

REPORT OF THE ACADEMIC STANDARDS COMMITTEE

Report #F2011–1; November 2011

In this report the Academic Standards Committee (ASC) brings to Senate its evaluation and recommendation on a number of items.

Miscellaneous Modifications

- An academic variation from the School of Nursing
- A revised grading scheme from the School of Health Services Management

Curriculum Modifications

- Curriculum Modifications to the Bachelor of Commerce (Business Management) Economics and Management Science Major
- Curriculum Modifications to the Bachelor of Arts (International Economics and Finance) in order to harmonize with the Common Arts Platform
- Curriculum modifications to the Bachelor of Science in Biology program
 - Changes to regular program
 - Changes to the options in Biophysics and Computational Biology
 - A new option in Environmental Biology

Minors

- A change in the name of the Minor in Business Communication to Minor in Professional Communication
- Revisions to the Minor in Biology
- Revisions to the Minor in Economics
- Revisions to the Minor in Public Administration
- Revisions to the Minor in Politics
- A new Minor in Business Essentials from the Ted Rogers School of Management
- A new Minor in Physics from the Department of Physics
- A new Minor in Labour and Employment Relations from the Department of Human Resources Management and Organizational Behaviour

A. ACADEMIC VARIATION- SCHOOL OF NURSING

Proposal: The School of Nursing proposes an academic variation for the course BLG 10A/B (Anatomy and Physiology). The proposed variation is that a failure (F-grade) in this first year course will place students on academic Probation.

Rationale: BLG 10A/B is a required course for first-year Nursing students. It is a co-requisite for all courses in the first year of the program. It is also a pre-requisite for second year Nursing courses. Under the School's current academic variation policy, failure in any Nursing course places a student on Probation. Since BLG 10A/B is a co-requisite course, a failure in BLG 10A/B should have the same consequences as a failure in any other pre-requisite course.

Proposal: The School of Nursing proposed that the following text be added to the program's table of academic variations: "C-¹ or below in any Theory* course and/or an 'F' in any Practice[†] course or BLG 10A/B".

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends: *That Senate approve the Academic Variation for BLG 10A/B proposed by the School of Nursing.*

B. REVISED GRADING SCHEME IN THE SCHOOL OF HEALTH SERVICES MANAGEMENT

Proposal: To revise the grading scheme for the two Practicum Seminar courses HSM418 (Practicum Seminar) and HIM407 (Practicum Seminar) from the current Pass/Fail model to one based on letter grades.

Rationale: The Practicum Seminar courses play the role of capstone courses in the Health Services Management and Health Information Management degree completion programs. The courses consist of a large-scale research project at an independent site, culminating in a written report, and oral presentation and peer review. The bulk of the practicum is records and/or research-based, and students work independently with the help of a faculty member or preceptor at the practicum site.

Furthermore, all other courses in the Health Services Management and Health Information Management degree completion programs are currently graded with a letter grade system. The proposed change would therefore also make the grading of the Practicum Seminar courses consistent with the approach used in all other program courses.

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends: *That Senate approve the Grading Scheme Modification for Practicum Seminar Courses in the Health Services Management and Health Information Management Degree Completion Programs.*

C. CURRICULUM MODIFICATIONS TO THE BACHELOR OF COMMERCE (BUSINESS MANAGEMENT) ECONOMICS AND MANAGEMENT SCIENCE MAJOR

Proposal: The Economics and Management Science (EMS) curriculum committee of the Dept of Economics is proposing modifications to the BComm (EMS) program. The changes to the curriculum of the EMS program primarily involve the timing of when courses are taken. The proposed changes have been approved by the departmental council of Economics and endorsed by the Ted Rogers Business Management Council.

Rationale: Students in the BA in International Economics and Finance take all of their mathematics and most of their basic statistics courses before taking the intermediate (and possibly advanced) microeconomics and macroeconomics course sequences. Thus, in terms of numerate skills, the International Economics and Finance students are adequately prepared to take these courses. The EMS students do not take any statistics courses in year 2 and thus forget what they have learned by year 3. QMS 522 Linear Algebra taken in year 3 builds on QMS 702 Calculus for Business taken in the 3rd semester. However it provides an insufficient mathematical background for the intermediate and advanced Economics (ECN) courses taken by EMS students. The proposed changes to the EMS curriculum address these deficiencies. Courses in the first three semesters remain the same.

Structure of the Proposed Changes: There are no changes in Year 1 or Fall semester of Year 2. The proposed changes are summarized in the following comparison chart. * = courses repositioned to a later point in the degree; ** = courses to replace the repositioned * courses; *** = course redefined as required from Professional-elective; # = reposition required course from Y4 to Y3; ## = delete from Y3 required and replace with a course which is currently a Y3 elective. Note: The currently separate Professional-elective tables for Y3 and Y4 will be merged into a single table (Table 1) to be used in Y4 only.

CURRENT CURRICULUM	PROPOSED CURRICULUM
YEAR 2 – WINTER	
CMN 279† Introduction to Contemporary Business Communication	CMN 279† Introduction to Contemporary Business Communication
*ECN 301 Intermediate Macroeconomics I	**QMS 442 Multiple Regression for Business
*ECN 504 Intermediate Microeconomics I	**GMS 512 Mgmt. Decision Making IV: Algebra & Optimization
FIN 401 Managerial Finance II	FIN 401 Managerial Finance II
LAW 122† Business Law	LAW 122† Business Law
Lower Level Liberal Studies	Lower Level Liberal Studies

