Department Code: 060**

UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
<b>HONOURS</b>	<b>120 CREDIT HOURS</b>		
071.125, 002.130, 002.131	060.210, 060.211, 060.228, 060.236 (002.236), 060.237 (002.237), 001.246, 002.221, 002.222, 022.228	060.301, 060.341, 60.344, 060.347, 060.348	060.401, 060.447, 060.453, 060.460, 060.461

Plus 3 credit hours of  
Mathematics or Physics  
from 136.120, 136.130<sup>1</sup>,  
136.150<sup>1</sup>, 016.102 or  
016.105

Plus 6 credit hours from the  
Faculty of Arts, which  
could include a "W" course

Plus 15 credit hours of Microbiology courses<sup>4</sup> and 12  
credit hours chosen from Microbiology courses<sup>4</sup> or from  
the option list (see above)

Plus 005.100<sup>3</sup> which must be taken in University 1 or Year 2

A "W" course (such as 001.101W) must be taken in University 1 or Year 2

30 Hours	30 Hours	30 Hours	30 Hours
<b>HONOURS COOPERATIVE OPTION</b>	<b>120 CREDIT HOURS</b>		
071.125, 002.130, 002.131	060.210, 060.211, 060.228, 060.236 (002.236), 060.237 (002.237), 001.246, 002.221, 002.222, 022.228	060.301, 060.341, 60.344, 060.347, 060.348	060.401, 060.447, 060.460, 060.461

Plus 3 credit hours of  
Mathematics or Physics  
from 136.120, 136.130<sup>1</sup>,  
136.150<sup>1</sup>, 016.102 or  
016.105

Plus 6 credit hours from the  
Faculty of Arts, which could  
include a "W" course

060.398, 060.399, 060.498 and/or 060.499

Plus 21 credit hours of Microbiology courses<sup>4</sup> and 12  
credit hours chosen from Microbiology courses<sup>4</sup> or from  
the option list (see above)

Plus 005.100<sup>3</sup>, which must be taken in University 1 or Year 2

A "W" course (such as 001.101W) must be taken in University 1 or Year 2

30 Hours	30 Hours	30 Hours	30 Hours
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**FOUR YEAR MAJOR<sup>5</sup>****120 CREDIT HOURS**

071.125, 002.130, 002.131

060.210, 060.211, 060.236

33 credit hours of Microbiology courses<sup>2</sup> including 15 credit hours at the 400 level<sup>3</sup>

Plus 3 credit hours of Mathematics or Physics from 136.120, 136.130<sup>1</sup>, 136.150<sup>1</sup>, 016.102 or 016.105

(002.236), 060.237 (002.237), 001.246, 002.221, 002.222, 022.228

Plus 9 credit hours from Microbiology courses<sup>2</sup> or from the option list (see above)

Plus 6 credit hours from the Faculty of Arts, which may include a "W" course

Plus 005.100<sup>3</sup> which must be taken in University 1 or Year 2

A "W" course (such as 001.101W) must be taken in University 1 or Year 2

**MAJOR COOPERATIVE OPTION<sup>2</sup>****120 CREDIT HOURS**

071.125, 002.130, 002.131

060.210, 060.211, 060.236

060.301, 060.341

Plus 3 credit hours of Mathematics or Physics from 136.120, 136.130<sup>1</sup>, 136.150<sup>1</sup>, 016.102 or 016.105

(002.236), 060.237 (002.237), 001.246, 002.221, 002.222, 022.228

27 credit hours of Microbiology courses<sup>2</sup> including 15 credit hours at the 400 level<sup>3</sup>

Plus 9 credit hours from Microbiology courses<sup>2</sup> or from the option list (see above)

Plus 6 credit hours from the Faculty of Arts, which may include a "W" course

Plus 005.100<sup>3</sup> which must be taken in University 1 or Year 2

060.398, 060.399, 060.498 and/or 060.499

A "W" course (such as 001.101W) must be taken in University 1 or Year 2

**THREE YEAR GENERAL**

12 credit hours of Microbiology at the 200 and (or) 300 level

**MINOR**

002.130, 002.131, 071.125

12 credit hours of Microbiology at the 200 and (or) 300 level

**NOTES:**

<sup>1</sup> 136.131 may be taken in place of 136.130; 136.151, 136.152, 136.153, 136.168 or 136.169 may be taken in place of 136.150.

<sup>2</sup> 060.401, 060.453 and 060.457 may be selected only by special permission.

<sup>3</sup> Completion of 005.100 in University 1 or Year 2 will satisfy the University mathematics requirement.

<sup>4</sup> 060.402 and 060.458 cannot be selected.

<sup>5</sup> **IMPORTANT:** The four year Major program need not be completed in the manner prescribed in the chart above. The chart indicates one possible arrangement of the required courses and is meant to be a guide around which students can plan their program.

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

The changes are:

1. Medical Microbiology 097.701 has been deleted as an option, and as a result, footnote 2 has been removed.

2. Footnote 3 has been renumbered as Footnote 2 and reworded to state that 060.401, 060.453 and 060.457 may be selected only by special permission in the Four Year Major program.

**NET CHANGE IN CREDIT HOURS:**

**+3**

### Microbiology-Chemistry Joint Biochemistry Program

\*Modification to the Biochemistry Major and Honours programs

Virology 060.4XY is added to and Medical Microbiology 097.701 is deleted from the list of optional courses in the Microbiology-Chemistry Joint Biochemistry Program.

### Microbiology-Chemistry Joint Biotechnology Program

\*Modification to the Biotechnology Honours program

Virology 060.4XY is added to and Medical Microbiology 097.701 is deleted from the list of optional courses in the Microbiology-Chemistry Joint Biotechnology Program.

### Physics and Astronomy

Courses to be modified:

#### 016.102M General Physics 1(3)L

A non-calculus survey course in Physics covering topics in mechanics and thermodynamics, with illustrations drawn from the medical and biological sciences. This course, together with the sequel 016.103, is recommended for students seeking either a single, comprehensive course in Physics or entry into health sciences programs. It may also be used for entry into the Honours Physics program (B+ or better) or the Major Physics program (B or better). Not to be held with 016.105 or the former 016.118, 016.120, 016.121, or 016.127. *Prerequisites:* Either Physics 40S, 016.090 (with a "P"), or equivalent; and either Pre-Calculus Mathematics 40S, Applied Mathematics 40S (with a 70% or better), or equivalent. It is strongly recommended that students take Pre-Calculus Mathematics 40S. It is also strongly recommended that students attain a minimum of 70% as the average of their marks in Physics 40S and Pre-Calculus Mathematics 40S.

#### 016.102FM Physique générale 1(3)L

Ce cours d'initiation à la physique ne requiert pas de calcul et traite de certains thèmes tirés de la mécanique et de la thermodynamique avec des exemples pris des sciences biologiques et médicales. Ce cours, de même que le 016.103, est particulièrement conseillé aux étudiants désireux d'avoir une vue d'ensemble de la physique ou qui ont l'intention de s'orienter vers des études médicales. Il peut aussi servir comme cours de base pour un programme de spécialisation en physique ("B+" ou mieux) ou de majeure en physique ("B" ou mieux). *Préalables:* Un de Physique 40S ou 016.090 (avec la mention "P" pour réussite) ou l'équivalent, et un de Mathématiques précalcul 40S, Mathématiques appliquées 40S (avec une note d'au moins 70%) ou l'équivalent. Il est fortement recommandé que l'étudiant ait suivi le cours de Mathématiques 40S et qu'il ait obtenu une moyenne minimale combinée de 70% dans les cours de Physique 40S et Mathématiques précalcul 40S.

#### 016.105 Physics 1: Mechanics(3)L

A calculus-based introduction to classical mechanics which includes vectors, translational kinematics and dynamics, work and energy, linear momentum and collisions, rotational kinematics and dynamics, and oscillatory motion. This course is intended for students considering a program of study in engineering or the physical sciences. Not to be held with 016.102 or the former 016.118, 016.120, 016.121 or 016.127. *Prerequisites:* Pre-calculus Mathematics 40S (or equivalent) and Physics 40S (or equivalent) or 016.090 (with a grade of "P"). It is strongly recommended that students attain a minimum of 80% as the average of their marks in Physics 40S and Pre-Calculus Mathematics 40S. *Corequisite:* One of 136.150, 136.151, 136.152, 136.153 or 136.169 (or the former 006.125, 013.139 or 013.159).

016.105F Physique 1: La Mécanique(3)L

Une introduction, basée sur le calcul, à la mécanique classique. Les sujets suivants seront traités: les vecteurs, la dynamique et la cinématique du mouvement de translation, la cinématique de la rotation, l'énergie, le travail, le moment linéaire, les collisions, le mouvement oscillatoire. Ce cours est destiné particulièrement aux étudiants qui voudraient poursuivre leur programme d'études dans les sciences physiques ou l'Ingénierie. L'étudiant ne peut se faire créditer à la fois le 016.105 et 016.102 (ou l'ancien 016.121) et les anciens 016.118, 016.120 et 016.127. *Préalables:* Mathématiques précalcul 40S (300) (ou l'équivalent) et Physique 40S (300) (ou l'équivalent) ou le 016.090 (avec la mention "P" pour réussite). Une moyenne minimale combinée de 80 pour cent dans les cours Physique 40S (300) et Mathématiques précalcul 40S (300) est fortement recommandée. *Corequis:* Un de 136.150, 136.151, 136.152, 136.153 ou 136.169 (ou les anciens 006.125, 013.139 ou 013.159).

016.322 Medical Physics and Physiological Measurement(3)

This course will introduce the core subject areas of Medical Physics, in particular the physics of physiology and of radiology. The mechanics of body systems and the theory, medical applications and safety issues relating to the production, use, detection and measurement of electromagnetic radiation (both ionizing and non-ionizing) will be included. It will also cover Medical Imaging (Ultrasound, CT and MRI) and will provide the student with an understanding of the physics underlying neurological, audiological, respiratory and vascular function and measurements. Not to be held with 163.3BZ. *Prerequisites:* 016.260 or 016.220 or consent of the Department.

Courses to be placed in the "Not Currently Offered" Category:

016.454      Solid State Physical Electronics      -6

Service Course Changes:

Courses to be introduced:

016.2XX      Fundamentals of Physics in Radiation Therapy      +3L

Provides the student with a fundamental understanding of the physical nature of photons and electrons and the manner in which they interact with an absorbing scattering medium. The concepts presented in this series will enhance the student's ability to make decisions regarding clinical radiation

therapy treatments. Not to be held with 163.2AD. *Prerequisite:* 016.103.  
*Corequisites:* 163.2AC, 163.2AE.

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016.2XY      Radiation Protection in Radiation Therapy      +3  
 Previews fundamental concepts used to minimize the risk when working with radiation, with emphasis on radiation therapy. Includes types and sources of radiation, radiation quantities and units, biological effect and potential risks, basic principles of protection, regulation and dose limits, methods of dose monitoring, and applications in radiation therapy. Not to be held with 163.2AG. *Prerequisites:* 163.2AF, 163.2AD.

016.2XZ      Radiation Biology      +3  
 Previews fundamental concepts used to minimize the risk when working with radiation, with emphasis on radiation therapy. Includes types and sources of radiation, radiation quantities and units, biological effect and potential risks, basic principles of protection, regulation and dose limits, methods of dose monitoring, and applications in radiation therapy. Not to be held with 163.2AG. *Prerequisites:* 163.2AF, 163.2AD.

The overriding prerequisite statement in the General Calendar:

"Unless otherwise specified, a minimum grade of "C" must be achieved in any course stipulated as a prerequisite to a further course in Physics and Astronomy."

Is changed to:

"Students failing to obtain a minimum grade of "C" in any course stipulated as a prerequisite to a further course in Physics and Astronomy are not allowed to proceed without written consent from the instructor."

\*Modification to the Honours and Major programs

### Proposed Program:

#### 4.12.3 Physics and Astronomy, Department Code: 016

UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
<b>HONOURS</b>	<b>120 CREDIT HOURS</b>		
016.105 (B) (or 016.102 <sup>2</sup> (B+)) and 016.107 (B), 136.130 <sup>3</sup> (B), 136.150 <sup>3</sup> (B), 136.170 <sup>3,7</sup> (B)	016.226, 016.237, 016.250, 016.260, 016.261, 016.265, 136.270 <sup>8</sup>	016.341, 016.343, 016.365, 016.369, 016.370	016.437, 016.451 <sup>4</sup> , 016.452 <sup>4</sup>
Plus 6 credit hours from the Faculty of Arts, which should include the "W" course		Plus 3 credit hours of electives with one of the following strongly recommended: 016.322, 016.357, 016.366 and courses from Computer Science, Chemistry, Geological Sciences and Mathematics. Students who choose Option B may also want to consider 016.318	Plus 9 credit hours from 016.357, 016.366, 016.425, 016.456, 016.458, 016.462, 016.463
	Choose 1 of:		
	Option A (Astronomy): 016.207	016.318	016.423, 016.424

Option B (Physics): 6 credit hours to be chosen from 136.271 <sup>8</sup> , 136.280 or courses in Computer Science, Chemistry or Geophysics	136.313	016.467, 136.370
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A "W" course must be taken in University 1 or Year 2<sup>6</sup>

30 Hours	30 Hours	30 Hours	30 Hours
JOINT MATHEMATICS-PHYSICS AND ASTRONOMY HONOURS SEE SECTION 4.10 MATHEMATICS			
FOUR YEAR MAJOR <sup>9</sup> 120 CREDIT HOURS			
016.105 (C+) (or 016.102 <sup>2</sup> (B)) and 016.107 (C+), 136.150 <sup>3,5</sup> and 136.170 <sup>3,5,7</sup>	016.226, 016.237, 016.250, 016.260, 136.120, 136.130 <sup>3</sup>	016.261, 016.265, 016.341, 016.370, 136.270 <sup>8</sup>	016.343, 016.365, 136.313, 136.370
Plus 6 credit hours from the Faculty of Arts, which may include the "W" course		Plus 18 credit hours which must include 016.369 or both of 024.216 and 024.222, with the remaining from the list of 300 and 400 level Honours and Major Physics and Astronomy courses	
Astronomy courses may be used in place of some of the above courses with permission of the department. Consult the department advisor for details.			
A "W" course must be taken in University 1 or Year 2			
THREE YEAR GENERAL			
	A minimum of 12 credit hours from 016.207, 016.220, 016.225, 016.226, 016.227, 016.228, 016.235, 016.270, 016.271, 016.318, 016.336, 016.380.		
MINOR			
016.105 (C) and 016.107 (C) (or 016.102 (C+) and 016.103 (C+))	A minimum of 12 credit hours from 016.207, 016.220, 016.225, 016.226, 016.227, 016.228, 016.235, 016.270, 016.271, 016.318, 016.336, 016.380.		

#### NOTES:

<sup>1</sup>Students must achieve a minimum grade of "C" in all Honours Physics and Astronomy courses that are either required in the program or required as prerequisites to other Physics and Astronomy courses taken in the Honours program.

<sup>2</sup>016.103 is not suitable for entry to the Honours and four year Major program. Students must also take 016.107 if they have already taken 016.103. Students can hold credit for both 016.103 and 016.107.

<sup>3</sup>136.131 may be taken in place of 136.130; 136.151, 136.152 or 136.153 may be taken in place of 136.150; 136.171 or 136.173 may be taken in place of 136.170; 136.169 may be taken in place of 136.150 and 136.170.

<sup>4</sup>Other Honours Physics and Astronomy or Honours Mathematics courses may be substituted for one of 016.451 or 016.452 with permission of the department.

<sup>5</sup>A minimum grade of "C" and an average of "C+" is required on these two Mathematics courses.

<sup>6</sup>As there are no electives in Year 2 of the program, students should complete the University written English requirement in University 1. If not completed in University 1, a "W" course must be completed prior to Year 3 in addition to the required Year 2 courses.

<sup>7</sup>The courses required in this program will satisfy the University mathematics requirement.

<sup>8</sup>136.275 may be taken in lieu of 136.270 and 136.271.

<sup>9</sup>IMPORTANT: The four year Major program need not be completed in the manner prescribed in the chart above. The chart indicates the recommended arrangement of the required courses and is meant to be a guide around which students can plan their program (Letters in brackets refer to minimum prerequisite standing required for further study.)

The changes are:

1. Mathematics 136.230 has been deleted as a suggested elective from Year 2 of the Honours program, as it can not be held for credit with 136.313, a required course in Year 3. Reference to this course in FOOTNOTE 8 has been deleted.
2. 016.454 has been deleted as a required course from Year 4 of the Major program and from the options list in Year 4 of the Honours programs.
3. Options in Year 3 of the Major program have been increased to 18 credit hours, and must include: 016.369, or both 024.216 and 024.222.

Psychology

\*Modification to the Honours program

The following course will be added to list of options in the Bachelor of Science Honours program in Psychology:

017.4AB Behavioural Endocrinology (3)

Statistics

Course to be introduced:

005.4XY Lifetime Data Analysis +3

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:* 005.312 (or 005.347), 005.313 (or 005.348), and 005.360 (or the former 005.331 or 005.341).

Courses to be modified:

005.100FM Analyse statistique de base1 (3) L

Une introduction aux principes fondamentaux de la statistique et aux procédures utilisées en analyse de données. Les sujets traités incluent: la cueillette des données, l'affichage et l'élagage des données, les relations entre variables, les distributions échantillonnelles, l'estimation et les tests de signification, l'inférence pour les moyennes. Un étudiant ou une étudiante ne peut se faire créditer à la fois le 005.100 et le 005.222 ou les anciens 005.101, 005.120, 005.201, 005.210, 005.211, 005.220, 005.221, 005.231, 005.241, 005.250.

005.200 F Analyse statistique de base 2 (3) L

L'étude des procédures d'estimation et de tests d'hypothèses pour les moyennes et les proportions dans les contextes d'échantillonnage à une, deux ou plusieurs variables; introduction à l'analyse de variance; régression et corrélation; les sujets optionnels peuvent inclure les méthodes nonparamétriques, la conception d'expériences, les modèles probabilistes. Un étudiant ou une étudiante ne peut se faire créditer à la fois le 005.200 et le 005.222 et les anciens 005.120, 005.201, 005.211, 005.221, 005.231, 005.241, 005.250. *Préalable:* 005.100 ou les anciens 005.101 ou 005.210.

005.305 Introduction to Probability Theory and its Applications (3)

Development of the basic concepts of probability theory and application in areas of biostatistics, actuarial science, reliability theory, queueing theory. Not to be held with the former 005.225. *Prerequisites:* 005.350 (or the former 005.331 or 005.341), and 136.270 and 136.271.

Changes to the Statistics Program:



1. Computer Science 074.310 or 074.348 is replaced by 074.3PL in the list of "Computer Science (Software and Artificial Intelligence)" courses that are recommended in the text for the Statistics Four Year Major program.
2. 005.4XY is added as an option to the Honours and Major programs.
3. The reference to 24 additional credit hours in the Four Year Major chart and in footnote 5 is changed to 15.

**NET CHANGE IN CREDIT HOURS:**

**+3**

**Statistics-Actuarial Mathematics Joint Program**

**Program Change:**

Actuarial Mathematics 010.353 is added as a recommended elective in the Statistics-Actuarial Mathematics Joint Program.

**Zoology**

**Courses to be modified:**

**022.133      Physiology of the Human Body (3) L**

Function of all systems discussed with homeostatic regulatory mechanisms as foundation themes. Although this course may be used as an elective in an Arts or Science program, it may not be used to meet a program requirement of an Honours or Major program in the Biological Sciences. Not to be held with the former 022.123. Not available to students who have previously obtained credit in 022. 253, 022.254, 022.353, or 022.354. *Prerequisite:* 022.132 or 071.125. This prerequisite is waived for students in the Baccalaureate Program for Registered Nurses.

**022.253      Human Physiology 1 (3)**

The mechanisms of action of the body's major control systems (nervous and endocrine) and of the muscular and reproductive systems are examined. Not to be held with 022.353, or the former 022.245. *Prerequisite:* 071.125 with a minimum grade of "C" or 071.100 and 071.101 with a minimum average grade of "C+" (or the former 071.123 with a minimum grade of "C+").

**022.253F      Physiologie du corps humain 1 (3)**

Dans ce cours, les principaux mécanismes de contrôle du corps (systèmes nerveux et endocrinien) ainsi les systèmes musculaire et reproducteur seront étudiés. Un étudiant ou une étudiante ne peut se faire créditer à la fois le 022.253 ou l'ancien 022.245. *Préalable:* not de "C" dans le 071.125 ou une moyenne minimale de "C+" dans les deux cours 071.100 et 071.101 (ou une note de "C+" dans l'ancien 071.123). Donné seulement au Collège universitaire de Saint-Boniface.

**022.254      Human Physiology 2 (3)**

An examination of homeostatic regulation by the body's major effector organ systems (cardiovascular, respiratory, digestive, renal and immune). Not to be held with the former 022.245. *Prerequisite:* Completion of 022.253, 022.353 or consent of instructor.

**022.254F      Physiologie du corps humain 2 (3)**

Une étude de la régulation homéostatique par les systèmes effecteurs du corps (cardiovasculaire, respiratoire, digestif, rénal et immunitaire). Un étudiant ou une étudiante ne peut se faire créditer à la fois le 022.254 et ou l'ancien 022.245.  
*Préalable:* avoir complété le 022.253 ou le 022.353 ou consentement du professeur.  
 Donné seulement au Collège universitaire de Saint-Boniface.

**022.345      Field Ecology (3) L**

Problems, techniques, and assumptions involved in measuring parameters of biological populations and environmental variables. A field trip will be held prior to the start of classes. Students must register in the department office by August 2. This course is also given in Botany as 001.342. *Prerequisites:* 022.237 (001.237 or 065.237), 005.200.

**022.353      Control System Physiology (3) L**

The mechanisms of action of the human body's major control systems (nervous and endocrine) and of the muscular and reproductive systems are presented in lectures. Laboratories explore related subjects in various animals. Not to be held with 022.253, or the former 022.245 or 022.352. *Prerequisite:* 071.125 with a minimum grade of "C", or 071.100 and 071.101 with a minimum average grade of "C+" (or the former 071.123 with a minimum grade of "C+").

**022.354      Comparative Environmental Physiology (3) L**

An examination of the environmental challenges confronting animals in aquatic and terrestrial habitats, and the various ways these problems are solved at the cellular and organ system levels. Not to be held with the former 022.352. *Prerequisite:* 022.232 and 022.260, or 022.133 (or the former 022.123) or 022.253 (or the former 022.245) or 022.353 or consent of the instructor.

**NET CHANGE IN CREDIT HOURS****+0**

**Courses offered in other faculties and schools acceptable for credit in the Faculty of Science**

These courses are available to Honours and Major Physics students only:

**024.216      Electronics 2E (5)**

Characteristics of integrated circuits and transistors; design of DC and AC amplifiers in the steady state. *Prerequisite:* 130.118. *Corequisite:* 136.211 or the former 006.261.

(The Department of Electrical and Computer Engineering has agreed to waive the prerequisite for this course for students in the Honours or Major Physics program.)

**024.222      Digital Logic Systems (5)**

Boolean algebra and logic primitives, network simplification techniques, physical realization, number systems and codes; analysis and design of asynchronous and synchronous sequential circuits; applications to computation, measurements, and control.

## Policy Changes in the Faculty of Science:

### i) 5 Credit Hour Courses

Change the statement "All four credit hour courses will be counted as three credit hours in the Faculty of Science." to "All four and five credit hour courses will be counted as three credit hours in the Faculty of Science."

### ii) Change to assessment for Second Degree students in the Four Year Major program

#### Current:

All students in the Four Year Major program are assessed as follows:

To continue in the program, a student must maintain a cumulative Grade Point Average of 2.00 computed on all courses applied to, and attempted in, the program. Assessment for continuation in the program shall be carried out initially following the attempting of 54 credit hours. From that point onwards, until the completion of degree requirements, a student will be assessed for the 2.00 cumulative Grade Point Average after each April and August examination series. Students who do not meet this minimum will be required to withdraw from the Major program.

The continuation and (or) graduation requirement for the Major programs in Chemistry, Computer Science, Statistics and Zoology differ from the above as they have a sessional requirement and (or) a specific grade requirement for their own departmental courses.

#### Proposed:

With the introduction of the new second degree regulations (approved by Senate in December 2001) which permits most students to complete as few as 60 credit hours for a second degree, it is too late for the first assessment to take place at 54 credit hours. **It is proposed that the initial assessment for second degree Major students take place at 24 credit hours, and at every April and August examination series thereafter.**

The more stringent continuation and (or) graduation requirements for the Major programs in Chemistry, Computer Science, Statistics and Zoology will continue to be applied for both second degree and regular students. But continuation assessments will begin after 24 credit hours like all other Major Students.

## Faculty of Social Work

### Courses to be introduced:

047.4AA      Family Group Conferences      +3  
This course provides an overview of the research, theory and application of Family Group Conferencing within the context of child and family services and the implications for intervention. Emphasis is on experiential learning of Family Group Conferencing process and techniques.

047.4AB      Addiction and CFS Practice      +3  
The focus of this course is to increase the student's knowledge about addictions as well as to develop student's skills for intervention with families affected by addiction,

within the context of child and family services. Emphasis is on experiential learning of knowledge, process and techniques.

**047.4AC      Crisis Intervention      +3**

This course provides an overview of the research, theory and application of crisis intervention, methods and techniques within the context of child and family services. Emphasis will be on expanding existing knowledge through experiential learning of crisis intervention processes and techniques.

Specialization in Child and Family Services:

**I. Foundation Courses (Required S.W. Courses)      Cr. Hrs.**

047.131	Intro. To Social Welfare Policy Analysis	3
047.209	Human Behaviour & SW Practice	6
047.208	Interpersonal Communication Skills	3
047.314	Intro to Social Work Practice	3

**THEORY COURSES**

047.211	Emergence of Canadian Welfare State	3
or		
047.212	Britain: Poor Laws	3
or		
047.213	Comparative Social Welfare Systems	3
047.313	Contemporary Canadian Social Welfare	3
047.310	Systematic Inquiry	3
047.421	Feminist Perspective of SW Practice	6
047.422	Aboriginal People & SW Practice	6

**Total Credit Hours for Foundation Courses (includes field):      72**

**II. Electives      Cr. Hrs.**

Admitted on basis of	30
To be completed	21

**At least two of the following: Current Topics**

047.205	Community and Organizational Theory	3
047.407	Inner-City Social Work Practice	3
047.4AA	Family Group Conferences	3
047.407	New Canadians, Immigrant and Refugees	3
047.420	Field Focus of Social Work Practice	6

**At least one of the following: Selected Issues**

047.4AB	Addiction & CFS Practice	3
047.4AC	Crisis Intervention	3

**At least two of the following: Children and Adolescents**

017.229	Child Development	3
01 7.231	Adolescent Development	3
062.460	Risk, and Resilience in Behavioral & Social Development	3
062.347	Children in Alternate Care Forms of Care	3
062.280	Family Violence	3

062.360	Adolescents in Families and Society	3
062.380	Conflict Resolution in the Family	3
062.433	Management of Family Stress	3

**At least one of the following: Aboriginal Focus**

047.405	Aboriginal Ways of Healing	3
062.447	Loss & Grieving in Aboriginal Families & Communities	3
032.300	Aboriginal Wisdom and Spirituality	3
032.120	The Native Peoples of Canada (w)	6
032.122/124	The Native People of Canada (w)	6
032.332	Aboriginal Organizations (w)	3
032.204	Native People of the Northern Plains	3
032.206	Native Peoples of the Eastern Woodlands	3
032.202	The Métis in Canada (w)	3

**Total Credit Hours for Required Electives: 51**

**III. Field Placement and Field of Practice Focus Courses Cr. Hrs.**

**FIELD PRACTICE COURSES 1 6**

047.420 Field/Focus of Social Work Practice

**Child and family services 6**

047.3 15 Field I

Placement in a mandated child and family services agency 12

**FIELD PRACTICE COURSES 2 6**

047.420 Field/Focus of Social Work Practice

**Child and Family Services II 6**

047.4 12 Field II

Placement in a mandated child and family services agency 12

**NET CHANGE IN CREDIT HOURS: +9**

Preamble

The Programs and Planning Committee of the Faculty of Graduate Studies made the following recommendation regarding a proposal for a Master's Practicum stream in Pathology.

Observations

1. The increased use of tissue diagnosis and the growth of the related knowledge base have not been matched by growth in the numbers of pathologists (persons with formal medical education and postgraduate specialty training in the theory and practice of pathology). As a consequence, it has become essential to train paramedical personnel (pathologists' assistants) who can take responsibility for some of the tasks required to practice anatomical pathology.
2. There is no established formal program for training of Pathologists' Assistants in Canada.
3. The proposed Practicum would be offered through the existing M.Sc. In Pathology.
4. The M.Sc. Practicum would educate and train baccalaureate-level science graduates to be scientifically based, clinically competent paramedical personnel who can assume several of the duties normally undertaken by medically qualified physicians in a laboratory of Anatomical Pathology.

Recommendation

The Programs and Planning Committee of the Faculty of Graduate Studies recommends that the Faculty Council of Graduate Studies approve the proposed Master's Practicum stream in Pathology.

Endorsed by Faculty of Graduate Studies Executive May 2, 2002

*Approved by the Faculty of Graduate Studies Council May 23, 2002*

Comments of the Senate Executive Committee:

The Senate Executive Committee endorses the report to Senate.

92,

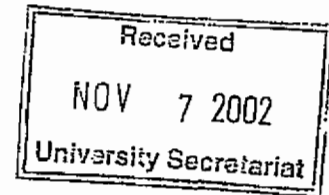


UNIVERSITY  
OF MANITOBA

Student Records Office

72

400 University Centre  
Winnipeg, Manitoba  
Canada R3T 2N2  
Telephone (204) 474-9423  
Fax (204) 275-2589  
student\_records@umanitoba.ca



November 7, 2002

To: Ms. B. Sawicki, University Secretary

From: Neil Marnoch, Director, Student Records

Re: Proposed Academic Schedule for 2003-2004

*Neil Marnoch*

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Please find attached the Proposed Academic Schedule for 2003-2004 as reviewed by each faculty and school, the Director of Admissions and Rabbie Stern, for distribution to Senate Executive.

It is sometimes the case that we receive late changes from faculties/schools. In this event, we will provide an updated schedule as soon as possible.

NM/db

Enclosure

Comments of the Senate Executive Committee:

The Senate Executive Committee endorses the report to Senate.

# Academic Schedule 2003-2004

## Regular Session: September 2003 - April 2004

## Summer Session: May 2003 - August 2003

- Spring Intersession May 5 - June 27, 2003
- Spring/Summer Evening May 5 - August 9, 2003
- Summer Day July 2 - August 23, 2003

## MARCH 2003

March 3 Monday Intermediate Fieldwork begins for second year Occupational Therapy students.

March 17 - 21 Monday - Friday Mid-term break for first- and second-year Medicine.

March 31 - April 25 Monday - Friday Community Pharmacy Practice for all third-year Pharmacy students

## APRIL 2003

April 1 Tuesday Last date for reports on theses/practica (and the corrected copies of the theses/practica), comprehensive examinations and M. Eng. Projects to be submitted to the Faculty of Graduate Studies by students expecting to graduate in May.

April 5 Saturday Language reading tests for graduate students.

April 11 Friday Intermediate Fieldwork ends for second-year Occupational Therapy students

April 14 Monday Summer Fieldwork 1 commences for second-year Occupational Therapy students.

April 18 GOOD FRIDAY University closed. No classes or examinations.

April 28 Monday Summer Fieldwork 2 begins for third-year Occupational Therapy students

April 28 - May 1 Monday - Thursday Auditions for prospective Bachelor of Music degree students.

## MAY 2003

May 1 Thursday Last date for application for June supplemental examinations in Agriculture Diploma.

Nursing Summer Term starts.

May 2 Friday Last date for registration in Spring Intersession and Spring/Summer Evening courses without late registration fee. Last date to register and pay fees for Challenge for Credit where the final examination is held during the Spring Intersession/first term Spring/Summer Evening exam series in June.

Medicine 4 clerkship closes.

May 3 Saturday Annual traditional graduation Powwow in honour of Aboriginal graduates.

May 5 Monday Classes begin in Spring Intersession and Spring/Summer Evening.

May 5 - 9 Monday - Friday First portfolio competition for entry to School of Art.

May 5 - 14 Monday - Wednesday Medical Council of Canada examinations.

May 9 Friday Last day of classes for first- and second-year Medicine.

May 19 Monday VICTORIA DAY University closed. No classes or examinations.

May 23 Friday Summer Fieldwork 1 ends for second-year Occupational Therapy students.

May 28 - 29 Wednesday - Thursday One Hundred and Twenty-Fourth Annual Convocation.

## JUNE 2003

June 2 Monday Last date for receipt of applications for supplemental examinations in third-year Medical Rehabilitation.

Supplemental examinations in Agriculture Diploma.

Last date for receipt of applications for supplemental examinations in first- and second-year and Physical Therapy degree completion programs of Medical Rehabilitation.

Last date to register and pay fees for Challenge for Credit where the final examinations are held during the Spring/Summer Evening exam series in August.

Convocation ceremony, Collège Universitaire de Saint-Boniface.

June 6 Friday Summer Fieldwork 2 ends for third-year Occupational Therapy students.

June 9 Monday The sale of student parking permits begins through the telephone registration system (UMREG - 958-7600)

June 9 - August 1 Monday - Friday Supplemental examination period in Dentistry and Dental Hygiene.

June 16 Monday Deadline for receipt by Faculty of Graduate Studies of Annual Progress Reports for Masters' and Ph.D. students.

June 20 Friday Deadline for payment of parking fees.

June 23 Monday Last date for receipt in Graduate Studies Office of Ph.D. theses (for distribution) from students expecting to graduate in October.

June 24 Tuesday Classes end in Spring Intersession.

June 27 Friday Exams end in Spring Intersession.

Last day for registration in Summer Day courses without late registration fee.

Last date to register and pay fees for Challenge for Credit, where the final examinations are held during the Summer Day exam series in August.

Final portfolio reviews for prospective Fine Arts students.(for any spaces available)

## JULY 2003

July 1 Tuesday CANADA DAY University closed. No classes or examinations.

July 2 Wednesday Classes begin in Summer Day.

Last date for distribution of Master's theses/practica (to examining committee) by students expecting to graduate in October.

July 4 Friday Last date for receipt of applications for autumn supplemental examinations in those faculties and schools offering these, except Medical Rehabilitation. Arrangements for writing at approved off campus centres must be completed by this date.



## AUGUST 2003

**August 1 Friday** Last date to apply for graduation in October 2003 via the telephone registration system.

**August 4 Monday CIVIC HOLIDAY** University closed. No classes or examinations.

**August 7 Thursday** Classes end in Spring/Summer Evening.

**August 9 Saturday** Exams end in Spring/Summer Evening.

**August 11 Monday** First term begins in third- and fourth-year Dentistry.

**August 18 Monday** First term begins in first- and second-year Dentistry.

First term begins in first- and second-year Dental Hygiene.

Orientation begins for first-year Medicine.

**August 21 Thursday** Classes end in Summer Day.

Inaugural exercises for Faculty of Medicine. B.Sc.(Med.) presentations begin in Faculty of Medicine.

**August 21 - 22 Thursday - Friday** In-person registration in Medicine.

**August 23 Saturday** Exams end in Summer Day.

**August 25 Monday** First day of classes in first-, second- and third-year Medical Rehabilitation.

Classes begin in first-, second- and third-year Medicine.

Classes begin in fourth-year Pharmacy.

Last date for reports on theses/practica (and the corrected copies of the theses/practica), comprehensive examinations and M. Eng. Projects to be submitted to the Faculty of Graduate Studies by students expecting to graduate in October.

## SEPTEMBER 2003

**September 1 Monday LABOUR DAY** University closed. No classes or examinations.

**September 2 Tuesday** Orientation for first-year Social Work students.

Field Orientation for second and third-year Social Work students.

Classes begin in Law.

Registration in Law not permitted after this date without the permission of the dean.

**September 2 - 3 Tuesday - Wednesday** University 1 Orientation

**NOTE:** University 1 students are reminded that these orientation sessions are part of their academic program and attendance is required.

**September 3 Wednesday** Last day to register and pay fees without penalty for all programs except the Agriculture Diploma (September 19).

Field Orientation for second and third-year Social Work students.

Last date for registration and fee payment without fee penalty for students wishing to take Distance Education Courses commencing in September. For further details, see the 2003-2004 Distance Education Program Guide.

**September 4 Thursday** Classes begin in most faculties and schools (including evening classes) except Education 'non-L' lecture section courses and Education courses with L40 and L59 lecture sections. (See *Registration Guide*)

**September 4 - 5 Thursday - Friday** Clinical orientations for all nursing students registered in clinical courses. Nursing students, not in clinical courses, should attend theory courses as scheduled.

**September 4 - 17 Thursday - Wednesday** Period for late registration and registration revisions in all programs except Agriculture Diploma and Education 'non-L' lecture section courses and Education courses with L40 and L59 lecture sections (See *Registration Guide*). A financial penalty is assessed on all late registrations during this period.

**September 6 Saturday** Language reading tests for graduate students.

**September 17 Wednesday** Registration revisions and late registration in courses other than those offered in second term only, including Challenge for Credit, are not permitted after this date except in Agriculture Diploma (See October 1) and Education 'non-L' lecture section courses and Education courses with L40 and L59 lecture sections (see *Registration Guide*).

First Term and Full courses dropped after this date are recorded as Voluntary Withdrawals. (See refund schedule in the *Registration Guide* for financial implications.) (For Education 'non-L' lecture section courses and Education courses with L40 and L59 lecture sections see the *Registration Guide*)

Last date to apply for graduation in February 2004 via the telephone registration system.

**September 19 Friday** Orientation in Agriculture Diploma.

Last date to register and pay fees, without financial penalty, for Agriculture Diploma.

**September 22 Monday** Classes begin in Agriculture Diploma.

**September 25 Thursday** 2003 School Counsellors Admissions Seminar.

## OCTOBER 2003

**October 1 Wednesday** Last date for registration revisions in first term Agriculture Diploma. First term and full courses dropped from the diploma program after this date are recorded as Voluntary Withdrawals. (See refund schedule for financial implications).

Last date for receipt of internal and external transfer applications for admission (including complete documentation) to the Faculty of Arts from applicants wishing to take Distance Education courses starting in January 2004.

Last date for application to write examinations at a location other than the University of Manitoba in courses ending in December taken through the Distance Education Program by independent study, group-based study or net-based study.

**October 3 Friday** Medicine 3 (ITC) ends.

**October 6 Monday** Clinical Clerkship in Medicine begins.

**October 13 Monday THANKSGIVING** University closed. No classes or examinations.

**October 20 Monday** Enrolment Services/Financial Aid and Awards: Entrance Scholarship Presentation and Reception.

Last date for receipt in Graduate Studies Office of Ph.D. theses (for distribution) from graduate students expecting to graduate in February.

**October 21 Tuesday** Enrolment Services/Admissions Evening of Excellence

**October 22 - 23 Wednesday-Thursday** Thirty-Sixth Annual Fall Convocation.

**October 24 Friday** First term lectures end for fourth-year Pharmacy.

**October 27 Monday** Last date for distribution of masters' theses/practica (to examining committee) by students expecting to graduate in February.

**October 27 - 31 Monday - Friday** Examination period for first term of fourth-year Pharmacy.

## NOVEMBER 2003

**November 3 Monday** Last date for receipt of applications for mid-session (second term) transfer to the Faculty of Human Ecology.

Orientation for experiential rotations for all fourth-year Pharmacy students.

**November 11 Tuesday REMEMBRANCE DAY** University closed. No classes or examinations.

**November 12 Wednesday** Last date for Voluntary Withdrawal from all first term half-courses in all Faculties and Schools (except Education 'non-L' lecture section courses and Education courses with L40 and L59 lecture sections - see Registration Guide). (See refund schedule in Registration Guide for financial implications). Note that some courses have irregular voluntary withdrawal and refund schedules. See Faculty chapters of the Registration Guide. UMREG telephone registration closes at 5:30 p.m.

First term experiential rotations begin in fourth-year Pharmacy.

**November 14 Friday** Master's of Occupational Therapy Program Module 1 ends.

**November 17 Monday** Master's of Occupational Therapy Program Module 2 Basic Fieldwork begins.

## DECEMBER 2003

**December 3 Wednesday** Last day of lectures in Agricultural and Food Sciences (degree), Architecture (including Interior Design and Environmental Design), Arts, Education except Education 'non-L' lecture section courses and Education courses with L40 and L59 lecture sections (see Registration Guide), Engineering, Art, Human Ecology, Management, Music, Nursing, Pharmacy (except for fourth-year), Physical Education/Recreation Studies, Science, Social Work and University 1.

**December 5 Friday** Last day of lectures in Agriculture Diploma.

**December 6 Saturday** On this date in 1989, 14 women were murdered at l'École Polytechnique, Université de Montréal. The university remembers these women at memorial events scheduled on or near this date.

**December 5 - 18 Friday - Thursday** Examination period. Students are reminded that they must remain available until all examination and test obligations have been fulfilled.

**December 5 Friday** Last day of lectures in Law.

Field instruction ends in second- and third-year Social Work.

Last day of lectures in first, second and third-year of Dentistry.

**December 6 Saturday** Examinations begin in Law.

**December 8 - 15 Monday - Monday** Examination period in Agriculture Diploma.

**December 8 - 19 Monday to Friday** Examination period for first, second- and third-year Dentistry.

**December 9 Tuesday** Last day of lectures in fourth-year Dentistry and all years of Dental Hygiene

**December 10 - 19 Wednesday to Friday** Examination period for fourth-year Dentistry and all years of Dental Hygiene.

**December 12 Friday** Medical Rehabilitation closes except for the Physical Therapy department.

Master's of Occupational Therapy Program Module 2 Basic Fieldwork ends.

