

RYERSON UNIVERSITY
AGENDA
ACADEMIC COUNCIL MEETING
Tuesday, May 4, 2004

*****PLEASE NOTE THE CHANGE IN TIME*****

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- 5:00 p.m.** A light dinner will be served in The Commons, Jorgenson Hall, Room POD-250.
- 5:30 p.m.** Discussion re Presidential Search – (attachments - pages 1-2)
- 6:30 p.m.** Regular Academic Council meeting commences
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- Pages 3-5 **1. President's Report**
 1.1 Ryerson Achievement Report
 1.2 Academic Planning Update
- Pages 6-7 **2. Report of the Secretary of Academic Council**
 2.1 Academic Council schedule – 2004-05
- Pages 8-16 **3. The Good of the University**
- 4. Minutes**
 4.1 Minutes of the March 30, 2004 Meeting
- Page 17 **5. Business arising from the Minutes**
Page 18 5.1 Rewording of Course Management Policy
 5.2 Motion re Academic Council Election Reports
- 6. Correspondence**
- 7. Reports of Actions and Recommendations of Departmental and Divisional Councils**
- Pages 19-20 7.1 From Continuing Education:
 Course changes in Occupational Health & Safety
 Course changes in Gerontology
- Pages 21-23 7.2 From the School of Graduate Studies:
 Course additions in: Environmental Applied Science & Management;
 Communication and Culture; and Electrical and Computer Engineering
- Pages 24-26 **8. Reports of Committees**
 8.1 Report #W2004-3 of the Nominating Committee

Motion: *That Academic Council approve the nominees for Standing Committee membership for 2004-2005 as outlined in this report.*

8.2 Report #W2004-05 of Academic Standards Committee:

Motion #1: *That Academic Council approve the periodic program review of the Applied Chemistry and Biology Program as conducted by the Department of Chemistry and Biology.*

Motion #2: *That Academic Council approve the new Minor in Biology.*

Motion #3: *That Academic Council approve the new Minor in Chemistry.*

Motion #4: *That Academic Council approve the revisions to the Minor in Psychology.*

Motion #5: *That Academic Council approve the proposed Curriculum restructuring presented by the Department of Chemistry and Biology.*

Motion #6: *That Academic Council approve the designation of Bachelor of Science (Biology) and Bachelor of Science (Chemistry) for students graduating respectively from the Biology and Chemistry programs offered by the Department of Chemistry and Biology.*

Motion #7: *That Academic Council approve the program in Criminal Justice leading to the Bachelor of Arts (Criminal Justice).*

Motion #8: *That Academic Council approve the program in Politics and Governance leading to the Bachelor of Arts (Politics and Governance).*

Motion #9: *That Academic Council approve the program in Sociology leading to the Bachelor of Arts (Sociology).*

8.3 **Addendum to Academic Standards Report #W2004-5**

Motion #10: *That Academic Council approve the program in Contemporary Science leading to the Bachelor of Science (Contemporary Science).*

9. **New Business**

10. **Adjournment**

April 20, 2004

Dr. Diane R. Schulman
Secretary of Academic Council
Ryerson University

Re: Presidential Search Committee
May 4, 2004 Academic Council Meeting

Dear Dr. Schulman:

The Chair of the Presidential Search Committee, Dr. Michael Guerriere, together with other members of the Committee are pleased to meet with members of Council on May 4, 2004 from 5:30 to 6:30 p.m. to discuss the search. I understand a dinner will be available at 5:00 p.m.

Generally the Committee members are seeking Council's input on two matters; the mandate which should be provided to the new President and the attributes of the successful candidate.

Search Committee members appreciate the opportunity to meet with Academic Council members on this important matter.

Enclosed for your information is a list of the full Search Committee Membership.

Sincerely,



Ed (E.J.) Valin
Secretary of the Board of Governors

c.c. Dr. M. Guerriere, Chair, Presidential Search Committee
Presidential Search Committee Members
Dr. C. Lajeunesse, President and Vice Chancellor
Dr. Joann Trypuc, Presidential Search Consultant

MEMBERS OF THE RYERSON PRESIDENTIAL SEARCH COMMITTEE

Michael Guerriere, Committee Chair	Chair (Board)
Ramesh Zacharias Committee Vice-Chair	Vice-Chair (Board)
Raymond, Chang	External Member (Board)
Michele Dionne	Professor, Department of Psychology, Faculty of Arts (Academic Council)
Janice Fukakusa	External Member (Board)
Greg Konigshaus	Alumnus Member (Board)
Maurice Mazerolle	Professor, School of Business Management, Faculty of Business (Academic Council)
Ray Protti	External Member (Board)
Cristina Ribeiro	Student Member (Board)
Perry Schneiderman	Chair, Theatre School, Faculty of Communications and Design (Academic Council)
Ken Scullion	Associate Registrar Staff Member (Board)
Sue Williams	Dean, Faculty of Community Services (Academic Council)

RYERSON UNIVERSITY ACHIEVEMENT REPORT

For the May 2004 meeting of Academic Council

Events

President **Claude Lajeunesse** hosted a luncheon to honour student athlete award winners, and graduating athletes, April 13. The President also hosted a reception for Vancouver-based alumni April 1, and a reception for graduate student winners of Rogers Fellowships April 6.

About 50 students were recognized for their academic and extracurricular achievements at the Dennis Mock Student Leadership Awards, held April 7.

Vittorio Missoni, marketing director for the Italian fashion house Missoni, presented a master class to Ryerson design students during Toronto Fashion Week.

British journalist and author Roy Greenslade delivered the annual Atkinson Lecture March 31, hosted by the School of Journalism.

End-of-year shows for Fashion (Mass Exodus), Interior Design (elevation 04), and Image Arts (Maximum Exposure) demonstrated student work to the Ryerson community and the public. The School of Radio and Television Arts held their annual awards show April 8 at the CBC.

Media Appearances

Alice Chu of Fashion commented in the April 10 *Toronto Star* on predicting colour trends in fashion.

One Journalism professor and four students were nominated for Canadian Association of Journalists awards for outstanding investigative journalism for 2003. **John Miller** was nominated for his work with the *Simcoe Reformer*, and students **Chris Richardson, Joe Friesen, Mary Nersessian** and **Joel Wass** were nominated for their work with the *Ryersonian*. Awards are May 9 in Vancouver.

Mitchell Kosny of Urban and Regional Planning was interviewed on CBC Radio's *Ontario Today* and CBC TV's *Canada Now* about the 50th anniversary of the TTC subway line. His comments on urban poverty were reported in the April 6 *Toronto Star*.

A study by Urban and Regional Planning students of the Danforth strip between Greenwood and Woodbine Aves. was featured in a *Globe and Mail* story April 2.

Suanne Kelman of Journalism appeared on CFRB radio and was quoted in the *Globe and Mail* on the publication of gruesome photographs of violence in Iraq. Prof. Kelman was

interviewed on ROB TV April 6 about plagiarism, in light of the book by former *New York Times* reporter Jayson Blair.