YEAR 3	
<p>**QMS 442 Multiple Regression for Business</p> <p>**QMS 522 Linear Algebra</p> <p>Four courses from the following</p> <p>ECN 501 Industrial Organization</p> <p>ECN 506 Money and Banking</p> <p>***ECN 600 Intermediate Macroeconomics II</p> <p>ECN 614 An Introduction to Game Theory</p> <p>***ECN 700 Intermediate Microeconomics II</p> <p>##QMS 703 Business Forecasting Techniques</p> <p>Two courses from Upper Level Liberal Studies</p> <p>Two courses from Table I. Of the five courses required between 5th and 8th semesters, no more than one ECN/QMS course can be taken.</p>	<p>*ECN 301 Intermediate Macroeconomics I</p> <p>*ECN 504 Intermediate Microeconomics I</p> <p>#ECN 627 Econometrics I</p> <p>***ECN 600 Intermediate Macroeconomics II</p> <p>***ECN 700 Intermediate Microeconomics II</p> <p>##QMS 703 Business Forecasting</p> <p>Two courses from Upper Level Liberal Studies</p> <p>Two courses from Table I. No ECN/QMS course can be taken from Table I between 5th and 8th semesters.</p>
YEAR 4	
<p>BUS 800 Strategic Management</p> <p>#ECN 627 Econometrics I</p> <p>Upper Level Liberal Studies</p> <p>Four courses from the following, one of which must have a QMS prefix:</p> <p>ECN 502 Economics of Natural Resources</p> <p>ECN 510 Environmental Economics</p> <p>ECN 605 Labour Economics</p> <p>ECN 606 International Monetary Economics</p> <p>ECN 702 Econometrics II</p> <p>ECN 703 Public Finance I</p>	<p>BUS 800 Strategic Management</p> <p>Upper Level Liberal Studies</p> <p>Four or Five courses from the following:</p> <p>ECN 321 Introduction to Law and Economics</p> <p>ECN 501 Industrial Organization</p> <p>ECN 502 Economics of Natural Resources</p> <p>ECN 503 Economic Development</p> <p>ECN 506 Money and Banking</p> <p>ECN 507 History of Economic Thought</p>

<p>ECN 707 Economics of International Trade</p> <p>ECN 710 Transportation Economics</p> <p>ECN 715 Advanced Microeconomics</p> <p>ECN 803 Public Finance II</p> <p>ECN 815 Advanced Macroeconomics</p> <p>QMS 521 Business Optimization</p> <p>QMS 751 Decision Models for Managers</p> <p>Three courses from Table I. Of the five courses required between 5th and 8th semesters, no more than one ECN/QMS course can be taken.</p>	<p>ECN 510 Environmental Economics</p> <p>ECN 601 The Economics of Information</p> <p>ECN 605 Labour Economics</p> <p>ECN 606 International Monetary Economics</p> <p>ECN 609 Topics in Economic History</p> <p>ECN 614 An Introduction to Game Theory</p> <p>ECN 640 The Economics of Immigration</p> <p>ECN 702 Econometrics II</p> <p>ECN 703 Public Finance I</p> <p>ECN 707 Economics of International Trade</p> <p>ECN 715 Advanced Microeconomics</p> <p>ECN 803 Public Finance II</p> <p>ECN 815 Advanced Macroeconomics</p> <p>Three or four courses from Table I. No ECN/QMS course can be taken from Table I between 5th and 8th semesters.</p>
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Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends: *That Senate approve the curriculum modifications to the Bachelor of Commerce (Business Management) Economics and Management Science Major.*

D. CURRICULUM MODIFICATIONS TO THE BACHELOR OF ARTS (INTERNATIONAL ECONOMICS AND FINANCE) TO HARMONIZE WITH THE COMMON ARTS PLATFORM

Proposal: The Department of Economics seeks to harmonize (though not fully join) the BA in International Economics and Finance with the one-year common platform adopted by the Faculty of Arts.

Rationale: The restructuring is intended to enhance the opportunity for students to transfer in and out of International Economics and Finance into all of the Arts programs that currently share the one-year common platform. This includes Criminal Justice, English Politics and Governance, Psychology, Sociology, Environmental and Urban Sustainability, History, and Philosophy.

Structure of the Proposed Changes: The general structure of the common Arts platform is described in the following table:

1st Year (10 courses)
Two Program Courses
SSH 105: Critical Thinking I
SSH 205: The Fundamentals of Academic Writing
Two Required Humanities Electives from Table I
Two Required Social Science Electives from Table I
Non-Arts Elective from Table III
Arts or Non-Arts Elective from Table III or IV (Professionally Related table)

Tables I, III and IV are presented in the full proposal. In total, students choose between 6 and 8 electives from these tables over the course of the degree. Of these, students may choose 2 or 3 from Table I and 4 to 6 from a combination of selections from Tables III and IV.

The following table presents the current and revised curricula side-by-side for comparison. * courses are being removed from the current required curriculum; ** courses are part of the common platform and are being added. *** are new or revised courses, # are liberal studies. ## courses are arts/non-art electives from revised Tables I, III or IV.

CURRENT CURRICULUM	PROPOSED CURRICULUM
YEAR 1 – FALL	
ECN 104 Introductory Microeconomics	ECN 104 Introductory Microeconomics
ECN 220 Evolution and the Global Economy	ECN 220 Evolution and the Global Economy
MTH 189 Introduction to Mathematics for Economics	MTH 189 Introduction to Mathematics for Economics
#Lower Level Liberal Studies	**SSH 105: Critical Thinking I
##Arts or Non-Arts Elective from PR Table I	**Humanities or Social Sciences Elective from Table I