First Term experiential rotations end in fourth-year Pharmacy.

Last day of lectures in Medicine (first- and second-year).

**December 15 - 19 Monday - Friday** International Dental Degree Program on-site assessment.

**December 18 Thursday** End of examinations and first term

Physical Therapy department closes.

**December 19 Friday** Clinics end in third and fourth-year Dentistry.

**December 23 Tuesday** Last working day. University closes until January 5.

Medicine 4 Clerkship closes until January 2.

## JANUARY 2004

**January 2 Friday** Medicine 4 Clerkship resumes.

**January 5 Monday** University re-opens.

Second term experiential rotations begin in fourth-year Pharmacy.

Lectures resume in all faculties and schools (except fourth-year Pharmacy).

Field instruction begins in second- and third-year Social Work.

Advanced Fieldwork begins in third-year Occupational Therapy.

Last date for application for January supplemental examinations for Agriculture Diploma.

**January 5 - 16 Monday - Friday** Period for registration and registration revisions in second term half-courses in all programs except Agriculture Diploma (see January 14).

**January 6 Tuesday** Last date for reports on theses/practica (and the corrected copies of the theses/practica), comprehensive examinations and M. Eng. Projects to be submitted to the Faculty of Graduate Studies by students expecting to graduate in February.

**January 7 Wednesday** Supplemental examinations for Agriculture Diploma.

**January 10 Saturday** Language reading tests for graduate students.

**January 14 Wednesday** Last date for registration and/or registration revisions in Agriculture Diploma. Second term courses dropped from the Agriculture Diploma after this date are recorded as Voluntary Withdrawals.

**January 16 Friday** Last date for registration in second term half courses, including Challenge for Credit, and/or registration revisions in all programs except the Agriculture Diploma (see January 14) and Education 'non-L' lecture section courses and Education courses with L40 and L59 lecture sections (see Registration Guide).

Final date for receipt of second term and full courses fee payments.

Last date for registration for students wishing to take Distance Education courses commencing in January. For further details, please consult the 2003-2004 Distance Education Program Guide.

Second term and full courses dropped after this date from any program except the Agriculture Diploma and Education courses in the Bachelor of Education (see Registration Guide) are recorded as Voluntary Withdrawals. (See Registration Guide Refund Schedule for financial implications.)

Last date to apply for graduation in May 2004 via the telephone registration system.

**January 26 Monday** Last date for receipt, in Graduate Studies office, of PH.D. thesis (for distribution) from students expecting to graduate in May.

## FEBRUARY 2004

**February 2 Monday** Last date for application to write examinations at a location other than the University of Manitoba in courses ending in April taken through the Distance Education program by independent study, group-based study or net-based study.

Auditions for prospective Bachelor of Music degree students.

Last date for distribution of Masters' theses/practica (to examining committee) by students expecting to graduate in May.

Application deadline for Nursing Summer term.

**February 6 Friday** Second term experiential rotations end in fourth-year Pharmacy.

**February 9 Monday** Second term lectures begin in fourth-year Pharmacy.

**February 13 Friday** Advanced Fieldwork ends for third-year Occupational Therapy students.

**February 16 Monday** Selected Studies Block begins for third-year Occupational Therapy students.

February 16 - 20 Monday - Friday MID-TERM BREAK No classes or examinations, except for Medicine, fourth-year Pharmacy, second-year and third-year Occupational Therapy and Physical Therapy students.

February 17-18 Tuesday-Wednesday Information Days for high school students

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## MARCH 2004

March 5 Friday Last date for Voluntary Withdrawal without academic penalty from full courses and second term half-courses for students in the Agriculture Diploma. (See refund schedule for financial implications).

March 15 - 19 Monday - Friday Mid-Term break for first- and second-year Medicine.

March 17 Wednesday Last date for Voluntary Withdrawal from full courses and second term half-courses in all Faculties and Schools (except students in the Agriculture Diploma, see March 5; and Education 'non-L' lecture section courses and Education courses with L40 and L59 lecture sections see *Registration Guide*). See refund schedule in the *Registration Guide* for financial implications. NOTE: Some courses have irregular voluntary withdrawal and refund schedules. See the faculty chapters of the *Registration Guide*. UMREG telephone registration closes at 5:30 p.m.

March 19 Friday Last day of lectures in third-year Pharmacy.

March 22 - 26 Monday - Friday Examination period for third-year Pharmacy.

March 26 Friday Last day of lectures in Agriculture Diploma.

March 27 Saturday Language reading tests for graduate students.

March 29 - April 5 Monday - Monday Final examinations in Agriculture Diploma.

March 29 - April 23 Monday - Friday Community pharmacy practice for third-year Pharmacy.

March 30 Tuesday Last date for reports on theses/practica (and the corrected copies of the theses/practica), comprehensive examinations and M. Eng. Projects to be submitted to the Faculty of Graduate Studies by students expecting to graduate in May.

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## APRIL 2004

April 5 Monday End of examinations and second term for the Agriculture Diploma.

April 8 Thursday Final lectures in all faculties and schools, Medicine, and Education 'non-L' lecture section courses and Education courses with L40 and L59 lecture sections (see *Registration Guide*).

Lectures and all clinics close for Dental Hygiene 1 and 2.

April 9 GOOD FRIDAY University closed. No classes or examinations

April 12 Monday Examinations begin in Law.

Field instruction ends in second- and third-year Social Work.

April 12 - 16 Monday - Friday Examination period for Dental Hygiene 1 and 2.

April 12 - 28 Monday - Wednesday Examination period - Students are reminded that they must remain available until all examination and test obligations have been fulfilled.

April 15 Thursday Last day of lectures in fourth-year Pharmacy.

April 16 Friday Term ends for third-year Occupational Therapy students.

Classes and regular clinics end for fourth-year Dentistry.

April 19 Monday Exams begin in Fourth-year Pharmacy.

Summer Fieldwork 2 begins for third-year Occupational Therapy students.

April 19 - 23 Monday - Friday Examination period for fourth-year Dentistry.

April 23 Friday Graduation ceremony for School of Agriculture.

Master's of Occupational Therapy Program Module 3 ends.

Last day of lectures in Dentistry years 1 and 2.

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April 26 Monday Master's of Occupational Therapy Program Module 4 Intermediate Fieldwork begins.

April 26 - May 7 Monday to Friday Examination period for first- and second-year Dentistry.

April 27 -30 Tuesday - Friday Auditions for prospective Music majors.

April 28 Wednesday End of examinations and second term in those Faculties and Schools where examinations commenced April 12.

April 30 Friday Last date for registration in Spring Intersession and Spring/Summer Evening courses without late registration fee.

Medicine 4 Clerkship closes.

Last day of lectures and regular clinics for third-year Dentistry.

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## MAY 2004

May 1 Saturday Annual traditional graduation Powwow in honour of Aboriginal graduates.

May 3 Monday Classes begin in Spring Intersession and Spring/Summer Evening Session.

Nursing Summer term starts

Last date to register and pay fees for Challenge for Credit where the final examinations are held during the June series.

Last date for applications for June supplemental examinations in Agriculture Diploma.

May 10 - 21 Monday - Friday Exam period for third-year Dentistry.

May 11 - 12 Tuesday - Wednesday Medical Council of Canada examinations.

May 13 Thursday Last day of lectures in second-year Medicine.

May 14 Friday Last day of classes in first- and second-year Medicine.

May 24 Monday VICTORIA DAY University closed. No classes or examinations.

May 26 - 27 Wednesday - Thursday One Hundred and Twenty Fifth Annual Spring Convocation.

May 28 Friday Summer Fieldwork 2 ends for third-year Occupational Therapy students.

May 31 Monday Convocation ceremony at Collège universitaire de Saint-Boniface.

Supplemental exams for Agriculture Diploma.

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## JUNE 2004

June 14 Monday Deadline for receipt, by the Faculty of Graduate Studies, of Annual Progress Reports for Master's and PH.D. students.

June 21 Monday Last date for receipt, in Graduate Studies Office, of PH.D. thesis (for distribution) from students expecting to graduate in October.

June 28 Monday Last date for distribution of Master's thesis/practica (to examining committee) by students expecting to graduate in October.

June 30 Wednesday Classes begin in Summer Day Session.

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## JULY 2004

July 1 Thursday CANADA DAY University closed. No classes or examinations.

July 30 Friday Nursing Summer Term ends.

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## Deadline Dates

Where deadline dates fall on a weekend or statutory holiday, the normal closing time of the next working days will be used.

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## Examination Obligations

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

### Observance of Religious Holidays.

The university acknowledges the right of all students to observe recognized Holy Days of their faith which fall within the above schedule and will, at its discretion, upon request, make necessary arrangements to ensure that studies are not jeopardized.

Instructors should be notified of a student's intended absence in advance, and at least three weeks notice of absence from scheduled examinations should normally be given where special arrangements are sought.

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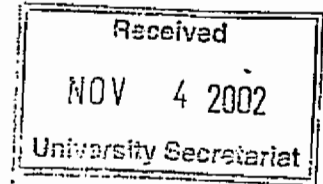
## Schedule of Registration Activities

The dates for the registration in each faculty and school for the 2003-2004 session are published in the *Registration Guide* which is issued to all returning and new students and sent on request to others interested in this information.

### For further information on registration activities contact:

Student Records Office  
400 University Centre  
University of Manitoba  
Winnipeg, Manitoba R3T 2N2  
Telephone: 204 474 9423

November 6, 2002

Report of the Senate Committee on Awards respecting AwardsPreamble

The Senate Committee on Awards (SCOA) terms of reference 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 Policy No. 419, such offers shall be submitted to Senate for approval." (Senate, April 5, 2000)

At its meeting on October 30, 2002, SCOA reviewed 13 new awards offers and 8 award amendments and reports as follows.

Observation

On behalf of Senate, the Senate Committee on Awards approved and recommends that the Board of Governors approve 13 new awards and 8 award amendments as set out in Appendix "A" of the Report of the Senate Committee on Awards (dated October 30, 2002). These award decisions comply with the published guidelines of November 3, 1999, and are reported to Senate for information.

Respectfully submitted,

A handwritten signature in cursive script that reads "Diana Cindric (for)".

Professor R. Baydack, Chair  
Senate Committee on Awards

**APPENDIX "A"****OFFERS****DR. JAMES BURNS AWARDS IN HISTORY**

Through a generous gift from Dr. James Burns, and a contribution from the Manitoba Scholarship and Bursary Initiative, an endowment fund has been established at the University of Manitoba to support the study of history. This award has been established in the 125th anniversary year of the University of Manitoba. These awards shall be available beginning in 2003.

Of the available annual income, \$10,000 shall provide for an entrance fellowship for a student who:

- (1) has been admitted to the first year of the PhD graduate program in the Department of History at The University of Manitoba;
- (2) has achieved a minimum cumulative grade point average of 3.50 over the equivalent of the last two completed years of study (minimum 12 credit hours in a graduate program).

If there is no qualified candidate, then the fellowship may be awarded to a candidate in a subsequent year of the PhD program.

A fellowship valued at \$6,000 shall be offered to a student who:

- (1) is a candidate for PhD in the graduate program in the Department of History at The University of Manitoba and has completed the comprehensive exam;
- (2) expects to complete the required dissertation for the PhD graduate program in the Department of History in the academic session in which this award is tenable;
- (3) has achieved a minimum grade point average of 3.50 based on a minimum 12 credit hours of completed doctoral course work.

Two entrance fellowships valued at \$8,000 each shall be offered to students who:

- (1) have been admitted to the first year of the Masters graduate program in the Department of History at The University of Manitoba;
- (2) have achieved a minimum cumulative grade point average of 3.50 over the equivalent of the last two completed years of study (minimum 48 credit hours in the undergraduate program).

A final amount of \$3,000 shall be directed for such items as graduate student travel to archives and to provide matching funds for fellowships funded by other granting agencies.

Preference will be given to:

- (1) full-time graduate students in good standing and enrolled full-time in a Masters or PhD program in the Department of History.

The distribution of funds for student travel and top-up matching will be left to the discretion of the selection committee. The selection committee shall be named by the Head of the Department of History.

For 2002 the offers shall consist of one \$10,000 entrance fellowship to a student admitted to the first year of the PhD graduate program in the Department of History. (If there is no qualified candidate, then the fellowship may be awarded to a candidate in a subsequent year of the PhD program.) One \$8,000 entrance fellowship to a student admitted to the first year of the Masters graduate program in the Department of History. Finally, \$2,000 shall be available for such items as graduate student travel to archives and to provide matching funds for fellowships funded by other granting agencies.

### **YIDDISH LANGUAGE AWARDS**

Through the generosity of members of Winnipeg's Jewish community, a series of awards is made available each year (beginning with the 2002-2003 academic session) to students who pursue studies in Yiddish at the University of Manitoba. The fund will be open to donations at any time. The number of annual awards shall be determined through a combination of the total amount of funds in the account and the number of eligible students with each individual award valued at exactly \$500. If no funding is available in a given year or if there are no eligible candidates, no awards will be given in that year.

These awards shall be offered to students who:

- (1) are enrolled part- or full-time at the University of Manitoba, in any Faculty or School, or in Continuing Education;
- (2) have normally achieved a minimum cumulative grade point average of 2.0, or a high school average of 70%, if a first year student (mature students are also eligible\*);
- (3) are enrolled in the introductory course in Yiddish (currently numbered 55.122);

\*Mature entering students may also apply and will be assessed on the basis of experience and potential demonstrated in a covering letter and a letter of endorsement.

The selection committee shall be convened by the Dean of the Faculty of Arts or designate, and shall include the Head of the Department of German and Slavic Studies and the Faculty of Arts Liaison for Yiddish courses (or their designates), and a member of the Jewish community, as nominated by the Faculty of Arts Associate Dean for Undergraduate Affairs.

### **WINNIPEG CHAMBER OF COMMERCE AWARDS**

The Winnipeg Chamber of Commerce, the leading voice of business in Winnipeg, has decided to establish two undergraduate scholarships at the University of Manitoba. These scholarships will be valued at \$2,500 each and offered for a period of three years beginning with the 2003-2004 academic session. The chamber's mission is "to foster an environment in which Winnipeg business can prosper." The chamber believes that a vital component of the ability of Winnipeg business to compete in the national and global marketplaces is the vitality of the post-secondary education system and the presence of dynamic links between the university and the business community. In its efforts to enhance the competitive edge of the Winnipeg business community and to demonstrate its commitment to the importance of higher education, the chamber has

decided to establish two scholarships in areas it has identified as strategic economic priorities in accordance with their corporate strategic plan. The awards will be offered sequentially in the areas of strategic interest with awards offered in the area of New Media in the first year, Biotechnology in the second year, and Transportation in the third year.

### **NEW MEDIA IN ARCHITECTURE**

New Media in Architecture is the study of 3D modelling, web based explorations, rendering, and computer animation resulting in the creation of virtual reality situations describing human interaction, movement through space, and spatial awareness of all aspects of the built or conceptual environment.

The annual award, valued at \$2,500, shall be offered to a student who:

- (1) is enrolled full-time in a Masters graduate program in the Faculty of Architecture;
- (2) has achieved a minimum grade point average of 3.0;
- (3) shows a practical and theoretical application of web based, video based, or animation based New Media competencies.

Applicants must submit a portfolio of at least two New Media projects for consideration.

The selection committee shall be named by the Dean of the Faculty of Architecture and shall include one professor of New Media and the New Media Lab Director.

### **NEW MEDIA IN FINE ARTS**

New Media in Fine Arts has the primary objective of developing students ability to use digital media creatively by increasing the students awareness of the possibilities offered by digital media and by developing their technical expertise.

The annual award, valued at \$2,500, shall be offered to a student who:

- (1) is enrolled full-time and entering the third or fourth year of study in the School of Art;
- (2) is enrolled in a course with a New Media focus such as An Introduction to digital media for artists;
- (3) has achieved a minimum grade point average of 3.0;

Applicants must submit a portfolio of at least two New Media projects for consideration.

The selection committee shall be named by the Director of the School of Art and shall include a professor of New Media.

### **BIOTECHNOLOGY IN SCIENCE**

The annual award, valued at \$2,500, shall be offered to a student who:

- (1) is enrolled full-time and entering the fourth year of study of an honours program in the



Faculty of Science including Microbiology, Biochemistry, and Genetics with a focus on Biotechnology or the Biotechnology Honours Program;

- (2) has achieved a minimum grade point average of 3.0;

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

### **BIOTECHNOLOGY IN ENGINEERING**

Biosystems Engineering emphasizes the application of engineering principles to biologically based systems (plants, animals, and microorganisms). The main areas of emphasis are biomachinery, light-frame buildings, water and soil engineering, food engineering, bioprocessing, bioenvironmental controls, and environmental engineering.

The annual award, valued at \$2,500, shall be offered to a student who:

- (1) is a full-time student in the Faculty of Engineering in the Department of Biosystems Engineering;
- (2) has achieved high standing with a minimum cumulative grade point average of 3.5 and has completed the second year of study with a minimum 56 credit hours;
- (3) enters the third year of the program and is registered in the Cooperative Education Program in Biosystems Engineering. The Coop placement must provide practical experience with a biotechnological focus.

The selection committee shall be named by the Head of the Department of Biosystems Engineering and shall include the Coordinator of the Cooperative Education Program in Biosystems Engineering.

### **TRANSPORTATION**

A major in Transportation is being developed within the Asper School of Business to be available as of fall 2003. A committee with knowledge of the field will be set up to determine appropriate terms of reference. The awards in Transportation will be offered for the 2005-2006 academic session.

#### **D.A. THOMPSON Q.C. PRIZE FOR ADMINISTRATIVE LAW**

The Winnipeg Foundation, which administers the D.A. Thompson Q.C. Fund, has agreed to provide the following annual prize in the Faculty of Law. A prize of \$175 for the second year student with the highest standing in section L02 of Administrative Law, 45.353.

#### **D.A. THOMPSON Q.C. PRIZE FOR ABORIGINAL PEOPLES AND LAND CLAIMS**

The Winnipeg Foundation, which administers the D.A. Thompson Q.C. Fund, has agreed to provide the following annual convocation prize in the Faculty of Law. A prize of \$100 for the student with the highest standing in section L01 of Aboriginal Peoples and Land Claims, 45.398.

**D.A. THOMPSON Q.C. PRIZE FOR COMPARATIVE LAW**

The Winnipeg Foundation, which administers the D.A. Thompson Q.C. Fund, has agreed to provide the following annual convocation prize in the Faculty of Law. A prize of \$100 for the student with the highest standing in Comparative Law, 45.362.

**D.A. THOMPSON Q.C. PRIZE FOR EMPLOYMENT LAW**

The Winnipeg Foundation, which administers the D.A. Thompson Q.C. Fund, has agreed to provide the following annual convocation prize in the Faculty of Law. A prize of \$100 for the student with the highest standing in Employment Law, 45.333.

**D.A. THOMPSON Q.C. PRIZE FOR INTERNATIONAL BUSINESS LAW**

The Winnipeg Foundation, which administers the D.A. Thompson Q.C. Fund, has agreed to provide the following annual convocation prize in the Faculty of Law. A prize of \$100 for the student with the highest standing in section L04 of International Business Law, 45.398.

**D.A. THOMPSON Q.C. PRIZE FOR INTERNATIONAL TRADE LAW**

The Winnipeg Foundation, which administers the D.A. Thompson Q.C. Fund, has agreed to provide the following annual convocation prize in the Faculty of Law. A prize of \$100 for the student with the highest standing in section L05 of International Trade Law, 45.398.

**D.A. THOMPSON Q.C. PRIZE FOR LAW AND LITERATURE**

The Winnipeg Foundation, which administers the D.A. Thompson Q.C. Fund, has agreed to provide the following annual convocation prize in the Faculty of Law. A prize of \$100 for the student with the highest standing in Law and Literature, 45.319.

**D.A. THOMPSON Q.C. PRIZE FOR SECURITIES LAW**

The Winnipeg Foundation, which administers the D.A. Thompson Q.C. Fund, has agreed to provide the following annual convocation prize in the Faculty of Law. A prize of \$100 for the student with the highest standing in Securities Law, 45.339.

**D.A. THOMPSON Q.C. PRIZE FOR BUSINESS PLANNING AND FINANCE LAW**

The Winnipeg Foundation, which administers the D.A. Thompson Q.C. Fund, has agreed to provide the following annual convocation prize in the Faculty of Law. A prize of \$100 for the student with the highest standing in Business Planning and Finance Law, 45.386.

**D.A. THOMPSON Q.C. PRIZE FOR REMEDIES**

The Winnipeg Foundation, which administers the D.A. Thompson Q.C. Fund, has agreed to provide the following annual convocation prize in the Faculty of Law. A prize of \$100 for the student with the highest standing in Remedies, 45.345.

**AMENDMENTS****ST. ANDREW'S BASKETBALL CLUB - GEORGE FONTAINE MEMORIAL AWARD**

As per the wishes of the donor, the terms of reference for this athletic award shall be amended. The sentence, "Preference in selection shall be given to the graduates of Winnipeg inner-city high schools." will be removed.

**MARN FOUNDATION GRADUATE SCHOLARSHIP  
and MARN FOUNDATION GRADUATE AWARD**

The names for these awards in the Faculty of Nursing shall be amended to FOUNDATION FOR REGISTERED NURSES OF MANITOBA INC. GRADUATE SCHOLARSHIP and FOUNDATION FOR REGISTERED NURSES OF MANITOBA INC. GRADUATE AWARD.

**COCA-COLA BOTTLING SCHOLARSHIP**

The Coca-Cola Bottling Scholarship for Graduate Studies in Physical Education shall be amended to include the Master's of Science in Exercise and Sport Science as a program for consideration.

**CANADIAN MASONRY INSTITUTE UNDERGRADUATE AWARD  
CEMENT ASSOCIATION OF CANADA UNDERGRADUATE AWARD  
E.H. PRICE UNDERGRADUATE AWARD**

The terms of reference for these three undergraduate awards in the Faculty of Architecture are currently identical and they are to undergo identical amendments. In order to ensure that the recipients of these awards remain registered in Environmental Design courses, the second selection criterion which will now state, "have registered as full-time students in the Environmental Design program in the Faculty of Architecture at the University of Manitoba, with at least 27 credit hours of Environmental Design courses (numbered 079)".

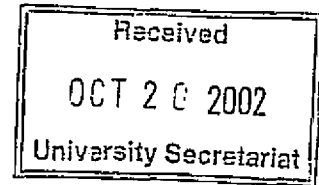
**JACK RICE MEMORIAL PRIZE IN ADMINISTRATIVE LAW**

The third paragraph of this prize in the Faculty of Law shall be amended to indicate that one prize (previously two) shall be awarded to a second year student who achieves highest standing in section L01 of Administrative Law, 45.353.



UNIVERSITY  
OF MANITOBA

Office of the President



October 25, 2002

To: Ms. Beverly M. Sawicki, University Secretary  
From: Richard A. Lobdell, Vice-Provost (Programs) *RL*  
Re: **Program Accreditation: 2002 Annual Update**

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Attached for the information of the Board of Governors and of Senate is the 2002 update of the accreditation status of programs in various Departments, Schools, and Faculties as provided by Deans and Directors. As before, there are no accredited programs in the School of Art, Faculty of Education, and the School of Music.

Notable Changes:

1. School of Medical Rehabilitation - The Division of Respiratory Therapy has received full national accreditation from the Council on Accreditation of Respiratory Therapy Education
2. Physical Education & Recreation Studies - Recreation Studies is in the early stage of preparation for accreditation with the National Recreation & Parks Association
3. Dentistry - In January, 2003 expect accreditation approval without further reporting requirements

It has been the practice for some years to distribute this information to the Senate and Board of Governors.

Note that this summary does not include any of the equally formal and important accreditations of other instructional and research activities, for example, that of the Canadian Council for Animal Care.

As noted in previous reports, the term "accreditation" continues to have differing meaning for various disciplines and for different accrediting agencies. In certain cases, accreditation carries legal status and eligibility for licensing for graduates; in other cases, accreditation is seen as a measure of quality control, without the sanction of licensing to practice.

Att.  
/dg

# ACCREDITATION REPORT 2002

Program Accredited/Eligible for Accreditation	Locales Included	Accrediting Agency	Jurisdiction of Accrediting agency	Status of Accrediting Agency	Start Date of Present Accreditation	End Date of Present Accreditation	Status of Accreditation (full or provisional)	Costs	Agency Paying
<b>AGRICULTURAL AND FOOD SCIENCES</b>									
Biosystems Eng	U of M	Canadian Engineering Accreditation Board, Canadian Council of Professional Engineers	Canada: reciprocal agreement with USA	Professional		2007	full		
Food Science	U of M	International Food Technologists (USA)	Canada and USA	Professional		2003 extended pending review	full (5 years)		
Food Science	U of M	Canadian Institute of Food Science and Technology, Ottawa	Canada	voluntary association; incorporated under Federal Legislation		open ended	full		
B.Sc. Agriculture (degree) Majors -Agronomy -Animal Systems -Plant Systems	U of M	Agricultural Institute of Canada	Canada	Professional		2009	Charter accredited 1998 full/2002		
B.Sc. Agribusiness (degree) - Majors -Agribusiness -Agricultural Ec.	U of M	Agricultural Institute of Canada	Canada	Professional		2009	full		
B.Sc. Agroecology (degree)	U of M	Agricultural Institute of Canada	Canada	Professional		2009	full		
B.Sc. Biosystems Eng (degree)	U of M	Agricultural Institute of Canada	Canada	Professional		2005	provisional		
B.Sc. Food Science	U of M	Agricultural Institute of Canada	Canada	Professional		2009	full		

Programs Accredited/eligible for Accreditation	Locales Included	Accrediting Agency	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Start Date of Present Accreditation	End Date of Present Accreditation	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
<b>ARCHITECTURE</b>									
M.Arch. ** Program (Dept. of Architecture)	U of M	Canadian Arch. Certification Board (CACB). 330-55 Murray St. Ottawa, ON K1N 6M3	National Reciprocity with NAAB (USA)	Mandatory Professional Association	2004	2004	full 5 years	\$500 annual mltc, on-site costs of visiting team \$15,000	U of M
City Planning	U of M	Cdn Institute of Planners (CIP) 541 Sussex Dr. 2 <sup>nd</sup> fl. Ottawa, ON	National, Provincial & International	Mandatory Professional Association	2006	2006	full	\$100 annual fee & site costs of approx. \$4000 for visiting team every 5 yrs.	U of M
Landscape Architecture	U of M	Cdn. Society of Landscape Arch., Box 13594 Ottawa, ON K2K 1X6	National & International**	Mandatory National Membership through Licensing Registration	2005	2005	full	\$1000 every year, plus site visit costs of \$15,000	U of M
Interior Design	U of M	Fdn. For Interior Design Education Research	*International	Foundation recognized by U.S. Dept. Education	2006	2006	full 5 years + site visit	\$1,200 U.S. annual fee	U of M

\*\* reciprocal recognition by LA AB (a part of ASLA) giving right after 3 years experience to take LARE exam

Programs Accredited/ Eligible for Accreditation	Locales Included	Accrediting Agencies	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Start Date of Present Accreditation	End Date of Present Accreditation	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
<b>ARTS</b>									
Clinical Psychology	U of M	APA <sup>1</sup>	International	Professional		2003	full	\$1,000 US Funds	U of M
		CPA <sup>2</sup>	National	Professional		2003	full	\$2,030+ GST (2000-2001) annual fee plus site visit fee \$5,350	U of M

<sup>1</sup> American Psychological Assoc. 750 First St. N.E. Washington, D.C. 20002-4242

<sup>2</sup> Canadian Psychological Assoc. Chemin Vincent Rd., Old Chelsea, Quebec J0X 2N0



Programs Accredited/ Eligible for Accreditation	Locales Included	Accrediting Agencies	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Start Date of Present Accreditation	End Date of Present Accreditation	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
<b>DENTISTRY</b>									
Undergraduate	U of M	Commission on Dental Accreditation of Canada 1815 Alta Vista Dr. Ottawa K1G 3Y6	National	federal legislation	2007		approved with reporting requirements	\$ <sup>3</sup>	U of M
Periodontology	U of M	Commission on Dental Accreditation of Canada	National	federal legislation	2007		approved with reporting requirements		U of M
Orthodontics	U of M	Commission on Dental Accreditation of Canada	National	federal legislation	2007		approved with reporting requirements		U of M
Oral Surgery	U of M	Commission on Dental Accreditation of Canada	National	federal legislation	2007		approved with reporting requirements		U of M
Dental Internship Program	H Sc	Commission on Dental Accreditation of Canada	National	federal legislation	2002		full		H Sc
School of Dental Hygiene	U of M	Commission on Dental Accreditation of Canada	National	federal legislation	2007		approved with reporting requirements		U of M
Graduate Programs Prosthodontics	U of M	Commission on Dental Accreditation of Canada	National		1986		not currently offered		

In January, 2003 we are expecting accreditation approval without further reporting requirements.

<sup>3</sup>Total cost is \$3,782 annually on a 7-year accreditation site visit cycle.

Note: Accreditation follows a 7-year cycle except for the Dental Internship Program that follows a 5-year cycle

Note: A 1-year extension for accreditation requested and received from Canadian Dental Association

Programs Accredited/ Eligible for Accreditation	Locales Included	Accrediting Agencies	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Date to Which Program Is Accredited	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
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#### EDUCATION

"Accreditation" is by way of regulations specified by Manitoba Education, Youth, & Training

Programs Accredited/ Eligible for Accreditation	Locales Included	Accrediting Agencies	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Start Date of Present Accreditation	End Date of Present Accreditation	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
<b>ENGINEERING</b>									
Civil Eng. Electrical Eng. Mechanical Eng. Biostystems Eng. Computer Eng. Industrial Eng.	U of M	Canadian Engineering Accreditation Board Cdn Council of Prof. Engineers, 401-116 Albert St., Ottawa, On	National	Professional	July 1, 2001	June 30, 2007	full 6 years		U of M and Canadian Council of Professional Engineers

Programs Accredited/ Eligible for Accreditation	Locales Included	Accrediting Agency	Status of Accrediting Agency	Jurisdiction of Accrediting Agency	Start Date of Present Accreditation	End Date of Present Accreditation	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
<b>HUMAN ECOLOGY</b>									
Human Nutritional Sciences	U of M	Dietitians of Canada 601-480 University Ave. Toronto, ON M5G 1V2	Professional <sup>4</sup>	National				\$650 (listing fee)	U of M
a) General dietetics program					2001	full			
Family Studies-Child Studies Concentration	U of M	CCEPAC <sup>5</sup>	Provincial	Provincial	2001	full		no cost	
B. H. Ecology - all program	U of M	Manitoba Association of Home Economists Box 582 Winnipeg, MB	Professional	Provincial (Chapter H70)	March 1990	no end date	full	no cost	
				Professional Home Economists Act)					

<sup>4</sup>The dietitians of Canada (DC) accredits all dietetic internship programs in Canada; successful completion of an internship is required for members in the DC and in all provincial associations. The provincial associations and the rights to practice are governed by provincial acts. The DC prescribes academic qualifications for admission to an accredited internship program. The Professional Standards Council of the DC regularly reviews the university programs in dietetics and provides the institutions offering internships with a list of the universities and colleges whose graduates meet the academic qualifications.

<sup>5</sup>Child Care Education Program Approval Committee, Manitoba Education Training, 185 Carlton St., 4<sup>th</sup> floor, Winnipeg.

Programs Accredited/ Eligible for Accreditation	Locales Included	Accrediting Agency	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Start Date of Accreditation	End Date of Accreditation	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
<b>LAW</b>									
Undergraduate curriculum, term, length, resources	U of M	Law Society of Upper Canada & Law Societies (or equiv.) in all other provinces and territories on basis of standards approved by L.S.U.C. and the National Federation of Law Societies of Canada	in each province or territory	statutory governing body of the profession (usually called a Law Society*)		Indefinite	full	nil	nil

Programs Accredited/ Eligible for Accreditation	Locales Included	Accrediting Agencies	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Start Date of Accreditation	End Date of Accreditation	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
<b>ASPER SCHOOL OF BUSINESS</b>									
Management (voluntarily requested)	U of M	AACSB International - The Association to Advance Collegiate Schools of Business	International	Professional	2009	full	\$9,000 US	U of M	
Asper Business School B.Comm (Hons) Accdg. Major	U of M	CMA Canada The Society of Management Accountants of Canada	National	Professional/ educational	2008	full	n/a	n/a	

Programs Accredited/ Eligible for Accreditation	Locales Included	Accrediting Agencies	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Start Date of Accreditation	End Date of Accreditation	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
<b>MEDICINE</b>									
Undergraduate Curriculum	U of M	Liaison Committee on Medical Education, AMA/AMC <sup>6</sup>	International	voluntary		2003-2004	full		Accred. Agency
Family Practice Residency Program	U of M & teaching hospitals	College of Family Physicians of Canada <sup>7</sup>	National	voluntary		2004	provisional		Accred. Agency
Postgraduate Programs	U of M & teaching hospitals	Royal College of Physicians & Surgeons of Canada <sup>8</sup>	National	Federal Charter		2008			Accred. Agency
Anesthesia							full		
Clin. Immunology & Allergy (Adult) (Pediatric)							full full		
Community Medicine							full		
Geriatic Medicine							full/inactive		
Hematology (Adult) (Pediatric)							full/inactive full		
Infectious Disease (Adult)							full		
Internal Medicine							provisional		
Neurology (Adult)							provisional		

<sup>6</sup> 535 N. Dearborn St. Chicago One Dupont Circle, Washington D.C. and ACGMC, 151 Slater, Ottawa

<sup>7</sup> 4000 Leslie St., Willowdale

<sup>8</sup> 74 Stanley Ottawa, ON

Programs Accredited/ Eligible for Accreditation	Locales Included	Accrediting Agencies	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Start Date of Accreditation	End Date of Accreditation	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
Palliative Medicine (conjoint with CFPC/RCPSC Program)							full		
Nuclear Medicine							provisional		
Physical Med. & Rehabilitation							full		
Psychiatry							full		
Pediatrics							full		
Respiratory Medicine - Adult							full		
Anatomical Pathology							full		
General Pathology							full		
Medical Microbiology							full/reactivated		
Medical Oncology							full/inactive		
Neonatal - Perinatal Med.							full		
General Surgery							full		
Obstetrics & Gynecology							full		
Orthopedic Surgery							full		
Plastic Surgery							notice of intent to withdraw		
Urology							notice of intent to withdraw		
Radiation Oncology							full		
Cardiac Surgery							full		
Thoracic Surgery							full		
Neurosurgery							provisional		
Vascular Surgery							full		



Programs Accredited/ Eligible for Accreditation	Locales Included	Accrediting Agencies	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Start Date of Accreditation	End Date of Accreditation	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
Diagnostic Radiology							full		
Adult Cardiology							provisional		
Rheumatology							full		
Nephrology - Adult							full		
Endocrinology & Metabolism (Adult)							full/reactivated		
Otolaryngology							full		
Gynecologic Oncology							full		
Maternal Fetal Medicine							full/inactive		
Critical Care Medicine							full		
Medical Genetics							full		
Emergency Medicine							provisional		
Gastroenterology							full		
School of Medical Rehabilitation									
Division of Occupational Therapy	U of M	Canadian Assoc. of Occupational Therapists <sup>a</sup>	National	voluntary	2005	5 year	5 year	\$2,794 yr \$5,588 yr of visit	U of M
Division of Physical Therapy	U of M	Accreditation Council Canadian Physio Therapy Academic Programs	National	voluntary	2003/2000	probationary		\$6,000/yr	U of M
Division of Respiratory Therapy	U of M	Council on accreditation of Respiratory Therapy Education	National	mandatory	2008	full		\$2580/yr	U of M

<sup>a</sup> Canadian Association of Occupational Therapists, CTTC Building, Suite 3400, 1125 Colonel By Drive, Ottawa, ON K1S 5R1

Programs Accredited/ Eligible for Accreditation	Locales Included	Accrediting Agencies	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Start Date of Accreditation	End Date of Accreditation	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
Fellowships in Clinical Genetics Medical Genetics Cytogenetics Molecular Genetics	Medical College U of M & Health Sciences Centre	Canadian College of Medical Geneticists	National	voluntary	2000	2004	full	\$1,500	U of MHSC
Predoctoral Internship Training Program in Clinical Psychology	U of M & teaching hospitals	Canadian Psychological Assoc./American Psychological Assoc.	National	voluntary	2004	2004	full	\$2,444, yr 2,472/yr of site visit	U of MHSC

Programs Accredited/ Eligible for Accreditation	Locales Included	Accrediting Agencies	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Start Date of Accreditation	End Date of Accreditation	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
<b>NURSING</b>									
B.N.	U of M plus clinical facilities	Canadian Association of Schools of Nursing	national	professional		April, 2003	full	\$12,000 est	U of M
B.N.	U of M plus clinical facilities	College of Registered Nurses of Manitoba	provincial	professional		May, 2002	full	N/A	

Programs Accredited/ Eligible for Accreditation	Locales Included	Accrediting Agencies	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Start Date of Accreditation	End Date of Accreditation	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
<b>PHARMACY</b>									
Bachelor of Pharmacy degree program	All Pharmacy faculties in Canada	Canadian Council for Accreditation of Pharmacy Programs	Canada	Professional		2002	full	\$5000/yr	Faculty

Programs Accredited/ Eligible for Accreditation	Locales Included	Accrediting Agencies	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Start Date of Accreditation	End Date of Accreditation	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
<b>PHYSICAL EDUCATION &amp; RECREATION STUDIES</b>									
Athletic Therapy (BESS)		CATA	National	Professional	2002	2006	4 year full	\$200 applic(1) \$250 /yr \$2000/site visit (1)	Phys Ed & Rec Studies (U of M)
Physical Education/ Kinesiology (intend to seek accreditation in the 2002 year)		CCUPEKA <sup>10</sup>	National	Professional			application being prepared - near completion	applic fee \$1200 applic w/site visit \$1600 w/site visit	PHYS Ed & BESS
Recreation Studies		National Recreation & Parks Assoc. recognized by the Commission on Recognition of Post-Secondary Accreditation	North America	Professional			early stage of preparation		

<sup>10</sup>Canadian Council of University Physical Education and Kinesiology Administrators

Programs Accredited/ Eligible for Accreditation	Locales Included	Accrediting Agencies	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Start Date of Accreditation	End date of Accreditation	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
<b>SCIENCE</b>									
Computer Sc Co-op Major	U of M	<sup>11</sup> note				assessment and decision pending			
Chemistry-Honours & 4-yr Major <sup>12</sup> note	U of M	Canadian Society for Chemistry	National	Professional		June 2002	full	c.\$2000	
Geological Sc - Geo. Hnrs. & Geophysics Hnrs. Post-Graduate in both of the above	U of M	Association of Professional Engineers and Geoscientists	<sup>13</sup> note	National and Provincial		until further review or action	full	n/a	

<sup>11</sup>No current accreditation. Department Council has voted to apply for Computer Science Accreditation Council accreditation for the Computer Science Honours and Major programs, and if possible, also for a Software Engineering Option. The Computer Science Department's Curriculum Committee is considering which, if any changes are needed to conform to the CSAC Council's guidelines. It is very likely that the Computer Science Department will apply for accreditation in 2001-2002.

<sup>12</sup>Also included Biochemistry Joint Honours and 4-yr. Major, and Biotechnology Joint Honours. The CSC will visit during the coming year to prepare for re-accreditation in 2002.

<sup>13</sup>Review body is the APEGM. The Canadian Council of Professional Geoscientists (CCPG) has issued a statement on the "Recommended Minimum Requirements of Geoscience Knowledge and Work Experience for Professional Practice". The Geology Honours Program currently meets the recommended minimum requirements.

Programs Accredited/ Eligible for Accreditation	Locales Included	Accrediting Agencies	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Start of Accreditation	End Date of Accreditation	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
<b>SOCIAL WORK</b>									
Bachelor of Social Work	U of M plus Field Instruction Centres*	Canadian Association of Schools of Social Work	National	voluntary	2007	full	\$3000 fee plus expenses of 3-person team for on-site visit	U of M	
Master of Social Work	U of M plus Field Instruction Centres	Canadian Association of Schools of Social Work	National	voluntary	2007	full	\$3000 fee plus expenses of 3-person team for on-site visit	U of M	
* field instruction centres include the Winthrop Education Centre and the School of Social Work at Thompson									

Programs Accredited/ Eligible for Accreditation	Locales Included	Accrediting Agencies	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Start Date of Accreditation	End Date of Accreditation	Status of Accreditation (Full or Provisional)	Costs	Agency Paying
<b>STUDENT AFFAIRS</b>									
Counseling Service	U of M	IACS <sup>14</sup>	International	voluntary	Sep 30/02	full		\$700 US	U of M
	U of M	*APA <sup>15</sup>	International	voluntary	Aug 31/05	full		\$1000 US	U of M
	U of M	*CPA <sup>16</sup>	National	voluntary	Aug 31/05	full		\$2030 Can	U of M

\* Joint CPA/APA accreditation for internship training program

<sup>14</sup>International Assoc. of Counseling Services, 5999 Stevenson Ave., Ste. 307, Alexandria VA 22304

<sup>15</sup>American Psychological Association, 750 First St., N.E. Washington, DC 20002-4242

<sup>16</sup>Canadian Psychological Association



Programs Accredited/Eligible for Accreditation	Locales Included	Accrediting Agencies	Jurisdiction of Accrediting Agency	Status of Accrediting Agency	Start Date of Accreditation	End Date of Accreditation	Status of Accreditation (Full or Provisional)	C os ts	Agency Paying
SCHOOL OF ART									
	none								
SCHOOL OF MUSIC									
	none								

## PRESIDENT'S REPORT December 4, 2002

My last report to Senate was submitted for its meeting on October 2, 2002. This report is organized into sections on General, Academic, Research, Administrative and External matters. Part B contains a list of external engagements during the time period of this report.