Tammy Landau of Justice Studies appeared on *Global National* TV March 29 commenting on the Cecilia Zhang case.

On March 23, RyeSAC President **Ken Marciniac** was interviewed by CBC Newsworld for student reaction about the federal budget. He also appeared on *Canada Now* following the announcement of the tuition freeze April 8.

Truc Nguyen of Fashion won third prize in the Royal Melbourne Institute of Technology's Melbourne International Flower and Garden Show competition. Students made garments out of flowers and finalists had their work on display at the show.

Claude Lajeunesse was heard on CBON radio in Sudbury commenting on the federal budget March 24.

Also commenting on the federal budget, **Neil Thomlinson** of Politics appeared on CBC Radio's *Metro Morning*, *Northwest Noon*, CBC radio local news and CBC TV's *Canada Now*.

The Vinyl Café, the popular CBC radio program by Journalism's **Stuart Maclean**, is being made into a pilot television program for CBS, according to *Daily Variety* and *The Hollywood Reporter*.

Akua Benjamin, director of Social Work, commented in the March 19 *Toronto Star* on racial profiling and the police.

Gabor Forgacs of Hospitality and Tourism Management commented in the March 17 *Toronto Star* on the effectiveness of an ad campaign promoting tourism to Toronto.

The Theatre School's production of *A Funny Thing Happened on the Way to the Forum* received a glowing review in *Now* magazine.

Jennifer Brayton of Sociology was interviewed on 680 News about the social implications of reality television.

Brent Barr of Retail Management was interviewed on CKLW Windsor radio about the Martha Stewart verdict and its likely impact on the Stewart business empire.

Michelle Dionne of Psychology was quoted in the March 13 *Toronto Sun* on the challenges facing female varsity athletes.

Andrew Furman's display of shoes at City Hall, demonstrating the number of people killed in motor vehicle accidents, received coverage in the *Star* and *Eye* newspapers. The exhibit by the Interior Design professor was on display March 1-5.

Prepared by Office of Public Affairs

**ACADEMIC COUNCIL CALENDAR
2004-2005**

ACADEMIC COUNCIL MEETINGS

(For Agendas and Minutes, please go to: www.ryerson.ca/acadcouncil/agenindex.html)

MEETING DATE	AGENDA DEADLINE
Tuesday, October 5, 2004	Tuesday, September 14, 2004
Tuesday, November 9, 2004	Tuesday, October 26, 2004
Tuesday, December 7, 2004	Tuesday, November 16, 2004
Tuesday, January 25, 2005	Friday, January 11, 2005
Tuesday, March 1, 2005	Tuesday, February 15, 2005
Tuesday, April 5, 2005	Tuesday, March 15, 2005
Tuesday, May 3, 2005	Tuesday, April 19, 2005

PLEASE NOTE: Agenda deadlines must be adhered to. All reports and documents must be submitted electronically (with “**Signature on File**” inserted in the signature section of the report/ document) to: lstewart@ryerson.ca, by the agenda deadline. (It is preferred that all electronic documents be submitted in Microsoft Word.) Documents and reports, which contain signatures, should also be submitted in hard copy to the Office of Academic Council, Room JOR-1221, Jorgenson Hall. Meetings will be held in the Commons Room (Room POD-250) and will commence at 6:00 p.m. A light dinner will be available from 5:30 p.m. If you have any questions, please contact the Secretary at ext. 5011.

SUBMISSION OF CURRICULUM/PROGRAM CHANGES

(For guidelines, see:(www.ryerson.ca/acadcouncil/Other.html/submissionguide.pdf)

SUBMISSION OF CURRICULUM/PROGRAM CHANGES	
Submission of proposal to the Provost and Vice-President Academic for consideration by Academic Standards Committee	October 7, 2004
Submission of material for January Academic Council Agenda	November 16, 2004
Final Academic Council meeting to approve degree program changes for 2005/2006	December 7, 2004
Deadline for submission of most CE proposals to the Provost and Vice President Academic for ASC consideration	January 13, 2005
Final Academic Council meeting to approve CE changes for 2005/2006	March 1, 2005

Departments should be aware that, due to its very large workload, the Standards Committee will not guarantee that curriculum or program changes submitted after the October deadline will be discussed in time for approval at the January meeting. Changes submitted by the deadline will be given priority.

The Academic Standards Committee is prepared to provide advice on the preparation of program change proposals. This input may help to avoid unnecessary delays caused by incomplete or inappropriate documentation. Please contact either the Provost and Vice-President Academic, or Mehmet Zeytinoglu (Vice-Chair, ASC).

FACULTY COURSE SURVEYS

(For Survey Guidelines, please access: www.ryerson.ca/acadcouncil/surveyguidelines.pdf)

FALL 2004	
FCS Detail lists to Departments	Tuesday, September 14, 2004
FCS Detail lists returned to Secretary of Academic Council by	Tuesday, September 21, 2004
FCS Forms delivered to departments	Wednesday, October 20, 2004
FCS Administered	November 1-19, 2004
FCS Forms returned to Secretary of Academic Council by	Monday, December 6, 2004
Reports to departments	Friday, January 14, 2005
WINTER 2005	
FCS Detail lists to Departments	Monday, January 17, 2005
FCS Detail lists returned to Secretary of Academic Council by	Friday, February 11, 2005
FCS Forms delivered to departments	Friday, March 4, 2005
FCS Administered	March 14-April 1, 2005
FCS Forms returned to Secretary of Academic Council by	Friday, April 8, 2005
Reports to departments	Wednesday, May 11, 2005

ACADEMIC COUNCIL ELECTIONS

(For Election Guidelines and forms, please access: www.ryerson.ca/acadcouncil/otherforms.html)

E-mail message to Students on Elections	Monday, January 17, 2005
Nominations open	Monday, January 24, 2005
Orientation meeting for student candidates	Monday, January 31, 2005
Nominations close	Wednesday, February 2, 2005
Names of nominees forwarded by Chair to Dean	Thursday, February 3, 2005
Names of nominees forwarded by Dean to Secretary of Academic Council	Friday, February 4, 2005
E-mail message to students announcing candidates	Monday, February 7, 2005
Student Voter Eligibility lists verified by Register's Office	Wednesday, February 9, 2005
On-Line Student voting (8:00 a.m. – 9:00 p.m.)	Monday, February 14, 2005 – Friday, February 18, 2005
Faculty/Chair vote (10:00 a.m. – 3:00 p.m.)	Monday, February 14, 2005
Faculty/Chair results to Secretary of Academic Council	Friday, February 18, 2005
Verification of Student On-Line Votes	Monday, February 21, 2005

(updated April 23, 2004)

Course Management Policy – Rewording of section 4.3a.i

Wording proposed on March 30, 2004:

- a. An indication of any requirement for the submission of work to an electronic plagiarism deterrent service. If the Faculty member chooses to use such a service, they must include either:
 - i. the following statement: Students who do not wish to submit their work to a plagiarism deterrent service must, by the end of the second week of class, consult with the instructor to make alternate arrangements.; or
 - ii. the details of alternate arrangements including the deadlines for consultation with the instructor concerning the use of these arrangements.