YEAR 1 – WINTER	
ECN 204 Introductory Macroeconomics	ECN 204 Introductory Macroeconomics
ECN 230 Mathematics for Economics	ECN 230 Mathematics for Economics
ECN 320 Introduction to Financial Economics	**SSH 205: Academic Writing and Research
#Lower Level Liberal Studies	**Humanities or Social Sciences Elective from Table I
*Required Group 1 (French or Spanish)	##Arts or Non-Arts Elective from Table I, III or IV
YEAR 2 – FALL	
ECN 129 Statistics for Economics I	ECN 129 Statistics for Economics I
ECN 301 Intermediate Macroeconomics I	ECN 301 Intermediate Macroeconomics I
ECN 504 Intermediate Microeconomics I	ECN 504 Intermediate Microeconomics I
*Required Group 1 (French or Spanish)	ECN 320 Introduction to Financial Economics
#Lower Level Liberal Studies	#Lower Level Liberal Studies
YEAR 2 – WINTER	
ECN 329 Statistics for Economics II	ECN 329 Statistics for Economics II
ECN 600 Intermediate Macroeconomics II	ECN 600 Intermediate Macroeconomics II
ECN 700 Intermediate Microeconomics II	ECN 700 Intermediate Microeconomics II
FIN 401 Managerial Finance II	FIN 401 Managerial Finance II
##Arts or Non-Arts Elective from PR Table I	#Lower Level Liberal Studies
YEAR 3 – FALL	
ECN 627 Econometrics I	ECN 627 Econometrics I
ECN 707 Economics of International Trade	ECN 707 Economics of International Trade
FIN 501 Investment Analysis I	FIN 501 Investment Analysis I
#Upper Level Liberal Studies	#Upper Level Liberal Studies
##Arts or Non-Arts Elective from PR Table II	##Arts or Non-Arts Elective from Table III or IV
	ECN 900 Internship or WKT 77A/B Intl Economics Internship Program

YEAR 3 – WINTER	
*ECN 501 Industrial Organization	***ECN 620 Applied Economic Analysis
ECN 606 International Monetary Economics	ECN 606 International Monetary Economics
ECN 702 Econometrics II	ECN 702 Econometrics II
FIN 601 Investment Analysis II	FIN 601 Investment Analysis II
#Upper Level Liberal Studies	#Upper Level Liberal Studies
YEAR 4	
ECN 720 Seminar	***ECN 720 Applied Research Methods
*HST 500 Modern International Relations	
ECN 900 Internship or WKT 77A/B Intl Economics Internship Program	
ECN 820 Project	
ECN 821 Country Risk Analysis	
#Upper Level Liberal Studies	# Two courses from Upper Level Liberal Studies
##Arts or Non-Arts Elective from PR Table II	## Two to Four courses in Arts or Non-Arts Electives from Table III or IV
Four courses from Required Group 2	Three to Five courses from Required Group 2

The proposed program modifications do not place the BA (International Economics and Finance) fully within the common Arts platform. The math requirements for the BA (International Economics and Finance) prevent full integration. Further, the admission requirements of the BA (International Economics and Finance) are not the same as those for the other common platform BA programs. These facts mean that a student wishing to transfer from the revised BA (International Economics and Finance) to a common Arts program will have to seek admission to that program (this is currently the case as well). However, the revised curriculum allows the transfer student to carry 10 credits to the new BA program. With the current curriculum, virtually no transfer credits exist. It should be noted that the Faculty of Arts strongly endorses these proposed changes.

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends: *That Senate approve the curriculum modifications to the Bachelor of Arts (International Economics and Finance) program.*

E. CURRICULUM MODIFICATIONS TO THE BACHELOR OF SCIENCE (BIOLOGY) PROGRAM- REGULAR PROGRAM

A Series of Proposals: This proposal suggests modifications to the program core and is the first of a series. The subsequent proposals, presented below, are designed to (i) increase the ease of pursuing current options within the biology program that are constrained by interdisciplinary curricular availability and structure, and (ii) to increase the number of options within the program. An additional proposal presents changes to the biology minor.

Proposal- Core Program: The Biology program is proposing a significant restructuring of the BSc (Biology) core program. The restructuring includes introducing additional required core discipline courses, repositioning of discipline courses and moving several courses from the required to the elective category. The proposed changes have no impact on the common first year science structure.

Rationale for the Proposed Change: The restructuring is intended to:

1. Ensure that students are exposed to all basic biology concepts normally encountered in a university-level biology degree;
2. Ensure that Ryerson biology graduates are competitive;
3. Provide both breadth of coverage of biology concepts with opportunities to achieve additional depth in biology.

Structure of the Proposed Changes: The proposed changes include: (i) introduction of three additional required discipline courses (the existing BLG 567 *Ecology* and two new courses BLG 315 *Evolution* and BLG 316 *Zoology*) into the program core and (ii) a repositioning of two current required BLG courses (BLG 230 *Botany* and BLG 400 *Genetics*) from Y3 to Y2.

In addition, the elective courses in Table I are divided into two distinct groups: one containing biology and biochemistry courses (Group A) and the other containing biology and non-biology courses (Group B). Students will be required to select 4 courses from Group A (i.e., they are professional electives). The remaining 6 elective slots (Group B) can be used towards a minor or to pursue one of the BSc (Biology) program options (e.g., Biophysics). With this configuration, a student will graduate with at least 18 biology and biochemistry courses, either required or elective.

To accommodate these changes, MTH480, *Statistics II*, CHY242 *Organic Chemistry II*, and BLG251 *Microbiology II* will be removed from the core and placed in the professionally related elective category. Finally, the liberal study courses offered in 3rd semester would be moved to 5th semester.

A comparison of the current and proposed curricula is provided below. **BOLD** highlighted indicates a new placement of course, * indicates a new course.