### I. GENERAL

#### 1. Surveys

##### a. Maclean's

The University placed 15<sup>th</sup> out of 15 medical-doctoral universities in the *Maclean's* 2002 ranking of universities. This year, however, *Maclean's* has provided more data which is helpful in reaching a different conclusion than the overall ranking would suggest. My commentary on this is contained in a letter to the Chair of the Board of Governors which is attached to this report.

##### b. The Globe and Mail

On October 23, 2002 the Globe and Mail published a special report on *A Comprehensive Guide to How Students Rate Their Schools*. The report was presented by the *Globe and Mail* in partnership with Uthink (an online research and youth marketing firm), and the Strategic Council (a polling and research firm chaired by Allan Gregg). Some 120,000 students from the studentawards.com online community were invited to complete the 100 question survey. There were 20,675 responses and only universities with more than 250 student responses were included in the ranking. The survey notes that "online security features and personal validation measures were used to ensure respondent and data integrity."

The survey questions related to quality of education including technology, course variety, student services, buildings and facilities, university atmosphere, off campus environment, career preparation and financial assistance. Twenty-nine universities were included in the report and Manitoba ranked overall 18. Queen's and Western were first and second respectively and Manitoba was ahead of other universities such as Montreal (19), Simon Fraser (21), Calgary (22), and Toronto (24). The survey points to the variability of results and survey techniques used in such surveys.

##### c. Research

Yet another survey - this one based on research, compiled by *Research Infosource Inc.* a division of the Impact Group and a sister company which publishes *Research Money*. The survey entitled *Canada's Top 50 Research*

*Universities* measures sponsored research income, number of full-time faculty and research intensity (\$ per full-time faculty). The University of Manitoba ranked 13 compared to 14 last year, and received just \$2000 less than did this year's 12<sup>th</sup> ranked University of Saskatchewan. Toronto, Montreal and McGill were ranked 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup>, respectively.

The report also lists 14 universities which are members of the "\$100 million club", universities which received over \$100,000,000 in research funding in fiscal 2001. New to the "club" this year are Guelph, Manitoba, Queen's and Saskatchewan.

## 2. November 1 Enrolment

The official reporting date for student enrolment data to Statistics Canada is November 1. Total enrolment stands at 24,981 an increase of 5.8% over November 1, 2001. Undergraduate enrolment increased by 5.8% to 21,724; graduate students increased by 5.9% to 2,852; and post-graduate medical education students increased 3.6% to 405. Undergraduate student credit hours increased by 4.3%.

## 3. The University of North Dakota

While the University of Manitoba has entered into many exchange agreements with other universities from many countries, it is ironic that there are no formal agreements with the closest medical-doctoral university, the University of North Dakota in Grand Forks, some 2 ½ hours away. Why this is so is a mystery. However, the September 30 visit by Dr. Charles Kupchella, President of the University of North Dakota bodes well for more collaboration with UND. I will be making my first visit to his university on December 13.

UND was founded in 1883 and has a current enrolment of 11,764 including 1,557 graduate students, 223 medical students, 199 law students. It has 91 baccalaureate degree programs, 46 master's programs and 17 doctoral programs. Several areas of possible collaboration were identified to build on some informal associations that already occur, for example, in medicine and linguistics.

## 4. Estimates Meeting

Members of the Council of Post-Secondary Education (COPSE) visited the University on October 28, 2002 to review the Estimates of Operating Requirements for 2003-04. Representing the University were Mr. Wayne Anderson, Chair of the Board of Governors, the President and the Vice-Presidents. Each Vice-President provided summaries of the issues relating to his/her portfolio and I summarized the estimates submission. There were a few questions raised and overall our presentation and submission appeared to be well received.

## II. ACADEMIC MATTERS

### Faculty of Agricultural and Food Sciences

- Dr. Gary Johnson, Agribusiness and Agricultural Economics, will be in Toluca, Mexico from November 10 - 14 attending the first meeting of directors from the universities in Canada, U.S. and Mexico involved in the international student exchange program entitled "Academic Enrichment and Experiential Learning Through Trilateral Curriculum Modification and Rural Community Information Delivery" established pursuant to the Program for North American Mobility in Higher Education.
- David Przednowek, M.Sc. student under the supervision of Dr. Don Flaten (Soil Science), received first place for student oral presentations at the Canadian Society of Agronomy meetings in Saskatoon. Cedric MacLeod, an M.Sc. student supervised by Dr. David Lobb (Soil Science), placed second in the student poster category.
- Dr. James Rude, Agribusiness and Agricultural Economics, presented a seminar in Ottawa to the Trade Policy group within the Strategic Policy Branch of Agriculture and Agri-Food Canada. The purpose was to discuss the strengths and weakness of using a general equilibrium model (GTAP) to do trade analysis.
- Dr. Stefan Cenkowski, Biosystems Engineering, currently on research study leave, is teaching a short course on food engineering at the Nanjing University of Economics in China and assisting that university to prepare documentation for student exchanges.
- At the joint meetings of the Entomological Societies of Canada and Manitoba, several people associated with the Department of Entomology received awards. Robert Lamb, adjunct professor and scientist with the Cereal Research Station received the Entomological Society of Canada Gold Medal for outstanding achievement in Canadian Entomology. Graduate students won several awards: Christie Borkowsky won one of the President's prizes for the excellence for her presented paper, K.S. Hemachandra won the Entomological Society of Manitoba Graduate Scholarship and the Entomological Society of Canada Graduate Travel Award, and Robyn Underwood won the Criddle Award for her leadership in entomological outreach activities. Jacquie LeGal and Daniel Eilers, both of whom have worked in association with the Department of Entomology, received undergraduate awards from the Entomological Society of Manitoba.
- The Faculty's Student Ambassador program recently won an Agriculture Awareness Award from Growing Manitoba. Crystal Jorgenson, communications specialist for the Faculty, accepted the award on behalf of the program at the

Agstravaganza Gala on October 9 at the Fairmont Hotel. The program is now entering its third year and will continue to spread the message about the Faculty's degree and diploma programs and the excellent career opportunities in agricultural and food sciences.

### Faculty of Architecture

- The Centre for Architectural Structures Technology (C.A.S.T.) building is open but its construction has only just begun. The Faculty of Architecture opened its newest facility on October 29 inviting over 100 people, many of them partners in the building's construction, to take part in launching the building - a ceremony that concluded by breaking a mason jar filled with Red River water and canola seeds against the new building. "The building as you see it is not finished," C.A.S.T. director and architecture researcher Mark West said at the opening ceremonies. "In fact, one of my colleagues calls it Our Lady of Perpetual Construction. The reason it's not finished is because we've saved as much as we could for the students to design and conduct construction experiments."

### Faculty of Arts

- *Redefining Security in the Middle East*, co-edited by Dr. Tami Jacoby, Centre for Defence and Security Studies, and Brent Sasley, a doctoral candidate in Arab Studies at McGill, was recently published in its series "New Approaches to Conflict Analysis."
- Dr. Warren Cariou, English, has been lauded as "One of the very best young writers of our time" by Allistair MacLeod for his book, *Lake of the Prairies*.
- The Third Annual Arts Celebrating Arts was once again a success. Highlights included recognition of Dr. Lance Roberts, Sociology, as Professor of the Year for 2001-2002 and Dr. Gregg Olsen, Sociology, as winner of the Internationalization Award. Distinguished Alumni Award winners honoured were: Paul Adams, Middle East correspondent for the *Globe and Mail*; David Friesen, President and CEO of Friesens Corporation and Chair of the *Building on Strengths Campaign*; and Betty Jane Wylie author of 35 books and three dozen plays.
- The Institute for the Humanities hosted the Massey lectures on November 10, 2002. Over 350 attended the lecture given by the 2002 Massey lecturer, Dr. Margaret Visser, York University, who writes on the history, anthropology and mythology of everyday life. She is the author of four bestselling books: *The Geometry of Love*, *Much Depends on Dinner*, *The Rituals of Dinner*, and *The Way We Are*. The Massey lectures, established in 1961, are sponsored by the Canadian

Broadcasting Corporation. For the first time, the lectures are being held in centres across the country in addition to Massey College in Toronto. The University of Manitoba was chosen along with UBC, McGill, and King's College (Halifax) to host the lectures.

### Faculty of Nursing

- The Manitoba Nursing Research Institute (MNRI) hosted an invitational forum: Building a Nursing Research Community: A Blueprint for Today. The Forum was co-sponsored by the College of Registered Nurses of Manitoba (CRNM) and the Winnipeg Regional Health Authority (WRHA). The forum brought together more than 50 nursing leaders from throughout the province representing sectors of administration, professional regulation, practice, education and research.
- Dr. Tom Hack was the keynote speaker at the 9th annual conference of the International Society for Quality of Life Research held in Orlando, Florida, October 30-November 2. Dr. Hack gave a presentation entitled *The contribution of qualitative methods and cognitive science to quality of life research*.
- Debbie Askin participated in the presentation of a workshop entitled Writing for Publication at the National Neonatal Nurses meeting in New Orleans. Also, effective November 1, Ms. Askin will assume the role of Executive Editor of *Neonatal Network: The Journal of Neonatal Nursing*.

### Faculty of Science

- Jennifer P. Fallis and Marcus J. Steeds, two undergraduate students were awarded financial support to participate in the fall meetings of the Division of Nuclear Physics of the American Physical Society (held in Michigan) and presented their summer research projects in the form of posters. There were a total of 75 undergraduate students. The selection was based upon the written material the students had submitted to an awards committee late summer 2002.
- Dr. Sari-Harb, Physics and Astronomy, and a team of researchers have been credited for confirming the existence of SGR 1806-20 a neutron star. The discovery was also announced by NASA and George Washington University following the publication of the discovery in *Astrophysical Journal*.

### Faculty of Social Work

- Dr. Maria Cheung and Dr. Tuula Heinonen, have been successful at the Letter of Intent stage for a Tier 1 CIDA grant. They will soon be travelling to China to

prepare a full proposal with Chinese partners. The title of their project is, "Building Human Resource Capacity for Social Work Practice with Rural Women in China".

### St. John's College

- Dr. George Baldwin is the new Dean of Studies. His association with St. John's College goes back over 45 years when he did his first two years of university at the college. He is Professor in the Department of Chemistry and has been a Fellow of St. John's College since 1981.
- On November 3, St. John's College held its 136th annual Convocation. At that convocation, two honorary degrees were presented. The first was a Doctor of Divinity which was conferred upon The Right Reverend James Njegovan, Bishop of the Diocese of Brandon and graduate of St. John's College and the University of Manitoba. A Doctor of Divinity degree was also conferred upon The Very Reverend Jack Greenhalgh, a highly respected leader in lay theological education.

### St. Paul's College

- The inaugural Sol Kanee Lecture of the Arthur V. Mauro Centre for Peace and Justice was given by Prince El Hassan bin Talal of the Hashemite Kingdom of Jordan on October 24 before a large audience of about 1700 people. The title of the lecture was "From a Culture of Participation to a Culture of Peace".

## III. RESEARCH MATTERS

### 1. Honours and Distinctions

- The late Dr. Baldur Stefansson, professor emeritus in the Faculty of Agricultural and Food Sciences, was recently inducted into the Canadian Agricultural Hall of Fame at the Royal Agricultural Winter Fair in Toronto. Known as the "father of canola", Dr. Stefansson has had a major impact on the agriculture of western Canada using breeding and selection techniques of his day in the development of canola and other cultivars of rapeseed.
- Dr. Ben Levin, Education Administration, Foundations & Psychology, has been appointed as the first Social Sciences and Humanities Research Council (SSHRC) visiting scholar. During the next 12 months, Dr. Levin will explore the means to strengthen SSHRC's efforts to improve linkages among researchers and other bodies, including governments, non-governmental organizations, the private sector and the media.

- Dr. Gordon Giesbrecht, Physical Education and Recreation Studies, is a researcher who studies how the body deals with cold temperatures and his work has been the subject of several television documentaries. "The Cold Embrace" has aired on CTV and Discovery Channel and it has been nominated for a Gemini Award in the Best Science, Technology, Nature, Environment or Adventure Documentary Program category. Although producers are nominated, Dr. Giesbrecht acted as the main consultant.
- Dr. Gary Wang, Mechanical and Industrial Engineering, was one of a select group of 100 young people of Chinese origin from around the world to be invited to participate in the Dragon 100 Young Chinese Leaders Forum in Hong Kong and Shanghai. The forum is hosted by The Dragon Foundation, a non-profit organization that aims to develop leadership skills among outstanding people to establish a network for idea exchanges and encourage participation in community building.

## 2. Grants Received and/or Applied for

- Five of seven applications submitted by University of Manitoba researchers to the NSERC Strategic Grants program have received funding. Of these, two are pending. The following three have been confirmed:
  - Dr. Rick Holley, Food Science, received a three-year grant, totalling \$481,203 from the NSERC Strategic Projects program in support of his research on "Bioprotection of fermented meats from *Escherichia coli* 0157:H7 using *Lactobacillus reuteri* or allyl isothiocyanate." Co-investigators include Dr. Jung Han, Food Science and Dr. Digvir Jayas, Biosystems Engineering. Industrial contributions of cash and in-kind are being provided by Piller Sausages & Delicatessens Limited. *E. coli* 0157:H7 is the agent responsible for "hamburger disease." This research is directed at developing viable processing alternatives that will reduce consumer risk.
  - Dr. Jan Oleszkiewicz, Civil Engineering, received a three-year grant, totalling \$216,350 from the NSERC Strategic Projects program in support of his research on "Autotrophic denitrification of groundwater and municipal wastewater", with co-investigator Nazim Cicek, Biosystems Engineering. In-kind contributions are being provided by Zenon Environmental, the City of Winnipeg, Safe Drinking Water Foundation, and Earth Tech. This research will develop criteria for design and application of the hydrogen dissolution and membrane filtration in groundwater purification. The use of hydrogen to stimulate hydrogen-loving nitrate-removing microbes is the cleanest way to treat groundwater, since the end products are perfectly safe nitrogen gas and water.



- Dr. Lotfallah Shafai and co-investigator Dr. Cyrus Shafai, Electrical and Computer Engineering, received a five-year grant, totalling \$655,000 from the NSERC Strategic Projects program in support of his research on "Advanced adaptive substrates, antennas and arrays." Contributions of cash or in-kind are being provided by InfoMagnetics Technologies Corporation, the Communications Research Centre of Industry Canada, and the Canadian Space Agency. This research is directed towards design and development of novel components to facilitate cost effective implementation of efficient antennas and phased arrays to increase the volume and faster rates of data transmission.

### 3. Related Initiatives

- Secretary of State (Western Economic Diversification) Mr. Stephen Owen and Dr. Rey Pagtakhan, Minister of Veterans Affairs and Secretary of State (Science, Research and Development) were on campus on September 25 to officially announce \$1.1 million in federal funding towards the establishment of three cutting edge research facilities in the Faculty of Engineering. Each of the labs, the Nano-Fabrication Laboratory (Dr. Cyrus Shafai, Electrical and Computer Engineering), Thermofluids Laboratory (Dr. Greg Naterer, Mechanical and Industrial Engineering) and the Applied Electromagnetics Laboratory (Dr. Lot Shafai, Electrical and Computer Engineering) were toured by the federal representatives, media and the university community.
- ISIS Canada initiated and hosted the first international workshop on Structural Health Monitoring of Innovative Civil Engineering Structures. The September 19-20 event focused on evolving technology for monitoring and defining the health of civil engineering structures. The workshop will now be held every two years so that engineers from various fields can come together and share ideas and review methods for building intelligent infrastructures around the world. Attendees at the workshop included representatives from 13 countries, 26 universities, 15 industries, and one government. Dr. Joanne Keselman, Vice-President (Research), delivered welcoming remarks.
- In a national announcement held at the University of Manitoba's Bannatyne Campus, the Canada Foundation for Innovation (CFI) released the results of its New Opportunities Fund. Carmen Charette, Senior Vice-President of CFI, announced \$22 million nationally. Almost \$600,000 went to four University projects. These include:
  - Dr. John Hanesiak, Geography, was awarded \$159,962 to establish ground-based remote sensing for atmosphere-surface climate interactions in the Canadian Arctic.

- Dr. Teresa de Kievit, Microbiology, and Dr. Michele Piercey-Normore and Dr. Anne Worley, Botany, were awarded \$178,634 to establish biodiversity and environmental science laboratories.
- Dr. Abdelilah Soussi-Gounni, Immunology, was awarded \$111,326 to study the role of white blood cells called neutrophils in allergic diseases.
- Dr. Jeffrey Wigle, Biochemistry and Medical Genetics, was awarded \$149,454 to establish a development histology centre.

Also attending the October 18 announcement was Dr. Rey Pagtakhan, Minister of Veterans Affairs and Secretary of State (Science, Research and Development). The announcement also included a tour of the laboratory of Dr. Aaron Marshall, Immunology. Dr. Marshall is a previous New Opportunities award recipient.

- SHOWCASE 2002, A Research Fair for the Social Sciences and Humanities at the University of Manitoba, took place on Tuesday October 29 in the Manitoba Room, University Centre. Faculty members and graduate students from Arts, the Asper School of Business, Education, Human Ecology, Medicine, Nursing, Physical Education & Recreation Studies, Social Work, the Schools of Art and Music, and the Natural Resources Institute took part through 90 exhibits including posters, audiovisual displays and hands-on demonstrations profiling University research and scholarship in the social sciences and humanities.

#### **IV. ADMINISTRATIVE MATTERS**

##### **1. Institutional Analysis (OIA)**

A workshop and presentations by OIA at the Canadian Institutional Research and Planning Association conference were well received. Many attendees were impressed with the success of our collaboration with Council on Post-Secondary Education to develop the Program Costing Methodology.

##### **2. Human Resources**

The Canadian Association for the Prevention of Discrimination and Harassment in Higher Education (CAPDHHE) Annual Conference was held in Winnipeg October 22-25, 2002. The conference was organized by Maggie Duncan and Jannine LeMere, Equity Services, and examined harassment and discrimination as they relate to the areas of culture, education, ethics, morality, law and technology.

### 3. Financial Services

*Revenue Accounting* reported that student fee payments via the WEB and Telephone Banking were up over 50% for fall 2002 fee payments compared to fall 2001. Over 3,616 payments totaling \$4,364,624 were made by students by September 30<sup>th</sup>. A promotion to encourage fee payments by this method is held each year with prizes from the Book Store.

A preliminary review and information gathering on "financial management and green procurement guidelines" to meet the requirements of the Manitoba Sustainable Development Act, which will come into force for universities in July 2003 has been completed (*Purchasing, Comptroller's Office*).

### 4. Information Systems and Technology

- **Academic Computing and Networking:** Spam mail continues to increase. A software facility was installed which looks for such mail. The criteria is not content but volume of messages. For example, if 100 messages from the same sender are received in a minute it may be spam. The system is currently running in background. Implementation will be early in 2003 after a method of white listing legitimate bulk mail is developed.
- Web based mail has been made available for students. The take up has been very high as it gives students much better email capabilities.
- **UMInfo:** Current statistics indicate that UMINFO receives about 5 million hits a month. A hit is an opening of a web page. This number represents about 150,000 to 200,000 individuals.
- **Enrolment Increases:** The increase in enrolment has resulted in an elevated demand for classroom technologies. For example:
  - Audio visual bookings i.e., delivering a piece of equipment such as a data projector to a classroom, have increased 41% over the same time last year. Average bookings are 160 per day and can peak at 230 per day.
  - WebCT is now used in 664 credit courses, an increase of 39% over the same time last year. Student enrolments in WebCT are also higher since the new courses are in the lower years and have higher enrolments.

### 5. Office of the Associate Vice-President (Administration)

1. **Shuttle Bus:** The Fort Garry/Bannatyne Shuttle Bus Service continues to be extremely popular with standing room only on some trips. The Bannatyne/St.

Boniface route is under utilized. As a result of a request from Dr. Fred Shore, Director of Accessibility, to provide shuttle service for disabled students and staff, Physical Plant will expand its handicapped van service currently provided within the Fort Garry Campus to rides between campuses as required. If such requests become more than Physical Plant's ability to handle within existing resources, a disability lift installation on one of the shuttle buses will be considered.

- **Special Functions - Congress 2004:** Special Functions has been requested to provide all administrative support for Congress 2004 (formerly known as the Learned Societies). This prestigious academic conference involving 6000 delegates is scheduled for June, 2004. Special Functions will be working closely with Dr. Ed Boldt, Senior Scholar in Sociology, who is acting as the conference chair.
- **Security Services - Violence in the Workplace Policy:** This policy which has been under review by Human Resources is nearing completion. When finalized, Security Services, in conjunction with non-violent crisis intervention trainers, will be launching a campaign of instruction and communication regarding the prevention of violence on campus as well as managing a violent episode.
- **Major Capital Projects:**
  - a) **EITC:** Phase 1 of the Engineering and Information Technology Project is underway with the relocation of the Structures Lab to the south side of Dafoe Road and the redevelopment of the old Agricultural Engineering Building. Demolition of Engineering 2 is scheduled for January 2003 and construction of the new building to accommodate both Engineering and Computer Science will commence in the spring, 2003.
  - b) **Centre for Music, Art and Design:** The architectural team of LM Architectural Services (Winnipeg) and Patkau Architects (Vancouver) has been selected to design the new \$10 million Centre for Music, Art and Design. The first meeting has been held with the building committee and the architects have now begun the needs assessment and site analysis. If all goes well, construction will commence in spring, 2004.
  - c) **New Building on Bannatyne Campus:** A new \$12 million building on the Bannatyne Campus (probably on the site of the existing old Basic Sciences Building) is being planned to accommodate the Faculty of Pharmacy plus additional teaching and research space for the Faculties of Medicine and Dentistry. Architectural teams are presently being pre-qualified. With the addition of research equipment, worth some \$3 million from new CFI projects, the new facility will be state-of-the-art. Short listed teams will be requested to respond to a Request for Proposal. This project is part of a redevelopment of the Bannatyne

Campus which will also include additional parking and possibly housing.

- d) **Addition to the Faculty of Law Library:** Work has commenced on a project to expand the Law Library on the fourth floor of Robson Hall. This is a \$1.3 million project expected to be completed in April, 2003.
- e) **Functional Foods and Nutraceuticals:** This state of the art \$20 million research facility will be located in Smartpark and is currently in the programming stage. GBR Architects have been appointed to do the design. At present construction is expected to start in summer, 2003.

## V. EXTERNAL MATTERS

### 1. Alumni Affairs

- The Alumni Association held its election for an alumni representative to the Board of Governors and Douglas Ward, a Winnipeg lawyer, was the successful candidate.
- Jana Thorsteinson, Special Events Coordinator, started work with the Alumni Association on September 23 and is coordinating an all-alumni event in Toronto on November 23 and one in Minneapolis on December 3. An event is also planned for Calgary in Spring of 2003.
- Following its theme, 125 Reasons To come Home!, Homecoming 2002 took place on September 19 - 22 with 15 different reunion groups representing 11 faculties and schools participating. More than 500 alumni and friends attended the banquet and the President's Luncheon. Feedback has been positive with surveys indicating that 82% rated their reunion 5/5 or 4/5.
- In the Fall, the Alumni Association surveyed 1,000 alumni by telephone, through the Private Funding call centre, for feedback on the new magazine *On Manitoba* and on alumni services. Results will be compared to the survey of 1,000 alumni conducted Spring 2002.

### 2. Public Affairs

- A new 30-second television advertisement has been developed and is airing on A-channel, Global and CKY Television.
- A 3-minute promotional video, "At the Centre of it All," was launched at the President's "State of the University" address to the Winnipeg Chamber of Commerce on October 17, 2002

### 3. Private Funding

- Campaign achievement to November 12, 2002 is \$176,467,890 including the \$50 million commitment from the Province of Manitoba. Since the beginning of the campaign, the University has received 61,526 pledges
- Major strategic issues continue to be addressed including planning for the conclusion of the Capital Campaign (to end the calendar year 2003) and for the transition into the post-campaign period; the need to replace the existing information technology system supporting the external relations area, in conjunction with plans to replace several related systems.

### 4. Development Communications and Special Events

- A \$1 million donation from United Pharmacists Ltd. to the Faculty of Pharmacy was announced at the UPL golf tournament on September 19, 2002. The proceeds of the tournament, \$175,000, were also presented to the Faculty.
- the announcement of a \$1 million from CN to the Transport Institute in the I.H. Asper School of Business was held on October 3, in the Asper School.
- A \$750,000 gift by RBC Financial Group to the Manitoba Centre for Health Policy was announced on October 4, 2002
- The official launch of the building on Strengths: Campaign for the University of Manitoba at the Bannatyne campus was held on October 10, 2002. The event was attended by over 200 people, and the program included remarks from the Honourable Diane McGifford and Mayor Glen Murray.
- A recognition event to honor Scotiabank's \$750,000 contribution was held on October 31, 2002 at the Asper School. Rick Waugh, BComm/70 and Scotiabank Vice-Chairman of Wealth Management and International Banking, attended the event from Toronto.

**PART B - Notable Events (External)**  
**Emőke J. E. Szathmáry**  
**September 17, 2002 - November 15, 2002**

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Tuesday, September 17, 2002

- Meet with delegation from Nanjing University of Economics, including Vice-President Wang Jia-xin
- Host Romanow Commission Forum on "What is Medically Necessary?"

Wednesday, September 18, 2002

- Meet with representatives of Norway House Cree Nation

Thursday, September 19, 2002

- Provide remarks at United Pharmacists' luncheon - in support of the Faculty of Pharmacy
- Provide remarks at Faculty of Dentistry Opening Assembly

Friday, September 20, 2002

- Attend 'Arts Celebrating Arts' with distinguished guests of Faculty of Arts
- Provide remarks at School of Medical Rehabilitation 40<sup>th</sup> Anniversary Reception and Dinner

Saturday, September 21, 2002

- Host and present remarks at Isbister Legacy Society Tea
- Present remarks at Homecoming Gala Banquet

Sunday, September 22, 2002

- Host and present remarks at President's Luncheon for alumni (classes of 1932 and 1942)
- Present remarks at dinner honouring Dr. Henry Friesen, Chair of Genome Canada

Monday, September 23, 2002

- Meet with Gui Guichun, President of Shan Xi University, Dean of International College, Zhang Fenxi and Director of President's Office, Lio Weiqi

Wednesday, September 25, 2002

- Host (with the Winnipeg Chamber of Commerce) and participate in, the Federal Government's Innovation Strategy Summit
- Host reception at 37 King's Drive for Teaching Award Recipients

Thursday, September 26, 2002

- Meet with The Honourable Ray Pagtakhan, Secretary of State, Science, Research and Development and Minister of Veteran's Affairs
- Attend funeral service for Mrs. John Bowman

Monday, September 30, 2002

- Meet with Dr. John Rowalt, Warden, Rhodes House
- Host luncheon for Dr. Charles Kupchella, President, University of North Dakota
- Participate in Association of Universities and Colleges in Canada, Finance Committee conference call
- Attend meeting of Council of Presidents of Universities in Manitoba

Tuesday, October 1, 2002

- Meet with Mr. Joseph Caron, Canadian Ambassador to China
- Present award at Cardiovascular Awards Banquet, Institute for Cardiovascular Sciences, a joint institute between the University of Manitoba and St. Boniface General Hospital

Thursday, October 3, 2002

- Provide remarks at announcement of CN gift to Transport Institute
- Attend funeral service for Elder Frank Wesley
- Meet with Honourable Diane McGifford at the Faculty of Dentistry
- Attend Retirement Reception for Tom Carson, Deputy Minister Culture and Tourism, past Deputy Minister of Education

Friday, October 4, 2002

- Provide remarks at announcement of Royal Bank gift to capital campaign



Saturday, October 5, 2002

- Introduce keynote speaker, Chancellor William Norrie, at 'Friends of Makere' Dinner

Monday, October 7, 2002

- Meet with President and Dean of Canadian Mennonite University

Wednesday, October 9, 2002

- Meet with representatives of Congress of the Social Sciences and Humanities
- Present remarks at our University's United Way Campaign Kick-off
- Provide remarks and co-host luncheon for Prince El Hassan of Jordan
- Provide remarks at Sol Kanee Lecture, given by Prince El Hassan

Thursday, October 10, 2002

- Provide remarks at Bannatyne Campus Campaign Kick-off and Grand Opening of External Relations office at Bannatyne Campus

Tuesday, October 15, 2002

- Meet with Honourable Diane McGifford, Minister of Advanced Education

Wednesday, October 16, 2002

- Host dinner and provide remarks at Knight Visiting Lecturer Reception and Dinner in honour of Dr. Henry Petroski
- Provide remarks at Knight Visiting Lecture, presented by Dr. Henry Petroski

Thursday, October 17, 2002

- Present 'State of the University' address to Winnipeg Chamber of Commerce

Friday, October 18, 2002

- Provide remarks at Canada Foundation for Innovation New Opportunities funding announcement
- Attend Bon Voyage reception in Brandon, Manitoba for Dr. Kevin Kavanagh, Chancellor, Brandon University

Saturday, October 19, 2002

- Attend installation, as member of Platform Party, of the Rt. Hon. Edward Schreyer as 5<sup>th</sup> Chancellor of Brandon University and attend convocation

Sunday, October 20, 2002

- Attend University of Winnipeg Fall Convocation as member of Platform Party

Monday, October 21, 2002

- Meet with John Veldhuis, President of Central Buganda University
- Host luncheon for Academic All Canadian Athletes at Chancellor's Hall
- Provide remarks at Entrance Scholarships event

Tuesday, October 22, 2002

- Meet with Father Jean Marc Laport, sj., Provincial of the Jesuits of Upper Canada
- Provide remarks at Faculty of Graduate Studies reception for Award Recipients
- Provide remarks at Evening of Excellence

Thursday, October 24, 2002

- Meet with Mr. Gerald Skinner, Canadian Ambassador to Iceland
- Meet with Ms. Adele Dion, Canadian Ambassador to Finland
- Provide remarks and host convocation dinner for Honorary Degree recipients

Friday, October 25, 2002

- Provide interview to Nancy Jakubic, journalist at 'Manitoba Calling'

Monday, October 28, 2002

- Attend estimates meeting, with Chair of the Board and Vice-Presidents, with Council on Post-Secondary Education
- Attend NSERC/Conference Board of Canada Synergy Awards for Innovation reception, dinner and presentation

Tuesday, October 29, 2002

- Provide remarks at official opening of the C.A.S.T. building

Saturday, November 2, 2002 - Monday, November 4, 2002

- Make presentation at Kokugakuin University Forum and attend 120<sup>th</sup> Anniversary celebration events at invitation of President Yoshiya Abe in Tokyo, Japan

Friday, November 8, 2002

- Attend dinner hosted by the parents of the children from Hong Kong who attended Mini-University in July 2002.

Saturday, November 9, 2002

- Attend reception and 125<sup>th</sup> anniversary banquet held by University of Manitoba alumni in Hong Kong, and present remarks

Tuesday, November 12, 2002

- Provide television interview to Connie Tamoto, Global Television

Friday, November 15, 2002

- Provide telephone interview to Arvel Gray, Smart Connections



UNIVERSITY  
OF MANITOBA

Office of the President

202 Administration Building  
Winnipeg, Manitoba  
Canada R3T 2N2  
Fax (204) 275-7925

November 12, 2002

Mr. Wayne Anderson  
Chair, Board of Governors  
The University of Manitoba

Dear Mr. Anderson *Wayne*

The 2002 *Maclean's* magazine university rankings were made public this morning. As you know, the University of Manitoba placed 15<sup>th</sup> out of 15 participating medical-doctoral universities. This placement continues to put our institution in a bad light, which is frustrating. However, because *Maclean's* has provided more data than ever before on its approach to the rankings and individual scores attained, it is possible to reach a different conclusion about the quality of the University of Manitoba than our overall rank would suggest.

In my commentary below I want to draw your attention to changes in this year's scores. Then I outline my reasons for a positive assessment of the University of Manitoba, a positive assessment that arises from information hitherto unavailable about the rank scores of individual institutions.

First, please note that, *Maclean's* assesses universities in three peer-group categories ("Medical-Doctoral", "Comprehensive", and "Primarily Undergraduate") across six groupings of "performance measures": Student Body, Classes, Faculty, Finances, Library, and Reputation. Within each of these six groupings there are individual measures, tallying among the Medical-Doctoral universities to a total of 23 "factors" across the six groupings. When a university's overall score is determined, each factor has a weight attached, and these weights are not uniform. For example, the "incoming entrance average" factor in the Student Body grouping has a weight of 11% attached, while "library expenses" in the Library grouping has a weight of 3%. The weights range from 0.5% to 15.0% across the 23 factors. The most heavily weighted factors - "incoming entrance average" (11%), and "reputational survey" (15%) - exert the greatest influence on the final position of an institution in its peer-group category.

This year, the University of Manitoba increased on 9 factor rankings, decreased on 6, and remained the same on 8.

The positive changes from rank in 2001 were the following:

<u>FACTOR</u>	<u>RANK</u>		<u>WEIGHT</u>
	2002	2001	
• entrance average (82.7%):	12 <sup>th</sup>	from 15 <sup>th</sup>	11.0%
• % who graduate (88.6%):	7 <sup>th</sup>	from 14 <sup>th</sup>	2.0%
• out of province (1 <sup>st</sup> year: 6.3%):	10 <sup>th</sup>	from 11 <sup>th</sup>	1.5%
• student awards (won by 5.1 students/1000):	10 <sup>th</sup>	from 11 <sup>th</sup>	3.0%
• class sizes (1 <sup>st</sup> & 2 <sup>nd</sup> year):	8 <sup>th</sup>	from 13 <sup>th</sup>	7.0%
• class sizes (3 <sup>rd</sup> and 4 <sup>th</sup> year):	5 <sup>th</sup>	from 9 <sup>th</sup>	7.0%
• faculty with PhDs (95.4%):	7 <sup>th</sup>	from 8 <sup>th</sup>	3.0%
• operating budget (\$7,718/wtd FTE student):	12 <sup>th</sup>	from 15 <sup>th</sup>	3.3%
• library acquisitions (% budget: 38.55):	14 <sup>th</sup>	from 15 <sup>th</sup>	4.0%

The negative changes from rank in 2001 were the following:

<u>FACTOR</u>	<u>RANK</u>		<u>WEIGHT</u>
	2002	2001	
• international (1 <sup>st</sup> year: 1.9%):	13 <sup>th</sup>	from 12 <sup>th</sup>	0.5%
• classes taught by tenured faculty (50.2%):	12 <sup>th</sup>	from 7 <sup>th</sup>	3.0%
• awards/FT faculty (3.6/1000 FT faculty):	12 <sup>th</sup>	from 8 <sup>th</sup>	3.0%
• medical/science grants (\$37,735/faculty; 75.17 awards/100 faculty):	14 <sup>th</sup>	from 13 <sup>th</sup>	5.5%
• student services (% budget: 3.44%):	15 <sup>th</sup>	from 14 <sup>th</sup>	4.3%
• alumni support (15.7% give support):	9 <sup>th</sup>	from 7 <sup>th</sup>	5.0%

We remained stationary on the following ranks:

<u>FACTOR</u>	<u>RANK</u>	<u>WEIGHT</u>
• proportion entering with 75% or more (81.79%):	15 <sup>th</sup>	3.0%
• international (graduate) (11.9%):	15 <sup>th</sup>	1.0%
• social science & humanities grants (\$3,896/faculty; 11.61 awards/100 faculty):	13 <sup>th</sup>	5.5%
• scholarships & bursaries (5.08% budget):	14 <sup>th</sup>	4.3%
• total library holdings in millions (3.22):	12 <sup>th</sup>	1.0%
• holdings per FTE student (173):	12 <sup>th</sup>	3.0%
• library expenses (6.92% of budget):	7 <sup>th</sup>	4.0%
• reputational survey:	15 <sup>th</sup>	15.0%

In sum, we went up on 3 measures of student quality, we drew more out-of-province

students than in the year before, very good proportions of the 1<sup>st</sup> and 2<sup>nd</sup> year students, as their 3<sup>rd</sup> and 4<sup>th</sup> year counterparts are in small-to-medium sized classes, we are acquiring more PhDs to teach, the operating budget per student has increased and the library was able to make more acquisitions than in the year before.

The gains made in these areas are offset by our decreased rankings on 6 factors and our remaining stationary on 8 others. Of these total 14 factors, 6 are clearly related to finances - e.g., the fraction of funds directed at student services, sums available for scholarships and bursaries, and library holdings, whether per student or expressed in millions of items, the fraction of the budget directed to the library, and the proportion of classes taught by tenured faculty.

The decrease in the fraction of classes taught by tenured faculty reflects both that we are hiring sessional instructors and hiring new probationary staff. The former are ineligible for tenure, and the latter are too young in rank to have reached tenurable status. The latter situation is likely also a reason for decrease in the number of faculty awards received (i.e., inexperience), and may have a role in the amounts and numbers of grants received. It is worth noting, however, that with respect to medical/science grants, this year *Maclean's* disallowed the reporting of grants received by adjunct professors, which has led to the apparent 'reduction' of grants received from NSERC and CIHR.

Finally, the two factors in the Reputation category continue to pull our overall score down. The decrease in the percentage of alumni who provide support is a direct consequence of the Alumni Association's agreement not to charge membership fees. Clearly, a targeted approach needs to be made to encourage former dues-paying members to continue to provide at least the sum they were required to pay in the past. We remain in 15<sup>th</sup> position in the "reputational survey" outcomes - which is not evidence-based and reflects opinion. It is worth noting that of the 7,528 surveys sent out to assess the reputation of the 47 participating universities, only 1,016 (13.5%) were returned.

What is the reason to be pleased by the 2002 *Maclean's* results? For the first time, the magazine has published the rank (and other scores) attained by each university on each factor. In some instances these are given for all 47 participating universities regardless of the university's characterization as "Medical-Doctoral", "Comprehensive" or "Primarily Undergraduate". In other cases the information is provided within each peer-group category. Further, *Maclean's* introduced new data, and changed its methodology of assessment, as shown in the following:

- providing "grade distributions" - listing the percentage of incoming students in each of 8 categories, beginning with averages less than 65%, 65-69%, 70-74% .... 95%+;
- providing the national reputational rankings in each of the categories "best overall", "highest quality", "most innovative", and "leaders of tomorrow";
- changing the methodology to assess class sizes - the magazine now considers the

percentage of students in each class size category, rather than just listing the number of classes in each size category per institution.

The new information and revised approach to assessing the impact of class sizes works to the University of Manitoba's advantage. For example, the grade distribution data show that we are tied 5<sup>th</sup> in Canada, with the University of Waterloo, in the percentage of our incoming students (6.1%) with entrance averages of 95% or higher. Only Queen's (8.7%), British Columbia (7.4%), Dalhousie (7.2%), and Saskatchewan (6.4%) - each of them a Medical-Doctoral institution - have a higher fraction of incoming students in this very high entrance average group! This knowledge will make a difference to "elite" eastern and western universities who set great store by entrance averages, and use these as an index of institutional quality. The fact is that, the distribution of our entrance averages can be visualized as a broader, flatter curve than is the norm, with a positive skew in the upper end of the curve. In addition, the rankings on class sizes show that a high proportion of our students enjoy the benefit of being in small-to-medium classes, which enhances the likelihood of their learning success.

Not surprisingly, we are again in the top 10 on the "value-added" measure - the universities that in *Maclean's* words "go the distance for their students".. We are 9<sup>th</sup> in Canada, and 3<sup>rd</sup> among the medical-doctoral universities on this score, with only McMaster (6<sup>th</sup>) and McGill (8<sup>th</sup>) ahead of us. Unfortunately, the magazine does not include this measure in its ranking of universities, so we have never benefitted from paying attention to undergraduate students, though we are a research-intensive institution.

The bad news is that our "reputational" score continues to pull us down, though this measure is based completely on opinion, is not evidence-based, and rests on small survey returns. Nevertheless, with the publication of rankings for each of the participating 47 universities, we now know that we have broken into the "top 25" group (a list given in past years) by being rated 23<sup>rd</sup> in the "leaders of tomorrow" category. We were 27<sup>th</sup> on "best overall" and on "highest quality", respectively, and 28<sup>th</sup> on "most innovative". On every one of these opinion-based rankings, we were at least 6 ranks ahead of the University of Winnipeg, for example, and in every one we ranked last in the Medical-Doctoral group, after the University of Saskatchewan.

With respect to the future, the new information provided by the magazine leads me to believe that we can target those receiving the survey, and improve the information we provide about the quality of our students and the research strengths of the University of Manitoba. This should raise our reputational score over the next few years, which would make a difference, as illustrated by Sherbrooke University's 8<sup>th</sup> rank in the Medical-Doctoral array. This institution ranked 15<sup>th</sup> on 7 of the 23 factors compared to our 4 ranked 15<sup>th</sup>. Unfortunately one of ours was the reputational factor, whilst Sherbrooke's was 10<sup>th</sup> - and this is the most heavily weighted measure (15% weight) in the entire array of factors. If we can raise our reputational rating, and continue to attract good quality students, with even modest improvements on the other factors we will go up on our overall rank.

In the meantime, the message for me - based on the unambiguous data provided by the magazine - is that, we are attracting a broad range of students qualified to enter university. With care and attention the least qualified can succeed admirably, and the best qualified - who make up a high proportion of incoming students relative to our peer institutions - can soar to the skies. No wonder our students have consistently performed high on national awards as rated by *Maclean's*, and no wonder we are 1<sup>st</sup> in western Canada in the number of Rhodes scholarships received over the past 30 years (a ranking that *Maclean's* ignores).