Proposed rewording:

- a. An indication of any requirement for the submission of work to an electronic plagiarism detection service. Instructors who choose to use an electronic plagiarism detection service that retains a copy of the submitted work in its database must include either:
 - i. the following statement: “Students who do not want their work submitted to this plagiarism detection service must, by the end of the second week of class, consult with the instructor to make alternate arrangements.”; or
 - ii. the details of alternate arrangements including the deadlines for consultation with the instructor concerning the use of these arrangements.

When an instructor has reason to suspect that an individual piece of work has been plagiarized, the instructor shall be permitted to submit that work to any plagiarism detection service.

MOTION: That Academic Council approve the wording of section 4.3 a.i of the Course Management Policy as presented in this report.

Respectfully submitted,

(original signed by)
Michael Dewson

(original signed by)
Diane Schulman

Academic Council Motion
Regarding Academic Council Election Reports

WHEREAS the reporting of detailed election results of democratic bodies is standard practice within the Ryerson community, including the Ryerson Board of Governors, the Ryerson Faculty Association, and the Ryerson Students' Administrative Council.

WHEREAS the availability of full and detailed election results provides valuable information as to the effectiveness of Academic Council's election by-laws and policies.

WHEREAS the transparency resulting from the release of full and detailed election results is an important part of the democratic process.

BE IT RESOLVED THAT Academic Council adopt a policy requiring full and detailed election results to be provided to council in writing following Academic Council elections. These results shall include a list of all candidates, the number of votes per candidate, the voter turn-out by faculty, and the number of ballots and votes cast in total.

BE IT FURTHER RESOLVED THAT the Secretary of Academic Council be directed to prepare such a report based on the 2004 elections for presentation at the final council meeting of the 2003/2004 term.

Initiating School/Department: G. Raymond Change School of Continuing Education **Date of Submission:** April 23, 2004

s this the Teaching School/Department, Program School/Department, or both? Both

Please add extra rows as needed if multiple courses are involved.

Errol Casper Apr 23/04
 Vice President, Academic Date

Course Code/ Number	Course Title	Nature of Change (Use letters to indicate where provided)				Program(s)/ School(s)/ Department(s) affected and informed of change	Purpose of Changes	Minors Affected	Implementation Date
		Hours and Mode	New Course (Y/N)	Re-position(R) Addition (A) Deletion(D)	Required(R) Elective(E) Professional- Elective(PE) Professionally- Related Elective (PRE)				
CGER202	Intergenerational Relationships	3 Lect.	N	D	E	Certificate in Gerontology			September 1, 2004
CVGE202	Intergenerational Relationships	3 Lect	N	A	E	Certificate in Gerontology			September 1, 2004
CGER205	Research and Practice I	3 Lect.	N	D	R	Certificate in Gerontology			September 1, 2004
CVGE205	Research and Practice I	3 Lect	N	A	R	Certificate in Gerontology			September 1, 2004
COCR959	Psychology of Aging	3 Lect.	N	D	E	Certificate in Mental Health and Addictions			September 1, 2004
COPS607	Psychology of Aging	3 Lect.	N	A	E	Certificate in Mental Health and Addictions			September 1, 2004

School of Graduate Studies

Graduate Program: Joint Graduate Program in Communication and Culture

Initiating School/Department: School of Graduate Studies

Approval of VP Academic: _____
Dr. Errol Aspevig

Course Number	Course Title	Mark with "X"			Required/ Elective	Credits	Programs Affected	Implement Date	Purpose of Change
		Amen ded	Deleted	Added					
CC tba	A History of News			X	Elective Area of Specialization: Technology in Practice	1	GCAC, GCAP, GCDC	Summer 2004	To date, there has been no course in the Graduate Programme in Communication and Culture which examines the institution of practice of news-making, either in the form of print or broadcast journalism. This course addresses this absence by focusing upon the historical evolution of "the news", and its various uses and configurations throughout the dramatic social and technological changes of the past two centuries.

School of Graduate Studies

Graduate Program: Computer Networks

Initiating School/Department: Department of Electrical and Computer Engineering

Approval of VP Academic: _____

Dr. Errol Aspevig

Course Number	Course Title	Mark with "X"			Y/N	Credits	Programs Affected	Implementation Date	Purpose of Change
		Amended	Deleted	Added					
CN8861	Network Management			X	N	1	ELCE	Sept. 2004	Additional elective
CN8825	Network Design			X	N	1	MPCS	Sept, 2004	Additional elective
CN8831	Advanced Topics in Network Security			X	N	1	ELCE	Sept, 2004	Additional elective

School of Graduate Studies

Graduate Program: MASC Program in Environmental Applied Science and Management

Initiating School/Department: School of Graduate Studies

Approval of VP Academic: _____
Dr. Errol Aspevig

Course Number	Course Title	Mark with "X"			Required/ Elective	Credits	Programs Affected	Implementation Date	Purpose of Change
		Amended	Deleted	Added					
ES8801	Facility Siting and Environmental Risk Assessment			X	Elective (Environmental Management)	One	GEAS, GEAP. School of Urban & Regional Planning	Summer 2004	ES8801 cross-listed to an existing undergraduate UPE815 course offered by the School of Urban & Regional Planning will provide a course to a specific group of students in this program who need it before proceeding to the research work. Since the program inception in year 2000, three graduate students in this program require such a course to prepare them for the graduate project or thesis research activities. This course is typically offered in Ontario environmental studies programs as a graduate course, and it has been a consequence of Ryerson's largely undergraduate academic history that the course has been taught at an undergraduate rather than a graduate level. Course registration ins ES8801 will be approved on a case by case basis by the Environmental Applied Science & Management graduate program director and the instructor of UPE 815.

**NOMINATING COMMITTEE REPORT
W2004-3**

May 4, 2004

The following people have been approved by the Nominating Committee of Academic Council for committee membership for 2004-2005 (* Re-nominated).

MOTION: That Academic Council approve the nominees for standing committee membership for 2004-05 as outlined in this report.