Biology Regular Program Curriculum (Current vs Proposed)

Current Curriculum		Proposed Curriculum	
<u>First semester</u>	<u>Course</u>	<u>First semester</u>	
BLG 143	Biology I	Unchanged	
CHY 103	General Chemistry I		
CPS 118	Intro Programming		
MTH 131	Modern Mathematics I		
PCS 120	Physics I		
SCI 180	Orientation		
<u>Second semester</u>	<u>Course</u>	<u>Second semester</u>	
BLG 144	Biology II	Unchanged	
CHY 113	General Chemistry II		
MTH 231	Modern Mathematics II		
PCS 130	Physics II		
Liberal	Table A		
<u>Third Semester</u>	<u>Course</u>	<u>Third Semester</u>	
BLG151	Microbiology I	Unchanged	
BLG311	Cell Biology I		
CHY142	Org. Chemistry I		
MTH380	Prob & Stats I		
Liberal	Table A	BLG230	Botany
<u>Fourth Semester</u>	<u>Course</u>	<u>Fourth Semester</u>	<u>Course</u>
BCH261	Biochemistry	BCH261	Biochemistry
BLG251	Microbiology II	BLG400	Genetics
CHY242	Org. Chem II	BLG316	Zoology*

MTH480	Prob. & Stats II	BLG567	Ecology
Liberals	Table A	Liberals	Table A
<u>Fifth Semester</u>	<u>Course</u>	<u>Fifth Semester</u>	<u>Course</u>
BCH361	Adv. Biochem I	BCH361	Adv. Biochem I
BLG307	Molecular Biology	BLG307	Molecular Biology
BLG400	Genetics	Elective	Table I
BLG230	Botany	Liberals	Table A
Elective	Table 1	Elective	Table I
<u>Sixth Semester</u>	<u>Course</u>	<u>Sixth Semester</u>	<u>Course</u>
BCH362	Adv. Biochem II	BCH362	Adv. Biochem II
BLG340	Env. Biology	BLG315	Evolution*
CMN600	Communications	BLG 888	Mol Biol Lab
Elective	Table I	Elective	Table I
Liberals	Table B	Liberals	Table B
<u>Seventh Semester</u>	<u>Course</u>	<u>Seventh Semester</u>	<u>Course</u>
BLG888	Molecular Biol Lab.	Elective	Table I
Elective	Table 1	Elective	Table I
Elective	Table 1	Elective	Table I
Elective	Table 1	Elective	Table I
Liberals	Table B	Liberals	Table B
<u>Eighth Semester</u>	<u>Course</u>	<u>Eighth Semester</u>	<u>Course</u>
Elective	Table 1	CMN 600	Communications
Elective	Table 1	Elective	Table I
Elective	Table 1	Elective	Table I
Elective	Table 1	Elective	Table I
Liberals	Table B	Liberals	Table B

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends: *That Senate approve the curriculum modifications to the Bachelor of Science (Biology) regular program.*

F. CURRICULUM MODIFICATIONS TO THE BACHELOR OF SCIENCE (BIOLOGY) PROGRAM- OPTION IN BIOPHYSICS AND OPTION IN BIOINFORMATICS/COMPUTATIONAL BIOLOGY

Proposal: The Biology program is proposing a restructuring of the *Biophysics* option and the *Bioinformatics/Computational Biology* option.

Rationale for the Proposed Change: The restructuring is intended to:

1. Biophysics- to address mathematics gaps in the option and to synchronize the physics courses in the option with a new sequence implemented within the BSc (Medical Physics) program;
2. Bioinformatics/Computational Biology- to enhance uptake of this option by synchronizing the flow of its curriculum with courses offered for students in this option by other departments (e.g., mathematics).

Structure of the Proposed Changes:

Biophysics: Add 4 fundamental mathematics and physics courses (MTH330 Calculus and Geometry, PSC 300 Modern Physics, PCS 400 Quantum Physics I and PCS 229 Introduction to Medical Physics) to the first year of the option (semesters 5 and 6). These courses are prerequisites for courses taken in semester 7 and 8. To make room for the addition of these courses to semester 5, three courses currently in semester 5, (PCS 352 Nuclear Physics/Radiation Protection, PCS354 Radiation Biology and BLG307 Molecular Biology) are moved from semester 5 and placed in semester 7. To facilitate these changes and the requirement for PR electives from Tables II and III will be reduced to one (from 4) and three (from 5), respectively.

Bioinformatics/Computational Biology: Add MTH 110 Discrete Mathematics and MTH 330 Calculus and Geometry to the first year of the option (semester 5). The two courses CPS 313 Advanced Programming for Scientists and MTH 607 Graph Theory are moved from semesters 5 and 6 to semesters 7 and 8, respectively. The courses CPS 315 Database Applications for Scientists and CPS 815 Analysis of Algorithms are deleted from the curriculum (neither has ever been offered) and replaced with BLG 888 Molecular Biology Laboratory and an elective.

Comparisons of the current and proposed curricula are provided on the following pages. The detailed curriculum is provided in the proposal. Note that **BOLD** highlighting refers to repositioned courses.

Changes to the Biophysics Option (Current vs Proposed)

Current Curriculum		Proposed Curriculum- No changes to S1 to S4	
<u>Fifth Semester</u>	<u>Course</u>	<u>Fifth Semester</u>	<u>Course</u>
BCH361	Adv. Biochem I	BCH361	Adv. Biochem I
BLG307	Molecular Biology	MTH 330	Geometry and Calculus
BLG352	Nuclear physics	PCS 300	Modern Physics
BLG354	Radiation biology	PCS 229	Intro Med Physics
Elective	Table 1	Liberals	Table A
<u>Sixth Semester</u>	<u>Course</u>	<u>Sixth Semester</u>	<u>Course</u>
BCH362	Adv. Biochem II	BCH362	Adv. Biochem II
BLG340	Env. Biology	BLG315	Evolution
PCS 227	Biophysics	PCS 227	Biophysics
CMN600	Communications	PCS 400	Quantum Physics I
Liberals	Table B	Liberals	Table B
<u>Seventh Semester</u>	<u>Course</u>	<u>Seventh Semester</u>	<u>Course</u>
Elective	Table II	PCS 352	Nuclear Phy & Radiation
Elective	Table II	PCS 354	Radiation Biology
Elective	Table III	BLG307	Molecular Biology
Elective	Table III	Elective	Table III
Liberals	Table B	Liberals	Table B
<u>Eighth Semester</u>	<u>Course</u>	<u>Eighth Semester</u>	<u>Course</u>
Elective	Table II	CMN 600	Communications
Elective	Table II	Elective	Table II
Elective	Table III	Elective	Table III
Elective	Table III	Elective	Table III
Liberals	Table B	Liberals	Table B