As you know from a recent story in the *Winnipeg Free Press*, another ranking of research performance carried out by a different group than *Maclean's* has shown that the University of Manitoba has surpassed the \$100 million bar in total research funds received the past year. We are in the 13<sup>th</sup> position, with only \$2,000 separating us from the University of Saskatchewan's 12<sup>th</sup> rank. I believe that difference can be eliminated, largely because we are already leading but simultaneously have room to grow in the "innovation" area, witness our success in commercialization of research findings. Now other sectors of Canada need to know about our successes - we cannot rely on Jeff Simpson only (in a recent issue of the *Globe and Mail*) including us as a matter of course, in the array of successful research-intensive universities of our nation.

Of course, ultimately, our maintaining an appropriate operating budget is critical to our university's success. With the advocacy to government by members of the Board of Governors, I hope we can achieve financial stability. Without that stability, no matter how good our students, how dedicated our professors to teaching, and how great their research and scholarly brilliance, we will not be seen to be as good as we really are. We are indispensable to Manitoba, and Manitoba deserves to be seen to be well served by one of the best universities in Canada.

Yours sincerely,



Emőke J.E. Szathmáry, Ph.D.  
President and  
Vice-Chancellor

cc: Members of the Board of Governors

Members of the President's Advisory Committee on *Maclean's* university rankings



November 20, 2002

**Report of the Senate Executive Committee**

**Preamble**

The Executive Committee of Senate held its regular monthly meeting on the above date.

**Observations**

1. **Speaker for the Executive Committee of Senate**

Professor Richard Sparling will be the Speaker for the Executive Committee for the December meeting of Senate.

2. **Comments of the Executive Committee**

Other comments of the Executive Committee accompany the report on which they are made.

Respectfully submitted,

Dr. R. Kerr, Acting Chair  
Senate Executive Committee  
Terms of Reference: *Senate Handbook* (Revised 1992), Section 9.

/jml

October 7, 2002

**Report of the Senate Committee on Curriculum and Course Changes Part B - Submitted to Senate for Ordinary Debate**

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**Preamble**

1. The terms of reference for the Senate Committee on Curriculum and Course Changes (SCCCC) are found in section 8.21 of the *Senate Handbook*. SCCCC is "to recommend to Senate on the introduction, modification or abolition of undergraduate programs, curricula our courses".
2. This part of the report contains observations and recommendations on course change proposal 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. **Faculty of Arts**

**Department of German and Slavic Studies**

In order to better reflect their content, courses **052.262 Russian 1, 052.380 Russian 2 and 052.264 Ukrainian 1** are being deleted and re-introduced as **052. 2CC Intermediate Russian, 052.3EE Advanced Russian and 052.2NN Intermediate Ukrainian**.

**052.383 Ukrainian 2** is being deleted. It is being replaced by two half courses, **052.3TT Advanced Ukrainian 1 and 052.3UU Advanced Ukrainian 2**.

In order to provide flexibility for students who already have some fluency in Russian and Ukrainian, courses **052.1BB Introductory Russian 2, 052.2DD Intermediate Russian 2, 052.3FF Advanced Russian 2, 052.1MM Introductory Ukrainian 2 and 052.2RR Intermediate Ukrainian 2** are being introduced, each representing the second half of existing six credit hour courses. Students in these new courses will join the existing class in the second term of the course.

In order to keep up with advances in the field and to accommodate the research interests of faculty, courses **052.3XY Women and Ukrainian Literature and 052.3YZ Women and Russian Literature** are being introduced.

**052.130 Introductory Russian and 052.131 Introductory Ukrainian** are being modified by updating the restrictions based on new course introductions.

To promote student accessibility to the courses, pre-requisites are being removed from **052.252 Ukrainian Rites and Rituals and 052.259 Ukrainian Literature and Film**.

### Department of History

In order to accommodate the research interests of new faculty and to augment current departmental offerings, **011.2AAW History of India (B)**, **011.3AA Topics in Latin American History (A)**, **011.3AB Modern Indian History (B)**, **011.3AC Post-Colonial South Asian History (B)**, **011.4AA Studies in American History to 1877 (A)** and **011.4AB Studies in American History since 1877 (A)** are being introduced.

### Labour and Workplace Studies Program

**153.2XX Economics of the Labour Process and Labour Relations** and **153.3XX Industrial Relations** are being introduced. Both courses are currently offered as Economics courses, and introducing them in the Labour and Workplace Studies Program allows for the courses to be "double numbered" and offered for credit in both departments.

The General Major, Advanced Major and Minor programs and the List A Primary Electives and List B Secondary Electives are being replaced by one List of Electives which has been modified to accommodate new courses and course changes from other departments.

### Department of Native Studies

**032.1XA Orientation Course: The Colonizers and the Colonized** is being introduced. The course reflects a need for a 100 level orientation course for entering first year Aboriginal students in order to ensure a higher rate of retention of aboriginal students.

In keeping with the university goal of being the institution of choice for aboriginal students and to reflect the research interests of faculty members, **032.1XA Orientation Course: The Colonizers and the Colonized**, **032.1XB Introductory Inuktitut**, **032.2XA Inuit Literature in Translation**, **032.3XA Cultural Constructions of Gender in Canadian Aboriginal Societies**, **032.3XC Political Development in the North**, **032.3XX Aboriginal Women of Canada**, **032.4XA Independent Research** and **032.4XB Missionaries, Colonialism and Aboriginal Peoples** are being introduced.

A prerequisite is being added to course 032.425 Topics on Aboriginal Identities to ensure that students have a better background in Native Studies and sufficient academic preparation for the level of study of the course.

The Native Studies Major and Minor programs are being modified by specifying numbers of courses which may be completed at the 100 or 200 level.

### Women's Studies Program

The program is proposing the introduction of five new courses, of which four have already be offered as special topics courses and all of which reflect research interests of faculty members. The courses are: **156.2XX Soap Operas, Harlequins, and Talk**

Shows, 156.2XY Women in Nicaragua / Women in Canada, 156.3XX International Feminisms, 156.3XY Good Girls/Bad Girls and 156.3XZ Dreamgirls, Showgirls, Riot Grrrls.

The program also proposed the modification of their List A Courses to reflect new course offerings in other departments.

2. **Faculty of Law**

It has been the policy of the Faculty of Law to introduce new courses under the umbrella course offerings *Current Legal Problems, A B C & D* (045.397 (A), 045.398 (B), 045.398 (C) and 045.398 (D)). After a trial period of some years the Faculty determines if the courses deserve to be a permanent part of the Curriculum. A number of courses have been taught successfully in the Faculty for a number of years and therefore the Faculty is proposing the introduction of **045.3AF Dispute Resolution: Theory and Practice, 045.3AC Aboriginal Peoples and Land Claims, 045.3AE Advanced Advocacy, 045.3AD Advanced Legal Research and 045.3AB The Legislative Process.**

In an initial step in changing their Commercial/Corporate course offerings, the Faculty is proposing the deletion of **045.228 Business Organization Law** and the introduction of **045.2AA Corporations I**. An advanced optional course Corporations II will be taught initially under 045.398 Current Legal Problems B.

3. **Faculty of Pharmacy**

Over the last year, the Faculty of Pharmacy has conducted an extensive review of all aspects of their Pharmacy program in preparation for an accreditation visit from the Canadian Council for Accreditation of Pharmacy Programs. The proposed curriculum review stems from this review.

In conducting the review, the Faculty proposing a number of course introductions, modifications and deletions to take place over four years from 2003-04 to 2006-07. These changes represent a restructuring and updating of the existing curriculum.

A statement of support for the proposed course changes has been received from the Science and Technology Library.

The Faculty is also proposing a program requirement for the B.Sc. (Pharm) degree, whereby students must successfully complete all of the course work associated with a year in the program prior to being allowed to register for courses in the next year of the program. The Faculty is also proposing that the Dean be allowed to grant exceptions to this requirement in exceptional cases.

4. **Faculty of Science**

### **Computer Science - Physics and Astronomy Joint Honours Program**

The Faculty of Science is proposing the introduction of a Computer Science - Physics and Astronomy Joint Honours Program. Subject to Board of Governors and COPSE approval, the program would commence in the 2003-04 Academic Session.

The introduction of this Joint Honours Program is simply the re-packaging of existing courses and will not require any additional courses or resources. The 120 credit hour program will allow for in-depth study in both Computer Science and Physics and Astronomy.

### **Environmental Science Program**

**128.3XY Environmental Analysis, 128.3XZ Environmental Management Systems, 128.3YZ Project in Environmental Science and 128.4XY Environmental Chemistry** are being introduced. All these courses have been taught previously with specific lecture sections of 128.300 Multidisciplinary Topics in Environmental Science. 128.3XY and 128.4XY will be offered jointly with Chemistry's 002.2XY and 002.4XY respectively.

The Program is also proposing the introduction of **128.2XY Environmental Chemistry**, a course that will be offered jointly with the Chemistry Department's 002.2XY.

The course material in **128.310 Environmental Conservation Issues and 128.410 Environmental Conservation Strategies** is being updated and reorganized. Accordingly those courses are being deleted and 128.388 Environmental Conservation and Restoration and 128.4CC Critical Thinking and the Environment are being introduced.

In order to increase clarity regarding the course content and prerequisites, 128.200 Environmental Science 2: Issues and 128.217 Environmental Problem Solving are being modified.

### **Recommendations**

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

#### **1. Faculty of Arts**

Department of German and Slavic Studies  
Department of History  
Labour and Workplace Studies Program  
Department of Native Studies  
Women's Studies Program

#### **2. Faculty of Law**

3. Faculty of Pharmacy

4. Faculty of Science

Computer Science - Physics and Astronomy Joint Honours Program  
Environmental Science Program

Respectfully submitted,

Professor B. L. Dronzek, Chair  
 Senate Committee on Curriculum and Course Changes

/jml

1. Faculty of Arts

Department of German and Slavic Studies

Courses to be deleted:

052.262	Russian 1	-6
052.264	Ukrainian 1	-6
052.380	Russian 2	-6
052.383	Ukrainian 2	-6

Courses to be introduced:

052.1BB Introductory Russian 2 +3

The second term of 052.130 Introductory Russian. Intended for students who have already a knowledge of the alphabet and the sound system, as well as elementary comprehension, communication and writing skills equivalent to those that would be achieved in the first term of 052.130. Students may not hold credit for both 052.1BB and 052.130. *Prerequisite: successful completion of a placement test administered by the department.*

052.1MM Introductory Ukrainian 2 +3

This course is the second term of 052.131 Introductory Ukrainian, and is intended for students who already have a knowledge of the alphabet and the sound system and elementary oral comprehension and reading, writing, and speaking skills equivalent to those that would be achieved in the first term of 052.131. Students may not hold credit for both 052.1MM and 052.131. *Prerequisite: successful completion of a placement test administered by the department.*

052.2CC Intermediate Russian +6

Grammar review, conversation, translation and reading of selected texts. Development of communication skills through practical exercises. Cultural content is introduced

through use of audio-visual and internet materials. Students may not hold credit for both 052.2CC and the former 052.262. *Prerequisite: a grade "C" or better in 052.130 or 052.1BB or Russian 41G or written consent of department head.*

052.2DD      Intermediate Russian 2      +3

The second term of 052.2CC Intermediate Russian. Intended for students who already have basic comprehension, communication and writing skills equivalent to those that would be achieved in the first term of 052.2CC. Students may not hold credit for both 052.2DD and 052.2CC or the former 052.262. *Prerequisite: successful completion of a placement test administered by the department.*

052.2NN      Intermediate Ukrainian      +6

Grammar review, conversation, translation and reading of selected texts. Development of communication skills through practical exercises. Cultural content is introduced through audio-visual materials. Students may not hold credit for both 052.2NN and 052.2RR or the former 052.264. *Prerequisite: a grade of "C" or better in 052.131 or 052.1MM, or Ukrainian 40S, or written consent of department head.*

052.2RR      Intermediate Ukrainian 2      +3

This course is the second term of 052.2NN Intermediate Ukrainian, and is intended for students who already have basic oral comprehension and reading, writing, and speaking skills equivalent to those that would be achieved in the first term of 052.2NN. Students may not hold credit for both 052.2RR and 052.2NN or the former 052.264. *Prerequisite: successful completion of a placement test administered by the department.*

052.3EE      Advanced Russian      +6

Advanced composition, translation, reading and study of selected literary and other texts. Development of overall communication skills. Students may not hold credit for both 052.3EE and 052.3FF or the former 052.380. *Prerequisite: a grade "C" or better in 052.2CC or 052.2DD or written consent of department head.*

052.3FF      Advanced Russian 2      +3

The second term of 052.3EE Advanced Russian. Intended for students who already have intermediate level comprehension, communication and writing skills equivalent to those that would be achieved in the first term of 052.3EE. Students may not hold credit for both 052.3FF and 052.3EE or the former 052.380. *Prerequisite: successful completion of a placement test administered by the department.*

052.3TT      Advanced Ukrainian 1      +3

Advanced composition, translation, readings and study of selected literary and other texts. Development of oral and comprehension skills through study of contemporary film, television and other audio-visual materials. Students may not hold credit for both 052.3TT and the former 052.383. *Prerequisite: a grade of "C" or better in 052.2NN or 052.2RR or the former 052.264 or written consent of department head.*

052.3UU      Advanced Ukrainian 2      +3

A continuation of 052.3TT Advanced Ukrainian 1. Continued work in advanced composition, translation, readings and study of selected literary and other texts. Continued development of oral and comprehension skills through study of contemporary film, television and other audio-visual materials. Students may not hold credit for both 052.3UU and the former 052.383. Prerequisite: a grade of "C" or better in 052.3TT or written consent of department head.

052.3XY Women and Ukrainian Literature +3

A study of the literature produced by Ukrainian women writers in the nineteenth and early twentieth centuries, including an examination of key issues raised in works by writers such as Vovchok, Pchilka, Kobrynska, Ianovska, Kobylanska, Iaroshynska, and Ukrainka. Lectures in English. Readings in the original and/or in English.

052.3YZ Women and Russian Literature +3

A study of the literature produced by Russian women writers in the nineteenth and early twentieth centuries, including an examination of key issues raised in works by writers such as Bunina, Durova, Volkonskaia, Pavlova, Guro, Gippius, Forsh, Akhmatova, Tsvetaeva, and Chukovskaia. Lectures in English. Readings in the original and/or in English.

Courses to be modified:

052.130 Introductory Russian (6)

Basic grammar, conversation and reading with emphasis on communication skills. Cultural content is introduced through a range of audio-visual materials. Not open to native speakers and students with high school Russian 41G credit. Students may not hold credit for both 052.130 and 052.1BB.

052.131 Introductory Ukrainian (6)

Basic grammar, conversation, composition and reading. Emphasis is placed on communication skills. Cultural content is introduced through a range of audio-visual materials. Not open to native speakers and students with Ukrainian 40S credit. Students may not hold credit for both 052.131 and 052.1MM.

052.252 Ukrainian Rites and Rituals (3)

A study of rites and rituals connected with the winter, spring, summer and autumn cycles; family and community festivities, from pre-historic times to the present. Readings in the original and/or in English.

052.259 Ukrainian Literature and Film (3)

An examination of the relationship between Ukrainian cinematography and literature. Students read literary works which have inspired films and analyze the unique formal qualities of each. The course considers the stylistic influence of film on literature and vice versa; the relationship between writer and director, especially in the case where they are one and the same person. Readings in the original and/or in English. Films in Ukrainian with English subtitles or plot summaries.



## Slavic Studies

- 1) Modify the University 1 year of the General Russian Major, Advanced Russian Major and Russian Minor programs
- 2) Modify the List of Russian Language and Literature courses
- 3) Modify the University 1 year of the General Ukrainian Major, Advanced Ukrainian Major and Ukrainian Minor program
- 4) Modify the List of Ukrainian Language and Literature courses

Added material~~Deleted material~~

## 8.15.8 Russian, Program Code: 052R

UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
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## GENERAL RUSSIAN MAJOR TOTAL: 30 CREDIT HOURS

6 credit hours from 052.130, 052.1BB, 052.2CC or 052.2DD or 052.262	24 credit hours in Russian courses of which at least 6 hours must be in language courses numbered at the 300 level and 6 hours in literature courses numbered at the 300 level
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## ADVANCED RUSSIAN MAJOR (NOT CURRENTLY OFFERED) TOTAL: 48 CREDIT HOURS

6 credit hours from 052.130, 052.1BB, 052.2CC or 052.2DD or 052.262	42 credit hours in Russian courses of which 12 hours must be in language
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## RUSSIAN MINOR TOTAL: 18 CREDIT HOURS

6 credit hours from 052.130, 052.1BB, 052.2CC or 052.2DD or 052.262	12 credit hours in Russian courses or courses selected from List A below
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## NOTES:

The following courses count as language courses: 052.130, 052.1BB, 052.2CC, 052.2DD, 052.262, 052.263, 052.366, 052.361, 052.362, 052.36E.

The following courses count as literature courses: 052.224, 052.225, 052.228, 052.229, 052.235, 052.261, 052.274, 052.275, 052.276, 052.358, 052.377, 052.378, 052.379, 052.390, 052.392, 052.39Z.

## 8.15.11 Ukrainian, Program Code: 052U

UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
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## GENERAL UKRAINIAN MAJOR TOTAL: 30 CREDIT HOURS

6 credit hours from 052.131, 052.1MM, 052.2NN or 052.2RR or 052.264	24 credit hours in Ukrainian courses or courses selected from List A below of which at least 6 credit hours must be in language courses numbered at the 300 level and 6 credit hours in literature courses numbered at the 300 level
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## ADVANCED UKRAINIAN MAJOR (NOT CURRENTLY OFFERED) TOTAL: 48 CREDIT HOURS

6 credit hours from 052.131, 052.1MM, 052.2NN or 052.2RR or 052.264	42 credit hours in Ukrainian courses of which 12 credit hours must be in language
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## UKRAINIAN MINOR TOTAL: 18 CREDIT HOURS

6 credit hours from 052.131, 052.1MM, 052.2NN or 052.2RR or 052.264	12 credit hours in Ukrainian courses or courses selected from List A below of which at least 3 credit hours must be in literature
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## NOTES:

The following courses count as language courses: 052.123, 052.127, 052.131, 052.1MM, 052.264, 052.2NN, 052.2RR, 052.223, 052.370, 052.363, 052.366, 052.367, 052.37T, 052.3UU.

The following courses count as literature courses: 052.224, 052.225, 052.242, 052.243, 052.251, 052.252, 052.255, 052.259, 052.267, 052.268, 052.271, 052.367, 052.384, 052.385, 052.388, 052.391, 052.392, 052.39Y.

## DEPARTMENT OF GERMAN AND SLAVIC STUDIES

## 1. 8.15.8 Russian

# **GENERAL RUSSIAN MAJOR**

6 credit hours from 052.130, 052.1BB, 052.2CC, or 052.2DD (rest remains the same)

# **ADVANCED RUSSIAN MAJOR**

6 credit hours from 052.130, 052.1BB, 052.2CC, or 052.2DD (rest remains the same)

# **RUSSIAN MINOR**

6 credit hours from 052.130, 052.1BB, 052.2CC, or 052.2DD (rest remains the same)

## **NOTES:**

The following courses count as language courses: 052.130, 052.1BB, 052.2CC, 052.2DD, 052.263, 052.3EE, 052.381, 052.382.

The following courses count as literature courses: add 052.3YZ to the current list

2. 8.15.11 Ukrainian

# **GENERAL UKRAINIAN MAJOR**

6 credit hours from 052.131, 052.1MM, 052.2NN, or 052.2RR (rest remains the same)

# **ADVANCED UKRAINIAN MAJOR**

6 credit hours from 052.131, 052.1MM, 052.2NN, or 052.2RR (rest remains the same)

# **UKRAINIAN MINOR**

6 credit hours from 052.131, 052.1MM, 052.2NN, or 052.2RR (rest remains the same)

## **NOTES:**

The following courses count as language courses: 052.123, 052.127, 052.131, 052.1MM, 052.2NN, 052.2RR, 052.223, 052.3TT, 052.3UU, 052.370, 052.386, 052.387.

The following courses count as literature courses: add 052.3XY to the current list

**NET CHANGE IN CREDIT HOURS:**

**+21**

## **Department of History**

Courses to be Introduced:

011.2AAW History of India (B) +6

The aim of the course is to introduce students to Indian history. It provides a broad survey of major developments in Indian history from its origins in Indus valley to the present.

011.3AA Topics in Latin American History (A) +3

The contents of this course will be announced each year. Consult the History Department. It is designed to provide in-depth studies of specialized subjects and themes in modern Latin American history. *Prerequisite:* a grade of "C" or better in six credit hours of history or written consent of department head.

**011.3AB Modern Indian History (B) +3**

This course surveys the major developments in Indian history during the British colonial period culminating in the year 1947 with independence from colonial rule and the creation of the independent states of India and Pakistan. *Prerequisite:* a grade of "C" or better in six credit hours of history or written consent of department head.

**011.3AC Post-Colonial South Asian History (B) +3**

This course through lectures, films and in-class discussion surveys the major developments and themes in the histories of South Asian societies and states since independence from British colonial rule. *Prerequisite:* a grade of "C" or better in six credit hours of history or written consent of department head.

**011.4AA Studies in American History to 1877 (A) +6**

An examination of selected topics in American history from colonial beginnings to Reconstruction. Particular topics will be announced each year. *Prerequisite:* written consent of department head.

**011.4AB Studies in American History since 1877 (A) +6**

An examination of selected topics in American history from Reconstruction to the present. Particular topics will be announced each year. *Prerequisite:* written consent of department head.

**NET CHANGE IN CREDIT HOURS:**

**+27**

**Labour and Workplace Studies Program**

Courses to be introduced:

**153.2XX Economics of the Labour Process and Labour Relations +6**

Theoretical approaches to the labour process, the formation and reproduction of the labour force, the structure of the labour market, labour institutions and the economy. Applications to Canadian and alternative economic systems. Students may not hold credit for both 153.2XX and 018.242. *Prerequisite:* a grade of "C" or better in 018.120, or both 018.121 and 018.122, or both 153.127 (the former 099.127) and 153.128 (the former 099.128).

**153.3XX Industrial Relations +6**

A study of comparative employer-employee relationships in Canada and other selected countries as affected by market forces, social traditions, and government action. Students may not hold credit for both 153.3XX and 018.351. *Prerequisite:* a grade of "C" or better in one of the following: 018.120; 018.121 and 018.122; 153.127 (the former 099.127) and 153.128 (the former 099.128).

## Labour and Workplace Studies Program

### 1) Modify program chart:

- reference to new courses 153.2XX (double numbered with existing Economics course 018.242) and 153.3XX (double numbered with existing Economics course 018.351) have been added
- Economics 018.317 has been added as an option to Labour and Workplace Studies 153.244 in the Advanced Major program
- references to List A and List B have been modified to reflect one "List of Electives"

### 2) List A Primary Electives and List B Secondary Electives have been removed and replaced by one "List of Electives"

- additions and deletions to list have been made as indicated below:

Added material

~~Deleted material~~

Labour and Workplace Studies, Program Code: 153 (Formerly 099B)

UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
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GENERAL MAJOR TOTAL: 30 CREDIT HOURS

153.127 and 153.128

- Labour and Workplace Studies 153.2XX (or Economics 018.242)
- either Labour and Workplace Studies 153.370 (or History 011.370) or Labour and Workplace Studies 153.3XX (or Economics 018.351)
- 12 credit hours from List A the list of electives below

ADVANCED MAJOR TOTAL: 54 CREDIT HOURS

153.127 and 153.128

- Labour and Workplace Studies 153.2XX (or Economics 018.242), Labour and Workplace Studies 153.3XX (or Economics 018.351),
- Labour and Workplace Studies 153.244 (or Economics 018.317 or Sociology 077.229<sup>1</sup>), 153.301, 153.307, 153.370 (or History 011.370), 153.451<sup>2</sup> and 153.452<sup>2</sup> (or 153.481<sup>3</sup> and 153.482<sup>3</sup>)
- 6 credit hours from List A below
- 6-12 credit hours from List A or List B the list of electives below

MINOR TOTAL: 18 CREDIT HOURS

153.127 and 153.128

- Labour and Workplace Studies 153.2XX (or Economics 018.242)
- either Labour and Workplace Studies 153.370 (or History 011.370) or Labour and Workplace Studies 153.3XX (or Economics 018.351)

#### NOTES:

<sup>1</sup> Students who include 077.229 in their program need to take only 9 additional credit hours, of which 3 must be selected from List A the list of electives below.

<sup>2</sup> Courses 153.451 and 153.452 may only be taken in the final year of the program and require written consent of the Labour and Workplace Studies program coordinator.

<sup>3</sup> Courses 153.481 and 153.482 may only be taken in the next-to-final or final year of the program and require written consent of the Labour and Workplace Studies program coordinator.

#### List of Core Courses for Labour and Workplace Studies

*Economics*

018.242	Economics of the Labour Process and Labour Relations (same as Labour and Workplace Studies 153.2XX)	6
018.317	Introduction to Quantitative Methods in Economics (or Labour and Workplace Studies 153.244 or Sociology 077.229)	3
018.351	Industrial Relations (same as Labour and Workplace Studies 153.3XX)	6

*History*

011.370	History of Working People and Labour Movements 1700 to the Present (M,S) (same as Labour and Workplace Studies 153.370)	6
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*Labour and Workplace Studies*

153.127	Introduction to the Political Economy of Labour	3
153.128	Introduction to Labour Institutions and Problems	3
153.2XX	Economics of the Labour Process and Labour Relations (same as Economics 018.242)	6
153.244	Economic and Social Measurement (or Economics 018.317 or Sociology 077.229)	3
153.301	Labour Law	3
153.307	Labour Relations and Occupational Health and Safety Law	3
153.3XX	Industrial Relations (same as Economics 018.351)	6
153.370	History of Working People and Labour Movements 1700 to the Present (M,S) (same as History 011.370)	6
153.451	Labour Studies Field Placement Seminar	3
153.452	Labour Studies Field Placement	6
153.481	Labour and Workplace Studies Work Experience Seminar	3
153.482	Labour and Workplace Studies Work Experience	6

*Sociology*

077.229	Introduction to Research Methods (or Labour and Workplace Studies 153.244 or Economics 018.317)	6
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**List A: Primary Electives List of Electives**

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

*Faculty of Arts*

*Economics*

018.228	Social Welfare and Human Resources	6
018.235	Community Economic Development	3
018.236	Women in the Canadian Economy	6
018.250	Labour and Technology (May also be taken same as Labour and Workplace Studies 153.245-Labour and Technology)	3
018.317	Introduction to Quantitative Methods in Economics	3
018.330	Canadian Economic History	6
018.336	Labour Economics	6
018.351	Industrial Relations (same as Labour and Workplace Studies 153.3XX)	6
018.366	Economic Ideas and Social Institutions	6

*History*

011.216 <sup>H</sup>	The World 1945-1968	3
011.217 <sup>H</sup>	The World 1968-Present	3
011.267	History of Capitalism (M,S)	3
011.268	A History of Socialism from the French Revolution to the Present (M,S)	3
011.269	The Common People in Industrial Society (S)	6
011.271	Women in History (S)	6
011.272	The World Since 1945 (G,M)	6
011.297	Modern Canada: 1921 to the Present (C) / Le Canada moderne: de 1921 à nos jours (C) (CIJSB)	6
011.305	Canada since 1945 (C)	6

011.321	The History of Popular Radicalism in the Twentieth Century (G,M,S)	6
<u>011.357</u>	<u>History of Women in Canada (C)</u>	<u>6</u>
011.370	History of Working People and Labour Movements 1700 to the Present (M,S) (same as Labour and Workplace Studies 153.370)	6
011.373	A History of Western Canada (C)	6
011.403	The History of Communism and Socialism since 1945 (S,M) (H)	6
<i>Labour and Workplace Studies</i>		
153.244	Economic and Social Measurement	3
153.245	Labour and Technology ( <del>May also be taken as same as Economics 018.250</del> <del>Labour and Technology</del> )	3
153.301	Labour Law	3
153.303	Labour and the Bargaining Process	3
153.306	Workplace Health and Safety	3
153.307	Labour Relations and Occupational Health and Safety	3
153.308	Workers' Self Management	6
153.311	Special Studies in Labour Studies	3
153.312	Special Studies in Labour Studies	3
153.313	Employment Legislation and the Protection of Workers	3
153.314	Pensions and Benefits	3
153.315	Labour Adjustment	3
153.370	History of Working People and Labour Movements 1700 to the Present (M,S) (same as History 011.370)	6
<i>Native Studies</i>		
<u>032.332</u>	<u>Aboriginal Organizations</u>	<u>3</u>
<i>Philosophy</i>		
015.229	Ethics and Society	6
015.283	Business Ethics	3
<u>015.371</u>	<u>Critiques of Contemporary Society</u>	<u>6</u>
<i>Political Studies</i>		
<u>019.457</u>	<u>Public Organizational Management (H)</u>	<u>6</u>
019.466	The State in the Economy (H)	6
019.487	Government and Public Sector Unionism (H)	3
<i>Psychology</i>		
017.351	Organizational Psychology	3
017.360	Environmental Psychology	3
<i>Sociology</i>		
077.229	Introduction to Research Methods	6
<del>077.244</del>	<del>Social Stratification</del>	<del>3</del>
077.337	Sociology of Work / <u>Sociologie du travail (CUSB)</u>	3
077.347	Political Sociology / <u>Sociologie politique (CUSB)</u>	<u>3</u>
077.382	Qualitative and Historical Methods in Sociology	<u>3</u>
<u>077.387</u>	<u>Social Inequality / Inégalités sociales (CUSB)</u>	<u>3</u>
<i>Women's Studies</i>		
156.150	Women's Studies 1- Perspectives from the Humanities	3
156.151	Women's Studies 2- Perspectives from the Social Sciences	3
<u>156.250</u>	<u>Race, Class and Sexuality</u>	<u>3</u>
156.353	Feminist Theory	6
156.355	Feminist Community Organizing: Theories and Practices	3

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

##### *Business Administration*

027.203	Administrative Theory	3
027.208	Introduction to Management and Organization Theory	3
027.244	Human Resource Management	3

<u>027.303</u>	<u>Contemporary Social Issues in Business</u>	<u>3</u>
<u>027.341</u>	<u>Labour Relations</u>	<u>3</u>
<u>027.343</u>	<u>Selected Topics in Industrial Relations</u>	<u>3</u>
<u>027.345</u>	<u>Labour and Employment Relations (for the former 027.341)</u>	<u>3</u>
<u>027.442</u>	<u>Compensation</u>	<u>3</u>
<u>027.448</u>	<u>Collective Bargaining and Administration</u>	<u>3</u>
<u>027.452</u>	<u>Comparative Industrial Relations and Human Resource Management</u>	<u>3</u>

*Interdepartmental Courses*

<u>098.300</u>	<u>Aboriginal Business Context: Influences and Impacts</u>	<u>3</u>
<u>098.409</u>	<u>Aboriginal Business Leadership</u>	<u>3</u>

## Department of Native Studies

Courses to be introduced:

### 032.1XA Orientation Course: The Colonizers and the Colonized +3

The course which is offered as part of the summer session consists of an introduction to the colonization process as it regards Aboriginal people and the processes of decolonization undertaken by the people since 1970. *Prerequisite: This is a special course designed for first year entering Aboriginal students. Registration is restricted and written consent must be obtained from the instructor prior to registration.*

### 032.1XB Introductory Inuktitut +3

A practical course in conversational Inuktitut focusing on basic grammatical structures, everyday vocabulary, and using syllabics. This course is offered as part of the Pangnirtung Summer Travel/Study Program. *Prerequisite: written consent of the department head.*

### 032.2XA Inuit Literature in Translation +3

An examination of various literary forms produced by Inuit including traditional myths and songs, life histories, contemporary novels and modern political writings. *Prerequisite: a grade of "C" or better in 032.120, or 032.122 and 032.124, or written consent of the instructor or department head.*

### 032.3XA Cultural Constructions of Gender in Canadian Aboriginal Societies +3

An examination of the theoretical issues that surround the cultural construction of gender leading into detailed ethnographic and historical case studies. *Prerequisites: a grade of "C" or better in 032.120, or 032.122 and 032.124, or written consent of instructor.*

### 032.3XC Political Development in the North +3

An examination of historical and contemporary political processes in Nunavut, Northwest Territories, and Yukon including the negotiation and implementation of Aboriginal land claims. *Prerequisite: a grade of "C" or better in 032.120, or 032.122 and 032.124, or written consent of instructor.*

### 032.3XX Aboriginal Women of Canada +3

This course explores and critically examines from interdisciplinary and post-colonial perspectives historical and contemporary processes, representation, experiences and

social issues specific to Aboriginal women of Canada. *Prerequisite:* a grade of "C" or better in 032.120, or 032.122 and 032.124, or written consent of instructor or department head.

032.4XA Independent Research +3  
Supervised research or field work. Results will be presented in a form appropriate to the subject of study. *Prerequisite:* written consent of department head, based on a written research proposal, must be obtained before registration.

032.4XB Missionaries, Colonialism and Aboriginal Peoples +3  
A study of Aboriginal responses to Christian missions with a particular emphasis on resistance, syncretism, and 'prophet' movements. *Prerequisite:* A grade of "C" or better in 15 credit hours of Native Studies or written consent of instructor.

Course to be modified:

032.425 Topics on Aboriginal Identities (3)  
An interdisciplinary study of Aboriginal values, cultures and contemporary identities with emphasis on the impact of colonization. Students may not hold credit for both 032.425 and the former 032.321 or the former 032.326. *Prerequisite:* a grade of "C+" or better in 032.120, or 032.122 and 032.124, plus 6 credits in Native Studies, or written consent of instructor.

**NET CHANGE IN CREDIT HOURS:**

**+24**

**Women's Studies Program**

Courses to be Introduced:

156.2XX Soap Operas, Harlequins, and Talk Shows +3  
This course looks at gender-specific forms of entertainment that have been identified with women. Using postmodern feminist approaches to media, the course looks at how these forms are scripted for TV and cheap paperbacks, and at how the media constructs women as a marketing category for cultural and product consumption. Students may not hold credit for both 156.2xx and 156.254 with the topic "Soaps, Harlequins, Talk Shows."

156.2XY Women in Nicaragua/Women in Canada +6  
Offered as part of the Summer Session, this course is an exploration of the political, social, economic and relational lives of women on the Caribbean coast of Nicaragua, as well as of broader questions such as the struggle for truly inclusive feminist theories and activisms and the possibilities for transnational feminist solidarity. This course consists of two parts: 5 days at the University of Manitoba followed by 1 month on the Caribbean coast of Nicaragua. In Nicaragua we will be accompanied by students and faculty from the University of the Autonomous Regions of the Caribbean Coast of Nicaragua (URACCAN). *Prerequisite:* a grade of "C" or better in one Women's Studies List B course, and written consent of the instructor.

156.3XX International Feminisms +3



An examination of the social, political, economic and cultural realities facing women around the world, with emphasis on "Third World" women. A major focus will be on feminist struggles for change, international organizing and transnational solidarity efforts. *Prerequisite:* a grade of "C" or better in one Women's Studies List B course, or written consent of the Women's Studies coordinator.

156.3XY      Good Girls/Bad Girls      +3  
This course challenges the good girl/bad girl binary as a way of defining the complex reality of women's lives by closely examining regimes of mental and physical hygiene. The course also considers how the media use this binary to sensationalize women like Princess Diana, Madonna, Amy Fisher, and Monica Lewinsky. Students may not hold credit for both 156.3XY and 156.350 with the topic "Good Girls/Bad Girls." *Prerequisite:* a grade of "C" or better in one Women's Studies List B course, or written consent of the Women's Studies coordinator.

156.3XZ      Dream Girls, Show Girls, Riot Grrrls      +3  
A feminist survey of women's performances in media in a sexist society. The course explores the relation between women putting on a show and being on show: e.g., Las Vegas revues, Madonna's videos, 90's supermodels, gynecologists' offices, radical feminist street protests, Playboy centerfolds, Riot Grrrl music, and performance art. Students may not hold credit for both 156.3XZ and 156.350 with topic "Good Girls/Bad Girls -The Sequel." *Prerequisite:* a grade of "C" or better in one Women's Studies List B course, or written consent of the Women's Studies coordinator.

Courses to be added to List A for Women's Studies:

032.3XA	Cultural Constructions of Gender in Canadian Aboriginal Societies	3
032.3XX	Aboriginal Women of Canada	3
019.3AA	Gender and Politics in Canada	3
052.235	Russian Women's Writing from the 1950s to the Present Day	3

**NET CHANGE IN CREDIT HOURS:** **+18**

2. **Faculty of Law**

Course to be deleted:

045.228	Business Organization Law	-3
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Courses to be introduced:

045. 3AF      Dispute Resolution: Theory and Practice      +2  
This course offers a detailed exploration of the theory and practice of dispute resolution focusing on the various approaches, private and court-connected, currently used to resolve conflict. IN critically examining selected alternative dispute resolution mechanisms, the course exposes students to issues such as rights-based and interest-based dispute resolution, power, gender and culture in ADR processes and the functions, and skills required of, third party interveners.

045.3AC	<u>Aboriginal Peoples and Land Claims</u>	+3
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The course shall provide an overview of land claims and treaty land entitlement policies in Canada and their impact upon land claims by Aboriginal communities.

045.3AE      Advanced Advocacy      +3

Advanced topics in trial presentation, procedure and evidence with concentration on jury trials.

045.3AD      Advanced Legal Research      +3

This course will provide students with the wherewithal to conduct legal research across a number of jurisdictions using both print and digital formats. Students are evaluated on a number of research exercises, a midterm examination, a major research pathfinder and a presentation of research results.

045.3AB      The Legislative Process      +3

A study of how statutes and regulations are made in the Province of Manitoba, and how lawyers can effectively represent their clients in the context of lawmaking by politicians, civil servants and regulators.

045.2AA      Corporations I      +3

A study of the major legal, practical and policy issues arising out of the formation and operation of business organizations in Canada, with a particular focus on business corporations. Students will examine major principles of Canadian corporate law, including corporate personality, management power, majority rule and minority protection.

**NET CHANGE IN CREDIT HOURS:      +14**

### 3.      Faculty of Pharmacy

Effective September, 2003, as a pre-requisite for all courses in the Pharmacy program, students must successfully complete all previous years' courses. The Dean may grant access to Pharmacy courses due to special circumstances, applicable to a student's case.

Courses to be deleted:

In the 2003-04 Calendar year:

46.118	Introduction to Pharmacy & Pharmaceutical Chemistry	-5
46.119	Fundamentals of Pharmaceutics	-5
46.161	Pharmacy Practice I	-1

In the 2004-05 Calendar year:

46.224	Principles of Professional Practice	-2
46.237	Pharmaceutical Chemistry Laboratory	-3
46.239	Dispensing (Lab)	-4
46.240	Medicinal Chemistry II	-6
46.241	Fundamentals of Biopharmaceutics/Pharmacokinetics	-3
46.247	Pharmaceutics I	-3
46.261	Pharmacy Practice II	-2

In the 2005-06 Calendar year:

46.340	Medicinal Chemistry III	-3
46.341	Clinical Pharmacy I	-9
46.349	Contemporary Pharmacy Skills	-10
46.347	Pharmaceutics II	-3
46.348	Clinical Pharmacokinetics	-3
46.361	Pharmacy Practice III	-4

In the 2006-07 Calendar year:

46.444	Clinical Pharmacy II	-6
46.460	Pharmacy Administration	-3
46.461	Pharmacy Practice IV	-10

Courses to be introduced:

In the 2003-04 Calendar year:

046.1\*\*      Pharmacy Skills Laboratory I      +5  
This is a multifaceted course using an integrated skills laboratory format to develop essential skills that students require for pharmacy practice. These skills primarily involve communication, problem solving and critical thinking that form the foundation for life-long learning. Exploring ethical principles and professionalism are also essential components of this course.

046.1\*\*      Fundamentals of Pharmaceutics      +4  
In a classroom and laboratory setting, this course provides an introduction to the compounding of pharmaceutical products and the physicochemical basis of product formulation. Practical aspects of formulation and an introduction to the dispensing function are also explored.

046.1\*\*      Structured Practical Experiential Program 1      +1  
This program provides students with experiential rotations in the hospital/community settings. It serves to familiarize students with the health care setting and the pharmacist's role. It involves 13 half-day experiential rotations throughout second term.

046.1\*\*      Introduction to Pharmacy      +1  
This course provides an orientation to pharmacy and to the application of medicines within the context of today's dynamic medical care system. It has been designed to highlight professionalism early in the pharmacy curriculum and will provide the opportunity for students to interact with pharmacy professionals "at the cutting edge" of pharmacy practice.

In the 2004-05 Calendar year:

046.2\*\*      Structured Practical Experiential Program 2      +2  
This is a course offering experiential learning opportunities in the hospital / community settings. Students have a full day rotation in hospital or community pharmacies every other week throughout the year. This course builds on SPEP-1 in first year of the program.

046.2\*\*      Pharmacy Skills Lab 2      +3  
This course develops essential skills required for pharmacy practice. Focus is on drug

distribution, pharmacy law, communication with "standardized patients" and drug information.

046.2\*\* Medicinal Chemistry 1 +6

This course explores the physicochemical aspects of drug structure in absorption, distribution, metabolism, excretion and receptor interaction as they relate to the biochemical, pharmacological, and therapeutic actions of medicinal compounds.

046.2\*\* Pharmaceutics/Biopharmaceutics +6

This course introduces principles of formulation and good pharmaceutical manufacturing practice, including aspects of product development and assessment, stability testing, and quality control. It also explores the application of dosage forms to clinical situations.