<u>Committee</u>	<u>Department</u>	<u>Faculty</u>
<u>Admissions</u>		
Suhair Deeb	Int'l. Office	
Scott Anderson	Business Management	(Bus.)
Carol-Anne O'Brien	Social Work	(C.S.)
Ali Hussein	Electrical Engineering	(E&AS)
Amy Casey	Associate Director	(C.E.)
Franklin Gorospe (student)	Nursing	(C.S.)
Ali Ladhani (student)	ITM	(Bus.)
Latif Merali (Alumus)		
<u>Appeals Committee</u>		
Doug Banting	Geographic Analysis	(Arts)
Martin Grieg	History	(Arts)
Peter Pille	ITM	(Bus.)
*Jane Monro	Business Management	(Bus.)
*Gillian Mothersill	Graphic Comm. Mgmt.	(C&D)
*Margaret Malone	Nursing	(C.S.)
Darrick Heyd	Chemistry & Biology	(E&AS)
Jeffrey Yokota	Aerospace Engineering	(E&AS)
*Ali Lohi	Chemistry & Biology	(E&AS)
Anna Bridges (student)	Arts & Contemporary Science	(Arts)
Ali Ladhani (student)	ITM	(Bus.)
*Truc Nguyen (student)	Fashion	(C&D)
Alexandra Jurczak(student)	Nursing	(C.S.)
*Naveed Iqbal (student)	Electrical Engineering	(E&AS)
Steven Norrie (student)	Environ. & Appl. Science Mgmt.	(E&AS)
*Issa Guindo (student)	Business Management	(Bus.)
*Vashti Campbell (student)	Social Work	(C.S.)

Academic Standards Committee

*Daria Sydor	Business Management	(Bus.)
*Annick Mitchell	Interior Design	(C&D)
Donna Smith	Assoc. Dean	(C&D)
*Daniel Phelan	Library	
*Des Glyn	Continuing Education	(C.E.)
*Christopher Livett (student)	Geographic Analysis	(Arts)
*Hillary Moreau (student)	Business Management	(Bus.)

Awards & Ceremonials

Anne-Marie Lee-Loy	English	(Arts)
Rena Mendelson	Nutrition	(C.S.)
Kamran Behdinin	Aerospace Engineering	(E&AS)
Andrew Hunter	Philosophy	(Arts)
Sue Wilson	Assoc. Dean	(C.S.)
*Stalin Boctor	Dean	(E&AS)

Composition & By-Laws

Carlyle Farrell	Business Management	(Bus.)
Lillie Lum	Nursing & Health Services Mgmt.	(C.S.)
Fil Salustri	Mechanical Engineering	(E&AS)
*Ali Lohi	Chemical Engineering	(E&AS)
Tara Spencer (student)	Arts & Contemporary Science	(Arts)
Michael Anecchini (student)	Journalism	(C&D)

Learning & Teaching

Linda Kowal	Instructional Relations	(C.E.)
Klass Kray	Philosophy	(Arts)
Deirdre Taylor	Business Management	(Bus.)
Sholem Dolgoy	Theatre	(C&D)
Anne Johnson	Chemistry & Biology	(E&AS)
*Christopher Livett (student)	Geographic Analysis	(Arts)
Candace Clarke (student)	Business Management	(Bus.)
Anya Taraboulsky (student)	Fashion	(C&D)
*Moyeed Uddin Ahmed (student)	Electrical & Computer Eng.	(E&AS)
*Stacey Mirowski (student)		(C.E.)
Zulfiqar Ali Khowaja (grad student)	Civil Engineering	

Nominating Committee

Katherine Penny	Hospitality & Tourism Mgmt.	(Bus.)
Gillian Mothersill	Graphic Communications Mgmt.	(C&D)
Chris Evans	Chemistry & Biology	(E&AS)
Dale Shipley	Early Childhood Education	(C.S.)
Issa Guindo (student)	Business Management	(Bus.)
Anna Bridges (student)	Arts & Contemporary Studies	(Arts)

Research Ethics Board

*Maurice Mazerolle	Business Management	(Bus.)
*Xiao Ping Zhang	Electrical Engineering	(E&AS)
*Pat Corson	Early Childhood Education	(C.S.)
*Wasim Ghani (Grad. Student)	Communication & Culture	(E&AS)
*Avner Levine	Legal Expertise	
*Jay Mowat	Community Member	

SRC Committee

Michael Finn	French & Spanish	(Arts)
Wendy Cukier	Assoc. Dean	(Bus.)
Irene Devine	Assoc. Dean	(C&D)
Maria Guervich	Psychology	(Arts)
Lisa Barnoff	Social Work	(C.S.)
David Naylor	Mechanical Engineering	(E&AS)
Steven Norrie (Grad. Student)	Environ. Appl. Science & Mgmt.	(E&AS)
Danish Ayub (student)	Computer Science	(E&AS)

Respectfully submitted,

(Original signed by)

Kaamran Raahemifar, Chair

For the Committee

Michelle Dionne

Alex Pevec

Marsha Barber

Dale Shipley

Stalin Boctor

Carla Cassidy

Benjamin Lewis

Christopher Livett

Jacob Gryn

Diane Schulman (*ex officio, non-voting*)

REPORT OF THE ACADEMIC STANDARDS COMMITTEE

Report #W2004–5; May 2004

In this report we bring to Council our recommendations on several items. The report has been divided into three sections:

- **Section A** presents the periodic program review of the *Applied Chemistry and Biology Program* as conducted by the *Department of Chemistry and Biology*.
- **Section B** presents the new *Minor in Biology* and *Minor in Chemistry*, and revisions to the *Minor in Psychology*. This section also includes curriculum restructuring and changes to degree designations in the programs offered by the *Department of Chemistry and Biology*.
- **Section C** presents new program proposals in: *Criminal Justice, Politics and Governance, and Sociology*.

Further documentation on the items addressed in this and all other ASC reports is available for review through the Secretary of Academic Council

SECTION A: PERIODIC PROGRAM REVIEW

The following review has been completed in accordance with Academic Council Policy #126, The Periodic Review and Evaluation of Undergraduate Programs at Ryerson. By this policy and its associated procedures, all programs are reviewed on a cyclical basis with respect to academic quality, societal need, and financial sustainability.

1. Applied Chemistry and Biology Program

Program Description

Ryerson has had a rich tradition in the education of technologists and science graduates. A Chemical Technology Diploma program was one of the first programs offered when Ryerson Institute of Technology was established in 1948. By the 1960s, the Chemical Technology program had options in Industrial Chemistry, Applied Chemistry and Polymer Chemistry. In 1967 the Department of Chemical Technology initiated a new program in Laboratory Science combining parts of the Applied Chemistry option with new courses in biology, biochemistry and microbiology. Both programs added a fourth year in 1971 when Ryerson was granted legislative authority to award baccalaureate degrees. The first Bachelor of Technology (BTech) degree in Laboratory Science was awarded in 1971.

The Laboratory Science program was further modified to become more academically oriented in chemistry and biology while retaining a career-oriented thrust. The program was accredited by the Canadian Society for Chemistry (CSC) in 1985. In 1989 the program name was changed to Applied Chemistry and Biology to better reflect the nature of the program and the degree designation BTech was replaced with Bachelor of Science. The program was re-accredited by the CSC in 1992 and further evaluation in 1998 led to curriculum changes. The program has recently been re-accredited by CSC in 2003 for a five-year period.