Changes to the Bioinformatics/Computational Biology Option (Current vs Proposed)

Current Curriculum		Proposed Curriculum- No changes to S1 to S4	
<u>Fifth Semester</u>	<u>Course</u>	<u>Fifth Semester</u>	<u>Course</u>
BLG 307	Molecular Biology	BLG 307	Molecular Biology
CHY 213	Analytical Chemistry I	MTH 110	Discrete Math
BCH 361	Adv Biochem I	BCH 361	Adv Biochem I
CPS 313	Adv Prog for scientists	MTH 330	Calculus/Geometry
Liberal	Table B	Liberal	Table A
<u>Sixth Semester</u>	<u>Course</u>	<u>Sixth Semester</u>	<u>Course</u>
BCH362	Adv. Biochem II	BCH 362	Adv Biochem II
CPS 411	Data Structures	CPS 411	Data Structures
MTH 500	Intro Stochastic Proc	MTH 500	Intro Stochastic Proc
MTH 607	Graph Theory	BLG315	Evolution
CMN600	Communications	Liberals	Table B
<u>Seventh Semester</u>	<u>Course</u>	<u>Seventh Semester</u>	<u>Course</u>
CPS 315	Databases Structures Scientists	BLG 800	Proteomics and Genomics
CPS 501/BME 501	Bioinformatics	CPS 501/BME 501	Bioinformatics
Elective	Table IV	CPS 313	Adv Prog for scientists
Elective	Table IV	Elective	Table IV
Liberals	Table B	Liberals	Table B
<u>Eighth Semester</u>	<u>Course</u>	<u>Eighth Semester</u>	<u>Course</u>
BLG 800	Proteomics and Genomics	CMN 600	Communications
CPS 815	Analysis of Algorithms	BLG 888	Molecular Biol Lab
Elective	Table IV	MTH 607	Graph theory
Elective	Table IV	Elective	Table IV
Liberals	Table B	Liberals	Table B

Recommendation

Having satisfied itself of the merit of these proposals, ASC recommends: *That Senate approve the curriculum modifications to the Bachelor of Science (Biology) options in Biophysics and Bioinformatics/Computational Biology.*

G. CURRICULUM MODIFICATIONS TO THE BACHELOR OF SCIENCE (BIOLOGY) PROGRAM- A NEW OPTION IN ENVIRONMENTAL BIOLOGY

Proposal: The Biology program is proposing to introduce a new option in *Environmental Biology* within the BSc (Biology) degree.

Rationale for the New Option: The environment is one of the Planet's most pressing concerns and there is a need for trained professionals in industries, government, and regulatory agencies that deal with environmental issues. The proposed new option will:

1. Provide more focused curriculum,
2. Diversify Biology offerings,
3. Provide more spaces in the Biology program to accommodate the growing demand for Biology at Ryerson,
4. Increase the marketability and profile of the Ryerson Biology program and its graduates,
5. Increase employment opportunities for graduates,
6. Prepare graduates for a wider range of graduate program options.

This new option provides students with an opportunity to acquire additional depth in the environmental biology sub-discipline, an area in which the department has substantial expertise. It would become part of a package of options including the core Biology program, the current options in Biophysics and in Bioinformatics/Computational Biology.

Structure of the Proposed New Option:

The new option will provide a curriculum that emphasizes environmental biology but with an interdisciplinary approach that merges chemistry, engineering and other pertinent fields. Students will not only have an appreciation for ecological systems and biological communities, but will also be literate in biometry and analytical techniques.

The first years of the program remains unchanged from the current common first year. The second year is to be identical to the modified second year of the core Biology program (see section E, above). The divergence from the core program begins in year 3. The detailed curriculum structure is presented below. Courses highlighted in **BOLD** are courses in new positions, * identifies a new course.

Environmental Biology Option: Detailed Curriculum

Biology Core Program Curriculum		Proposed Curriculum	
<u>First semester</u>	<u>Course</u>	<u>First semester</u>	
BLG 143	Biology I	Unchanged	
CHY 103	General Chemistry I		
CPS 118	Intro Programming		
MTH 131	Modern Mathematics I		
PCS 120	Physics I		
SCI 180	Orientation		
<u>Second semester</u>	<u>Course</u>		
BLG 144	Biology II	unchanged	
CHY 113	General Chemistry II		
MTH 231	Modern Mathematics II		
PCS 130	Physics II		
Liberal	Table A		
<u>Third Semester</u>	<u>Course</u>	<u>Third Semester</u>	
BLG151	Microbiology I	Same as regular program	
BLG311	Cell Biology I		
CHY142	Org. Chemistry I		
MTH380	Prob & Stats I		
BLG230	Botany		
<u>Fourth Semester</u>	<u>Course</u>	<u>Fourth Semester</u>	<u>Course</u>
BCH261	Biochemistry	Same as regular program	
BLG400	Genetics		
BLG316	Zoology		
BLG567	Ecology		