046.2\*\* Pharmacokinetics +3

This course introduces principles of pharmacokinetics to predict how drugs will be absorbed, distributed, metabolized and excreted from the body. Practical application of concepts and calculations will be emphasized.

046.2\*\* Clinical Pharmacy 1 +4

The course introduces principles of drug therapy to manage uncomplicated disease states. Aspects of drug therapy including efficacy, dosage requirements, adverse effects, compliance, drug interactions, and follow-up monitoring will be emphasized. The course also introduces principles of using "Over the Counter (OTC)" medications as therapeutic alternatives.

In the 2005-06 Calendar year:

046.3\*\* Structured Practical Experiential Program 3 +4

This is a course offering experiential learning opportunities in the hospital / community settings. Students participate in a one month experiential block in hospital or community at the end of third year of the program. This course builds on SPEP-2 in second year of the program.

046.3\*\* Medicinal Chemistry 2 +3

This course builds on Medicinal Chemistry 1, exploring the detailed interactions between drugs and their receptors which give rise to specific biochemical responses.

046.3\*\* Clinical Pharmacy 2 +10

The course builds on principles of drug therapy introduced in Clinical Pharmacy I. Aspects of providing direct patient care are emphasized to identify, solve and prevent actual or potential drug-related problems. The course also expands knowledge of "Over the Counter (OTC)" medications as therapeutic alternatives and introduces home diagnostic testing.

046.3\*\* Pharmacy Skills Lab 3 +4

The course develops essential skills required for pharmacy practice. The focus is on interaction with patients and other health care professionals and the application of essential knowledge, skills, and values required for the provision of pharmaceutical care.

046.3\*\* Pharmaceutical Analysis Laboratory +3

This course offers the opportunity to prepare pharmaceutical dosage forms and perform analytical testing on the products. Qualitative and quantitative instrumental

assay techniques are introduced.

046.3\*\*      Clinical Pharmacokinetics      +4  
This course explores the practical application of pharmacokinetic concepts, calculations, and patient factors which effect pharmacokinetics in the clinical setting. Emphasis is on selected medications that require closer monitoring to ensure efficacy and patient safety.

046.3\*\*      Principles of Professional Practice      +3  
This course offers the opportunity to explore professionalism, ethics, and socio-economic aspects of the health care system.

046.3\*\*      Principles of Scientific Literature Evaluation      +2  
Primary literature is critically analyzed. Discussion of how study results impact on treatment strategies are emphasized.

In the 2006-07 Calendar year:

046.4\*\*      Clinical Pharmacy 3      +4  
The course builds on principles of drug therapy introduced in Clinical Pharmacy 1 and 2. Aspects of providing direct patient care are emphasized to identify, solve and prevent actual or potential drug-related problems in-complex cases.

046.4\*\*      Pharmacy Practice Management      +4  
This course applies principles of marketing, accounting, financing, and human resources management to pharmacy practice.

046.4\*\*      Structured Practical Experiential Practice      +10  
This is the final course in a series offering experiential learning opportunities in the hospital / community settings. Students participate in 2 x one month experiential blocks in hospital and community. This course builds on SPEP-2 and SPEP-3 in second and third years of the program.

046.4\*\*      Pharmacy Electives Program      +10  
Calendar descriptions will be provided as electives are developed and implemented for the 2006/2007 academic year.

The Faculty has also agreed to delete the current pharmacy electives offered in fourth year in favor of more "one-on-one" experiential electives in a specific area of interest. Currently, students return to the Faculty at the end of fourth year to take pharmacy electives, many of which are back in the classroom. As an alternative, the Faculty is developing a whole new series of elective opportunities for students to participate in. These may include, but are not limited to, professional organizations, Manitoba Health, pharmaceutical industry, individual professors' practice sights, community pharmacies, research institutes, etc. As this portion of the program will only be introduced in 2006 / 2007, there is a significant amount of time to begin developing this exciting new elective structure.

Course to be modified:

In the 2005/06 Calendar year:

046.343      Natural Products      0  
Medicinal products of natural origin; introduction to systems of complementary medicine.

Therapeutic aspects and products are emphasized.

## NET CHANGE IN CREDIT HOURS

+11

### 4. Faculty of Science

#### Computer Science - Physics and Astronomy Joint Honours Program

Introduction of New Program (Subject to approval of the Council on Post-Secondary Education)  
2003-2004

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

UNIVERSITY:1	YEAR 2	YEAR 3	YEAR 4
<b>JOINT COMPUTER SCIENCE - PHYSICS AND ASTRONOMY HONOURS<sup>1</sup> 120 CREDIT HOURS</b>			
016.105 (B) (or 016.102 (B+)) and 016.107 <sup>2</sup> (B), 136.130 <sup>3</sup> (B), 136.153 <sup>3</sup> (B), 136.173 <sup>3</sup> (B), 074.101, 074.102 (B)	016.226, 016.237, 016.250, 016.265 <sup>5</sup> , 074.208, 074.213, 074.214, 074.219, 074.222	016.260, 016.261, 016.341, 016.370, 074.317, 074.343  Plus 9 credit hours of 300 and 400 level courses from Computer Science	15 credit hours of 300 and 400 level Honours Physics courses, with at least 6 credit hours at the 400 level  Plus 12 credit hours of 300 or 400 level courses from Computer Science, with at least 9 credit hours at the 400 level by the end of Year 4  Plus 3 credit hours of electives
Plus 6 credit hours from the Faculty of Arts, which may include the "W" course			
Plus 3 credit hours of electives			
A "W" course must be taken in University 1 or Year 2 <sup>4</sup>			
30 Hours	30 Hours	30 Hours	30 Hours

#### NOTES:

<sup>1</sup>The courses required in this program will satisfy the University mathematics requirement.

<sup>2</sup>016.103 is not suitable for entry to the Honours and four year Major program. Students must also take 016.107 if they have already taken 016.103.

Students can hold credit for both 016.103 and 016.107.

<sup>3</sup>136.131 may be taken in place of 136.130; 136.150, 136.151 or 136.152 may be taken in place of 136.153; 136.170 or 136.171 may be taken in place of 136.173; 136.169 may be taken in place of 136.153 and 136.173.

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

<sup>5</sup>The corequisite of 136.270 is waived for students in this program.

#### Honours Requirements

To enter the Joint Honours Computer Science-Physics program, the student must have a minimum grade of "B" in 016.105 (or "B+" in 016.102), 016.107, 136.130, 136.153, 136.173, and 074.102.

To graduate with the Honour degree, a student must present a minimum grade of "C" in each of 074.208, 074.213, 074.214, 074.219, 074.222, 074.317, 074.343, 016.226, 016.237, 016.250, 016.260, 016.261, 016.265, 016.341, 016.370 and each Computer Science and Physics & Astronomy course that applies to the Computer Science and Physics & Astronomy component of their degree program.

## NET CHANGE IN CREDIT HOURS:

+0

## Environmental Science Program

Courses to be deleted:

128.310      Environmental Conservation Issues      -3L

128.410      Environmental Conservation Strategies      -3L

Courses to be introduced:

128.2XY      Environmental Chemistry      +3L

An introduction to the chemistry of the environment. Emphasis will be on the composition of the natural environment and the processes of natural and human-introduced chemical species that take place within it. The course will provide students with the chemical basis for understanding the environment and environmental problems. Not to be held with 002.2XY. *Prerequisite:* 002.131 (C).

128.3BB      Environmental Conservation and Restoration      +3L

Environmental conservation and restoration are introduced and approaches based on science and traditional knowledge are contrasted. An emphasis is placed on systems thinking and both local and international case studies. Not to be held with the former 001.355 or 128.310. *Prerequisite:* 001.228/022.229 or 01/022/065.237, or consent of the instructor.

128.3XY      Environmental Analysis      +3L

An introduction to classical and modern techniques for the sampling, sample pre-treatment, and analysis of chemical substances in aquatic, atmospheric and terrestrial environments and the interpretation of data obtained from such analyses. Not to be held with 002.347 or 002.3XY. *Prerequisite:* 128.2XY (002.2XY) (C) or permission of the instructor.

128.3XZ      Environmental Management Systems      +3

This course provides an introduction to environmental management systems and specific material on the ISO 14001 international EMS standard. Auditing principles and techniques are described with specific guidance on auditing an ISO 14001 EMS. *Prerequisite:* permission of the instructor; students not enrolled in Environmental Science must obtain permission from their Major/Honours program.

128.3YZ      Project in Environmental Science      +3

A research project in any aspect of environmental science, chosen in consultation with the program director and an appropriate supervising faculty member. Written reports and oral presentation on the results of the project will be required. The course is normally available only to final year students in Environmental Science program. *Prerequisite:* permission of the Program Director.

128.4CC      Critical Thinking and the Environment      +3L

Topical issues and responses regarding the environment including conservation, management, and policy making are critically evaluated at local, national, and global scales. Term projects emphasizing applied work with environmental organizations and researchers are presented. Not to be held

with the former 128.410 or 001.468. *Prerequisite:* 128.3BB, or consent of the instructor.

128.4XY Aquatic Chemistry +3

An examination of biogeochemical processes affecting the distribution, speciation and bioavailability of chemical substances in the aquatic environment. The theoretical basis for the chemical behaviour of natural water systems is discussed, as well as the description of processes involved in wastewater treatment. Offered in 2004-2005 and in alternate years thereafter. Not to be held with 002.4XY. *Prerequisite:* A grade of 'C' in one of 002.347, 002.3XY or 128.3XY or permission of the instructor.

Courses to be modified:

128.200 Environmental Science 2: Issues (3)

This course will briefly review the major features of the structure and function of natural systems along with the degree to which these have been compromised. The course will concentrate on the identification of the underlying issues of environmental degradation, while exploring alternative strategies that have the potential to reverse current trends and contribute to ecological sustainability. *Prerequisite:* 128.100.

128.217 Environmental Problem Solving (3)

Change prerequisites from "002.131 and 071.125" to: "002.131, 071.125, and one of 016.102 or 136.150 (or equivalent), 136.120, 136.130 (or equivalent)".

**NET CHANGE IN CREDIT HOURS:**

**+15**



## **Report of the Senate Planning and Priorities Committee on Undergraduate Changes with Potential Resource Implications or Course Additions Beyond Nine Credit Hours**

The SPPC has the responsibility to report to Senate on curriculum changes with significant resource implications including additions to departmental curricula of more than nine credit hours. The committee reviewed submissions from the Faculties of Arts, Law and Science.

### **A. FACULTY OF ARTS**

The Faculty of Arts is introducing a total of 102 additional credit hours in 5 Departments, which include a number of new courses, and some reorganization of courses and programs.

#### **A.1 German and Slavic Studies**

##### **Preamble**

The Department of German and Slavic Studies proposes what appears to be a new way of offering introductory language studies. To provide students, who already have a satisfactory proficiency in language equivalent to the first semester of a six credit hour course, with the possibility to join the course in the second term so that they can bring their proficiency up to the next level of a six-credit course. In addition, some courses are being re-named or restructured, and two new courses on women in Russian and Ukrainian literature, to accommodate the interests of a new faculty member.

##### **Observations**

1. Courses to be introduced are (numbers in brackets are the net credit-hour changes):
  - a. Women and Russian Literature (3)
  - b. Women and Ukrainian Literature (3)
  - c. 5 language courses that are the second half of existing 6 c.h. courses (15)
2. Courses to be modified are:
  - a. Three courses with a name change (0)
  - b. One six-credit course replaced by two three-credit ones (0)
3. The courses introduced in language teaching are a new concept and this does not require additional teaching resources, since these "second-half" courses are taught together with the corresponding full courses.
4. The two courses on women in literature are new, but already being offered under a general "topics" title. There is a letter of support from the Women's Studies Program, and no objection to their introduction from the Department of English.
5. Library statements are included that indicate that these courses can be supported with existing library resources.

#### **A.2 History**

##### **Preamble**

The Department of History proposes the introduction of three new full courses and three

new half courses, for a total of 27 additional credit hours. There is a full and two half courses in South Asian (Indian) history, a half course in Latin American History, and two new courses on American history.

### **Observations**

1. New courses to be introduced are:
  - History of India (6)
  - Modern Indian History (3)
  - Modern Post-Colonial South Asian History (3)
  - Topics in Latin American History (3)
2. New courses to be introduced as fourth-year courses which are similar in content to existing graduate courses are:
  - Studies in American History to 1877 (6)
  - Studies in American History since 1877 (6)
3. The Department of History has hired 7 new faculty in recent years. These courses can be introduced with existing staffing without requiring additional resources, and make good use of the research expertise and interests of new faculty.
4. The Department of History had cut 60 credit hours of courses in 1999 and 15 courses in 1996, owing to loss of faculty through retirements in those years. The new courses are introduced to continue to rebuild the department's offerings, using the expertise of new faculty members.
5. The Department of Anthropology has found no conflict with any of their courses, but support the proposed course "Topics in Latin American History", as complementing their offerings in that area.
6. Library statements are included that indicate that these courses can be supported with existing library resources. For the "Topics ..." course, the library statement includes a request that the Libraries be kept informed about the topics to be considered in this course.

## **A.3 Labour and Workplace Studies**

### **Preamble**

The Labour and Workplace Programme proposes the introduction of two new full courses for a total of 12 additional credit hours.

### **Observations**

1. New courses to be introduced are:
  - Economics of the Labour Process and Labour Relations (6)
  - Industrial Relations (6)
2. The two new courses are to be cross-listed with existing Economics courses, alternately taught by faculty in the two units. No new resources are required for these.
3. Library statements are not required since these are equivalent to existing courses.

## **A.4 Native Studies**

### **Preamble**

The Department of Native Studies proposes the introduction of eight new full courses for a total of 24 additional credit hours. One three credit hour course is proposed for modification (a prerequisite change).

### Observations

1. New courses to be introduced are:
  - Orientation course: the Colonizers and the Colonized (3)
  - Introductory Inuktitut (3)
  - Inuit Literature in Translation (3)
  - Cultural Constructions of Gender in Canadian Aboriginal Societies (3)
  - Political Development in the North (3)
  - Aboriginal Women of Canada (3)
  - Independent Research (3)
  - Missionaries, Colonialism and Aboriginal Peoples (3)
2. *Building on Strengths*, the report of the 1997 Task Force on Strategic Planning has two recommendations (18, 37) related to Native Studies, to make the University of Manitoba the university of *first choice* for aboriginal students. Introduction of these courses is consistent with this goal.
3. Two of these courses are outside the normal framework of courses. The Orientation Course would be offered in August, before the start of regular term, with the aim to ease the transition of aboriginal students into the university environment. The Independent Research course is a reading course. There is a statement from Continuing Education in support of the orientation course.
4. Four of the courses can be offered because of the addition of new faculty members: the Inuit language and literature courses, and the gender-related ones. The Inuktitut course is offered in the summer as part of the Pangnirtung Summer Program; a letter of comment and support from Continuing Education is included. These courses will, generally, not be offered every year.
5. The remaining two courses represent expansions of the offerings of the Department into important areas of concern, and relate to the interests of new faculty members.
6. Included are statements from Women's Studies, English, Anthropology, Political Studies, History, and Religion regarding courses related to their areas. These are generally supportive, or neutral, stating that they do not impact on their courses or programs. Religion did express some concern that there may be an impact on a future planned area of hiring.
7. Library statements are included that indicate that these courses can be supported with existing library resources.

## **A.5 Women's Studies**

### Preamble

The Women's Programme proposes the introduction of one new full course and 4 new half courses for a total of 18 additional credit hours.

### Observations

1. New courses to be introduced are:
  - Soap Operas, Harlequins, and Talk Shows (3)

Women in Nicaragua/Women in Canada (6)

International Feminisms (3)

Good Girls/Bad Girls (3)

Dreamgirls, Showgirls, Riot Grrrls (3)

2. Four of these five proposed courses (15 ch) have been offered as Special Topics courses. It is desired to make these a permanent part of the programme, not necessarily all offered every year. The fifth, International Feminisms, is a new course.
3. The full course, Women in Nicaragua/Women in Canada, has a field component, and would be offered on an occasional basis during the summer. This would have to be financed on a cost recovery basis. A statement relative to this is included from the Continuing Education Division.
4. Library statements are included that indicate that these courses can be supported with existing library resources.

#### Recommendation

That Senate approve and forward to the Board of Governors the recommendation from the Faculty of Arts program changes

### **B. FACULTY OF LAW**

The Faculty of Law is introducing 5 new courses and reorganizing that part of its curriculum that deals with Business Organization Law.

#### Preamble

It has been the policy and practise of the faculty to introduce new courses under umbrella course offerings called Current Legal Problems A,B,C & D. When the faculty believes the courses should be a permanent part of the curriculum they seek to establish the courses as permanent offerings. Current Legal Problems A,B,C & D will continue to be offered.

#### Observations

1. Courses to be introduced are:
  - a. Dispute Resolution: Theory and Practise (2)
  - b. Aboriginal Peoples and Land Claims (3)
  - c. Advanced Advocacy (3)
  - d. Advanced Legal Research (3)
  - e. The Legislative Process (3)
2. Course to be introduced as part program reorganization:
  - f. Corporations I (3)
3. Library statements included with the proposal indicate there are sufficient resources.
4. Existing Faculty Members or sessional lecturers will teach the courses. Budget provisions within the faculty are in place to cover these courses.
5. There are no broader incremental resource implications.

#### Recommendation

That Senate approve and forward to the Board of Governors the recommendation from the Faculty of Law program changes

## C. FACULTY OF PHARMACY

### Preamble

Pharmacy has conducted a broad review of its program and proposes a number of curriculum changes to be phased in between 2003 and 2007. Each year between 34 and 36 credit hours of courses will be revised and modified, old courses will be deleted and new ones introduced. The thrust of the new program and the revised courses is to create a greater focus on hands-on learning and clinical training. It is expected that in total the net change will be +2 credit hours, in any one year the net change is 0 or 1 credit hour. Similar broad program revisions have recently been completed within the Faculties of Education and Architecture.

### Observations

1. Revision of the program is in anticipation of an accreditation review by the Canadian Council for Accreditation of Pharmacy Programs (CCAPP). Consultations have included Faculty, students and external stakeholders.
2. The changes represent restructuring and updating of content, movement and reorganization of material between courses and streamlining of courses. In addition, adjustments have been made to the credit hour weighting of courses to reflect current practice within the profession.
3. Four new courses are to be introduced over the period of revision. There will be no incremental demand on human or financial resources
4. Supporting statements have been received from the libraries indicating that resources are adequate.

### Recommendation

SPPC endorses and recommends that Senate approve the revisions to the Pharmacy Program.

## D. FACULTY OF SCIENCE

The Faculty of Science Proposes to introduce 7 new courses in Environmental Science totalling 21 credit hours.

### 1. Environmental Science

#### Preamble

The program in Environmental Science is re-organizing its offerings in the areas of aquatic chemistry and Conservation, management, critical thinking and project courses. Aquatic chemistry courses are currently offered in the Department of Chemistry and under an umbrella course number in the Environmental Science Program. The interest of the Program in assigning such courses specific course numbers reflects a progression in the development of

interdisciplinary courses as well as interest from students and employers. Conservation, management, critical thinking and project courses are also being introduced to replace courses where significant advances in content have occurred and a new course description is required.

**Observations**

1. Laboratory resources are currently adequate for the courses in aquatic chemistry. It is anticipated in the future that the Faculty of Science and the Faculty of Environment would share the costs for the courses in aquatic chemistry.
2. Library resources are currently adequate.

Respectfully submitted,

Norman Halden, Chair  
Senate Planning and Priorities Committee

/jml

**Comments of the Senate Executive Committee:**

The Senate Executive Committee endorses the report to Senate.

## Program Overview Summary

**Program Name:** Bachelor of Science-Allied Health Degree Program

**Credential to be offered:** Bachelor of Health Sciences ... Radiation Therapy

**Does this program require accreditation from a licencing group?** Yes  
Canadian Medical Association Conjoint Committee

**Length of program:** University 1, plus 3 Years

**Proposed program start date:** September 2003  
Day/Month/Year

**Which department(s) within the institution will have responsibility for the program?**  
University of Manitoba – Faculty of Medicine  
CancerCare Manitoba - School of Radiation Therapy

**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, for the University of Manitoba  
Diploma Program exists at CancerCare Manitoba/RRC

**Is this a revision of an existing program?** Yes

**YES, name program:** Diploma Program at CancerCare Manitoba/RRC

**What are the impacts of changing this program?**

1. Graduates in Radiation Therapy who have improved skills in critical thinking and problem solving, are thereby improving the quality of care offered to those who require radiation therapy services.
2. Enhanced opportunities for graduates in related fields (i.e. research, administration, etc.)
3. There could be a minimum of one year with no graduates as the transition from diploma/degree takes place – this could result in a short-term staff shortage if appropriate planning doesn't take place. All efforts will be made to avoid this situation.
4. Although the program is designed to access current University of Manitoba, the discipline specific courses offered through CancerCare Manitoba may require some revisions as we make application to have them credited as university courses.

**Will the program be available to part-time students:** ☐ ☐  
First Year and Fourth Year Yes  
Second Year and Third Year No

**Will the program have a cooperative education component?** ☐ Yes ☐  
All clinical practicum and discipline specific courses at CancerCare Manitoba

**If YES, how long will the field placement be?**

Clinical Practicum in Degree program: Clinical Education I - 8 weeks (Year 2)

**Will the program contain an option to assess the prior learning of students, to grant credit for the skills/knowledge already present?** ☐ Yes ☐

**Provide details:** Diploma Radiation Therapists seeking degree status  
Health Care Professionals, e.g. nurses/radiological technologists  
Anyone who has taken either common core subjects or other University of Manitoba subjects (i.e. those listed for Year 3).

**Will there be distance delivery options?** ☐ Yes ☐

**Provide details:** Some are available for common year courses or general university Courses.  
Discipline specific courses – none envisioned at this time.

**Will this program be delivered jointly with another institution?** ☐ Yes ☐

**If YES, name the institution:**  
University of Manitoba/CancerCare Manitoba

**Are similar programs offered in Manitoba or other jurisdictions?** ☐ No ☐

**If YES, indicate why this program is needed (e.g., area of specialization)**  
Please see Hard Copy- "Demand for program" documents from CAMRT.  
These documents summarize the rationale for making the change from diploma to degree. All Canadian Schools of Radiation Therapy fall under the mandate of the CAMRT and therefore must provide a degree program as an entry-to-practice requirement by the year 2005.

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

Discipline Specific Courses and all Clinical Practicums would be provided by CancerCare Manitoba, University of Manitoba credit would be sought for these courses.



## Specific Program Information

### 1. Program Description

**Describe the program and its objectives:**

This is a fully integrated four-year academic and clinical program that prepares its graduates for certification and registration with the Canadian Association of Medical Radiation Technologists (CAMRT).

#### Educational Objectives of the Proposed Program:

The Radiation Therapy program is designed so that graduates who have completed the academic and clinical components are able to:

- 1) identify the role of the Radiation Therapist in the health care system and participate in decision making processes which relate to the specialty.
- 2) understand the ethical, legal and professional responsibilities of the Radiation Therapist and apply them in practice.
- 3) demonstrate a commitment to the philosophy of holistic medicine and recognize patients as unique individuals.
- 4) treat patients with dignity and respect and in doing so, accept the role of patient advocate.
- 5) practice assessment procedures, interpret information and apply problem solving and critical thinking skills to the planning and delivery of radiation therapy.
- 6) demonstrate knowledge, understanding and skill in the application of radiation therapy as a treatment modality for cancer patients.
- 7) implement quality practices and perform within safety standards relating to the application of ionizing radiation, equipment manipulation and patient care.
- 8) participate in clinical and basic research.
- 9) commit to self-evaluation and life-long learning.
- 10) challenge the certification examinations as set by the Canadian Association of Medical Radiation Technologists.

**Provide an overview of the content to be taught in this program:** Please see Section B of this proposal.

### 2. Enrollment

**What is the program's initial projected enrollment?** 1<sup>st</sup> year: From University One: 6-8

**What is the projected enrollment for the 2<sup>nd</sup> and 3<sup>rd</sup> years?**

2<sup>nd</sup> year: maximum 15 in total. 6-8 from Manitoba and up to 7 from Saskatchewan and up to 3 from New Brunswick.

3<sup>rd</sup> year: 6-8 Manitoba

4<sup>th</sup> year: 6-8 Manitoba

This projection is consistent with past enrollment, is endorsed by the accreditation team and is based upon projected manpower needs as well as resources available for clinical practicums.

**Describe the expected student profile:**

Motivated individuals with strong science, technical, and communication skills, and a caring, nurturing attitude.

**3. Labour Market Information**

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

The majority of Radiation Therapists are employed by cancer centers, providing radiation therapy services in the areas of planning and delivery of radiation treatment for cancer patients. Currently, there are approximately 55 Registered Radiation Therapists employed in this province. Of these, six did not receive their education through the CCMB Program, demonstrating that Manitoba relies heavily on its own graduates to provide its radiation therapy services. Of those six, four of these therapists arrived as a direct result of a recruiting effort in South Africa, however it is not expected that we will be able to recruit any more Therapists from this source. Annually, CCMB requires approximately 6 Therapists to fill vacant positions (manpower study done at CCMB in January 2002). In addition, CCMB is planning an expansion and will require staff over and above those expected due to attrition rates.

**Are there currently jobs in Manitoba in this field?**

Yes

CancerCare Manitoba – Winnipeg

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

Radiation Therapists have a unique body of knowledge and skills, which are not duplicated by any other health care profession. The application of these skills and knowledge relies heavily on problem solving, critical thinking and decision making abilities, thus making them ideal candidates for a variety of related positions in the health care continuum. For example, some Radiation Therapists have actively participated in clinical research projects over the past decade. This could be expected to increase with inclusion of the program within the university setting of the Faculty of Medicine. Other opportunities which are available, outside of the traditional scope of practice, include patient services, equipment applications support, equipment sales, and preventative medicine. With the enhanced educational background that the Degree Program would provide, it is anticipated that many more opportunities both professional and educational, will become available to these graduates.

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

The Cancer Treatment and Research Foundation Act; article 7, 1994, mandates CancerCare Manitoba to provide undergraduate and postgraduate education to examine, diagnose and treat people with cancer.

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

Other than the partners (CancerCare Manitoba, U of M), groups to be consulted:

- Manitoba Association of Medical Radiation Technologists
- Canadian Association of Medical Radiation Technologists
- Saskatchewan Cancer Agency
- Atlantic Health Sciences Corporation

**Is there any other information relevant to this program?**

The Saskatchewan Cancer Agency (SCA) currently purchases space in the CancerCare Manitoba

Academic Program while providing clinical practice within their own facilities (Allan Blair Memorial Clinic in Regina and Saskatoon Cancer Center in the University Hospital in Saskatoon). The Atlantic Health Sciences Corporation also purchases space in the Academic Program with clinical affiliations at the St. John Regional Hospital. We will explore the possibility of continuing these affiliations within the new structure. The Saskatchewan Cancer Agency is in discussion with the Athabaska University regarding a degree program, and New Brunswick with Dalhousie University. Both wish to continue to purchase spaces within this program for the discipline specific courses (i.e. Year 2 of proposal).

#### 4. Financial Information

##### Current budget support for program from CancerCare Manitoba:

- 1) Government Funding: Salaries and benefits (2001-2002): \$240,000  
     Positions: 1.0 EFT Program Manager & Instructor  
                 1.0 EFT Deputy Program Coordinator & Instructor  
                 1.0 EFT Secretary
- 2) Clinical teachers: No charge to school – costs absorbed by Medical Physics and Radiation Therapy departments. Clinical teaching is considered a major component of senior staff members' job description in these departments. Currently eleven positions have this responsibility designated to them.
- 3) Equipment (for labs): No charge to school for after hours use – costs of maintenance, etc., absorbed by Medical Physics and Radiation Therapy departments.
- 4) Current Tuition Fees (CancerCare Manitoba): Five year average (annual fee) has been approximately \$11,000 to \$13,000 for between 8-12 students. The tuition fees for 2001 (in which 18 students were enrolled) was approximately \$27,000.

This income is considered outside the Department of Health budget and is used to:

- a) fund sessional lecturers (e.g. Physics Professor: \$5000), lab instructors, etc.  
    support school staff development
- b) supplemental supplies/library etc., budget
- c) support program development

November 1, 2002

**Report of the Senate Committee on Curriculum and Course Changes regarding the proposal for the Faculty of Medicine for a Bachelor of Allied Health Science (Radiation Therapy) degree program**

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**Preamble**

The Committee met with representatives of the Faculty of Medicine to discuss the proposal for a Bachelor of Allied Health Science (Radiation Therapy) Program.

**Observations**

1. As of 2005, the Canadian Association of Medical Radiological Technologists will require students to graduate from degree programs in order to sit the national certification examinations for Radiation Therapists.
2. There is an extreme shortage of Radiation Therapists in Canada and Manitoba. CancerCare Manitoba and Manitoba Health are keen to have in place a program that can support the need for Radiation Therapists.
3. A Statement of Intent was waived by the Council on Post-Secondary Education for this proposal.
4. The Radiation Therapy program is currently a 3-year diploma academic and clinical program offered through the CancerCare Manitoba and Red River College. The proposal is to transfer that program to the Faculty of Medicine, working in partnership with CancerCare Manitoba to offer the program. CancerCare Manitoba and the University of Manitoba are in the process of entering into an affiliation agreement for the purposes of this program.
5. The proposal is for a four-year, 129 credit hour baccalaureate program, with a pre-requisite of one pre-professional year in University I followed by three years of study in the Program. Applicants will be required to have completed a total of 30 credit hours including six credit hours in each of Zoology, Physics and Sociology, three credit hours of statistics, the three credit hour Introduction to University (or any other course that satisfies the written English requirement) and the remaining 6 credit hours being electives, of which Chemistry is strongly recommended. Students will use 068.246 Statistics and the Physics Courses to satisfy the University's Mathematics requirement.
6. A number of Physics courses are to be offered by instructors at CancerCare Manitoba, as is currently done with the diploma program. The Department of Physics and Astronomy and the Radiation Therapy Program have come to an agreement with regard to teaching assignments, funding and the double-numbering of courses.
7. 54 weeks of clinical/practical experience are required, eight weeks in year two, 22 weeks in year three and 24 weeks in year four. All placements will be at CancerCare Manitoba.
8. The Senate Committee on Curriculum and Course Changes (SCCCC) has received a

statement of library resources indicating that there are sufficient holdings in both the Neil John Maclean Health Sciences Library and the Oncology Library at CancerCare Manitoba to support the program with limited infusion of resources for start up costs and an annual baseline allocation to support the collection.

### Recommendation

The Senate Committee on Curriculum and Course Changes recommends that Senate approve the proposal for a Bachelor of Allied Health Science (Radiation Therapy) within the Faculty of Medicine [as amended in September, 2002], together with the introduction of the following new courses:

Courses to be introduced:

163.2AAL      Fundamentals of Care in Radiation Therapy I      +3L

Focuses on Radiation Therapy within the health care team. Includes: health delivery systems, professionalism, legal and ethical aspects, communication skills, protecting and promoting health, nutrition, assessment skills, psychosocial aspects of caring for cancer patients and their families, morbidity of cancer treatment (primarily radiation therapy). Labs apply theory to practice (Prerequisites: CPR, First Aid. Co-requisite: 163.2AB)

163.2AB      Clinical Radiation Oncology I      +3

Fundamental concepts supporting the use of radiation in treatment of disease. Includes etiological and epidemiological aspects, value of early diagnosis, biological and pathological aspects of cancer in the human body, the principles of radiobiology and general management of patients with malignant disease. Emphasis is on the role of radiation therapy in a curative or palliative role. Clinical examples will be used to facilitate discussions. (Prerequisites: 022.133 Co- requisite: 163.2AA,163.2AC)

163.2ACL      Treatment Planning and Dosimetry I      +3L

Provides the student with the mathematical and technical skills required in the planning process. Because of dangers in the use of radiation, the student must be knowledgeable of factors needed when using radiation for treatment. Provides the basic information required to correctly calculate treatment parameters and accurately plan radiation treatments. (Prerequisites: 016.103, 022.133. Co-requisites:,163.2AB,163.2AD, 163.2AE).

163.2ADL/016.2XXL      Fundamentals of Physics in Radiation Therapy      +3L

Provides the student with a fundamental understanding of the physical nature of photons and electrons and the manner in which they interact with an absorbing/scattering medium. The concepts presented in this series will enhance the student's ability to make decisions regarding clinical radiation therapy treatments. This course is also given by Physics and Astronomy as 016.2XX. Not to be held with 016.2XX, (Pre-requisite:016.103. Co-requisite: 163.2AC,163.2AE)

163.2AEL      Radiation Therapy Apparatus and Imaging      +3L

Introduces the student to the principles of operation of radiation therapy simulation and treatment equipment. It focuses on design of equipment, physical processes involved in equipment operation and radiological imaging processes. Practical reinforcements of principles is provided in a lab setting. (*Prerequisite: 016.103, 022.133 . Co-requisites: 163.2AD, 163.2AC*)

163.2AF                      Clinical Education I                      +6

Apply concepts of radiation therapy to planning and delivery of treatment, and patient interaction. This is an orientation to the profession and is conducted under the supervision of a radiation therapist (R.T.T.). Focus is on assessment, evaluation, communication, and application of theory to clinical practice. Students will be graded on a pass/fail basis. (*Prerequisite: 163.2AA, 163.2AB, 163.2AC, 163.2AD, 163.2AE*)

163.2AG/016.2XY      Radiation Protection in Radiation Therapy                      +3

Previews fundamental concepts used to minimize risk when working with radiation, with emphasis on radiation therapy. Includes types and sources of radiation, radiation quantities and units, biological effects and potential risks, basic principles of protection, regulation and dose limits, methods of dose monitoring, and applications in radiation therapy. This course is also given by Physics and Astronomy as 016.2XY. Not to be held with 016.2XY. (*Prerequisite: 163.2AF, 163.2AD*)

163.2AH                      Fundamentals of Care in Radiation Therapy II                      +3

Builds upon 163.2AA and includes additional topics which are applied to Radiation Therapy. Includes: professional accountability and advocacy, health care, communication, psychosocial care, patient assessment and education, promoting and protecting health, supporting physiological health, and tutorials relevant to care of Radiation Therapy patients and their families. (*Prerequisites: 163.2AF*)

163.2AIL                      Clinical Radiation Oncology II                      +3L

Focuses on cancer, its presentation and treatment. Includes: clinical signs, routes of spread, management approaches of major tumor sites in adults and children, treatment techniques, and sequelae of treatment. The lab component of this course provides experience in simulated situations. (*Prerequisites: 163.2AB, 163.2AC, 163.2AF. Co-requisite: 163.2AJ*)

163.2AJL                      Treatment Planning and Dosimetry II                      +3L

Builds upon 163.2AC, encourages and provides opportunity to apply knowledge in anatomy, physics, imaging, and patient care to accurate planning of treatment. Plans will be designed combining the technical aspects with needs of the patient. To enhance learning, students are encouraged to critique treatment plans as a method of evaluating their own work and as a quality assurance tool, promoting excellence in radiation therapy. (*Prerequisite: 163.2AC, 163.2AB, and 163.2AF. Co-requisite: 163.2AI*).

163.2AQ/016.2XZ      Radiation Biology                      +3

This course deals with the fundamentals of radiation biology and focuses on the effects of radiation at a cellular and molecular level. This course is also given by Physics and Astronomy as 016.2XZ. Not to be held with 016.2XZ. (*Prerequisite: 016.103*)

163.3AK                      Clinical Education II                      +18

Application of radiation therapy concepts to clinical practice under the supervision of a radiation therapist (R.T.T.). Focuses on the planning and delivery of radiation treatment, patient assessment, communication, and teaching skills. Problem solving through application of knowledge to the clinical situation. Students will be graded on a pass/fail basis.  
(Prerequisite: 163.2AG, 163.2AH, 163.2AI, 163.2AJ, 163.2AQ)

163.3AM                      Directed Studies I                      +3

This course is designed to provide the opportunity for problem solving and critical thinking through integration of relevant information. The learner will prepare clinical case studies, including an oral review with peers and faculty. The learner will complete a variety of assignments designed to complement the clinical educational opportunities (Prerequisites: 163.2AI Co-requisite: 163.3AK)

163.4AN                      Independent Study                      +3

Consisting of an independent learning contract to research a topic of special interest to the student and to culminate in an oral presentation and review. This must include theoretical basis, an analysis of current research and a critical examination of current issues. A paper of not less than 4000 words must be submitted. (Prerequisites: 163.4AK Co-requisite 163.3AM)

163.4AL                      Advanced Clinical Education                      +18

Students care for cancer patients, and their families, while they undergo radiation therapy. Focuses on critical thinking, communication skills, team work, and advocacy. Responsibilities are increased under the supervision of a radiation therapist (R.T.T.). Outcomes correlate with the professional responsibilities of an RTT. Students will be graded on a pass/fail basis.  
(Prerequisite: 163.4AN, 163.4AM., Co-requisites: 163.4AO)

163.4AO                      Directed Studies II                      +3

In addition to outcomes identified in Directed Studies I, learner outcomes are to: foster development of cognitive skills required for critical thinking, build upon theoretical knowledge and application and to demonstrate competency in specific critical tasks required of a Radiation Therapist (Prerequisites: 163.4AN, 163.4AM. Co-requisite: 163.4AL)

Year 4

163.4AP                      Advances in Radiation Therapy                      +3

An interactive program focusing on technical advances in Radiation Therapy; targeting planning and treatment delivery aspects. Topics may include Intensity Modulated Radiation Therapy (IMRT), brachytherapy for specific disease sites, and methods of dose calculation.  
(Prerequisite: 163.4AL, 163.4AO or permission of the instructor)

**NET CHANGE IN CREDIT HOURS:**                      +84

Respectfully Submitted,

Professor B.L. Dronzek, Chair,  
Senate Committee on Curriculum and Course Changes

/jml

**BACHELOR OF ALLIED HEALTH SCIENCE - RADIATION THERAPY  
PROPOSED 4 YEAR DEGREE  
Amended September 2002**

Co-requisites: CPR and First Aid  
Medical Terminology (self-study)

**YEAR 1 (Pre-requisite year)**

**Focused Approach courses**

<u>COURSE #</u>	<u>CREDIT NAME</u>	<u>SITE</u>	<u>TERM</u>	<u>PRE-REQ</u>	<u>COMMENTS</u>
022.132L	3 Anatomy of the Human Body (H04-N130)	U of M	1		
022.133L	3 Physiology of the Human Body (H04-N131)	U of M	2	022.132	
016.102L	3 General Physics I	U of M	1		
016.103L	3 General Physics II	U of M	2	016.103	
005.100M	3 Basic Statistical Analysis	U of M			
99-111W	3 Introduction to University or 3 credit W course	U of M			
077.120	6 Intro Sociology	U of M	1-2		

And 6 credits of elective courses:  
Program recommends:

002.130L	3 Structure and modeling in Chemistry	U of M	1		
002.131L	3 Introduction to Physical Chemistry OR	U of M	2	002.130	
002.132L	3 Introduction to Organic Chemistry	U of M	2	002.130	

#  
Equivalent courses available at other post-secondary institutions (eg. Red River College, Universities of Winnipeg and Brandon, Campus Manitoba, etc.)

TOTAL CREDITS FOR YEAR 1: 30

**YEAR 2  
COMPULSORY COURSES**

<u>COURSE #</u>	<u>CREDIT</u>	<u>NAME</u>	<u>SITE</u>	<u>TERM</u>	<u>PRE-REQ</u>	<u>CO-REQ</u>	<u>COMMENTS</u>
163.2AAL	3	Fundamentals of Care in Radiation Therapy I	CCMB	1	CPR/First Aid	163.2AB	
163.2AB	3	Clinical Radiation Oncology I	CCMB	1	022.133L	163.2AAL, 163.2ACL	
163.2ACL	3	Treatment Planning and Dosimetry I	CCMB	1	022.133L, 016.103L	163.2AB, 163.2ADL, 163.2AEL	
163.2ADL / 016.2XXL	3	Fundamentals of Physics in Radiation Therapy	CCMB	1	016.103L	163.2ACL, 163.2AEL	
163.2AEL	3	Radiation Therapy Apparatus & Imaging	CCMB	1	016.103L, 022.133L	163.2ADL, 163.2ACL	
163.2AF	6	Clinical Education I	CCMB	2	All Term 1 courses.		8 weeks-Jan-Feb.
163.2AG / 016.2XY	3	Radiation Protection in Radiation Therapy	CCMB	3	163.2AF, 163.2ADL		
163.2AH	3	Fundamentals of Care in Radiation Therapy II	CCMB	3	163.2AF	163.2ACL, 163.2AEL	
163.2AIL	3	Clinical Radiation Oncology II	CCMB	3	163.2AF, 163.2AB, 163.2ACL	163.2AEL	
163.2AJL	3	Treatment Planning and Dosimetry II	CCMB	3	163.2AF, 163.2ACL, 163.2AB	163.2AI	
163.2AQ / 016.2XZ	3	Radiation Biology	CCMB	3	016.103L		

TOTAL CREDITS YEAR 2: 36



# **YEAR 3** **COMPULSORY COURSES**

<b>COURSE #</b>	<b>CREDIT</b>	<b>NAME</b>	<b>SITE</b>	<b>TERM</b>	<b>PRE-REQ</b>	<b>CO-REQ</b>	<b>COMMENTS</b>
163.3AK	18	Clinical Education II	CCMB	1	all Year 2 courses.		24 weeks
163.3AM	3	Directed Studies I	CCMB	1	163.2AI	163.3AK	
163.4AN	3	Independent Study	CCMB	2	163.4AK,	163.AM	8 weeks-Jan-Feb.
188.4AL	18	Advanced Clinical Education	CCMB	3	163.4AN	163.4AO	24 weeks
163.4AO	3	Directed Studies II	CCMB	3	163.4AN	163.4AL	

**TOTAL CREDITS YEAR 3: 45**

# **YEAR 4** **COMPULSORY COURSES:**

<b>COURSE #</b>	<b>CREDIT</b>	<b>NAME</b>	<b>SITE</b>	<b>TERM</b>	<b>PRE-REQ</b>	<b>COMMENTS</b>
163.4AP	3	Advances in Radiation Therapy	CCMB	1	163.4AL, 163.4AO or permission of instructor	
062.322	3	Death in the Family	UoIM	1	062.114 or 211 or 017.120 or 077.120	
030.121	3	Nutrition and Health and Changing Lifestyles	UoIM	1 or 2		
068.346	3	Introduction to Health Care Administration and Management	UoIM	2		
068.245	3	Research Methods	UoIM	1		
<b>ELECTIVE: (3 credits) SAMPLE LIST ONLY!</b>						
015.274	3	Ethics in Biomedicine	UoIM		30 credits University	
016.322	3	Medical Physics and Physiological Measurement	UoIM		016.260 or 220 or consent of department	
077.249	3	Sociology of Health and Illness	UoIM		077.120	
049.261	3	Health and Physical Aspects of Aging	UoIM			
049.334	3	Providing Care in a Culturally Diverse Society	UoIM			
005.200	3	Basic Statistical Analysis II	UoIM		005.100	

**TOTAL CREDITS YEAR 4: 18**

**TOTAL CREDITS REQUIRED FOR BACHELOR OF ALLIED HEALTH - RADIATION THERAPY: 129**

**GRADUATES ELIGIBLE TO CHALLENGE CAMRT NATIONAL CERTIFICATION EXAMINATIONS**

September 30, 2002

**Report of the Senate Planning and Priorities Committee on the Proposal to introduce a Bachelor of Allied Health Science (Radiation Therapy)**

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**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 Faculty of Medicine, *in partnership* with Cancer Care Manitoba (CCM) proposes the creation of a 4-year *Bachelor* of Allied Health Science degree in Radiation Therapy. The degree is intended to be a fully integrated academic and clinical program that will prepare graduates for certification with the Canadian Association of Medical Radiological Technologists (CAMRT).
3. Radiation therapy provides for long-term control and palliation of malignant diseases. Nearly half of all cancer patients will require some treatment involving radiation. Therapists will work with oncologists and physicists to plan and administer treatments. Radiation therapists require a strong background in the sciences, strong technical skills and the personal attributes of understanding and patience with people.