The Department has established a number of objectives related to students, faculty, and curriculum. These include:

- To provide a broad base of scientific knowledge through education in fundamental concepts and principles in the applied chemical and biological sciences.
- To develop practical expertise in laboratory skills and related scientific technologies, consistent with the highest standards of current industrial practice.
- To promote excellence in oral and written communication, by providing opportunities to develop and apply the presentation skills required by industry professionals.
- To prepare graduates to compete effectively for employment in a variety of science-based industries, for admission to graduate programs in chemistry or biological sciences.

Admission to the program is based on OSSD with six U/M or OAC courses including English, Chemistry, Biology and Advanced Functions and Introductory Calculus with a minimum of 60 percent or higher in each of these courses. The Department offers a curriculum of 42 one-semester course equivalents (Ryerson calendar, 2003/2004, pp. 118–126). In the first year of the program, students study the fundamental concepts and skills of chemistry and biology. Mathematics, physics and computer applications are included to provide a broad science background. The second year includes courses in biochemistry, inorganic, organic, and analytical chemistry and microbiology. Statistics provide the basis for understanding experimental data and for designing complex experiments. Third and fourth year students continue to study applied chemistry, biochemistry, microbiology and biotechnology with an emphasis on laboratory work. Practical technical and communications skills are a particular feature of the program. The Department offers an optional co-operative program which provides students with 20 months of work experience.

In addition to offering its undergraduate program, five of the faculty members of the Department participate in the interdisciplinary masters program in *Environmental Applied Science and Management*. All faculty members are listed as graduate faculty associated with the masters programs in *Chemical Engineering*.

The Program Review

The review, conducted over portions of the 2001/02 and 2002/03 academic years, provides a comprehensive base of information about the program and department. This includes student data, student and graduate surveys, and a comparator review. The Peer Review Team¹ (PRT) report and the Department's response to the PRT report provide further insight into the program.

Assessment of Strengths and Weaknesses

The assessment of program strengths and weaknesses, based on the self-study report and the observations and comments made by the PRT are as follows:

Strengths: The program's most evident strength is the rigorous laboratory component that underlies its curriculum. While this may involve a considerable expenditure of time and

¹ Drs. R. Bollman (University of Winnipeg) and G. Buchanan (Carleton University)

resources, it creates a unique program that continues to attract students. The program also exhibits strength in its curricular relevancy (combination of chemistry and biology) and its strong core chemistry curriculum. The Department and the *Applied Chemistry and Biology Program* are further characterized by faculty who are committed to the program and its students. Faculty have extensive SRC accomplishments and enjoy strong collaborative relationships with research partners both nationally and internationally.

Weaknesses: The biology component of the program lacks coverage of genetics, cell biology and ecology. The laboratory infrastructure requires significant investment of funds to upgrade facilities and equipment.

Responses to Strengths and Weaknesses: In its developmental plan and response to the PRT report, the Department recognized the growing importance of biology sub-disciplines that are lacking in the current curriculum. Given the stringent accreditation requirements of the CSC (which accredits the chemistry portion of the curriculum) and the desire to maintain a curriculum with a maximum of 5 courses per term, the Department argued that the inclusion of the suggested biology courses in the current program was simply not feasible. In line with the recommendations extended by the PRT, the Department proposed major curriculum restructuring which would separate the biology and chemistry streams.

In response to concerns over dated laboratory infrastructure, the Department arranged an audit of its laboratory facilities and updated some of the equipment in its teaching laboratories.

ASC Evaluation

The *Applied Chemistry and Biology Program* is a program in transition. The separation of biology and chemistry streams will permit the addition of new courses in the biology curriculum while allowing the Department to maintain the course requirements for continued accreditation of the chemistry program. Because the curriculum restructuring and the new *Contemporary Science Program* proposals were submitted shortly after the program review, the ASC was in a unique position to observe the implementation of the recommendations and self-assessment arising from the periodic program review. The proposed curriculum restructuring that will separate the biology and chemistry streams represents a significant step in the evolution of this program and the anticipated science programs at Ryerson.

Follow-up Report

In keeping with usual procedure, a follow-up report is to be submitted to the Dean and the Provost and Vice President Academic by the end of June 2005.

Recommendation

Having determined that the Applied Chemistry and Biology program review satisfies the relevant policy and procedural requirements, the Academic Standards Committee recommends:

That Academic Council approve the periodic program review of the Applied Chemistry and Biology Program as conducted by the Department of Chemistry and Biology.

SECTION B: CURRICULUM CHANGES

1. MINORS

Two new minors, the *Minor in Biology* and the *Minor in Chemistry*, have resulted from the curriculum restructuring by the *Department of Chemistry and Biology*. The objectives of these new Minors are to provide students with the opportunity to gain knowledge and skills in a field of science other than their main field of study. They intend to provide students with additional qualifications, thereby enhancing their options in science-related careers and graduate studies.

The motivation for the proposed revisions to the *Minor in Psychology* is to increase accessibility of this minor to more programs at Ryerson, especially anticipated science programs. The revised Minor requires the completion of six courses including two required courses (*PSY 102* and *PSY 202*) and four elective courses that are typically available to academic programs as professionally-related courses. In order to help students select courses that best complement their program of study, the *Department of Psychology* has categorized the elective psychology courses into four discipline areas. However, students are free to choose their electives from any of the areas.

The description of the new and revised Minors are as follows.

1.1 Minor in Biology

To receive a *Minor in Biology*, a student must complete six one-term courses (or equivalent) from the following course of study.

3 Required courses:

BLG 151 Microbiology I,
BLG xx1 Genetics
BLG xx3 Cell Biology

3 Elective Courses:

Select the equivalent of three one-term courses from the following (two of the courses must be at the 300 and/or 400 level):

BLG 010a Physiology
BLG 010b Anatomy
BLG 251 Microbiology II
BLG 307 Principles of Biotechnology
BLG 351 Applied Microbiology
BLG 401 Ecotoxicology
BLG 402 Limnology
BLG 407a Applications of Biotechnology
BLG 407b Biotechnology Laboratory

BLG xx2 Applied Ecology
BLG xx4 Current Topics in Biology
BLG xx5 Developmental Biology
BLG xx6 Genomics and Proteomics
BLG xx7 Immunology
BLG xx8 Pharmacology

1.2 Minor in Chemistry

To receive a *Minor in Chemistry*, a student must complete seven one-term courses (or equivalent) from the following course of study:

3 Required courses:

CHY 213 Analytical Chemistry I,
CHY 381 Physical Chemistry I
CHY 330 Spectroscopy

4 Elective Courses:

Select the equivalent of a minimum of three one-term courses from the following (two of the courses must be 400 level courses):