Liberals	Table A		
<u>Fifth Semester</u>	<u>Course</u>	<u>Fifth Semester</u>	<u>Course</u>
BCH361	Adv. Biochem I	BCH361	Adv. Biochem I
BLG307	Molecular Biology	BLG351	Applied Microbiology
Elective	Table I	BLG409	Biometry
Elective	Table I	BLG803	Ecosystem Processes*
Liberal	Table A	Liberal	Table A
<u>Sixth Semester</u>	<u>Course</u>	<u>Sixth Semester</u>	<u>Course</u>
BCH362	Adv. Biochem II	BLG340	Environmental Biology
BLG315	Evolution	BLG315	Evolution
BLG 888	Mol Biol Lab	CHY423	Environmental Science
Elective	Table I	Elective	Table V
Liberals	Table B	Liberals	Table B
<u>Seventh Semester</u>	<u>Course</u>	<u>Seventh Semester</u>	<u>Course</u>
Elective	Table I	BLG401	Ecotoxicology
Elective	Table I	Elective	Table V
Elective	Table I	Elective	Table V
Elective	Table I	Elective	Table V
Liberals	Table B	Liberals	Table B
<u>Eighth Semester</u>	<u>Course</u>	<u>Eighth Semester</u>	<u>Course</u>
CMN 600	Communications	CMN 600	Communications
Elective	Table I	Elective	Table V
Elective	Table I	Elective	Table V
Elective	Table I	Elective	Table V
Liberals	Table B	Liberals	Table B

Timeline:

Note that the new courses for this option are Y3 and Y4 courses. For a Fall 2012 launch this means the first cohort of students eligible to select this option would be the Fall 2011 intake. This implies the first offering of these courses would be Fall 2013.

Resources:

Five New Courses: The option requires the creation of 5 new courses: Ecosystem Processes, Entomology, Plant Diversity, Conservation Biology and Water Quality and Environmental Management. Of these, only BLG803 (Ecosystem Processes) is required. The other four are part of the program's P/PR Table V. All of these will be cross listed as professionally related electives for the regular biology program. Note that only one of these, Ecosystem Processes, needs to be offered each year as it is required for the option. The other 4 can be offered in rotation.

New Faculty: The proposal suggests that 1 new faculty hire will be required to make this option viable. The University Planning Office has confirmed that this is viable with an incremental increase in first-year target enrolment of 12. The Biology program has agreed to accept this level of growth.

Minor Curriculum Modification or Major Curriculum Modification?

This is a new option created to be combined with an existing approved program. The new option represents a modest change in the overall degree content (change of 6 courses in 41 or ~ 15%). Total laboratory hours in the proposed option are nearly the same as in the regular program, less by 1.5 h over the course of the degree. The total number of laboratory hours is the same as for the current Biophysics option. There is no addition or deletion of a capstone thesis course. Therefore the proposed changes do not meet the criteria for a major curriculum modification as defined by the Ontario Universities Council on Quality Assurance as expressed in Ryerson's Institutional Quality Assurance Process (Senate Policy 127).

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends: *That Senate approve the proposed new option in Environmental Biology for the Bachelor of Science (Biology) program.*

H. CHANGING THE NAME OF THE MINOR IN BUSINESS COMMUNICATION TO MINOR IN PROFESSIONAL COMMUNICATION

Proposal: The School of Professional Communication (ProCOMM) is proposing to rename its six-course minor in Business Communication to "Minor in Professional Communication".

Rationale: The proposal provides five rationales for the proposed change. The name change will:

1. Ensure consistency with School branding;
2. Support recognition of Professional Communication as a distinct discipline of study and practice;

3. Reflect and support current and developing ProCOMM curriculum (e.g., the proposed BA degree program, possible double majors);
4. Appeal to the diversity of ProCOMM program partners which is much broader than areas related to business;
5. Reflect more accurately the faculty members' diversity of SRC activities.

The proposal has been approved by the School Council and has the support of the Dean of FCAD. Approval has also been granted by 17 programs across campus.

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends: *That Senate approve the name change from the Minor in Business Communication to the Minor in Professional Communication.*

I. REVISIONS TO THE MINOR IN BIOLOGY

Proposal: The Biology program is proposing changes to its current six-course minor.

Rationale for the Proposed Change: The current six-course minor requires completion of two introductory biology courses *before* the courses in the minor can be taken. In effect, it is an eight-course minor. The proposed changes will allow a greater number of students to complete the minor without having to do extra courses.

Structure of the Proposed Change: The two introductory biology courses, BLG 143 and BLG 144, become the two required courses for the minor. The previous three required courses, BLG 151, BLG 311 and BLG 400 now become part of the group of elective courses from which the remaining four courses for the minor can be selected. Further, the courses BCH 261, BCH 361, BCH 362, BLG 230, BLG 312, BLG 315 and BLG 316 are to be added to the elective group for this minor. The detailed modifications are provided below:

PROPOSED MINOR: To receive the Minor, a student must complete six courses from the following course of study:

BLG 143 BLG 144

And four of the following:

BLG 151	BLG 315*	BLG 567	BLG 788	BCH 362*
BLG 230*	BLG 316*	BLG 578	BLG 800	
BLG 251	BLG 351	BLG 600	BLG 856	
BLG 307	BLG 400	BLG 678	BLG 888	
BLG 311	BLG 401	BLG 700	BCH 261*	
BLG 312*	BLG 402	BLG 785	BCH 361*	

Courses in **BOLD** have been moved from the required to elective category. Courses marked with * are new to the list of electives.

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends: *That Senate approve the proposed revisions to the Minor in Biology.*

J. REVISIONS TO THE MINOR IN ECONOMICS

Proposal: The Department of Economics is proposing changes to its current six-course minor.

Rationale for the Proposed Change: The current six-course minor requires completion of two introductory economics courses *before* the courses in the minor can be taken. In effect, it is an eight-course minor. The proposed changes will allow a greater number of students to complete the minor without having to do extra courses.