**Observations**

1. As of 2005, the Canadian Association of Medical Radiological Technologists (CAMRT) will require students to have graduated with a degree in order to sit their national certificate examinations.
2. The rationale for the new program is compelled by (1) Manitoba's heavy reliance on its own graduates to fill positions in cancer centers; annually CCMB requires approximately 6 therapists to fill vacant positions; (2) CCMB's planned expansion and recruitment to offset attrition; (3) the Saskatchewan Cancer Agency's and Atlantic Health Sciences Corporation current strategies of purchasing spaces in the CCMB academic program.
3. The program uses a number of existing University of Manitoba Courses in the Faculties of Science, Arts and Human Ecology as well as 78 credit hours of new courses to be introduced. The program manager and coordinator will be involved in giving courses as will 5 other instructors covering subjects such as "radiation protection" and "radiation therapy imaging and apparatus". In addition to this, funding has been requested for 3 new positions: 1 Therapist position (CCMB), 0.5 Medical Physicist Position (CCMB) and 0.5 Associate Professor of Physics (UofM). In regard to credentials, Medical Physicists will teach Physics related courses and a Radiation Therapist will teach the Therapy related courses.
4. Space requirements have been considered and with the anticipated continued collaboration between CCMB and the University of Manitoba space available to the program is considered to be adequate.
5. Library resources are available at the Neil John McLean Health Sciences Library and the CCMB Oncology Library. Holdings are considered adequate with the infusion of \$640 in start-up costs and an additional ongoing expenditure of \$1200 in the Neil John McLean

Library.

6. Resources:

- a. costs for laboratory equipment will be absorbed by the Medical Physics and Radiation Therapy Departments of CCMB
- b. clinical teaching is incorporated in to the normal teaching activities of staff in the Medical Physics and Radiation Therapy Departments of CCMB.
- c. Tuition fee income that would accrue to the University of Manitoba will be on the order of \$25,000 per annum by 2006. These funds will be used to support sessional lecturers, lab instructors, supplemental supplies, library acquisitions and program development.
- d. Incremental resources required by the University of Manitoba would be \$25,000 to support a half position in Radiation Physics.

7. The proposal includes letters of support from CCMB and the Saskatchewan Cancer Agency as well as from Departments and faculties whose courses will be used in the program. Out-of-Province student tuition is proposed to be the same as MB students; agreement has been reached with the Saskatchewan Cancer Agency and Atlantic Health Science Corporation.

**Recommendations:**

SPPC recommends:

1. That Senate approve in principle the introduction of a Bachelor of Allied Health Science in Radiation Therapy.
2. The program not be authorized for implementation until the Vice-President (Academic) and Provost is satisfied there is a commitment of funding from COPSE in regard to adequate and long term funding that meets the degree requirements of the program.

Respectfully submitted,

Norman M. Halden, Chair  
Senate Planning and Priorities Committee

/jml

**Comments of the Senate Executive Committee:**

The Senate Executive Committee endorses the reports to Senate and recommends that Senate approve the program proposal for a Bachelor of Allied Health Science (Radiation Therapy), but that the program not be implemented until Vice-President (Academic) and Provost is satisfied that an appropriate affiliation agreement is in place between CancerCare Manitoba and the University of Manitoba.

/jml

## FACULTY OF ENVIRONMENT

**EXECUTIVE SUMMARY**

The Faculty of Environment intends to introduce the Bachelor of Environmental Science (B.Env.Sc.) and Bachelor of Environmental Studies (B.Env.St.). The nil-salaried appointees to the Faculty of Environment have approved these programs and degree regulations in principle and will ratify these once the Faculty Bylaws are approved by Senate.

General, Major and Honours programs will be available in both the Bachelor of Environmental Science and Bachelor of Environmental Studies. A Cooperative Option will also be available to students in the Major and Honours.

*Background*

Figures 1 to 4 and Tables 1 and 2 summarize the structure and content of the proposed degree programs in Environmental Science and Environmental Studies as well as the transfer of existing degree programs in Geological Sciences and Geography to the Faculty of Environment.

*Focus Area Defined*

Figures 3 and 4 outline the template and provide an example of an existing Focus Area available to current Environmental Science (ESP) students. The Focus Area is designed to be interdisciplinary in content with the course requirements utilizing undergraduate course offerings across campus. There are currently 7 Focus Areas available to ESP including Atmosphere and Air Quality, Biodiversity and Conservation, Water Resources, Environmental Stewardship, Environmental Health, Land Systems, and Native Studies.

The Focus Area template is based on a mandatory core of course work that is between 12 to 24 credit hours in content. Students then have an opportunity to complete one of the several modules available to them. Students can select courses from the module and can, through consultation, identify others that may be included in the module. All students must consult with an advisor to identify the appropriate combination of courses that satisfy the Focus Area content.

Each Focus Area is developed through *ad hoc* multidisciplinary sub-committees. For example, the Land Systems Focus Area included representatives from Soil Science, Geological Sciences and Environmental Science. The Faculty of Environment will follow this policy to identify contributors to the development of Focus Areas for the Environmental Studies degree programs.

*Bachelor of Environmental Science (B.Env.Sc.) and Bachelor of Environmental Studies (B.Env.St.) Degree Structure*

The new programs proposed for introduction in the Faculty of Environment are based on the popular Bachelor of Science in Environmental Science currently available through the Faculty of Science. While the B.Sc. will "grand-parent" students currently in the program, it will not accept new students as of September 2003.

It is useful to contrast the proposed Bachelor of Environmental Science (Major) and (Major Coop) with the B.Sc. in Environmental Science since there are very few changes proposed with the B.Env.Sc. introduction. These changes are summarized as follows:

#### ADDITIONS:

128.2XY Environmental Chemistry (3)L

3 credit hours added to the Focus Area requirement. This increases the requirement from 27 to 30 credit hours.

#### Major Coop

6 credit hours of mandatory courses.

128.2AA Professional Development in the Environmental Sectors 1 (1.5)

128.3AA Professional Development in the Environmental Sectors 2 (1.5)

128.3AB Work Term Report 1 (1.5)

128.3AC Work Term Report 2 (1.5)

128.4AA Work Term Report 3 (1.5) (optional)

128.3AB, 128.3AC and 128.4AA are not available to students outside the Coop Option and cannot be used for credit in the regular Major program. Students will be assessed a \$500.00 program registration fee with their application to join the Coop Option. These fees will pay for 128.398 and 128.399 registration. Once a student accepts an employment position with a Coop employer, this fee is non-refundable.

#### DELETION:

015.275 Ethics in the Environment (3)

060.223 Biogeochemistry (3)

128.499 Coop Work Term 4 (0)

There is sufficient overlap in the environmental ethics content of 128.200 and 015.275 to warrant the removal of the Philosophy course from the required curriculum.

128.2XY will be included in the degree requirements and 060.223 will be removed. 128.2XY will deal specifically with concepts and issues in an interdisciplinary approach and will have a laboratory requirement associated with it.

Students in the Cooperative Option will be required to complete two work terms (8 months in total). Students will be required to complete 6 credit hours of course work in addition to the placements.

#### MODIFICATIONS:

When contrasted to the existing B.Sc. in Environmental Science Major, the proposed Bachelor of Environmental Science Major and Major Coop will differ in the Focus Area structure and the academic performance requirements.

The current Focus Area requirements for the B.Sc. Major are defined as:

"Plus a focus area in a defined area of Environmental Science, approved by the director, consisting of 27 credit hours of 200 (or higher) level courses with a minimum of 12 credit hours at the 300 or 400 level."

This will be modified in the B.Env.Sc. as follows:

"Plus a Focus Area defined in consultation with the Associate Dean, Programs. Majors Focus Area requirements are as follows: 30 credit hours of 200 or higher level courses; 18 credit hours at the 300 or 400 level; 2.00 minimum cumulative grade point average on Focus Area courses."

The Major Coop will be modified to the following:

"Plus a Focus Area defined in consultation with the Associate Dean, Programs. Majors Focus Area requirements are as follows: 30 credit hours of 200 or higher level courses; 18 credit hours at the 300 or 400 level; 2.00 minimum cumulative grade point average on Focus Area courses."

NOTE: The Cooperative Education Option is typically a five-year program. Students are required to maintain a 2.50 cumulative Grade Point Average in the Major Coop Program."

Students in the B.Sc. in Environmental Science are required to maintain a 2.00 cumulative GPA. In the B.Env.Sc., students will be required to maintain a 2.00 cumulative GPA but in addition, attain this 2.00 on all courses defining the Focus Area. Minimum "C" grades will be required in 128.100, 128.200, 128.205, 128.38B, 128.315 and 128.4CC (referred to as the environmental core). Students in the B.Env.Sc. Major Coop will be required to attain a minimum 2.50 cumulative GPA.

#### *In summary*

There are no net changes in the number of credit hours defined in the regular Major program. Students in the Major Coop will be required to complete an additional 6 credit hours of professional development courses beyond the requirements of the regular program. The introduction of these Coop courses is meant to provide students greater professional development than is currently the situation with the Coop placements. Students will be required to participate in conferences, to assist in the development of workshops and community events and to gain greater proficiency in researching, interviewing and acquiring positions in the environmental sectors. Students will receive academic recognition for the report that is currently expected through a re-assignment of this requirement to a 1.5 credit hour course. This is warranted since students are expected to dedicate a significant amount of effort to the completion of the technical report. Academic performance is defined by minimum grade requirements in the Focus Area and the environmental core. Major Coop students must achieve a 2.50 cumulative GPA.

The Honours and General programs will differ only in the performance requirements and the number of credit hours required in the Focus Area. These changes are summarized as follows:

The General will require 9 credit hours of course work from the defined Focus Area mandatory core. Students will be required to attain a 2.00 cumulative GPA with minimum grades of "D".

The Honours program will require 39 credit hours of course work from a defined Focus Area defined in consultation with the Associate Dean, Program. Honours focus area requirements are as follows: 39 credit hours of 200 or higher level courses; 24 credit hours at the 300 or 400 level; 3.00 minimum cumulative grade point average on focus area courses. In addition, students will be required to maintain a 3.25 cumulative GPA and minimum grades of 128.100 (B), 128.200 (B), and "C+" in each of 128.205, 128.388, 128.315 and 128.4CC.

The Bachelor of Environmental Studies (B.Env.St.) programs (i.e., General, Major and Honours) are parallel in design with those offered in the B.Env.Sc. Both the structure and regulations for the two new degrees will mirror one another (Figure 2). The notable exception is found in the content of the "Studies" foundation which is based on course work from the Social Sciences/Humanities rather than the introductory Sciences.

#### *Workload and Expenses*

The Bachelor programs have been structured around existing courses currently available to undergraduate students. It is therefore anticipated that there will only be nominal increases in workload and expenses associated with the development of these programs. It is envisioned that with the introduction of 128.2XY there will be expenses associated with the laboratory portion of the course. These expenses will be shared with the Chemistry department.

There is an expected increase in workload associated with the Cooperative Education Option. 128.2AA is designed to be offered through webCT and will therefore require a budget for course development. The Faculty of Environment has budgeted \$6000 for this expense.

#### *On-going Issues*

There are two issues involving the new programs that are current under consideration:

**128.205 and "W" designation:** Faculty of Environment will be submitting a proposal to have the content of the course recognized for "W" designation. While it is not crucial to the programs to have this in place for September 2003, it is desirable to have the recognition of written content in the course.

**071.101 or 071.125:** The Faculty of Environment is negotiating with Botany and Zoology to modify the prerequisite for 001.228 (022.229) Introductory Ecology (3) from 071.125 to 071.101. If the substitution is not approved, the program will need to be modified to the combination of 071.125/001.228(022.229).



## 5.6 Bachelor of Environmental Science, Program Code: 128

UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
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**HONOURS<sup>1,2</sup> 120 CREDIT HOURS**

128.100, 128.200, 002.130, 002.131, 071.125 Plus 6 credit hours from 005.100, 005.200, 007.134 <sup>3</sup> , 016.102, 016.103 <sup>4</sup> , 136.150 <sup>5</sup> Plus 6 credit hours from the Faculty of Arts which may include the "W" course	128.205, 128.217, 001.237 (022.237 or 065.237), 128.255 (002.255), 018.239 (061.239) Plus the remaining courses from 005.100, 005.200, 007.134 <sup>3</sup> , 016.102, 016.103 <sup>4</sup> , 136.150 <sup>5</sup> not yet taken.	128.311, 128.315, 128.325, 128.411
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A "W" course must be taken in University 1 or  
Year 2

Plus a Focus Area defined in consultation with the Program Administrator. Honours Focus Area requirements are as follows: 39 credit hours of 200 or higher level courses of which 24 credit hours must be at the 300 or 400 level and include either 128.350 or 128.450; 3.00 minimum cumulative Grade Point Average and minimum "C+" grades on Focus Area courses.

**HONOURS COOPERATIVE OPTION<sup>1,2,6</sup> 120 CREDIT HOURS**

128.100, 128.200, 002.130, 002.131, 071.125 Plus 6 credit hours from 005.100, 005.200, 007.134 <sup>3</sup> , 016.102, 016.103 <sup>4</sup> , 136.150 <sup>5</sup> Plus 6 credit hours from the Faculty of Arts which may include the "W" course	128.205, 128.217, 001.237 (022.237 or 065.237), 128.255 (002.255), 018.239 (061.239), 128.290 Plus the remaining courses from 005.100, 005.200, 007.134 <sup>3</sup> , 016.102, 016.103 <sup>4</sup> , 136.150 <sup>5</sup> not yet taken.	128.311, 128.315, 128.325, 128.411, 128.390, 128.398, 128.391, 128.399, 128.392 (128.498 and 128.491 are optional)
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A "W" course must be taken in University 1 or  
Year 2

Plus a Focus Area defined in consultation with the Program Administrator. Honours Focus Area requirements are as follows: 39 credit hours of 200 or higher level courses of which 24 credit hours must be at the 300 or 400 level and include either 128.350 or 128.450; 3.00 minimum cumulative Grade Point Average and minimum "C+" grades.

NOTE: The Cooperative Education Option is typically a five-year program

**MAJOR<sup>1,2</sup> 120 CREDIT HOURS**

128.100, 128.200, 002.130, 002.131, 071.125 Plus 6 credit hours from 005.100, 005.200, 007.134 <sup>3</sup> , 016.102, 016.103 <sup>4</sup> , 136.150 <sup>5</sup> Plus 6 credit hours from the Faculty of Arts which may include the "W" course	128.205, 128.217, 001.237 (022.237 or 065.237), 128.255 (002.255), 018.239 (061.239) Plus the remaining courses from 005.100, 005.200, 007.134 <sup>3</sup> , 016.102, 016.103 <sup>4</sup> , 136.150 <sup>5</sup> not yet taken.	128.311, 128.315, 128.325, 128.411
--	--	------------------------------------

A "W" course must be taken in University 1 or  
Year 2

Plus a Focus Area defined in consultation with the Program Administrator. Major Focus Area requirements are as follows: 30 credit hours of 200 or higher level courses of which 18 credit hours must be at the 300 or 400 level; 2.00 minimum cumulative Grade Point Average.

**MAJOR COOPERATIVE OPTION<sup>1,2,6</sup> 120 CREDIT HOURS**

128.100, 128.200, 002.130, 002.131, 071.125 Plus 6 credit hours from 005.100, 005.200, 007.134 <sup>3</sup> , 016.102, 016.103 <sup>4</sup> , 136.150 <sup>5</sup> Plus 6 credit hours from the Faculty of Arts which may include the "W" course	128.205, 128.217, 001.237 (022.237 or 065.237), 128.255 (002.255), 018.239 (061.239), 128.290 Plus the remaining courses from 005.100, 005.200, 007.134 <sup>3</sup> , 016.102, 016.103 <sup>4</sup> , 136.150 <sup>5</sup> not yet taken.	128.311, 128.315, 128.325, 128.411, 128.390, 128.398, 128.391, 128.399, 128.392 (128.498 and 128.491 are optional)
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A "W" course must be taken in University 1 or  
Year 2

Plus a Focus Area defined in consultation with the Program Administrator. Major Focus Area requirements are as follows: 30 credit hours of 200 or higher level courses of which 18 credit hours must be at the 300 or 400 level; 2.00 minimum cumulative Grade Point Average.

NOTE: Students in the Major Coop are required to maintain an overall cumulative Grade Point Average of 2.50. The Cooperative Education Option is typically a five-year program.

**THREE YEAR GENERAL<sup>1,2</sup> 90 CREDIT HOURS**

128.100, 128.200, 002.130, 002.131, 071.125 Plus 6 credit hours from 005.100, 005.200, 007.134 <sup>3</sup> , 016.102, 016.103 <sup>4</sup> , 136.150 <sup>5</sup> Plus 6 credit hours from the Faculty of Arts which may include the "W" course	128.205, 128.217, 001.237 (022.237 or 065.237), 128.255 (002.255), 018.239 (061.239) Plus the remaining courses from 005.100, 005.200, 007.134 <sup>3</sup> , 016.102, 016.103 <sup>4</sup> , 136.150 <sup>5</sup> not yet taken.	128.311, 128.315, 128.325, 128.411
--	--	------------------------------------

A "W" course must be taken in University 1 or  
Year 2

Plus 9 credit hours from a selected Focus Area mandatory core approved by the Program Administrator.

**MINOR**

128.100, 128.200	Plus a minimum of 12 credit hours chosen from 200, 300 or 400 level courses. Note that 001.237 (022.237, or 065.237) is a prerequisite to 128.325. 071.125 (C) and 005.100 are the prerequisites to 001.237 (022.237 or 065.237). 001.228 (022.229) or 001.237 (022.237 or 065.237) is a prerequisite to 128.311.
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**NOTES:**

<sup>1</sup>entry into the degree programs is summarized in 5.3.1.

<sup>2</sup>the courses required in this program will satisfy the university mathematics requirement

<sup>3</sup>007.123 may be used in place of 007.134.

<sup>4</sup>016.105 and 016.107 may be used in lieu of 016.102 and 016.103.

<sup>5</sup>136.120, 136.130, 136.131, 136.151, 136.152, or 136.153 may be taken in place of 136.150.

<sup>6</sup>128.391, 128.392, and 128.491 can only be held for credit in the Major and Honours Cooperative Education Option degrees.

**IMPORTANT:** The Honours and Major programs need not be completed in the manner prescribed in the chart above. The chart indicates one possible arrangement of the required courses and is meant to be a guide around which students can plan their program.

**5.7 Bachelor of Environmental Studies, Program Code: 128**

UNIVERSITY 1	YEAR 2	YEAR 3	YEAR 4
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**HONOURS<sup>1,2</sup> 120 CREDIT HOURS**

128.100, 128.200, 053.128 and 053.129 (or 053.120), 032.122 and 032.124 (or 032.120) Plus 6 credit hours from 005.100, 007.144 <sup>3</sup> and 071.101 <sup>4</sup> Plus 6 credit hours chosen from the Social Science/Humanities list <sup>5</sup>	128.205, 053.262, 018.239 (061.239), 001.228 (022.229) <sup>4</sup> Plus the remaining courses from 005.100, 007.144 <sup>3</sup> and 071.101 <sup>4</sup> not yet taken Plus the remaining credit hours in the Social Science/Humanities list <sup>5</sup> not yet taken	128.311, 128.315, 128.411
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Plus a Focus Area defined in consultation with the Program Administrator. Honours Focus Area requirements are as follows: 39 credit hours of 200 or higher level courses of which 24 credit hours must be completed at the 300 or 400 level and include either 128.350 or 128.450; 3.00 minimum cumulative Grade Point Average and minimum "C+" grades.

**HONOURS COOPERATIVE OPTION<sup>1,2,6</sup> 120 CREDIT HOURS**

128.100, 128.200, 053.128 and 053.129 (or 053.120), 032.122 and 032.124 (or 032.120) Plus 6 credit hours from 005.100, 007.144 <sup>3</sup> and 071.101 <sup>4</sup> Plus 6 credit hours chosen from the Social Science/Humanities list <sup>5</sup>	128.205, 053.262, 018.239 (061.239), 001.228 (022.229) <sup>4</sup> , 128.290 Plus the remaining courses from 005.100, 007.144 <sup>3</sup> and 071.101 <sup>4</sup> not yet taken Plus the remaining credit hours in the Social Science/Humanities list <sup>5</sup> not yet taken	128.311, 128.315, 128.411, 128.390, 128.398, 128.391, 128.399, 128.392 (128.498 and 128.491 are optional)
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Plus a Focus Area defined in consultation with the Program Administrator. Honours Focus Area requirements are as follows: 39 credit hours of 200 or higher level courses of which 24 credit hours must be completed at the 300 or 400 level and include either 128.350 or 128.450; 3.00 minimum cumulative Grade Point Average and minimum "C+" grades.

**NOTE:** The Cooperative Education Option is typically a five-year program

**MAJOR<sup>1,2</sup> 120 CREDIT HOURS**

128.100, 128.200, 053.128 and 053.129 (or 053.120), 032.122 and 032.124 (or 032.120)      128.205, 053.262, 018.239 (061.239), 001.228 (022.229)<sup>4</sup>      128.311, 128.315, 128.411

Plus 6 credit hours from 005.100, 007.144<sup>3</sup> and 071.101<sup>4</sup>

Plus the remaining courses from 005.100, 007.144<sup>3</sup> and 071.101<sup>4</sup> not yet taken

Plus 6 credit hours chosen from the Social Science/Humanities list<sup>5</sup>

Plus the remaining credit hours in the Social Science/Humanities list<sup>5</sup> not yet taken

Plus a Focus Area defined in consultation with the Program Administrator. Majors Focus Area requirements are as follows: 30 credit hours of 200 or higher level courses of which 18 credit hours must be completed at the 300 or 400 level; 2.00 minimum cumulative Grade Point Average.

**MAJOR COOPERATIVE OPTION<sup>1,2,6</sup> 120 CREDIT HOURS**

128.100, 128.200, 053.128 and 053.129 (or 053.120), 032.122 and 032.124 (or 032.120)      128.205, 053.262, 018.239 (061.239), 001.228 (022.229)<sup>4</sup>, 128.290      128.311, 128.315, 128.411, 128.390, 128.398, 128.391, 128.399, 128.392

Plus 6 credit hours from 005.100, 007.144<sup>3</sup> and 071.101<sup>4</sup>

Plus the remaining courses from 005.100, 007.144<sup>3</sup> and 071.101<sup>4</sup> not yet taken

(128.498 and 128.491 are optional)

Plus 6 credit hours chosen from the Social Science/Humanities list<sup>5</sup>

Plus the remaining credit hours in the Social Science/Humanities list<sup>5</sup> not yet taken

Plus a Focus Area defined in consultation with the Program Administrator. Majors Focus Area requirements are as follows: 30 credit hours of 200 or higher level courses of which 18 credit hours must be completed at the 300 or 400 level; 2.00 minimum cumulative Grade Point Average.

**NOTE:** Students are required to maintain an overall cumulative Grade Point Average of 2.50 in the Major Coop Program. The Cooperative Education Option is typically a five-year program.

**THREE YEAR GENERAL<sup>1,2</sup> 90 CREDIT HOURS**

128.100, 128.200, 053.128 and 053.129 (or 053.120), 032.122 and 032.124 (or 032.120)      128.205, 053.262, 018.239 (061.239), 001.228 (022.229)<sup>4</sup>      128.311, 128.315, 128.411

Plus 6 credit hours from 005.100, 007.144<sup>3</sup> and 071.101<sup>4</sup>

Plus the remaining courses from 005.100, 007.144<sup>3</sup> and 071.101<sup>4</sup> not yet taken

Plus 6 credit hours chosen from the Social Science/Humanities list<sup>5</sup>

Plus the remaining credit hours in the Social Science / Humanities list<sup>5</sup> not yet taken

Plus 9 credit hours from a selected Focus Area mandatory core approved by the Program Administrator.

**MINOR**

128.100, 128.200

Plus a minimum of 12 credit hours chosen from 200, 300 or 400 level courses.

Note that 001.237 (022.237, or 065.237) is a prerequisite to 128.325. 071.125 (C) and 005.100 are the prerequisites to 001.237 (022.237 or 065.237).

001.228 (022.229) or 001.237 (022.237 or 065.237) is a prerequisite to 128.311.

071.125 (C) and 002.131 or 002.132 are prerequisites to 128.218 (01.218, 022.218 or 065.218) and 128.219 (001.219, 022.219 or 065.219).

**NOTES:**

<sup>1</sup>entry into the degree programs is summarized in 5.3.2.

<sup>2</sup>the courses required in this program will satisfy the university mathematics and written English requirements.

<sup>3</sup>or any alternate 3 credit hours of geology at the 100 level.

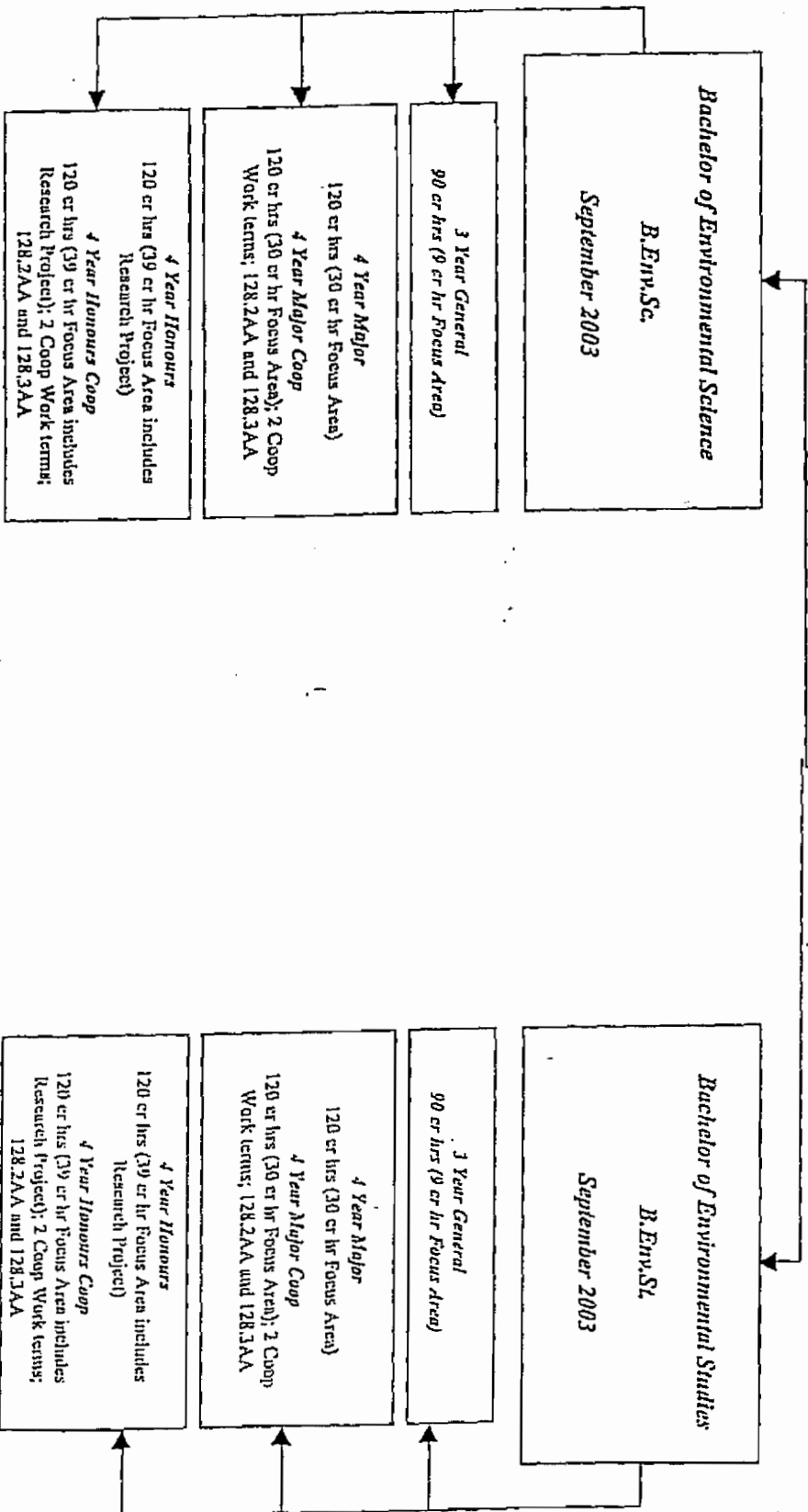
<sup>4</sup>students with an interest in the Conservation Focus Area are advised to complete both 071.125 and 001.237 (022.237 or 065.237) instead of 071.101 and 001.228 (022.229).

<sup>5</sup>to complete the degree requirements, students must complete 15 credit hours of Social Studies/Humanities courses chosen from 3 subject areas taken from the following: 076.120, 076.121, 076.122, 018.120, 018.121, 018.122, 3 or 6 credit hours in History courses numbered at the 100 or 200 level: 015.120, 015.129, 015.132, 015.133, 015.151, 019.150, 019.204, 019.206, 019.207W, 077.120, 156.153W, 156.154W.

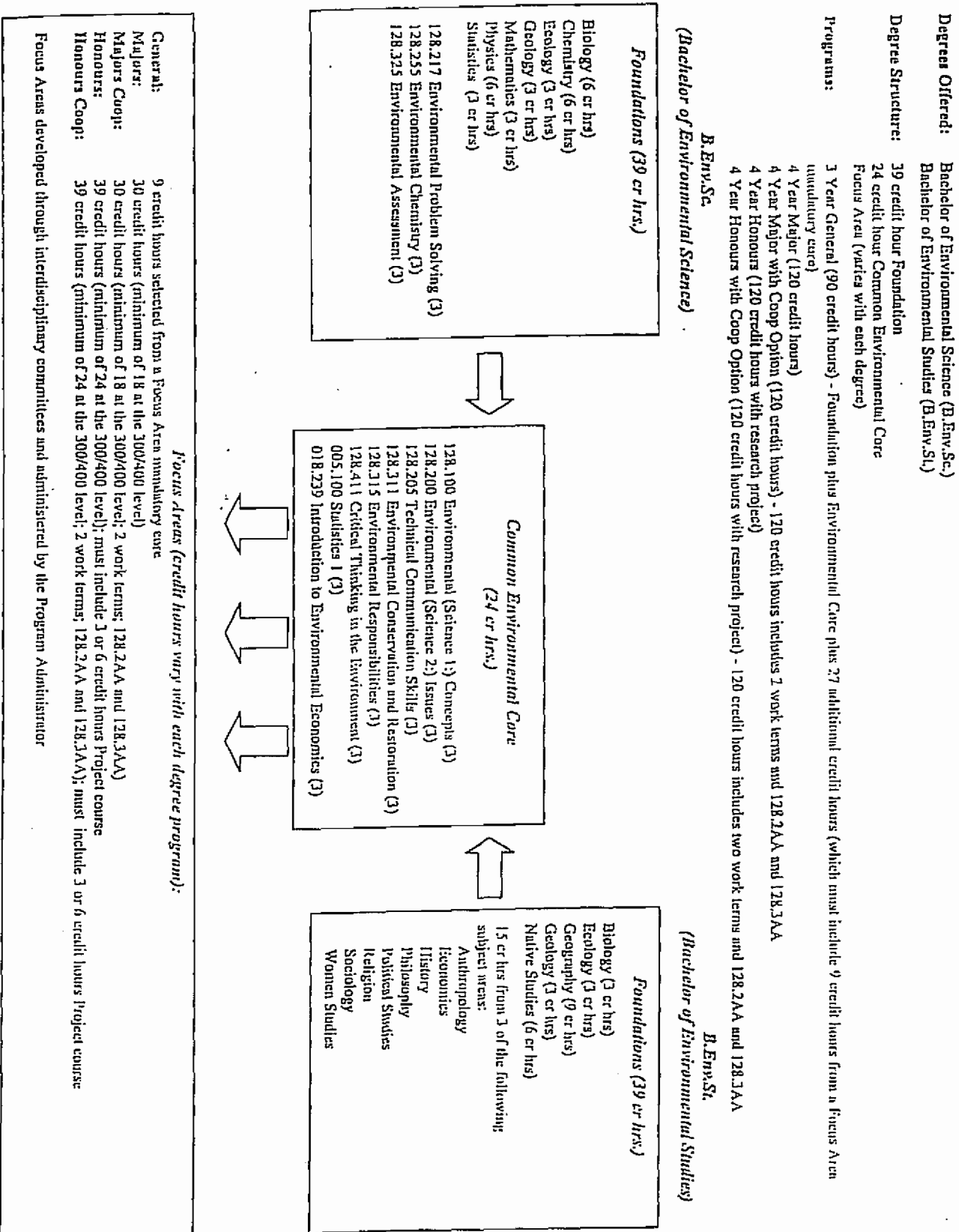
<sup>6</sup>128.391, 128.392 and 128.491 can only be held for credit in the Major and Honours Cooperative Education Option degrees.

**IMPORTANT:** The Honours and Major programs need not be completed in the manner prescribed in the chart above. The chart indicates one possible arrangement of the required courses and is meant to be a guide around which students can plan their program.

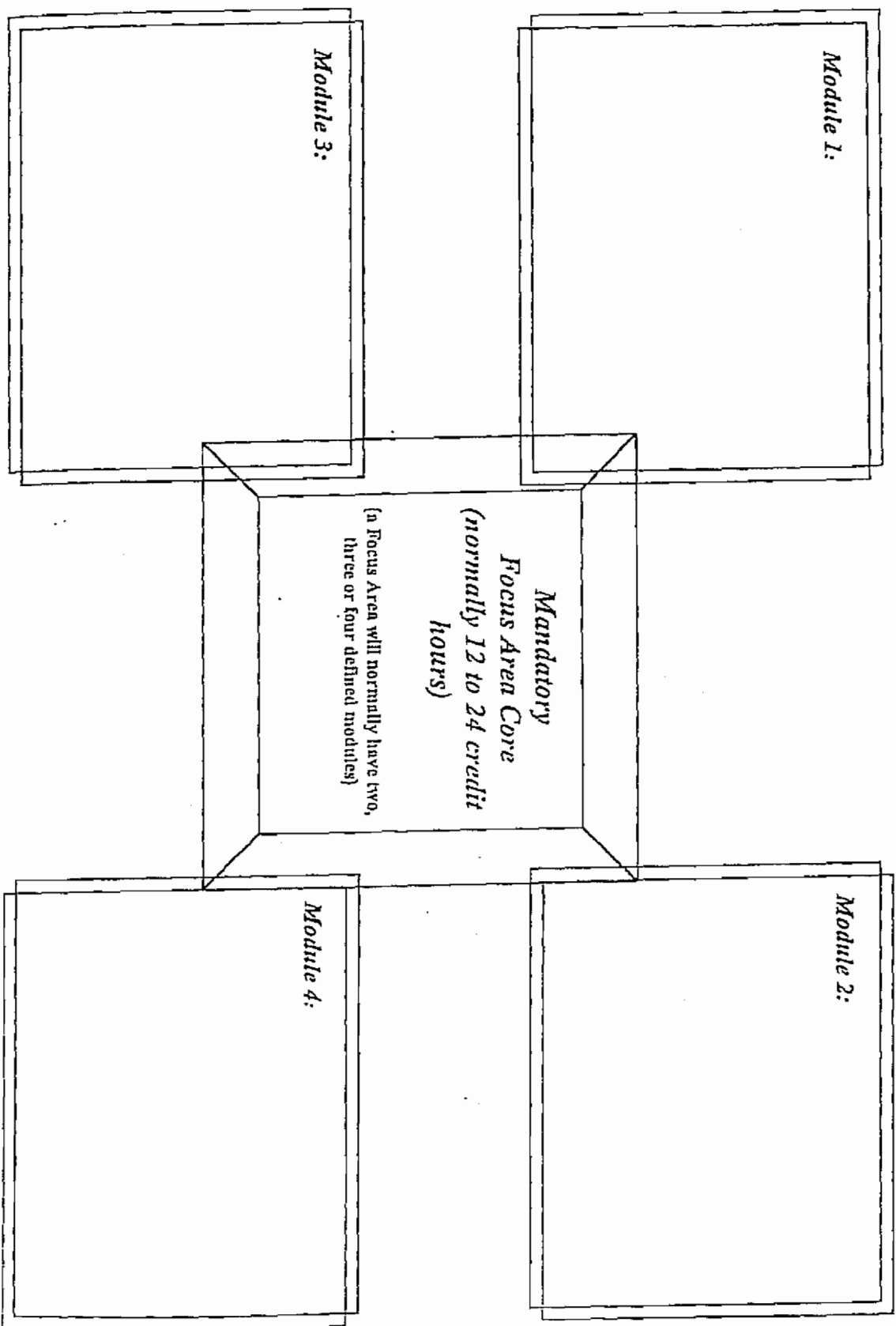
**Figure 1:**  
**Faculty of Environment**  
**New Degrees**



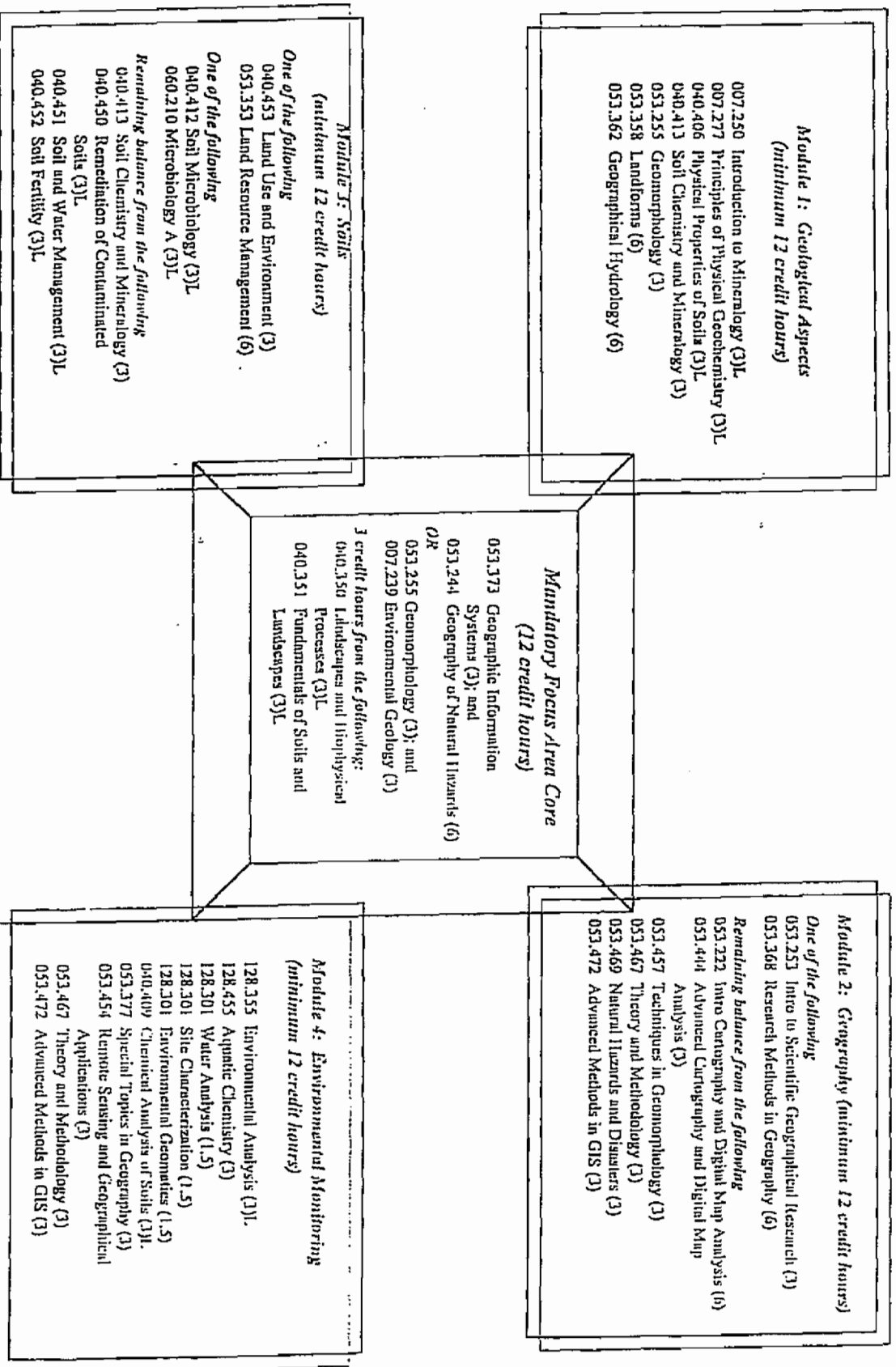
**Figure 2: New Undergraduate Degree Programs (September 2003)**



*Figure 3: Focus Area Template*



**Figure 4: EXAMPLE FOCUS AREA DESCRIPTION**  
**Land Systems Focus Area**  
**(mandatory core plus one module)**



## Faculty of Environment

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### SECTION 1: Environmental Education

### SECTION 2: Admission to the Faculty of Environment

#### 2.1 Degrees Offered

##### 2.1.1 Bachelor of Arts in Geography (B.A.)

###### **Bachelor of Arts (Advanced)**

Minimum time to graduation: Four years (University 1 plus three years). There is no time limit to complete the degree.