<i>CHY 223 Analytical Chemistry II</i>	<i>CHY 435 Chemical Instrumentation</i>
<i>CHY 337 Spectroscopy in Organic Chemistry</i>	<i>CHY 436 Pharmaceutical Chemistry</i>
<i>CHY 344 Inorganic Chemistry I</i>	<i>CHY 437 Organic Chemistry III</i>
<i>CHY 423 Environmental Science</i>	<i>CHY 445 Materials Chemistry</i>
<i>CHY 431 Applied Analytical Chemistry</i>	<i>CHY 449 Inorganic Chemistry II</i>
<i>CHY 434 Analytical Chem. of Complex Matrices</i>	<i>CHY xx1 Computational Chemistry</i>

1.3 Minor in Psychology

The *Minor in Psychology* is intended to complement students' professional studies in a wide range of disciplines and broaden their career preparation. Students acquire an understanding of the basic principles of Psychology as well as their application. To receive a *Minor in Psychology*, students must complete six one-term (or equivalent) courses from the following course of study:

2 Required Courses

PSY 102, PSY 202

4 Elective Courses

In selecting four elective one-term (or equivalent) courses from the list below, students should select courses that best complement their program of study and career interests. Students are free to select any four courses that best suit their interests or program of study at Ryerson.

Cognition and Neuroscience:

PSY 714, PSY xx1, PSY xx2, PSY xx3, PSY xx4, PSY xx5

Developmental and Context:

PSY 204, PSY 209, PSY 217, PSY 302, PSY 402, PSY 602, PSY 808

Health and Applications:

PSY 605, PSY 802, PSY 805, PSY 806, PSY xx6, PSY xx7, PSY xx8

Social & Cultural Perspectives:

PSY 108, PSY 124, PSY 300, PSY 814, PSY 920, PSY 940, PSY 941

Important Note: Students must ensure that the elective courses that they select have been identified by their program as professionally-related electives.

The titles of the psychology courses that constitute the Minor are as follows.

*PSY 102 The Science of Psychology
PSY 108 Applied Problem Solving
PSY 124 Social Psychology
PSY 202 Introduction to Applied Psychology
PSY 204 Psychology of Work
PSY 209 Industrial Psychology
PSY 217 Environmental Psychology
PSY 302 Child Development
PSY 402 Adult Development
PSY 602 Developmental Psychology
PSY 605 Psychology of Health
PSY 714 Visual Information Processing*

*PSY 802 Death, Dying and Bereavement
PSY 805 Adjustment, Stress and Coping
PSY 806 Behaviour Modification
PSY 808 Community Psychology
PSY xx1 Drugs and Human Behaviour
PSY xx2 Brain and Behaviour 1
PSY xx3 Brain and Behaviour 2
PSY xx4 Evolutionary Psychology
PSY xx5 Memory and Cognition
PSY xx6 Introduction to Addictions
PSY xx7 Behavioural Disorders
PSY xx8 Clinical Psychology*

ASC Evaluation

The proposed new *Minor in Biology* and the *Minor in Chemistry* extend the opportunities available to students for further specialization in science related fields. The proposed new model for the *Minor in Psychology* is a simple and elegant design which maintains current participation while encouraging participation from other programs such as existing and anticipated science programs. The ASC believes that the proposed additions and revisions to the Minors will enrich the selection available to students.

Recommendations

Having satisfied itself of the merit of this proposal, the Academic Standards Committee recommends:

Minor in Biology:

That Academic Council approve the new Minor in Biology.

Minor in Chemistry:

That Academic Council approve the new Minor in Chemistry

Minor in Psychology:

That Academic Council approve the revisions to the Minor in Psychology.

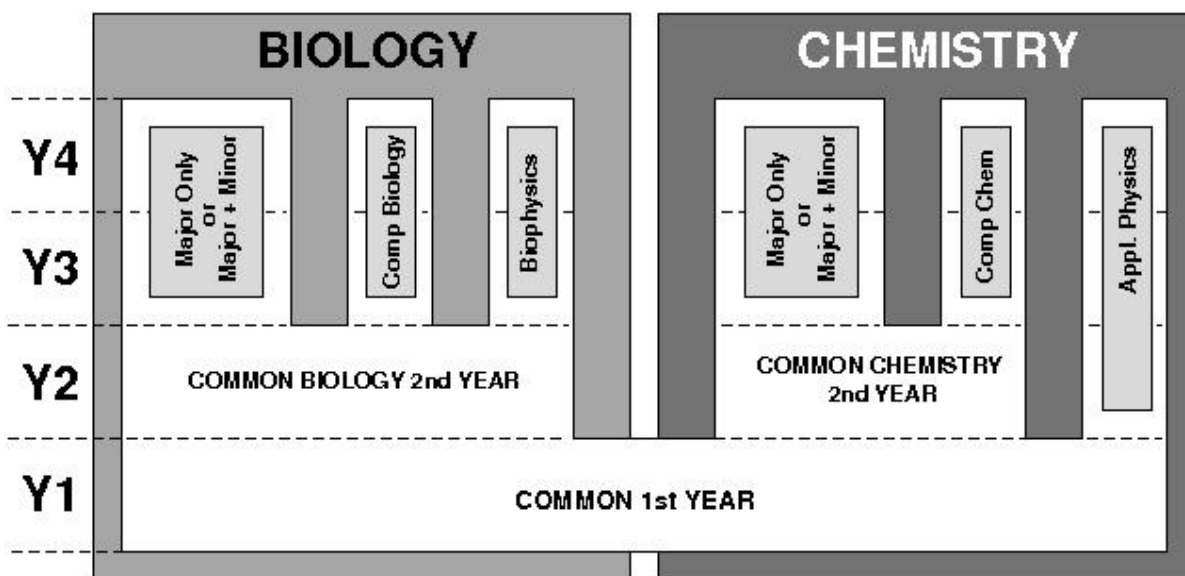
2. Curriculum Restructuring in Chemistry and Biology

The proposed curriculum restructuring is a response to the periodic program review of the *Applied Chemistry and Biology Program*. The review identified curricular relevancy (combination of chemistry and biology), a strong core chemistry curriculum, and a significant interest by the students in the currently offered biology courses as strengths. Conversely, lack of options for students, and a general lack of specific courses in biology, including cell biology and genetics, computer science and business were identified as major limitations.

The *Department of Chemistry and Biology* formulated the restructured curriculum with input from the Faculty of Engineering and Applied Science Working Group on New Science Programs, faculty, various academic units within the University and the Program Advisory Committee. The following are elements of the proposed curriculum restructuring.

Common First Year: The *Biology* and *Chemistry* programs will share a common first year. The *Applied Chemistry and Biology Program* will no longer be offered. Instead students may select this area of study as a curriculum option (*Chemistry Major* with a *Minor in Biology*).

Curriculum Paths: Students continuing beyond first year will select a curriculum path that will lead them to either a degree in *Biology* or *Chemistry*. The following diagram presents an overview of the majors and the specializations that will be offered.



Appendix 1 provides the curriculum listing in each major and specialization.