Structure of the Proposed Change: The two introductory economics courses, ECN 104 and ECN 204, become the two required courses for the minor. The previous two required courses, ECN 301 and ECN 504, had ECN 104 and ECN 204 as pre-requisites. These former required courses now become part of the elective group from which the remaining four courses for the minor can be selected. The detailed revision is:

PROPOSED MINOR:

To receive the Minor, a student must complete six courses from the following course of study:

Required:

ECN 104 ECN 204

Four of the following including at least one of ECN301 or ECN504:

ECN 301	ECN 510	ECN 627	ECN 715
ECN 321	ECN 600	ECN 700	ECN 801
ECN 501	ECN 601	ECN 702	ECN 803
ECN 502	ECN 605	ECN 703	ECN 808
ECN 504	ECN 606	ECN 707	ECN 815
ECN 506	ECN 614	ECN 710	GMS 402

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends: *That Senate approve the proposed revision to the Minor in Economics.*

Two of the following:

PPA 211

PPA 401

PPA 301

PPA 402

PPA 303 or INP 915

PPA 403

PPA 335

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends: *That Senate approve the proposed revisions to the Minor in Public Administration.*

L. REVISIONS TO THE MINOR IN POLITICS

Proposal: The Department of Politics is proposing modifications to its six-course Minor in Politics.

Rationale for the Proposed Changes: The proposed changes are in the spirit of the new Minors Policy. They introduce liberal studies into the Minor's curriculum. They also introduce alternative courses which cover very similar material to four of the current Minor's courses. The intention with the latter change is to enhance student choice within the Minor by ensuring that students who take a course covering subject matter deemed suitable for the inclusion in the Minor are able to use that course to achieve the Minor.

Structure of the Proposed Changes: The first proposed change, which facilitates the use of up to two Liberal Studies electives to satisfy the requirements of a Minor, is to include Politics Liberal Studies courses as course options in the Minor. The Department also proposes a system of tagging LS courses in the Minor's curriculum to facilitate clarity on the part of students about the choices they have.

The second proposed change is the inclusion of Public Administration (PPA) alternatives to Politics (POG) courses where they exist. This involves the courses: PPA121 OR POG310; PPA124 OR POG440; PPA125 OR POG315; PPA425 OR POG416.

PROPOSED MINOR: To receive the Minor, a student must complete six courses from the following course of study. Note that **a maximum of TWO (2) Liberal Studies electives** (those identified "LS" below) may be used to satisfy the requirements of the Minor.

A minimum of **two** to a maximum of **four** of the following:

POG 100

POG 110

POG 210

POG 214 **or** PPA 211

POG 225

POG 235

POG 240

POG 320

POL 106 (LS)

POL 128 (LS)

POL 129 (LS)

POL 203 (LS)

POL 208 (LS)

A minimum of **two** to a maximum of **four** from the following:

INP 900

POG 430

POG 310 **or** PPA 121

POG 431

POG 313

POG 440 **or** CRM 400 **or** PPA 124

POG 315 **or** PPA 125

POG 442

POG 316

POG 443

POG 317

POG 444

POG 323	POG 446
POG 410 or PPA 122 or POL 123	POL 501 (LS)
POG 411	POL 507 (LS)
POG 412	POL 510 (LS)
POG 415	POL 511 (LS)
POG 416 or PPA 425	POL 540 (LS)
POG 417	POL 588 (LS)
POG 423	POL 601 (LS)
POG 424	POL 607 (LS)
POG 425	POL 688 (LS)
POG 426	POL 720 (LS)

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends: *That Senate approve the proposed revisions to the Minor in Politics.*

M. PROPSOAL FOR A NEW MINOR IN BUSINESS ESSENTIALS

Proposal: TRSM is proposing a new six-course minor in Business Essentials. This broad-focus minor is targeted at undergraduate students in the Faculties of Arts, Community Services Communication and Design as well as Engineering, Architecture and Science. The six-course minor package can also be used as a business module within an interdisciplinary program such as the proposed Bachelor of Arts (Creative Industries), should the latter eventually be launched.

Rationale for the Minor: The minor is intended to provide non-Business students with *broad knowledge and skills* related to business. This general business curriculum may enhance their employment opportunities. The minor augments the current suite of minors offered by TRSM- while they all focus on particular functional areas of business (e.g., Marketing) or sector (e.g., Retail), the proposed minor will provide a boarder perspective. The minor will also emphasize quantitative skills.

Objectives of the Minor: The minor will provide non-Business students with:

- A fundamental understanding of the structure of business and the operation of both the national and global market places;
- An introduction to the terms, concepts and nomenclature of business;

- Basic knowledge about the functional areas of business and how they are integrated for strategic decision making;
- An appreciation of the importance of finance and accounting in business success.

Structure of the Proposed Minor: The basic structure of the minor is three required courses and three elective courses. Two of the required courses are foundational; the third is a capstone course.

Consistency with the Ryerson policy on Minors: The minor is consistent with Policy 148.

Curriculum: The proposed curriculum is presented below. This minor will not be open to any students registered in a TRSM program, but rather is targeted exclusively to non-business students.

Required Courses:

BSM100 The New Business: From Idea to Reality

BSM200 The Growing Business: Breaking Even

BSM600 The Mature Business: Market Dominance or Failure

Electives (Select 3):

GMS410 Management in the Large Corporation

ENT505 Small-business Management

FIN305 Financial Management

GMS455 Project Planning and Delivery

ITM355 Online Business

MKT310 Marketing Plans

ENT520 New Venture Creation

GMS520 Fundamentals of International Business

The two required foundations courses (BSM100 and BSM200) present an integrated curriculum which prepares students for the electives. BSM600 acts as a capstone to deepen student understanding of business from a strategic perspective. The content of these new courses is built from the content of existing courses to meet the overarching goal of the minor to provide broad-based business knowledge and skills.

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends: *That Senate approve the proposed new Minor in Business Essentials.*

N. PROPSOAL FOR A NEW MINOR IN PHYSICS

Proposal: The Dept of Physics is proposing a six-course minor in Physics. The minor is designed to be accessible to science and engineering students.

Rationale for the Minor: In today's technological world, Physics knowledge is useful for an informed citizen who wants to contribute effectively to a better society. Achieving the Physics minor will also be of interest as a teachable subject to students planning a career as a high school science teacher.