###### **Bachelor of Arts (Honours)**

Minimum time to graduation: Four years (University 1 plus three years). There is no time limit to complete the degree.

##### 2.1.2 Bachelor of Environmental Science (B.Env.Sc.)

###### **Bachelor of Environmental Science (General)**

Minimum time to graduation: Three years (University 1 plus two years). This degree is also called the "General" program. There is no time limit to complete the degree.

###### **Bachelor of Environmental Science (Major)**

Minimum time to graduation: Four years (University 1, plus three years). There is no time limit to complete the degree.

###### **Bachelor of Environmental Science (Major Coop)**

Minimum time to graduation: Four years (University 1, plus three years). There is no time limit to complete the degree. Participation in the Coop Option may extend the degree by an additional year.

###### **Bachelor of Environmental Science (Honours)**

Minimum time to graduation: Four years (University 1, plus three years). There is no time limit to complete the degree.

###### **Bachelor of Environmental Science (Honours Coop)**

Minimum time to graduation: Four years (University 1, plus three years). There is no time limit to complete the degree. Participation in the Coop Option may extend the degree by an additional year.

##### 2.1.3 Bachelor of Environmental Studies (B.Env.St.)

###### **Bachelor of Environmental Studies (General)**

Minimum time to graduation: Three years (University 1 plus two years). This degree is also called the "General" program. There is no time limit to complete the degree.

###### **Bachelor of Environmental Studies (Major)**

Minimum time to graduation: Four years (University 1, plus three years). There is no time limit to complete the degree.

###### **Bachelor of Environmental Studies (Major Coop)**

Minimum time to graduation: Four years (University 1, plus three years). There is no time limit to complete the degree. Participation in the Coop Option may extend the degree by an additional year.

###### **Bachelor of Environmental Studies (Honours)**

Minimum time to graduation: Four years (University 1, plus three years). There is no time limit to complete the degree.

###### **Bachelor of Environmental Studies (Honours Coop)**

Minimum time to graduation: Four years (University 1, plus three years). There is no time limit to complete the degree. Participation in the Coop Option may extend the degree by an additional year.

##### 2.1.4 Bachelor of Science in Geology (B.Sc.)

###### **Bachelor of Science (Major)**

Minimum time to graduation: Four years (University 1, plus three years).

###### **Bachelor of Science (Honours)**



Minimum time to graduation: Four years (University 1, plus three years).

### 2.1.5 Bachelor of Science in Geophysics (B.Sc.)

#### Bachelor of Science (Major)

Minimum time to graduation: Four years (University 1, plus three years).

#### Bachelor of Science (Honours)

Minimum time to graduation: Four years (University 1, plus three years).

## 2.2 Admission from University 1

Most students newly admitted from high school and those who have completed less than 24 credit hours at another post-secondary institution will complete the first year of their degree programs in University 1. In University 1 students will select courses from a wide variety of offerings in Arts, Science and other faculties including Environment. For information about University 1, see the chapter on University 1 in this *Calendar*.

University 1 students are encouraged to apply for admission to a degree program in the Faculty of Environment once they have completed 24 credit hours of course work and have met the minimum entrance requirements of their intended degree program. Students must apply to be considered eligible for admission. Application information is available from the Admissions Office, Enrolment Services, 424 University Centre. This information is also available in the Faculty of Environment general office and is posted on the University's website.

Faculty admission is determined on the basis of a cumulative Grade Point Average of 2.00 on a minimum of 24 credit hours of course work from a recognized institution. Degree programs may define additional entrance requirements and students should refer to the appropriate section in this *Chapter* for further details as follows:

- Students seeking admission to the degree programs in Geography should refer to section 4: Bachelor of Arts in Geography: B.A. Degree Regulations and Program Descriptions.
- Students seeking admission to the degree programs in Environmental Science and Environmental Studies should refer to section 5: Bachelor of Environmental Science and Bachelor of Environmental Studies: B.Env.Sc. and B.Env.St. Degree Regulations and Program Descriptions.
- Students seeking admission to the degree programs in Geology and Geophysics should refer to Section 6: Bachelor of Science in Geology and Geophysics: B.Sc. Degree Regulations and Program Descriptions.

## 2.3 Transfer Students

Students applying for admission from a recognized university or college are called 'external transfers'. For the University of Manitoba's general policy on external transfer students and advance standing, see the chapter on Admission to the University of Manitoba in this *Calendar*.

To be eligible for admission to the Faculty of Environment, external transfer students must have completed no fewer than 24 hours of university level coursework and satisfied the minimum performance requirements of the intended degree program. External transfer students who have completed less than 24 credit hours must register in University 1 or the Continuing Education Division to complete required credit hours of course work. Students with more than 24 credit hours who are not admissible to the Faculty of Environment should consider applying to one of the Faculties of Arts or Science or the Continuing Education Division as their second choice.

Students must apply to be considered eligible for admission. Application information is available from the Admissions Office, Enrolment Services, 424 University Centre. This information is also available in the Faculty of Environment general office and is posted on the University's website.

Students on academic suspension as a result of work completed at another post-secondary institution will not normally be considered for admission to the University of Manitoba until the suspension has been served.

### Transfer of Credit

*Internal:* Refer to the General Academic Regulations and Policy, Transfer of Credit in this *Calendar* for further information.

*External:* See Admissions section of the *Calendar*. Courses completed at an external institution ten years prior to registration in the Faculty of Environment are not considered for transfer credit. Students should contact a student advisor or the appropriate Program Administrator regarding transfer credit policies. All courses transferred will bear the grade and course classification of "TX" (transfer).

## 2.4 Visiting Students

Visiting students may apply for admission to the Faculty of Environment on the basis of a Letter of Permission from the registrant or appropriate dean of his/her home institution. Certain restrictions may be placed on the kind and number of courses in which they will be allowed to register. Refer to section 2.4 in this *Chapter* for additional information.

## 2.5 Second Degree Students

Students possessing a first degree from a recognized university program are eligible for admission as a Second Degree student provided they attained a minimum cumulative Grade Point Average of 2.00.

Second Degree requirements may be shortened by up to 60 credit hours and once admitted, students will be expected to satisfy all continuation and graduation requirements in the degree program. Second Degree students are not required to satisfy the written English and mathematics requirement.

Refer to section 2.3 in this *Chapter* for additional information.

## 2.6 Special Students

A Special Student is someone who is not a regular student proceeding towards a degree and is permitted by the Associate Dean, Programs, of the Faculty of Environment to take courses out of interest.

### After Degree Special Student

Students who have successfully completed a first degree from a recognized university program with a cumulative Grade Point Average of 2.00 or better are eligible for admission as Special Students. Refer to section 2.3 in this *Chapter* for additional information.

### Undergraduate Special Student

Undergraduate students in the Faculty of Environment may take extra courses as Special Students (course classification "SS") but these courses do not count towards the degree nor in the determination of the Grade Point Average. The marks will appear on the student's history and courses taken as a Special Student will count in the student's sessional load. Students may change their course classification from that of a "Regular Student" to a "Special Student" (and vice versa) only until the end of the registration revision period. Courses classified as "special" do not have to be courses that are acceptable for credit in the Faculty of Environment, however, registration in such courses cannot be authorized without the written permission of the department and faculty offering the course. Students registering in "SS" courses must register for those courses after the initial access period.

## 2.7 Auditing Students

Students who wish to audit courses must have written permission from the instructor of the desired course before they can register. Auditing students must register in person in the Faculty of Environment general office. The Faculty of Environment prohibits auditors from registering in courses until after the initial access period.

## SECTION 3: Degree Regulations Applicable to all Programs in the Faculty of Environment

The Faculty of Environment offers degree programs in Environmental Science, Environmental Studies, Geography, Geology and Geophysics. Refer to section 2: Degrees Offered. All students are advised to examine their interests and future goals carefully to make appropriate program choices. Consultation with advising representatives in these degree programs is encouraged.

### Reminder

It is the student's responsibility to ensure that degree requirements are met. Faculty student advisors and Program Administrators are available to clarify faculty and university regulations and degree requirements. A final and thorough program check is done after students have registered for their final year or course. The Faculty of Environment is not responsible for those students who do not satisfy degree requirements.

The provision of the chapter, General Academic Regulations and Requirements, and the chapter, University Policies in this *Calendar*, apply to all students. In addition, the Faculty of Environment has regulations and requirements, published below that apply specifically to its students.

### 3.1 University Written English and Mathematics Requirement

Students are required to complete the University written English and Mathematics requirements as outlined in the Chapter, General Academic Regulations and Requirements of this *Calendar*. The list of courses which satisfy the written English and Mathematics requirements appears in Appendix A of that chapter. Course numbers of designated written English courses are marked with a "W" and designated mathematics courses are marked with an "M".

### 3.2 Changes in Program Requirements

Once students have successfully completed any portion of a degree program, they will not be required to meet new course requirements subsequently stipulated for that portion of the program, whether the requirements be for the faculty or for an individual Bachelor program.

### 3.3 Prerequisite, Corequisite, Recommended Courses and Course Availability: Definitions

**Prerequisite:** If a course is prerequisite to a second course, the prerequisite must be met in order to continue in the second course. The department giving the second course may require a minimum grade of "C" in the first course to register in the second course.

**Corequisite:** If a first course is a corequisite to a second course, the first course (unless previously completed) must be taken concurrently with the second course.

**Recommended:** If a course is strongly recommended relative to other courses in a program, a student is advised to take it. The final decision as to whether or not to take the course rests with the student. Students are advised to consult with their Program Administrator or an academic representative for guidance.

**NOTES:** Students who are allowed to enrol in courses or programs provisionally pending satisfactory completion of pre- or corequisites must, if unsuccessful, withdraw or amend their registration accordingly within the stipulated course revision deadline. Those students who do not may be withdrawn automatically and may relinquish the opportunity to add appropriate courses.

Any prerequisite or corequisite may be waived with written consent of the instructor and Program Administrator.

**Course Availability:** All courses listed in this Calendar are not offered every year. The course(s) offered for the current academic session are published in the Registration Guide and at the University website ([www.umanitoba.ca](http://www.umanitoba.ca)).

### 3.4 Repeated Courses and Attempted Credit Hours

Faculty of Environment students are subject to the University of Manitoba General Academic Regulations and Policy. Repeating a Course in this *Calendar*. Each grade received for a repeated course will appear on the transcript and will be included in the calculation of the Grade Point Average.

There is no limit in the number of credit hours permitted in the degree programs in the Faculty of Environment provided a student does not exceed the credit hour limit of failed and/or repeated courses. Students are referred to the specific regulations of their program in section 4, 5 or 6 for further information.

### 3.5 Voluntary Withdrawals

Faculty of Environment students are limited to 30 credit hours of voluntary withdrawals (VW's) (i.e., courses dropped after the normal registration revision period) in their degree program. When the maximum VW limit is reached, students may decrease their VW count by 6 credit hours for every subsequent 30 credit hours successfully completed after consultation with the student advisor or Program Administrator.

The responsibility for initiating VW's rests solely with the student. When eligible to do so, voluntary withdrawals must be done through UMREG, otherwise they must be authorized first by the Faculty of Environment general office and then through Student Records. No VW's are permitted after the deadlines posted in the Academic Schedule.

### 3.6 Authorized Withdrawals

Authorized withdrawals (AW's) from courses after the registration revision period in each term may be granted on the basis of medical and compassionate grounds. A medical certificate signed by a physician or other appropriate professional must document medical grounds. Compassionate reasons may include unavoidable financial hardships and family or personal circumstances supported by appropriate documentation. AW's do not count toward the 30 credit hour voluntary withdrawal limit nor are they recorded on the official transcripts. Students requesting AW's must contact the Faculty of Environment general office.

### 3.7 Residence Requirements

There are two ways a student can fulfill the minimum requirement of credit hours taken from the University of Manitoba; by taking at least 48 credit hours at the University of Manitoba; or by taking at least the final 24 credit hours at the University of Manitoba. The courses used to satisfy the residence requirement must be acceptable for credit in the Faculty of Environment.

### 3.8 Letter of Permission to Take Courses at Another University

Students wishing to complete courses at another institution for credit at this university must obtain a Letter of Permission from the Student Records Office prior to registering at that other institution; see the Chapter, General Academic Regulations and Policy in this *Calendar*. The Letter of Permission will not be given to a student on probation or academic suspension. Grades earned in courses at other universities are included in the determination of minimum performance level, contribute to the overall credit hour requirement and are included in the calculation of the cumulative Grade Point Average. These courses, however, are not considered in determining academic awards. These courses will bear the grade and course classification of "TX" (transfer).

Students in an Honours degree program must receive permission from their Program Administrator prior to written permission from Student Records.

Students who attend other post-secondary institutions without a Letter of Permission must reapply for admission to the Faculty of Environment before the application deadline and be academically eligible for admission. The penalty for unauthorized or undisclosed attendance may be disciplinary withdrawal or academic suspension.

### 3.9 Dean's Honour List and Graduating with Distinction or First Class Honours

#### Dean's Honour List

A student's eligibility for the Dean's Honour List designation is evaluated after the April examination series each year.

To qualify for the Dean's Honour List, a student must complete a minimum of 12 credit hours in a four-month academic term, 24 credit hours in an eight-month academic term, and achieve a sessional or cumulative Grade Point Average as specified by the degree program. Where the degree program specifies a number of credit hours in an academic term in excess of this, the assessment for Dean's Honour List shall be based on completion of at least 80 per cent of the workload. The Dean's Honour List designation will appear on the student's transcript of marks.

### **With Distinction**

To obtain a Degree with Distinction, a student must achieve a minimum cumulative Grade Point Average as specified by the degree program on his/her last 60 credit hours of course work. All academic sessions will be considered in descending chronological order. When the last 60 credit hours are found in a session containing more hours than are needed, the best grades from that session will be used for the calculation. The term "Degree with Distinction" will appear both on the parchment and on the student's transcript of marks.

### **First Class Honours**

To graduate with First Class Honours, a student must complete at least 24 credit hours in each eight-month academic term and achieve the cumulative Grade Point Average as specified by the program, on all courses constituting his/her last two academic years of the Honours degree. For programs that specify in excess of 24 credit hours, a student must complete a minimum of 80 per cent of the workload. The term "First Class Honours" will appear both on the parchment and on the student's transcript of marks.

### **3.10 Probation and Academic Suspension**

A student in a degree program in the Faculty of Environment will be placed on probation if, at the point of assessment following the *April examination period*, he/she fails to achieve the required minimum performance level. The notation "On Probation" will be recorded on the student's transcript of marks.

While on probation, students are permitted to register in a maximum of 30 credit hours in the proceeding Summer and Regular sessions to attain the minimum performance requirements. Those who fail to meet this standard will be placed on academic suspension for one calendar year. The notation, "Academic Suspension for One Year," will be recorded on the student's transcript of marks. A student placed on academic suspension is not allowed to register in the Faculty of Environment during the term of the suspension.

A student will be placed on academic suspension for two calendar years if:

- upon return from one year suspension, he/she fails to clear probation at the next assessment following the *April examination period*; or
- it is mathematically impossible for him/her to clear probation by the following assessment period.

The notation, "Academic Suspension for Two Years," will be recorded on the student's transcript of marks.

Those serving two-year suspensions are required to start the degree afresh should they choose to return to the Faculty of Environment. Students may appeal for transfer credit of up to 30 credit hours in courses in which a minimum grade of "C" was achieved.

Students should consult with a student advisor or their Program Administrator for further assistance in clearing their probation or suspension.

### **3.11 Academic Dishonesty**

Academic dishonesty is intentional cheating, fabrication, impersonation, or plagiarism. It is also knowingly helping or attempting to help others to be dishonest. Academic dishonesty lowers scholastic quality and defrauds others who will eventually depend on their own knowledge and integrity.

Plagiarism or any other form of cheating on examinations, term tests, or assignments is subject to academic penalty as serious as suspension or expulsion from the faculty or university.

Students who are unsure of what constitutes academic dishonesty should refer to the regulations in General Academic Regulations and Policy, Plagiarism and Cheating in this *Calendar* and consult with a faculty member.

### **3.12 Termwork and Debarment**

A student is responsible for the completion of laboratory work, assignments, tests and other class work as prescribed by the course syllabus. A student who does not meet termwork requirements to the satisfaction of the Associate Dean, Programs, will receive a warning to this effect from the Faculty of Environment. If this warning is ignored, a student may be debarred from the course. Any student debarred from a course receives an automatic grade of "F" in that course.

### **3.13 Deferred Examinations**

A student who is unable to write a final examination because of illness or other disability or compassionate reasons must file an application in the Faculty of Environment general office for a deferred examination. The application must be filed within seven days of the last examination that the student is scheduled to write in that series. Appropriate documentation must be provided that verifies that the incapacity existing at the time the examination was to be written.

A deferred examination is offered in a manner prescribed by the department or program concerned. This is normally written within 30 working days of the last examination in that series.

Students requesting deferred examinations on the grounds that the examinations conflict with vacation or holiday plans shall not be granted deferrals.

A deferred examination is not normally granted to a student who has written the final examination.

### 3.14 Challenge for Credit

Any student wishing to challenge a course for credit should contact the Faculty of Environment general office.

### 3.15 Appeals Involving Academic Regulations

The Committee on Student Standing in the Faculty of Environment considers appeals from students who request special consideration with respect to the rules and regulations governing their degree programs of study and qualifications for graduation.

Appeals should be addressed to: The Secretary, Committee on Student Standing, General Office, Faculty of Environment.

### 3.16 Incidental Fees

Incidental fees are assessed for some courses. This information is available in the Faculty of Environment general office.

## SECTION 5: Bachelor of Environmental Science and Environmental Studies: B.Env.Sc. and B.Env.St. Degree Regulations and Program Descriptions

Program Director: Norman R. Hunter  
 Program Administrator: Leslie Goodman, M.Sc.  
 Program Office: 231 Machray Hall  
 Telephone: 204 474-9897  
 Website: [www.umanitoba.ca/faculties/environment/](http://www.umanitoba.ca/faculties/environment/)  
 E-mail: [goodmanl@cc.umanitoba.ca](mailto:goodmanl@cc.umanitoba.ca)

### 5.1 Academic Staff

#### Professors

Hunter, N.R., B.Sc., M.Sc. (Carleton), Ph.D. (New Brunswick); Robinson, G.G.C., B.Sc. (Hons.) (St. Andrew's), Ph.D. (UBC).

#### Associate Professor

Goldsborough, L.G., B.Sc. (Hons.), Ph.D. (Manitoba).

#### Assistant Professors

McLachlan, S.M., B.Sc. (Hons.) (McMaster), M.Sc. (Guelph), Ph.D. (York); Wang, F., B.Sc. (Wuhan), Ph.D. (Peking).

#### Instructor

Hunter, K., B.Sc., M.Sc. (Manitoba) (Instructor II)

### 5.2 Program Information

The Faculty of Environment offers General, Major, and Honours degree programs leading a Bachelor of Environmental Science (B.Env.Sc.) and Bachelor of Environmental Studies (B.Env.St.). Through an interdisciplinary approach, environmental issues relating to human population, sustainable resource development, pollution and conservation, environmental health, and endangerment and preservation of species are explored in conjunction with alternative conditions that have the potential to reverse current trends and contribute to ecological sustainability. Students have access to undergraduate courses offered by Faculties of Agricultural and Food Sciences, Arts, Environment, Law and Science in order to complete their education. They are expected to take many courses outside the Faculty of Environment, enabling them to obtain a truly interdisciplinary education.

The Major and Honours degree programs serve students who desire advanced study in an environmental field. The programs are intended for students interested in professional training and the opportunity for advanced research. Honours programs demand higher academic performance and lead most directly to graduate study. Students who are ineligible to enter Honours in their third year may establish this in the following year on the basis of their improved scholastic performance. See the Program Administrator for information. The degree programs may be pursued on a full or part-time basis.

The degree programs share a general structure that includes a foundation of 39 credit hours of introductory Sciences or Social Sciences/Humanities. The Bachelor of Environmental Science foundation includes 002.130, 002.131, 005.200, 001.237 (022.237 or 065.237), 016.102 (or 016.105), 016.103 (or 016.107), 071.125, 007.134 (or 007.123), 128.217, 128.255, 128.325, and 136.150M (or 136.120, 136.130, 136.151, 136.152, 136.153). The Bachelor of Environmental Studies foundation consists of 053.128 and 053.129 (or 053.120), 053.262, 032.122W and 032.124 (or 032.120W), 071.101 (or 071.125), 001.228 (022.229) (or 001.237, 022.237 or 065.237), 3 credit hours of 100 level Geology, and 15 credit hours of 100 and 200 level courses from 3 subject areas including Anthropology, Economics, History, Philosophy, Political Studies, Sociology, and Women's Studies. Students must complete an environmental core of 24 credit hours that is common to both degrees. The environmental core includes 005.100M, 018.239 (061.239), 128.100, 128.200, 128.205, 128.311, 128.315 and 128.411. Students must complete a Focus Area that is defined through

consultation with the Program Administrator. Students completing the General are required to complete 9 credit hours; Major and Major Coop students complete 30 credit hours; and Honours and Honours Coop students complete 39 credit hours. Other Focus Area requirements are defined in the graduation requirements in section 5.4.1 in this *Chapter*.

### General

To qualify for the degree Bachelor of Environmental Science (General) or Bachelor of Environmental Studies (General), students must complete 90 credit hours including all course requirements in the foundation, environmental core and Focus Area (9 credit hour). Minimum performance requirements include passing grades ("D" or better) in each course and a minimum cumulative Grade Point Average of 2.00 on the 90 credit hours which constitute the degree. There is no limit to the number of credit hours a student completes provided he/she does not exceed 48 credit hours of failed and/or repeated courses.

### Major

To qualify for the degree Bachelor of Environmental Science (Major) or Bachelor of Environmental Studies (Major), a student must complete 120 credit hours with a minimum cumulative grade point average of 2.00 on the courses which constitutes the degree. Students must complete all course requirements in the foundation, environmental core (with minimum "C" grades in 128.100, 128.200, 128.205, 128.311, 128.315, and 128.411) and Focus Area. Focus Area requirements are as follows: 30 credit hours of which 18 credit hours must be completed at the 300 or 400 level; 2.00 cumulative Grade Point Average. Major (Coop) students must attain a minimum overall cumulative Grade Point Average of 2.50 and complete 6 credit hours of coop related courses. There is no limit to the number of credit hours a student completes provided he/she does not exceed 18 credit hours of failed and/or repeated courses.

### Honours

To qualify for the degree Bachelor of Environmental Science (Honours) or Bachelor of Environmental Studies (Honours), a student must complete 120 credit hours with a minimum cumulative grade point average of 3.25 on the courses which constitutes the degree. Students must complete all course requirements in the foundation, environmental core (with minimum "C+" grades in 128.100, 128.200, 128.205, 128.311, 128.315, and 128.411) and Focus Area. Focus Area requirements are as follows: 39 credit hours of which 24 credit hours must be completed at the 300 or 400 level and must include either 128.350 or 128.450; 3.00 cumulative Grade Point Average and minimum "C+" grades. Honours (Coop) students must complete 6 credit hours of coop related courses. There is no limit to the number of credit hours a student completes provided he/she does not exceed 18 credit hours of failed and/or repeated courses.

Students graduating with a Bachelor of Environmental Studies (B.Env.St.) are required to complete 15 credit hours of 100 and 200 level Social Science/Humanities courses from 3 subject areas including Anthropology, Economics, History, Philosophy, Political Studies, Sociology, and Women's Studies.

#### 5.2.1 Cooperative Education Option

A Cooperative Education Option is available to students registered in either the Major or Honours degree programs in Environmental Science or Environmental Studies. Coop is an arrangement whereby students spend alternating periods in university and employment. There are several advantages to a cooperative education program for students. One benefit is that students are able to acquire both theoretical knowledge and practical experience. This experience assists them in selecting areas of specialization for their senior courses in their chosen Focus Area. As well, Coop assists students in their professional development by enhancing networking opportunities, participation in conferences and workshops and provides the foundation of skills and strategies required in searching and acquiring employment after graduation. Students can also defray some of the costs of their university education through these work term placements. Further information about Cooperative Education and student eligibility is available from the Program Administrator.

Students electing to participate in the Cooperative Option will be assessed a one time program fee of \$500.00 with their formal application for admission to the Cooperative Option. The program fee covers the registration in 128.398, 128.399, and 128.498. Once a student has accepted a position with a Coop employer, no portion of the program fee will normally be refunded.

The Cooperative Option consists of a total of two employment work terms totaling eight months and six credit hours of mandatory course work. An optional third work term and work term report is available to interested students. Each academic term and each employment term commence in January, May or September. The employment term must provide a minimum of 420 hours of employment. While on an employment term, a Cooperative Option student is not permitted to take more than six additional credit hours of academic work, and may not take more than one additional course at a time.

Students must register in the appropriate 1.5 credit hour Work Term Report concurrently with the employment placement. This is outlined as follows:

<i>Placement Course</i>	<i>Corequisite Report Course</i>
128.398 Coop Work Term 1 (0)	128.391 Coop Work Term Report 1 (1.5)
128.399 Coop Work Term 2 (0)	128.392 Coop Work Term Report 2 (1.5)
<i>optional</i>	
128.498 Coop Work Term 3 (0)	128.491 Coop Work Term Report 3 (1.5)

Students are required to register in the appropriate Coop courses and pay course fees prior to beginning their placement.

### 5.3 Entrance Requirements for the B.Env.Sc. and B.Env.St. Degree Programs

Students admitted from University 1 are placed in the Major program in either the Bachelor of Environmental Science or Bachelor of Environmental Studies until they have completed a minimum of 48 credit hours after which they can transfer to the General or Honours; or remain in the Major. External transfer students, Second Degree students and those from the Environmental Science

Program may be eligible for direct entry into the General or Honours programs. These students should consult with the Program Administrator and/or student advisor.

5.3.1 and 5.3.2 define the entry requirements for the Honours and Honours (Coop), Major and Major (Coop) and General in the Bachelor of Environmental Science and Bachelor of Environmental Studies.

<b>5.3.1 Bachelor of Environmental Science (B.Env.Sc.) Entry Requirements</b>			
Degree Program in Environmental Science	Minimum Number of Credit Hours	Minimum Cumulative Grade Point Average	Additional Entrance Requirements
Honours	48	3.25	No failures on entry; a grade of "B" or better in 128.100 and 128.200 as well as a minimum "C+" in 071.125 or 002.131 and "C" in the other course.
Honours (Coop) <sup>1</sup>	60	3.25	128.290; students must satisfy the requirements for entry/continuation into the regular Honours program and (normally) have completed 128.100, 128.200, 128.205, 128.217, 128.255 (002.255), 005.100M, 005.200, 001.237 (022.237 or 065.237), 018.239 (061.239), and 071.125.
Major	24	2.00	12 credit hours in 128.100, 128.200, 071.125, 002.130, 002.131, 005.100M, 005.200, 136.150M (or 136.120, 136.130, 136.151, 136.152, 136.153), 007.134 (or 007.123), 016.102 (or 016.105), 016.103 (or 016.107), with a grade of "C+" or better in six of the 12 credit hours, and a grade of "C" or better in the remaining six credit hours.
Major (Coop) <sup>1</sup>	60	2.50	128.290; students must satisfy the requirements for continuation in the regular Major program and (normally) have completed 128.100, 128.200, 128.205, 128.217, 128.255 (002.255), 005.100M, 005.200, 001.237 (022.237 or 065.237), 018.239 (061.239), and 071.125.
General	48	2.00	

<sup>1</sup>Students may be permitted to enter the program without satisfying all requirements listed. Students should consult with the Program Administrator for further information.

<b>5.3.2 Bachelor of Environmental Studies (B.Env.St.) Entry Requirements</b>			
Degree Program in Environmental Studies	Minimum Number of Credit Hours	Minimum Cumulative Grade Point Average	Additional Entrance Requirements
Honours	48	3.25	No failures on entry; a grade of "B" or better in 128.100 and 128.200; and 12 credit hours from 053.128 and 053.129 (or 053.120), 032.122W and 032.124 (or 032.120W) with a grade of "C+" or better in 6 of the 12 credit hours, and a grade of "C" or better in the remaining 6 credit hours.
Honours (Coop) <sup>1</sup>	60	3.25	128.290; students must satisfy the requirements for entry/continuation into the regular Honours program and (normally) have completed 128.100, 128.200, 128.205, 053.128 and 053.129 (or 053.120), 032.122W and 032.124 (or 032.120W), 018.239 (061.239), 005.100M, one of 001.228 (022.229) or 001.237 (022.237 or 065.237), and one of 071.101 or 071.125.
Major	24	2.00	12 credit hours taken from 128.100, 128.200, 071.101 (or 071.125), 005.100M, and/or 100 and 200 level courses in Geography, Native Studies, Anthropology, Economics, History, Philosophy, Political Studies, Sociology, Women's Studies with a grade of "C+" or better in six of the 12 credit hours, and a grade of "C" or better in the remaining six credit hours.
Major (Coop) <sup>1</sup>	60	2.50	128.290; students must satisfy the requirements for continuation in the regular program and (normally) have completed 128.100, 128.200, 128.205, 053.128 and 053.129 (or 053.120); 032.122W and 032.124 (or 032.120W), 018.239 (061.239), 005.100M, one of 001.228 (022.229) or 001.237 (022.237 or 065.237), and one of 071.101 or 071.125.
General	48	2.00	

<sup>1</sup>Students may be permitted to enter the program without satisfying all requirements listed. Students should consult with the Program Administrator for further information.

### 5.3.3 Students Admitted in the Environmental Science Program (ESP) Prior to September 2003

Students admitted to the Environmental Science Program (ESP) prior to September 2003 are invited to transfer to the Bachelor of Environmental Science (B.Env.Sc.) or Bachelor of Environmental Studies (B.Env.St.) to complete their undergraduate program. Those students who transfer to the Faculty of Environment will have their admission fees waived for the 2003-2004 and 2004-2005 academic years. Students should consult with the Program Administrator to determine their eligibility for admission to the Honours or Honours (Coop) programs. Note: Transferring students are required to adopt the current academic regulations and degree requirements of the B.Env.Sc. or B.Env.St.

Students may elect to complete the remainder of their B.Sc. in Environmental Science (Major) and (Major Coop) degrees. These students will be required to follow the academic and degree regulations established by the Faculty of Science when they were admitted to the Environmental Science Program. Students completing the Major program will be required to complete their degree requirements by April, 2007 and those completing the Major (Coop) by April, 2008. Students who do not satisfy the degree requirements by these dates will be required to consult with a Faculty of Science student advisor before registering in another academic session.

### 5.3.4 Entry from the National Environmental Education and Training (NEET) Program

Graduates from the National Environmental Education and Training (NEET) Program, with an average of "C+" or better, may enter the Bachelor of Environmental Science Major or Bachelor of Environmental Studies Major program. NEET graduates with 60 credit hours of transfer credit will be exempt from completing 128.100, 128.200, 128.311, 128.325, 128.411, 001.237 (022.237 or 065.237), 018.239 (061.239), 6 credit hours of 100 level Native Studies, and 21 credit hours of the Native Studies Focus Area. Students intending to complete other Focus Areas must consult with the Program Administrator.

## 5.4 Minimum Performance Requirements for Continuation in, and Graduation from, the Degree Programs in the Bachelor of Environmental Science and Bachelor of Environmental Studies

A student's academic performance will be assessed with his/her application for admission to the Faculty of Environment and following each *April examination series* thereafter. The Program Administrator must approve a student's registration each Regular and Summer session. Any revisions in this schedule should also be approved prior to the end of the registration revision period.

To be in "good standing" and permitted to continue in a degree program, a student must achieve the minimum standards outlined in 5.4.1 at each point of assessment. This assessment is based on the student's minimum cumulative Grade Point Average; the grades received in each of 128.100, 128.200, 128.205, 128.311, 128.315 and 128.411; and the number of failures and/or repeated courses after admission to the Faculty of Environment.

### 5.4.1 Minimum Performance Requirements for the B.Env.Sc. and B.Env.St. Degree Programs

Degree Program (Credit Hours)	Minimum Performance Requirements			Graduation Requirements <sup>1</sup>	
	Minimum Cumulative Grade Point Average (GPA)	Maximum Credit Hours of Failures/Repeated Courses	Minimum Grade Requirements in 128.100, 200, 205, 311, 315 and 411	Focus Area (200 Level or Higher)	Coop Option Courses
General (90)	2.00	48		•9 credit hours from the mandatory core of a selected Focus Area	
Major (120)	2.00	18	"C"	•30 credit hours of which 18 must be at the 300 or 400 level; •minimum cumulative GPA of 2.00.	
Major (Coop) (120)	2.50	18			128.290, 390, 391, 398, 392, 399; (128.491 and 498 are optional)
Honours (120)	3.25	18	128.100 (B) 128.200 (B); "C+" grades in others	•39 credit hours of which 24 must be at the 300 or 400 level; •completion of 128.350 or 128.450; •minimum cumulative GPA of 3.00; •"C+" minimum grade in each course.	
Honours (Coop) (120)	3.25	18			128.290, 390, 391, 398, 392, 399; (128.491 and 498 are optional)



<sup>1</sup>Students in the B.Env.St. must complete 15 credit hours of 100 and 200 level courses from 3 subject areas including Anthropology, Economics, History, Philosophy, Political Studies, Sociology and Women's Studies.

To graduate from either a Bachelor Environmental Science or Bachelor of Environmental Studies with the intended degree designation, a student must achieve the minimum standards and graduation requirements outlined in 5.4.1 following the final year *April examination series* and satisfy all degree course requirements in the foundation, environmental core and Focus Area as defined in section 5.2 of this *Chapter*.

Students who do not meet these minimum performance requirements for continuation or graduation will be withdrawn from their existing degree program and placed in the appropriate program based on their performance and eligibility. Students who do not meet the minimum performance requirements for the General will be placed on probation or academic suspension as defined in section 3.10 Probation and Academic Suspension in this *Chapter*.

Students withdrawn from the Honours or Honours (Coop) as the result of an excessive number of failures and/or repeated courses will have the notation, "Required to Withdraw from the Honours Program," recorded on their transcript of marks.

### **5.5 Dean's Honour List and Graduating with Distinction or First Class Honours**

Students enrolled in a minimum of 24 credit hours of course work during the Regular term and achieve a cumulative Grade Point Average of 3.50 or higher will be placed on the **Dean's Honour List**.

To obtain a **Degree with Distinction** a student must achieve a minimum cumulative Grade Point Average of 3.50 on the last 60 credit hours in the degree program.

To graduate with **First Class Honours** a student must achieve a cumulative Grade Point Average of 3.50 on a minimum of 48 credit hours of courses complete in the last two years in the degree program.

Refer to section 3.9 in this *Chapter* for additional information.

November 6, 2002

**Report of the Senate Committee on Curriculum and Course Changes on Program Proposals from the Faculty of Environment**

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**Preamble**

1. The terms of reference for the Senate Committee on Curriculum and Course Changes (SCCCC) are found in section 8.21 of the *Senate Handbook*. SCCCC is "to recommend to Senate on the introduction, modification or abolition of undergraduate programs, curricula or courses".
2. The Committee considered a proposal from the Faculty of Environment for a Bachelor of Environmental Science and a Bachelor of Environmental Studies Programs.

**Observations**

1. Senate approved the creation of the Faculty of Environment in principle in December, 2001. In addition, Senate transferred all courses, programs, degrees and diplomas offered by the Departments of Geography, Geological Science, the Natural Resources Institute and the Environmental Science Program of the Faculty of Science to the new Faculty. The Committee, after consultation, interprets Senate's decision of support in principle to be similar to the in principle support for the inclusion of support staff on Senate. Senate approved the concept and then charged Committees and units to propose ways to make the principle happen. The Committee regards these program proposals in that way.
2. The Faculty is proposing the introduction of two new degree designations: a Bachelor of Environmental Science (B. Env.Sc.) and a Bachelor of Environmental Studies (B.Env.St.). General (90 credit hours), Major (120 credit hours) and Honours (120 credit hours) programs are being proposed for each degree. As well, a Cooperative Option will be available to students in the Major and Honours Programs. A minor (18 credit hours) will also be offered in both the Bachelor of Environmental Science and the Bachelor of Environmental Studies program.
3. Each program will consist of a 39 credit hour Foundation, a 24 credit hour Common Environmental Core and a Focus Area (credit hours vary with each degree). Current Focus Areas are Atmosphere and Air Quality, Biodiversity and Conservation, Water Resources, Environmental Stewardship, Environmental Health, Land Systems, and Native Studies.
4. The Bachelor of Environmental Science and Bachelor of Environmental Studies degrees are patterned after the successful program currently operated by the Faculty of Science's Environmental Science Program. The notable difference between the degrees is that the content foundation of the "Studies" degree is based on course work from the Social Sciences/Humanities rather than the basic Sciences.
5. While the B.Sc. students currently enrolled in the program will be "grand-parented", no new students will be accepted in the Environmental Science Program in the Faculty of Science as of September 2003.

6. Upon approval from Senate and the Board of Governors, both degree programs will have to be approved by COPSE.
7. All Environmental Science Courses and Geological Science Courses in the Faculty of Science (Departmental prefix 128 and 007 respectively) along with all Geography courses (Departmental prefix 053) in the Faculty of Arts are transferred to the Faculty of Environment beginning with the 2003-04 (04R) Academic Year.
8. Along with the degree program submission, 5 new courses are being proposed to facilitate cooperative education options for students in the Environmental Science and Environmental Studies programs.
9. A number of new courses in the Environmental Science Program were proposed by the Faculty of Science in the Fall of 2002. All of these newly introduced courses will also be transferred to the Faculty of Environment.
10. The Faculty of Environment is proposing General Academic Regulations, which the Committee reviewed along with their program submissions. The regulations are, in essence, a blending of existing regulations in the Faculties of Arts and Science.

#### Recommendations

1. That Senate approve and recommend that the Board of Governors approve the Introduction of a Bachelor of Environmental Science (B.Env.Sc.) degree and a Bachelor of Environmental Studies (B.Env.St.) degree, and the related course changes as presented.
2. That Senate approve the General Academic Regulations for the Faculty of Environment.

Respectfully submitted,

Professor B.L. Dronzek, Chair  
Senate Committee on Curriculum and Course Changes

/jml

Course to be deleted:

128.499      Coop Work Term 4      -0

Courses to be introduced:

128.2AA      Professional Development in the Environment Sectors 1      +1.5

Through self directed learning students are introduced to the environmental sectors and issues including workplace health and safety, the respectful workplace, managing workloads and expectations, and professionalism. The course is a mandatory requirement to cooperative Education Option admission. *Prerequisite:* 128.205.

128.3AA      Professional Development in the Environment Sectors 2      +1.5  
Attendance and participation in seminars, conferences and workshops to foster greater interaction between students and practitioners in the environmental sectors. Students improve professional skill sets through assignments and mock interviews. The normal sequence for participation is after completion of 128.398. Prerequisites: 128.290; minimum of 60 hours of university credit.