Minors: In accordance with the University policies, students may pursue any Minor offered by Ryerson. It is expected that the students in the *Biology* program will likely pursue either a *Minor in Chemistry* or a *Minor in Psychology*, whereas students in the *Chemistry* program will normally opt for a *Minor in Biology*.

Practicum: Co-operative and internship options will be available to qualified students (normally having a GPA of 3.00 or greater following the end of second year). Students will have to complete a minimum of three of the five work terms to be eligible for a co-op degree. Alternatively, students can opt to complete a 16-month industrial internship placement following the completion of the third year of study.

Optional Designation in Management Science: The recently introduced option in Management Sciences will be available to all students enrolled in science programs. The designation in Management Science will require that students complete a total of six additional courses beyond their regular program.

Implementation: The implementation of the new curriculum will commence in Fall 2005.

ASC Evaluation

The proposed curriculum restructuring represents a significant development in the formulation and delivery of science programs at Ryerson. The common first-year science platform will expose students to various science fields rather than capturing them immediately into narrowly defined and frequently not well understood quasi-professional programs. The common second year curriculum in *Biology* and *almost* common second year curriculum in *Chemistry* are designed to build a discipline specific foundation before students further specialize in various streams. The ASC endorses the common curriculum structure as it allows highly efficient program delivery and greater credit transferability among programs and streams/options within

programs. The ASC also recognizes that the creation of separate majors for *Biology* and *Chemistry* will allow the delivery of the relevant curricula in these separate but closely related science majors without jeopardizing the accreditation of the *Chemistry* program.

Recommendation

Having satisfied itself of the academic merit of this proposal, the Academic Standards Committee recommends:

That Academic Council approve the proposed curriculum restructuring presented by the Department of Chemistry and Biology.

3. Change of Degree Designation in the Department of Chemistry and Biology

Currently, the *Department of Chemistry and Biology* offers a four-year undergraduate program leading to Bachelor of Science in Applied Chemistry and Biology. This program was most recently accredited by the Canadian Society for Chemistry in 2003 for a period of five years. In its evaluation of the program the accrediting body recommended a number of curriculum changes. In response to these recommendations, the Department introduced a major curriculum restructuring. As a result of this curriculum restructuring the Department will be offering two majors one leading to a *Chemistry* degree and the other leading to a *Biology* degree. This separation will allow the Department to offer a modern and relevant biology program without jeopardizing the accreditation of the *Chemistry* program. The proposed degrees, *Bachelor of Science (Biology)* and *Bachelor of Science (Chemistry)* reflect the nature of these two academic programs. The proposed new degrees are compatible with the degrees offered by similar programs elsewhere. These new degrees will be applicable to the new *Biology* and *Chemistry* programs that will commence in Fall 2005.

Recommendation

Having satisfied itself of the merit of this proposal, the Academic Standards Committee recommends:

That Academic Council approve the designation of Bachelor of Science (Biology) and Bachelor of Science (Chemistry) for students graduating respectively from the Biology and Chemistry programs offered by the Department of Chemistry and Biology.

SECTION C: NEW PROGRAMS

1. Criminal Justice, Politics and Governance, and Sociology

The proposed new degree programs in *Criminal Justice (CJ)*, *Politics and Governance (P&G)* and *Sociology (SOC)* represent further evolution of social science programs at Ryerson, which started with the *Arts and Contemporary Studies* program in Fall 2003. The three programs share a common two-year social sciences platform with specialized programs of study in the final two years. The two-year social sciences platform combines a range of competency-based courses in addition to a selection of professional, professionally-related, and liberal studies courses. This platform allows the students to sample a variety of social science disciplines prior to committing to a program of study in the upper years. Moreover, this broad-based platform provides students the necessary social science foundations for the more specialized programs of study in the upper two years.

Criminal Justice: The CJ program has as its major focus a critical understanding of the structural, administrative, and political and professional context of the criminal justice system and its related agencies. While criminal justice tends to be most closely associated with the institutional machinery of justice (i.e., police, courts, corrections), it is more accurately framed in terms of a wide range of relationships, for example, between the state and the individual as victim, accused, offender, worker and professional, or between individuals and their communities, or between criminal and non-criminal forms of social, legal and moral regulation.

Politics and Governance: The P&G program focuses on a critical understanding of the public and private institutions, structures and processes of ‘governance’. Unlike traditional political science undergraduate degree programs that focus on governmental actors and policy makers, the proposed P&G program embraces a range of forms of governance which incorporates the structures and processes through which nations, groups, organizations and institutions govern themselves and implement critical decisions. The proposed program is aimed to prepare a new generation of decision-makers to deal with the new realities facing their communities, their city, their region, their nation and the world.

Sociology: The SOC program thematically focuses on cities, media and diversity, and emphasizes the integration of sociological theory and research methods into all aspects of the undergraduate curriculum. Graduates of the program will be equipped with theoretical and analytical knowledge and with skills in practical research, statistics, and qualitative and quantitative methods, and will be able to work in diverse fields in the public and private sector or in community agencies.

Curriculum

The following diagram provides an overview of the curriculum structure. The *core competency* courses, which are offered through the existing *Arts and Contemporary Studies Program*, provide students with universal and generic skills in (i) basic quantitative and qualitative research methodologies, (ii) critical and analytical thinking, (iii) oral and written communication, (iv) computer literacy, and (v) learning and development strategies that will optimize students’

success in their program as well as prepare them for life-long learning. Appendix 2 details the curricula of all three programs in a calendar-like format.

Year 1 and Year 2: Common Social Sciences Platform				
Professional (P) Core Competency Courses:				
ACS 102	ACS 105	ACS 205	ACS 301	ACS 401
Professional (P) / Professionally-Related (PR) Courses:				
<p>Select 9 courses:</p> <ol style="list-style-type: none"> No more than 4 courses in any given discipline. Students must take 2 program-specific courses from this list (CJ: CRM100 and CRM 102; P&G: POG 100 and POG 110; SOC: SOC 104 and SOC 107) depending on the program they plan to pursue in Years 3 and 4. 				
CRM (4)	ECN (4)	GEO (4)	POG (5)	PSY (4)
Professionally-Related (PR) Courses:				
Select 3 courses				
Liberal Studies (LS) Courses:				
Select 3 (lower level liberal studies) courses.				

Year 3 and Year 4: Program Specific		
Criminal Justice	Politics & Governance	Sociology
Professional (P) Courses:		
CRM and PSY 300	POG	SOC
←	13 – 15 courses	→
Professionally-Related (PR) Courses:		
←	Select 4 – 2 courses	→
Liberal Studies (LS) Courses:		
←	Select 3 upper-level LS courses	→

The curriculum of each program consists of 40 one-semester courses, with 6 liberal studies (15% of the total), 12 professionally-related (30% of the total) and 22 professional (55% of the total) courses.