Objectives of the Minor: The minor will provide non-Physics students with the opportunity to:

- gain knowledge and problem solving skills in Physics;
- explore a field other than their own;
- obtain an additional level of qualification (e.g., an additional teachable subject);

Structure of the Proposed Minor: The basic structure of the minor is three required courses and three elective courses.

Consistency with the Ryerson policy on Minors: The minor is consistent with Policy 148.

Curriculum: The proposed curriculum is presented below. All courses currently exist as part of the BSc (Medical Physics) program. No new courses are being proposed. As required by policy, a maximum of two "core" courses (Professional required, Professional elective or Professionally Related required) from a student's program may be applied to the Physics minor provided those courses are part of the Physics minor curriculum.

Required Courses:

Either (PCS 120 and PCS 130) or (PCS 211 and PCS 125)

and

PCS 228 or PCS 300

where

PCS 120 (Physics I) and PCS 130 (Physics II) are required course for all Science students;

PCS 211 (Physics: Mechanics) and PCS 125 (Physics: Waves and Fields) are required courses for all Engineering students.

Electives Courses: Select 3 from

PCS 107 (Natural Context); PCS 110 (Physics); PCS 224 (Solid State Physics); PCS 227 (Biophysics); PCS 228 (Electricity and Magnetism); PCS 300 (Modern Physics); PCS 230 (Photonics and Optical Devices); PCS 335 (Thermodynamics and Statistical Mechanics); PCS 352 (Nuclear Physics/Radiation Protection); PCS 358

(Mechanics); PCS 400 (Quantum Physics I); PCS 510 (Astrophysics); PCS 7009 Quantum Physics II); PCS 724 (Condensed Matter).

Pre-requisites: Due to the technical nature of many of the electives, they have PCS pre-requisites and, in many cases, mathematics (MTH) pre-requisites. The MTH pre-requisites are external to the minor. All science students and all engineering students have required MTH courses in their programs which are suitable pre-requisites for the elective PCS courses in the minor.

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends: *That Senate approve the proposed new Minor in Physics.*

O. PROPOSAL FOR A NEW MINOR IN LABOUR AND EMPLOYMENT RELATIONS

Proposal: The Department of Human Resources Management and Organizational Behaviour is proposing a six-course minor in Labour and Employment Relations (LER). This interdisciplinary minor is intended for students from a wide range of disciplines across Ryerson.

Rationale for the Minor: LER is a broad and interdisciplinary field of study, concerned with understanding all aspects of work and employment in society. While there is currently no Ryerson program in this field, many relevant courses are already offered and taught regularly by Ryerson departments. The Minor program structure utilizes these already existing Ryerson courses in a manner designed to both advance students' exposure to this field, and to further student intellectual diversity and interdisciplinary studies. The Minor may stimulate further curriculum development opportunities. As well, the Minor provides student learning opportunities connected to the recently established Ryerson Centre for Labour-Management Relations.

Objectives of the Minor:

- Students will acquire both a broader and more intensive understanding of work and employment relations in Canada;
- Students will gain an appreciation of the multiple, and often competing, paradigmatic perspectives and theoretical frameworks for examining LER;
- The intellectual training provided in the Minor may further student opportunities to undertake graduate studies in LER;
- Completion of the Minor may also further student preparation for certain professionally-related opportunities in LER.

Consistency with the Ryerson policy on Minors: The proposed minor is consistent with Policy 148. Under this policy, students are able to apply two required or compulsory courses from their own programs. The Minor takes this into account and enables students from most faculties at Ryerson to complete the Minor, including those in the Major offered by the HRM/OB department. The program design does not include any intentional exclusion of any program.

Curriculum: The proposed curriculum is presented below. All of the courses included in the Minor are offered annually by their respective teaching departments, other than in extraordinary circumstances. Note that there are no new courses being proposed as part of this Minor. To obtain the Minor a student must complete:

- a) MHR 522 – Industrial Relations
- b) Two of the following:
 - MHR 405 – Organizational Behaviour
 - MHR 523 – Human Resources Management
 - MHR 600 - Diversity and Equity
 - MHR 711 - Occupational Health and Safety (OHS 718 is an anti-requisite)
 - MHR 721 – Negotiations and Conflict resolution
 - LAW 529 – Labour and Employment Law
- c) Two of the following:
 - SOC 472 – Sociology of Work and Occupations OR SOC 501 – Sociology of Work*
 - ECN 605 – Labour Economics
 - PPA 319 – Politics of Work and Labour
- d) One additional course from group c) or from the following:
 - POG 315 – Equity and Human Rights OR PPA 125 Rights, Equity and the State
 - SOC 606 - Sociology of Work and Families
 - OHS 208 - Occupational Health and Safety Law

* SOC501 is a Liberal Study course.

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends: *That Senate approve the proposed new Minor in Labour and Employment Relations.*

Respectfully submitted,



Chris Evans, Chair for the Committee

ASC Members:

Keith Alnwick, Registrar

Ian Baitz, Faculty of Communication and Design, Graphic Communications Management

Jennifer Cartwright, Ted Rogers School of Management, Business Management, Student ASC Member

Naomi Eichelau, Librarian, Library

Chris Evans, Vice-Chair and Vice Provost Academic

Jacob Friedman, Faculty of Engineering, Architecture, and Science, Mechanical and Industrial Engineering

Noel George, Faculty of Engineering, Architecture, and Science, Chemistry and Biology

Jacqui Gingras, Faculty of Community Services, Nutrition

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Andrew Hunter, Faculty of Arts, Philosophy

Suanne Kelman, Faculty of Communication and Design, Journalism

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Pamela Robinson, Faculty of Community Services, Urban and Regional Planning

Diane Schulman, Secretary of Senate, Non-voting ASC Member

John Turtle, Faculty of Arts, Psychology

Andrew West, Faculty of Arts, Politics, Student ASC Member