128.3AB      Coop Work Term Report 1      +1.5  
Work term report completed in conjunction with the coop placement designed to integrate professional experiences with the concepts and theories explored through academic study. Students must be admitted to the Coop program to be registered, and receive credit in 128.3AB. *Pre-requisite: 128.2AA. Co-requisite: 128.398.*

128.3AC      Coop Work Term Report 2      +1.5  
Work term report completed in conjunction with the coop placement designed to integrate professional experiences with the concepts and theories explored through academic study. Students must be admitted into the Coop program to be registered, and receive credit in 128.3AC. *Pre-requisite: 128.398. Co-requisites: 128.399 and 128.3AA.*

128.4AA      Coop Work Term Report 3      +1.5  
Work term report completed in conjunction with the coop placement designed to integrate professional experiences with the concepts and theories explored through academic study. Students must be admitted into the Coop program to be registered, and receive credit in 128.4AA. *Pre-requisite: 128.399. Co-requisite: 128.3AA.*

Courses to be modified:

128.398      Coop Work Term 1 (0)  
Work assignments in business, industry, research or government for students registered in the Honours or Major Cooperative Program. Students must be registered in 128.3AB concurrently. *Pre-requisite: 128.2AA; Co-requisite: 128.3AB.*

128.399      Coop Work Term 2 (0)  
Work assignments in business, industry, research or government for students registered in the Honours or Major Cooperative Program. Students must be registered in 128.3AC concurrently. *Pre-requisite: 128.398; Co-requisite: 128.3AA and 128.3AC.*

**NET CHANGE IN CREDIT HOURS:      +7.5**

**Report of the Senate Planning and Priorities Committee on the Proposal from the Faculty of Environment to Introduce a Bachelor of Environmental Science and a Bachelor of Environmental Studies.**

**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 new degrees and proposed academic programs.
2. Embedded within Senate's recommendation (December 5, 2001) to create a new Faculty dealing with Earth, Environment, Sustainable Development and Resources was the requirement that the new Faculty coordinate program development in these general areas. As a first step in the process the new Faculty Council has approved the creation of a Bachelor of Environmental Science and a Bachelor of Environmental Studies.

**Observations:**

- 1) The structure of the degree program Bachelor of Environmental Science (Major) is based on that of the existing Bachelor of Science (Environmental Science) program in the Faculty of Science, with some small enhancements. This degree program has 39 credit hours of **Foundation** courses, 24 credit hours of **Common Environmental Core** courses and 30 credit hours of courses from modules within **Environmental Focus** areas, of which a minimum of 18 credit hours must be at the 300/400 level. The enhancements are 30 credit hours in the focus area (in place of 27 in the B.Sc.) and somewhat increased performance requirements for continuing in the program.
- 2) The degree program Bachelor of Environmental Studies (Major) is a new program, but its structure and regulations are exactly parallel to the Bachelor of Environmental Science (Major), except that in the Studies program, the foundation courses are drawn mainly from the Social Sciences and Humanities rather than introductory Science.
- 3) Multidisciplinary subcommittees develop focus areas, which are subsequently discussed and approved by the Faculty Council. The modular structure within focus areas is intended to be flexible and responsive to student needs. In addition, it is anticipated that program design and management can also respond quickly to new or changing emphases within the Environmental domain.

- 4) There are currently 7 focus areas within the Environmental Science Program (ESP): Atmosphere and Air Quality, Biodiversity and Conservation, Water resources, Environmental Stewardship, Environmental Health, Land Systems and Native Studies. Environmental Education, which will include social and cultural issues, is under development. New focus areas, especially for the new Environmental Studies program, will be developed according to interests of members of the new Faculty, interested faculty in other Faculties of the University and student demand.
- 5) The modular program structure reflects a greater demand for Environmental Science and Studies graduates who have taken programs with a clearly identifiable core of environmental courses and effective integrated skill set in some specialized area.
- 6) The proposal also includes the establishment of Honours and General programs in both the Bachelor of Environmental Science and the Bachelor of Environmental Studies. The Honours program differs from the Major only in the number of credit hours, 39 (as compared to 30) in the focus area and in higher performance requirements. The General program has a requirement of only a minimum of 9 credit hours in the focus area and lower performance requirements.
- 7) In addition, as in the B.Sc. (Environmental Science) program, the Bachelor of Environmental Science and the Bachelor of Environmental Studies programs have a Co-op option, Honours or Major. These differ from the regular, non-co-op versions by the fact that they are normally 5-year programs, and they require an additional 6 credit hours of professional development courses, related to the work terms, beyond the requirements of the regular programs.
- 8) 10.5 credit hours of courses, Environmental Chemistry, Co-op Work Term reports, and Professional Development, are being added at this time and 6 credit hours are being removed from the program. The resources for these courses are already in place, since they parallel what is already done in the existing ESP and its Co-op option.
- 9) The new programs have, initially, no additional resource requirements, since they are built entirely from existing courses in the ESP and other courses in Arts, Science, and other Faculties.
- 10) A library statement related to the professional development and work term courses is included stating that these have no impact on Library resources.

- 11) Students currently registered in the existing B.Sc. in Environmental Science will be given the option of completing the ESP according to current requirements in the Faculty of Science program, or may choose to transfer to one of the new programs and will then have to meet the requirements of that program. No new students will be admitted into the Bachelor of Science (Environmental Science) program as of September 2003.
- 12) It was noted that the proposal seeks to introduce a Bachelor of Environmental Studies degree (letters designate as: B. Env. St.). A number of faculty in the Faculty of Architecture have in the past received Bachelor of Environmental Studies (B.E.S.) degrees from the University of Manitoba. Some concerns were expressed regarding the potential for confusion, possibly in the professional environment. This matter has been discussed with the Deans of the Faculties involved and the respective communities will be informed and kept abreast of this change.

**Recommendation:**

That Senate approve and recommend that the Board of Governors approve the proposal by the Faculty of Environment to introduce a Bachelor of Environmental Science and a Bachelor of Environmental Studies program.

Respectfully submitted,

Norman Halden, Chair  
Senate Planning and Priorities Committee

/jml

**Comments of the Senate Executive Committee:**

The Senate Executive Committee endorses the report to Senate and observes that the outstanding issue regarding the use of 071.101 as the prerequisite course for 001.228 (022.229) has been resolved. The departments of Botany and Zoology have agreed to allow 071.101 to serve as the prerequisite course for 001.228 (022.229) for students in the Environmental Studies Program only.

/jml



## Diploma in Labour Relations and Workplace Studies FORMAL PROPOSAL

### 1.0 DIPLOMA DESCRIPTION

#### 1.1 Program title

Diploma in Labour Relations and Workplace Studies

#### 1.2 Program proposed

Diploma

##### 1.2.1 Rational for level of credential

Prior to 1998 – 99 the Continuing Education Division delivered The University Labour Certificate Program, which responded to the educational needs of organized labour in Manitoba. This credential was phased out because it was not possible to recruit enough students each year to maintain its viability as a separate program. Closing the program created a gap in labour and workplace studies for individuals seeking a comprehensive, university-based program but unable to complete a full undergraduate degree (i.e., mature, working individuals without the time and/or resources to complete a three-year undergraduate degree).

The Labour Studies Committee, a community advisory group to the Labour and Workplace Studies Program, Faculty of Arts, believes the diploma is an appropriate replacement for The University Labour Certificate. The diploma is designed to cover the minimum content in a format that allows working people to complete a comprehensive, university-based program. Because the diploma uses existing degree credit courses, it is not necessary to recruit annually enough students to recover development and delivery costs.

This design may not be as targeted to the educational needs of the intended audience as the more applied nondegree certificate. However, this should not stand in the way of offering a comprehensive program that promises to be a cost effective option to meeting the educational needs of its audience.

#### 1.3 Links to the Continuing Education Division's mission and strategic plan

The proposed program increases access to the educational resources of the University by designing a comprehensive program in a field of study currently accessible only to students completing an undergraduate degree.

This program is one of several collaborations in which the Continuing Education Division is working with academic units to develop credentials that complement units' degree credit programs. The Division utilizes its expertise in lifelong learning and nondegree credential development to support academic units that express an interest in alternative, workplace related programs.

In this case, the Division is working with Labour and Workplace Studies and its community-based advisory group, the Labour Studies Committee, to package existing courses into a comprehensive university-based program that offers learning opportunities for working people qualified to enter General Studies and able to access off campus evening courses.

Therefore, the proposed diploma is most closely related to Strategic Priority 2: "Develop new and innovative programs and learning opportunities to expand the range of learners served and to meet their

changing needs"; and Strategic Priority 3: "to provide a vital link between the University's resources and programming expertise and the needs of the external community".

#### 1.4 Purpose of the program

The Diploma in Labour Relations and Workplace Studies is designed to give interested private and public sector employees, labour union members and officials, employers, and industrial relations practitioners a broad, basic education at the post-secondary level in labour relations and related workplace studies. Because the diploma is constructed from existing courses (see 1.6) for the major in Labour and Workplace Studies, it develops this new option without creating new courses and the concomitant challenge of having sufficient registrations to fill new courses.

#### 1.5 Program objectives

The program objectives are:

- Provide the intended audience, labour representatives and industrial relations practitioners, the necessary understanding and skills to conduct better labour and industrial relations.
- Through the use of off-campus evening delivery and General Studies admission make a comprehensive diploma in labour relations and workplace studies available to working people who cannot commit to the required full-time or part-time studies for a three-year undergraduate degree.

#### 1.6 Program overview

The program is composed of 30 credit hours of instruction in existing courses for the three-year undergraduate degree in Labour and Workplace Studies offered in a five-year cycle through Off Campus Study. Students may complete the program in less than five years through regular and summer sessions. All courses are required.

Course.	Credits
153.127 Introduction to the Political Economy of Labour*	3
153.128 Introduction to Labour Institutions and Problems*	3
018.242 Economics of the Labour Process and Labour Relations	6
018.351 Industrial Relations	6
011/153.370 History of Working People and Labour Movements	6
153.301 Labour Law, or	
153.313 Employment Legislation and the Protection of Workers	3
153.307 Labour Relations and Occupational Health and Safety Law or	3
153.306 Workplace Health and Safety	

\* *Introduction to the Political Economy of Labour (153.127)* and *Introduction to Labour Institutions and Problems (153.128)* are prerequisites to all other courses in the program and must be completed as the first two courses with a minimum grade of C in each. Upon successful completion of these two prerequisites, students may complete the other courses in any order they choose, subject to availability.

#### 1.7 Academic unit within the Division proposing this program

Management, Professional and Community Programs

**1.7.1 Other academic units within the University that are partners to this proposal**  
Labour and Workplace Studies Program, Faculty of Arts, The University of Manitoba

**1.7.2 Describe the roles, responsibilities, and expectations of these partners in the development and delivery of the proposed program**

The Continuing Education Division in collaboration with Labour and Workplace Studies is responsible for the program. In consultation with Labour and Workplace Studies, Off Campus Study will develop a program plan, including a five year schedule that tells students when all courses will be offered over a five year period.

Labour and Workplace Studies is responsible for offering the courses in accordance with The University of Manitoba policies and procedures, assigning instructors, and conducting course evaluations. In consultation with the Labour Studies Committee, the two units will monitor program quality and market to the intended audience. In accordance with University policy and Senate approval, the partners may recommend modifications to the program description, objectives, courses content, and delivery methods.

Letters supporting this diploma from the department and Labour and Workplace Studies program are attached as Appendix A

**1.7.3 Program Developer(s) submitting the program proposal**  
Dr. Howard. S. Davidson, Program Director, Continuing Education Division.

## **2.0 NEEDS ASSESSMENT – INTENDED AUDIENCE**

**2.1 Assessment or consultation process undertaken to identify educational needs, the intended audience, and potential supports for, and obstacles to, participation in the proposed program**

The assessment/consultation process used here is a variation on the “market test” (Sork, 2001, pp. 110 – 111). In this case the program developer worked with faculty of an academic unit that has an excellent appreciation of the educational needs and market demand for the field of practice. The faculty members identified the educational needs, intended audience, and potential supports for and barriers to participation. The program developer generated the program design and delivery method based on this advice. No further consultation process was used.

The market test is the minimal needs assessment process required to insure program quality consistent with the credential. Similar approaches are recommended for nondegree programming when educational needs and intended audiences are well known. When the program developer and academic advisor have reasons to believe the market is limited and may not return investment on extensive development costs (See 1.2.1), the market test is an appropriate assessment method. It gives students the opportunity to validate program quality and applicability by voting with their registrations and course evaluations. Sork recommends the program developer conduct an evaluation with learners after a number of them have completed all or most of the courses in order to evaluate their perceptions of how well the program design is meeting their educational needs (Sork, 2001, p. 111).

**2.2. Intended audience and the likely educational level of the typical entering learner**

The intended audience includes private and public sector employees, labour union members and officials, employers, and industrial relations practitioners who would benefit from a broad, basic, university-based

education in labour relations and workplace studies. This audience is primarily labour union members and other working people, although it may include some undergraduate students with an interest in labour relations. Educational levels will vary but meet the University's mature student requirements.

#### **2.2.1 Location of intended audience**

The intended audience is local. The program may be marketed regionally but nothing is planned currently to make the program accessible to markets outside Winnipeg.

#### **2.2.2 Approximate size of intended audience and how the size was determined**

It is difficult to estimate the size of the potential audience. Evidence that the market may be quite small is derived from the Continuing Education Division's experience with The University Labour Certificate. Between 1990 and 1997 the average number of students in a course for that certificate was 22. That program was phased out because it became impossible to recruit enough new students every year to maintain its viability. Key informants in the field of labour studies have expressed interest in a program to replace the previous certificate, but the Division has no reason to believe market demand increased.

Since this is a new program and the degree credit courses cannot be offered as frequently as courses were offered in the University Labour Certificate program, anticipated registration is estimated for the first three years at 50% of the actual average course registration in the Certificate from 1990 to 1997 (i.e.,  $22 \times .50 = 11$ ).

### **2.3 Specific and varied educational needs of the intended audience**

The community of students we expect to reach are seeking a combination of practical and academic skills. They need to acquire a broad understanding of the economic, historical, social, and political context within which labour relations has developed, and to explore as well the contemporary policy, legal, and regulatory framework that defines the field.

The program offers a very different approach than the skill-based courses offered by a number of labour unions to their stewards and sometimes to their active members. Unlike these, which provide only practical tools, this program is firmly grounded in economic, social, and other aspects of labour relations that illuminate the interests, pressures, and influences on the state, employers, unions, and workers, and provide students with conceptual as well as practical skills.

The proposed courses are the compulsory core courses of the Labour and Workplace Studies three-year degree program and cover more or less the same topics as in the previous certificate program. They are designed to combine the broad understanding mentioned above with the practical knowledge required of industrial relations specialists (e.g., knowledge of applicable labour law, health and safety regulations, etc.).

### **2.4 Potential obstacles to participation the intended audience may face**

The major obstacle will be delivery. Ideally, the audiences' needs are met with flexible study formats giving them options for self-directed and/or independent study, courses offered in the evening or on weekends, and courses delivered at learners' worksites or organizations (e.g., unions). The Off Campus Study evening courses will alleviate the time/place obstacle. A second barrier to participation would be tuition fees. The Labour Studies Committee will work with large employee organizations (e.g., Manitoba Federation of Labour) to develop tuition subsidies and scholarships.

## 2.5 Ongoing or limited offerings

The program is intended to be ongoing.

## 3.0 DESIGN AND DELIVERY

### 3.1 Program structure

This description includes course titles and credits, prerequisites and progression, and course descriptions.

#### 3.1.1 Course titles and credits

The program is composed of 30 credit hours of instruction. All courses are required.

Course	Credits
153.127 Introduction to the Political Economy of Labour	3
153.128 Introduction to Labour Institutions and Problems	3
018.242 Economics of the Labour Process and Labour Relations	6
018.351 Industrial Relations	6
011/153.370 History of Working People and Labour Movements	6
153.301 Labour Law, or	
153.313 Employment Legislation and the Protection of Workers	3
153.307 Labour Relations and Occupational Health and Safety Law or	3
153.306 Workplace Health and Safety	

#### 3.1.2 Course prerequisites and progression

*Introduction to the Political Economy of Labour (153.127)* and *Introduction to Labour Institutions and Problems (153.128)* are prerequisites to all other courses in the program and must be completed as the first two courses with a minimum grade of C. Upon successful completion of these two prerequisites, students may complete the other courses in any order they choose, subject to availability.

Each course will be offered through Off Campus Study once every five years. The Program Director will develop and publish in the calendar and promotional material this Plan Ahead Schedule. This five-year cycle ensures that the full program is available to the intended audience. However, the five-year cycle creates difficulties. For example, the two courses that must be taken first, *Introduction to the Political Economy of Labour (153.127)* and *Introduction to Labour Institutions and Problems (153.128)*, will be offered once every five years through Off Campus Study. To reduce the barrier this creates for entry to the program, students will have opportunities to complete these two courses during Summer Session and regular session. If demand warrants, these courses may be offered in compressed format sections. Moreover, some courses will be offered through summer and regular sessions to enable students to complete the program in less than five years.

#### 3.1.3 Course descriptions<sup>1</sup>

153.127 *Introduction to the Political Economy of Labour* (3) Labour, production, economic and social reproduction in various economic systems.

<sup>1</sup> Since no new courses are being added, and no courses are being modified or reactivated, the proposal does not include Senate's Course Change Forms.

*153.128 Introduction to Labour Institutions and Problems* (3) An introduction to the development and structure of the Canadian union movement and to contemporary problems in the workplace.

*018.242 Economics of the Labour Process and Labour Relations* (6) Theoretical approaches to the labour process, the formation and reproduction of the labour force, the structure of the labour market, labour institutions and the economy. Applications to Canadian and alternative economic systems. Prerequisite: 018.120, or both 018.121 and 018.122, or both 153.127 and 153.128.

*018.351 Industrial Relations* (6) A study of comparative employer-employee relationships in Canada and other selected countries as affected by market forces, social traditions, and government action. Prerequisite: one of the following: 018.120; 018.121 and 018.122; 153.127 and 153.128.

*11/153.370 History of Working People and Labour Movements 1700 to the Present* (6) A survey of working class history with emphasis upon the varieties of labour movements and trade unions. The course will refer to the social and political experience of working people in Great Britain, Europe and the United States and will devote one term to Canadian topics. Prerequisite: six credit hours of history or labour and workplace studies or written consent of department head.

*153.301 Labour Law* (3) An introduction to legislation and interpretation, legal procedures, and quasi-judicial boards as they concern the organization of trade unions, collective bargaining, settlement of disputes, labour standards, workers' compensation, unemployment insurance and human rights. Students may not hold credit for both 153.301 and the former 099.301. Prerequisite: both 153.127 and 153.128, or written consent of the Labour and Workplace Studies coordinator.

*153.306 Workplace Health and Safety* (3) An introduction to occupational health, industrial hygiene and industrial safety emphasizing the impact of chemical hazards on the body, the measure and control of hazards and the causes and prevention of industrial accidents. Students may not hold credit for both 153.306 and the former 099.306. Prerequisite: both 153.127 and 153.128, or written consent of the Labour and Workplace Studies coordinator.

*153.307 Labour Relations and Occupational Health and Safety Law* (3) The economic costs of workplace injuries and sickness; the history of occupational health and safety laws and their implementation; the history and functions of workers' compensation; collective bargaining on health and safety. Students may not hold credit for both 153.307 and the former 099.307. Prerequisite: 153.128 or written consent of the Labour and Workplace Studies coordinator.

*153.313 Employment Legislation and the Protection of Workers* (3) A survey of the statute and common law, enforcement institutions and the jurisprudence with respect to personal labour contracts, labour standards and human rights. Particular attention is given to the impact of the Charter of Rights and Freedoms on labour jurisprudence. Students may not hold credit for both 153.313 and former 099.313. Prerequisite: both 153.127 and 153.128, or written consent of the Labour and Workplace Studies coordinator.

### 3.2 Program design rational

The introductory courses provide a basic framework for understanding the evolution of labour relations, their current form, the roles of various actors, and labour's role in the contemporary political economy of Canada. *018.242 Economics of the Labour Process and Labour Relations* provides the theoretical foundation for the organization of work in the contemporary workplace and the economic and labour market forces operating on industrial and labour relations. *018.351 Industrial Relations* provides a comprehensive grounding in the contemporary practice of labour relations in Canada. *11/153.370 History of Working People and Labour Movements 1700 to the Present* places Canadian labour relations in the historical context, including the evolution of our present system, the processes by which policies, laws, and regulations have developed, and the social, political, and economic influences that have shaped the contemporary labour relations system. *153.301 Labour Law* provides students with a basic understanding of the legal framework within which collective bargaining, dispute resolution, and the conduct of employers and unions are regulated. It also provides grounding in the legal context regulating employer-employee relations. *153.306 Workplace Health and Safety* and *153.307 Labour Relations and Occupational Health and Safety Law* introduce students to the laws, policies, regulations, and practices governing health and safety at work as well as explaining the roles of state agencies responsible for protecting workers' rights to safe work. *153.313 Employment Legislation and the Protection of Workers* provides an overview of the laws and regulations that ensure a "floor of rights" for workers and establish the rights and responsibilities of workers and employers.

### 3.3 Teaching method and delivery format

Courses will be taught in class but off campus in the evenings. Some courses will be available during Summer Session and regular sessions.

### 3.4 Where the program will be delivered

Using a Plan Ahead Schedule, all courses will be offered once in a five-year rotation through evening Off Campus Study. Courses will be available during the day and evenings at the Fort Garry Campus in summer and regular sessions.

### 3.5 Existing courses available elsewhere in the Division or University

The following courses are accepted as substitute credits.

*153.313 Employment Legislation and the Protection of Workers* may be substituted for *153.301 Labour Law*.

*153.306 Workplace Health and Safety* may be substituted for *153.307 Labour Relations and Occupational Health and Safety Law*.

The following will be considered for substitute credit subject to the recommendation of the advisory committee and coordinator of the Labour and Workplace Studies program:

*0.27.341 Labour Relations*, *027.448 Collective Bargaining and Administration*, and *027.452 Comparative Industrial Relations and Human Resource Management* may be considered for selected courses in the diploma.

A number of courses offered on line will be examined by the advisory committee for substitute credit in the diploma (e.g., Canadian Virtual University/Athabasca University's *HIST 336 History of Canadian Labour* and *LBST 200 Introduction to Labour Studies*).

### **3.6 Course outlines for existing courses accepted for credit**

Course outlines are attached (See Appendix B).

### **3.7 Degree programs in the same area and provisions for transfer of credit**

There is a major and minor in Labour and Workplace Studies in the Faculty of Arts, The University of Manitoba. Individuals admitted to the Faculty of Arts may apply the courses completed in the diploma to their undergraduate degree and toward the major or minor.

## **4.0 RESOURCES**

### **4.1 Teaching personnel required in the program and their availability.**

Qualified instructors in the Faculty of Arts are teaching the courses in this program. No additional teaching resources are required.

### **4.2 Provisions for orientation, training, and instructor supports**

Instructors oriented to the University currently teach the courses in this program. In addition to University Teaching Services, instructors may receive professional development from courses in the Certificate in Adult and Continuing Education.

### **4.3 Library resources**

Additional library holdings are not required as it is expected that current holdings support courses used in this program. The anticipated increase in registrations should not substantially increase the use of these holdings. A letter from the library is attached (See Appendix C).

### **4.4 Instructional media resources**

Communications Systems currently provides the instructional media requirements for the courses in this program. No additional requirements are anticipated.

### **4.5 Laboratory or field placement facilities**

No facilities are required for laboratory or field placements.

### **4.6 Student counselling and advisory services**

Student counselling is available for personal and career concerns through The University of Manitoba Counselling Services. Program academic advising is also available through the coordinator, Labour and Workplace Studies Program and General Studies.

### **4.7 Additional resources required for program delivery**

Not applicable.



## 5.0 OPERATIONS AND MANAGEMENT

### 5.1 Advisory/Program Committee

#### 5.1.1 Describe the membership and representation.

Labour and Workplace Studies program coordinator, the Continuing Education Division's program director, and regular members of the Labour Studies Committee represent academic and community interests for this program. Therefore, an advisory committee will include substantial representation from the Labour Studies Committee.

#### 5.1.2 Provide the Terms of Reference.

See Appendix D.

### 5.2 Conditions for Admission to the Program

#### 5.2.1 Selection criteria applied to the program and how criteria relate to needs of intended audience

To be admitted to the program applicants must meet the general admission requirements of The University of Manitoba. Students already admitted to a faculty are eligible to apply to the program subject to permission of their faculty.

#### 5.2.2 Describe the selection process

Individuals interested in the program will complete an Application to Enter the Diploma in Labour Relations and Workplace Studies through the Continuing Education Division. The application to enter the diploma will be approved pending verification of the student's current undergraduate status or admission to The University (General Studies). Students not already admitted to The University must complete the Application for Undergraduate Admission.

#### 5.2.3 Authority for admission decisions

The program director, Continuing Education Division, retains the responsibility to ensure that students meet the admission requirements to the program.

### 5.3 Exemptions and/or Transfers

#### 5.3.1 Provisions and conditions

Course exemptions and/or transfer credit will be governed by relevant University of Manitoba policy and procedures. Exemptions and substitutions accepted for the diploma may not apply to degree credit programs.

#### 5.3.2 Describe the process for handling requests

Requests for transfer credits, exemptions, and substitutions will be made to the Continuing Education Division's program director and approved by the coordinator of the Labour and Workplace Studies Program.

#### 5.3.3 Authority for granting exemptions and/or transfers

Approved by the coordinator of the Labour and Workplace Studies Program upon the recommendation of the Continuing Education Division's Program Director.

**5.4 Outline the development timetable and expected implementation date**

The Continuing Education Division reviewed the letter of intent in January 2002. The formal proposal was prepared with the intent to implement the program January 2003.

**5.5 Expected frequency of course offerings (continuous, sequential, intermittent)**

Courses are offered in a five-year cycle through Off Campus Study and selectively through Summer and regular sessions.

**5.6 Minimum and maximum times for completing the program**

The minimum completion time for this program is one (1) academic year. The maximum completion time is seven (7) years. The Dean, Continuing Education Division must approve applications for extension of this time limit. Since most participants are employed and study part-time, the program design anticipates students completing two three-credit courses or one six-credit course each year. Therefore, students are expected to complete the program in five years. The seven year maximum encourages program completion while allowing for family, personal, and work related matters that may make it necessary for participants to set their studies aside for a term or year.

**6.0 EVALUATION**

**6.1 Student Assessment**

**6.1.1 Describe the type of student evaluation to be used**

Within the first week of class, the instructor will inform students in writing of the method of assessment to be used in the course. There may be differences in teaching methods, readings, and assignments from one section of a course to another. However, academic assessment will adhere to the regulations and requirements stated in the Responsibilities of Academic Staff to Student Policy, in the General Academic Regulations and Requirements of The University of Manitoba's undergraduate calendar, and the Faculty of Arts Regulations for the Academic Evaluation of Undergraduate Student Course Work.

**6.1.2 Describe the grading system (pass/fail, letter, numerical)**

Students will be evaluated using The University of Manitoba letter-grade system.

**6.1.3 Identify the criteria for successful completion of the program**

Students must successfully complete all 30 credit hours. They must achieve a 2.5 (C+) grade point average with a minimum of 2.0 (C) in each course.

**6.2 Instructor Evaluation**

The SEEQ course evaluation will be used.

**6.3 Course/Program Evaluation**

**6.3.1 Describe the type of evaluation to be used**

Evaluation involves a review of registration, program completion, students and stakeholders' satisfaction, instructional quality, and cost effectiveness. A report is submitted to the Continuing Education Division and the advisory committee.

#### **6.3.2 Describe the procedures and frequency of evaluation**

Normally, the program will be evaluated every five years. If the program is exceeding or not meeting objectives a complete or partial evaluation may occur before that time. Since a market test model was used for the needs assessment, an evaluation will be conducted with learners after a number of them have completed all or most of the courses to determine how well the program design is meeting their educational needs.

#### **6.3.3 Responsibility for conducting the evaluation**

The Program Director in Continuing Education Division is responsible for conducting the program evaluation.

### **REFERENCE**

Sork, T. J. (2001). Needs assessment. In D. H. Poonwassie and A. Poonwassie (Eds.), *Fundamentals of adult education* (pp. 100 – 115). Toronto: Thompson.

October 29, 2002

**Report of the Senate Committee on Curriculum and Course Changes on a Proposal from the Continuing Education Division for a Diploma in Labour Relations and Workplace Studies.**

**Preamble**

1. The terms of reference for the Senate Committee on Curriculum and Course Changes (SCCCC) are found in Section 8.21 of the *Senate Handbook*.
2. SCCCC, in the Taxonomy for Non-Degree Programs as approved by Senate on December 5, 2001, is to recommend to Senate on the establishment of Diplomas.
3. Since last reporting to Senate, the Senate Committee on Curriculum and Course Changes (SCCCC) met on October 10, 2002 to consider a proposal from the Continuing Education Division for a Diploma in Labour Relations and Workplace Studies.

**Observations**

1. This program was developed by the Management, Professional and Community Programs Department of the Continuing Education Division in consultation with the Labour and Workplace Studies Program, Faculty of Arts and the Off-Campus Study Program, Continuing Education Division.
2. The proposed diploma will comprise 30 credit hours of required courses. The program objective is to "provide the intended audience, labour representatives and industrial relations practitioners, the necessary understanding and skills to conduct better labour and industrial relations".
3. Through the use of distance education, off-campus course offerings and the General Studies program, the Continuing Education Division seeks to make this program available to a wider number of working individuals who cannot commit to full or part-time degree studies.
4. The proponents of the program anticipate an enrolment of 11 students in the three years of the diploma.
5. As all of the courses in the proposed diploma are already offered, existing library resources are sufficient for the diploma and the Libraries have indicated their support.

**Recommendation**

The Senate Committee on Curriculum and Course Changes recommends that the proposal of the Continuing Education Division for a Diploma in Labour Relations and Workplace Studies be approved by Senate.

Respectfully submitted,

**Comments of the Senate Executive Committee:**

The Senate Executive Committee endorses the report to Senate.

Professor B.L. Dronzek, Chair  
Senate Committee on Curriculum and Course Changes

/jml

**Report of the Senate Planning and Priorities Committee on The Continuing Education Division Proposal to Introduce a Diploma in Labour Relations and Workplace Studies.**

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**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 Continuing Education Division (CED) as a matter of general policy is working with academic units to develop and implement diplomas that complement the units existing degree programs. This is done in an effort to provide life-long learning opportunities for the broader community.

**Observations:**

1. The Diploma in Labour Relations and Workplace Studies is a 30-credit hour package of courses assembled from Programs in History, Economics and Labour and Workplace Studies. It is designed to replace the University Labour Certificate Program that was phased out in 1999.
2. CED developed Diploma in Labour Relations and Workplace Studies in collaboration with Labour and Workplace Studies and a community based advisory group.
3. It is anticipated students will be drawn from the private and public sector, labour union members and officials and industrial relations practitioners. It is estimated student enrolment will be on the order of 10 students.
4. CED programs are operated on a cost recovery basis with fee revenue being disbursed amongst those units offering parts of the program. There will be no incremental cost to the University.
5. The Faculties of Arts and Management support the implementation of this diploma.

**Recommendation:**

SPPC endorses and recommends that Senate approve the Continuing Education Division proposal to introduce a Diploma in Labour Relations and Workplace Studies.

Respectfully Submitted,

Norman M. Halden, Chair  
Senate Planning and Priorities Committee

/jml

**Comments of the Senate Executive Committee:**

The Senate Executive Committee endorses the report to Senate.

**A proposal from the Faculty of Pharmacy to revise the overall ranking criteria used in the admission selection process (2002.09.30)**

**Preamble**

The Faculty Council of the Faculty of Pharmacy has approved (2001.11.06) a revision to the weighting of the overall ranking criteria currently used in the admission selection process. The current criteria for selection into Pharmacy, and the weighting of each category, are as follows:

(a)	<i>Adjusted Grade Point Average (AGPA)</i>	60%
(b)	<i>Written essay/problem-solving exercise</i>	30%
(c)	<i>Personal profile evaluation</i>	10%

**Observation**

It was felt that consideration for the personal profile was too subjective and should not be included in the overall ranking of applicants. It was proposed at the time that the personal profiles continue to be collected and not used in the ranking of applicants, but the Faculty of Pharmacy is now considering a proposal to drop these profiles entirely.

**Recommendation**

The Senate Committee on Admissions recommends that Senate approve the use of only two overall admission ranking criteria in Pharmacy, weighted as follows:

(a)	<i>Adjusted Grade Point Average (AGPA)</i>	70%
(b)	<i>Written essay/problem-solving exercise</i>	30%

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

**A proposal from the Faculty of Pharmacy to amend its admissions policy concerning repeated courses (2002.09.30)**

Preamble

The current policy in the Faculty of Pharmacy concerning repeated courses is as follows:

*"Where a required core course (excluding the Arts elective requirement) has been repeated, applicants may substitute a repeated subject grade only once. Thereafter, repeated grades will be averaged for the purpose of calculating the core GPA."*

Observation

It has not been clear whether this means that only one course in total may be repeated or that each required core course may be repeated only once. The Faculty Council of the Faculty of Pharmacy approved a clarification on May 18, 2001.

Recommendation

The Senate Committee on Admissions recommends that Senate approve the following new wording for the policy concerning repeated attempts of core courses used in the admission selection process in Pharmacy:

*"If a course has been repeated once, the higher grade will be used in calculating the core GPA. If a course has been repeated more than once, then the grades for all of the attempts will be averaged.."*

Comments of the Senate Executive Committee:

The Senate Executive Committee endorses the report to Senate.

**Proposal from the Faculty of Education to remove the breadth requirement for admission to the After-Degree B.Ed., effective for admission to the 2003-04 academic (2002.09.30)**

Preamble

Currently, to be eligible to apply to the AD-B.Ed. program, candidates must hold a first degree which contains 30 credit hours in one "teachable" area and 18 credit hours in a second "teachable". These 48 hours in "teachable" areas constitute what is known as the Faculty's "depth" requirement, and they are also mandated by Manitoba Education, Training and Youth for initial teacher certification. Additionally, when the new B.Ed. was designed, the Faculty added a "breadth" requirement which called for applicants to present 24 credit hours consisting of a minimum of three credit hours from each of written English and mathematics plus another nine credit hours from each of (a) the Humanities and Social Sciences and (b) Natural Sciences and Mathematics or Statistics.

Observations

The breadth requirement was put into place in the belief that a teacher should, in terms of academic preparation, be a well-rounded individual. The majority of applicants to Education hold either Bachelor of Arts or Science degrees, and most recent graduates from the University of Manitoba's Faculties of Arts and Science automatically meet the breadth requirement. The 24 credit hour breadth requirement, however, can pose some difficulties for graduates from other University of Manitoba degree programs (e.g., Engineering, Agriculture or Nursing) who seek admission to Education. As well, the structure of degrees from applicants from other universities precludes their being able to meet the breadth requirement within their first degree. Statistics from the first three years of admissions to the new AD-B.Ed. program indicate that 20-30 percent of each year's applicants were in some way deficient in meeting the breadth requirement. These deficiencies were normally in the range of 3-6 credit hours.

The effect of a deficiency in the breadth requirement is that the application of an otherwise qualified individual could be delayed an entire year for the want of a three credit hour course. As the breadth requirement is unique to the Faculty of Education at the University of Manitoba, applicants who are deficient in breadth credit hours can apply to and be accepted by the other provincial education faculties.

As well, it should be noted that the breadth requirement is an "eligibility for application" requirement and plays no role in the two-stage scoring process used to admit students to the AD-B.Ed.

Recommendation

The Senate Committee on Admissions recommends that Senate approve the removal of the breadth requirement for admission to the After-Degree B.Ed., effective for admission to the 2003-04 academic year.

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



**Proposal from the School of Medical Rehabilitation to establish admission requirements for the Bachelor of Allied Health Science in Radiation Therapy (BAHSc-RTT) for a September 2003 intake (2002.09.30)**

Preamble

Proposals are being developed to establish admission requirements for each of the four areas comprising the Allied Health Science program, namely Medical Laboratory Sciences, Diagnostic Cytology, Medical Imaging, and Radiation Therapy. The proposal presented below for the Radiation Therapy stream is the first of these coming forward for Senate approval.

Observations

1. Radiation Therapy is currently a twenty-eight (consecutive) month program offered through CancerCare Manitoba. The current enrolment in first year is a maximum of 18 students, including up to eight from the Saskatchewan Cancer Agency and three from the Atlantic Health Sciences Corporation (New Brunswick).
2. The program developers have identified a desired student profile, saying that students entering the program should be self-motivated and independent, with a keen interest in human sciences and disease. Analytical and critical thinking skills are seen to be essential as is a strong commitment to life-long learning.
3. Application for admission into the Radiation Therapy program will be open to students who have completed at least a first year of university. All first year academic requirements must be completed prior to acceptance into the program.
4. The required courses or equivalents are available at a number of universities and colleges in Manitoba.
5. Radiation therapists who hold current registration with their national body and meet entrance requirements of the University of Manitoba will be eligible to apply, alongside regular applicants, to complete the requirements of the Allied Health Sciences degree. Assessment of prior learning for appropriate credit is contemplated, and part-time study will be possible.
6. Evidence of current certification in CPR at the Basic Rescuer Level and First Aid must be provided prior to commencing the Radiation Therapy program, although this is not a criterion for admission selection. Yearly re-certification will be required for students in the program.

Recommendation

The Senate Committee on Admissions recommends that the following admission requirements for the Bachelor of Allied Health Science program in Radiation Therapy be approved:

Eligibility Requirements

Successful completion of the following courses – a minimum of 24 credit hours – or their equivalents (as determined by the University of Manitoba):

The following core courses:

Anatomy of the Human Body (3)  
 Physiology of the Human Body (3)  
 General Physics I (3)  
 General Physics II (3)  
 Basic Statistical Analysis (M)(3)  
 Intro Sociology (6)

Plus:

Any 3 credit university-level English course that satisfies the written requirement (Introduction to University I is recommended).

The following courses are recommended for students completing a full course-load (an additional six credit hours) in first year, but these courses are not required for admission to Radiation Therapy:

Structure and Modeling in Chemistry (3)  
 Introduction to Physical Chemistry (3) or Introductory Organic Chemistry (3)

The courses noted above are compatible with the requirements in other related health disciplines such as Medical Imaging, Medical Laboratory Science, Diagnostic Cytology, Pharmacy, Medicine, Dentistry, Occupational Therapy, Physiotherapy, as well as specialization and honors programs in the Faculty of Science. (Applicants will be asked to see the University of Manitoba Start Book for focused and balanced approaches in accordance with University One recommendations.)

#### Application Process

- Applicants will be assessed according to the GPA obtained in the required courses
- Only applicants with a minimum grade of "C" in the required courses and an adjusted Grade Point Average of 3.0 (B) or better will be considered
- A letter of intent must accompany the application in order to be considered
- Only Canadian Citizens and Permanent Residents of Canada who are also resident in Manitoba are eligible to apply

#### Selection Process

CancerCare Manitoba and the University of Manitoba will jointly determine the number of students accepted into the program on a yearly basis. The maximum number of students selected in any given year will be governed by community needs, available resources, and program accreditation guidelines; currently this maximum is eight students.

Criteria will include:

1. Minimum AGPA of 3.0

All applicants shall initially be ranked according to AGPAs, calculated using the appropriate formula from the following:

Applicants with one year of university studies:

(2 x the average of core courses PLUS 3 x the average of the whole year) / 5

Applicants with two years of university study:

$(2 \times \text{the average of core courses PLUS } 3 \times \text{the average of the better year PLUS } 1 \times \text{average of the other year}) / 6$

Applicants with three or more years of university study:

$(2 \times \text{the average of core courses PLUS } 3 \times \text{the average of the best year PLUS } 0 \times \text{average of the worst year PLUS } 1 \times \text{average of each other year}) / 6$  (or 7 or 8, etc., as appropriate)

Should an applicant repeat a prerequisite course, the higher grade will be used in considering the average of the required subjects.

## 2. Letter of intent identifying:

Applicant's career goals  
 Knowledge of the profession  
 Related work experience  
 Relevant volunteer experience  
 Reasons for seeking admission into the program

## 3. Interview

A number of candidates, based on the projected number to be selected, will be interviewed.

Interview information:

- Informational packages have been developed, identifying professional requirements and areas to be addressed in the interview process. A written component must be completed by the applicant.
- A panel will conduct the interviews over several days. The panel may include faculty members, practicing radiation therapists, students or recent graduates of the radiation therapy program, and a human resources representative from CancerCare Manitoba.
- The interview process will assess the applicants in each of the following areas:
  - ▶ Motivation
  - ▶ Communication
  - ▶ Mental alertness/judgment
  - ▶ Communication skills
  - ▶ Leadership and assertiveness
  - ▶ Poise and professional demeanour
  - ▶ Work experience/relevance to this profession
- A five point scoring scale will be used.

### Comments of the Senate Executive Committee:

The Senate Executive Committee endorses the report to Senate.

## **REPORT OF THE SENATE COMMITTEE ON ACADEMIC DRESS**

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### **Preamble**

The Committee on Academic Dress met on November 12, 2002 to consider hood colours for the following degrees:

- Master's in Music
- Master's in Occupational Therapy

The terms of reference for the Senate Committee on Academic Dress are found in Section 8.10 of the *Senate Handbook*.

### **Observations**

1. The degree, Master's in Music, was approved by Senate at its meeting of June 28, 2000 and the Board of Governors at its meeting of September 26, 2000. The first graduands of this new graduate program are expected to convocate in May, 2003. The suggested hood colours were endorsed by the Faculty Council of Graduate Studies at its meeting of May 23, 2002.
2. The degree, Master's in Occupational Therapy, was approved by Senate at its meeting of August 14, 2002 and the Board of Governors at its meeting of September 24, 2002. The suggested hood colours were endorsed by the Faculty Council of Graduate Studies Executive Committee at its meeting of October 31, 2002 and the Faculty of Graduate Studies Council on November 14, 2002.

### **Recommendation**

The Senate Committee on Academic Dress recommends to Senate:

1. THAT the lining of the hood for the degree, Master's in Music be Emerald Green (Munsell Colour code 2.5G 6/8) with the addition of the centre of the lining of 2.5 cm wide chevron of Scarlet (Munsell Colour code 6R 4/16) bordered on each side by a 5.0 cm wide band of Purple/Blue (Munsell Colour code 7.5 P/B 3/12).
2. THAT the lining of the hood for the degree, Master's of Occupational Therapy be Forest Green (Munsell Colour code 2.5G 3/10).

Respectfully submitted,

Prof. D. Amundson, Chair  
Senate Committee on Academic Dress

/lrj

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