Admission, Enrollment, Implementation: The admission requirements for the CJ, P&G and SOC programs are an OSSD or equivalent with six Grade 12 U/M courses, including Grade 12 U English (ENG4U/EAE4U is the preferred English) in the range of 70 percent. Subject to competition, candidates may be required to present averages/grades above the minimum.

The enrollment target is 210 first-year students with an estimated 80 students entering each of the CJ and SOC programs and 50 students entering the P&G program.

The projected implementation date of all three programs is Fall 2005.

Peer Review Assessment

In accordance with the University policy on *The Development, Review and Approval of New Undergraduate Programs*, individual peer review teams² assessed the programs. The mandate of each peer review team was “to evaluate the academic quality of the proposed program and the capacity of the designated academic unit to deliver it in an appropriate manner”, and specifically to address its currency, rigour, and coherence; the capacity of faculty to offer the program; the adequacy of infrastructure to support it; and the areas in which modification may be desirable.

The peer teams concluded that the proposed programs are of high quality, innovative and meet the criteria for new programs set out by the University and recommended the programs for implementation.

ASC Evaluation

The ASC believes that the proposed programs are designed to provide an applied education that address societal needs and exhibit distinctiveness from other Ontario university programs. The ASC presents the following suggestions in the spirit of making the proposed programs even stronger.

- Each program has compiled an extensive list of professional and professionally-related courses. As it is the case with all academic programs, it is essential that the program/curriculum committees constantly monitor these lists to ensure that the courses retain their relevance and currency, and address emerging issues. For example, a course that specifically deals with the challenges presented by emerging mental health and aging issues in prison populations is likely to be of interest to the students in the *CJ* program.
- For the *P&G* program, the peer review team observed “the dearth of courses in the field of international relations” and recommended the inclusion of courses in the area of Canadian foreign policy, international relations theory and international relations. The ASC concurs with these observations and suggests that the program steering committee investigate the inclusion of professionally-related courses in international relations—such as those offered by the *Department of History*—that emphasizes Canada in a global context.

² **CJ:** Profs. B. O’Grady (Toronto), R. Gartner (Toronto), B.M. Milroy (Ryerson);
P&G: Profs. K. Brock (Queen’s), W.D. Coleman (McMaster), M.J. Nicholson (Ryerson);
SOC: Profs. M. Boyd (Toronto), V. Satzewich (McMaster), S. Wilson (Ryerson).

Recommendations

Having satisfied itself of the merit of this proposal, the Academic Standards Committee recommends:

Criminal Justice:

That Academic Council approve the program in Criminal Justice leading to the Bachelor of Arts (Criminal Justice).

Politics and Governance:

That Academic Council approve the program in Politics and Governance leading to the Bachelor of Arts (Politics and Governance).

Sociology:

That Academic Council approve the program in Sociology leading to the Bachelor of Arts (Sociology).

Respectfully submitted by

Errol Aspevig,
for the 2003/2004 Academic Standards Committee

K. Alnwick (Registrar)	B. Murray (Philosophy)
Z. Fawaz (Aerospace)	K. Penny (Hospitality and Tourism Management)
K. Gates (Nursing)	D. Phelan (Library)
D. Glynn (Continuing Education)	D. Schulman (Secretary of Academic Council; ex-officio)
R. Keeble (Urban and Regional Planning)	D. Snyder (Image Arts)
C. Livett (student, Geographic Analysis)	R. Stagg (History)
L. McCarthy (Chemistry and Biology)	D. Sydor (Business Management)
A. Mitchell (Interior Design)	M. Zeytinoglu (Electrical and Computer Engineering)
H. Moreau (student, BusinessManagement)	

APPENDIX 1 BIOLOGY-CHEMISTRY CURRICULUM

A1.1. Biology – Major

YEAR 1	
Semester 1	Semester 2
<i>BLG 143 Biology I</i> <i>CHY 103 Chemistry I</i> <i>CPS xx2 Intro. Prog. for Scientists – Note 1</i> <i>MTH xx3 Modern Mathematics I</i> <i>PCS 119a Physics I</i> <i>SCI xx1– Note 2</i>	<i>BLG 144 Biology II</i> <i>CHY 113 Chemistry II</i> <i>MTH xx4 Modern Mathematics II</i> <i>PCS 119b Physics II</i> <i>Liberal Studies Elective 1 – Note 1</i>
YEAR 2	
Semester 3	Semester 4
<i>BLG 151 Microbiology I</i> <i>BLG xx3 Cell Biology</i> <i>CHY 142 Organic Chemistry I</i> <i>MTH 380 Statistics I</i> <i>Liberal Studies Elective 2</i>	<i>BLG xx1 Genetics</i> <i>CHY 242 Organic Chemistry II</i> <i>CHY 261 Biochemistry I</i> <i>MTH 480 Statistics II</i> <i>Liberal Studies Elective 3</i>
YEAR 3	
Semester 5	Semester 6
<i>BLG 307 Principles of Biotechnology</i> <i>BLG 351 Applied Microbiology – Note 3</i> <i>CHY 361 Biochemistry II</i> <i>Technical Elective 1 – Note 4</i> <i>Liberal Studies Elective 4 – Note 5</i>	<i>BLG 251 Microbiology II – Note 3</i> <i>BLG 340 Environmental Biology – Note 3</i> <i>CHY 362 Biochemistry III</i> <i>CMN xx1 Science, Commun. And Society</i> <i>Technical Elective 2</i>
YEAR 4	
Semester 7	Semester 8
<i>BLG 040 Thesis</i> <i>Technical Elective 3</i> <i>Technical Elective 4</i> <i>Technical Elective 5</i> <i>Liberal Studies Elective 5</i>	<i>BLG 040 Thesis</i> <i>BLG 407b Biotechnology Laboratory</i> <i>Technical Elective 6</i> <i>Technical Elective 7</i> <i>Liberal Studies Elective 6</i>

NOTES:

1. *CPS xx2* and *Liberal Studies Elective 1* can be taken on either semester.
2. This course is graded on a pass/fail basis.
3. All students majoring in Biology are expected to take *BLG 251*, *BLG 307* and *BLG 340* but can elect to take these courses either in their third or fourth year.
4. All *Technical Elective* courses should be selected from **Table B1**.
5. This is a designated liberal studies elective where the students must select from a thematic list of courses on history of science/impact of technology. This list includes the following courses: *ENG 507*, *GEO 702*, *HST 701*, *PHL 709*, *POL 507*.

TABLE B1: Elective Courses for Students Enrolled in the Biology Degree Program

Students intending to complete a minor in either Chemistry or Psychology should consult the requirements for the Minor options.

Biology

BLG 010a Physiology
BLG 010b Anatomy
BLG 401 Ecotoxicology
BLG 402 Limnology
BLG 407a Applications of Biotechnology
BLG xx2 Applied Ecology
BLG xx4 Current Topics in Biology
BLG xx5 Developmental Biology
BLG xx6 Genomics and Proteomics
BLG xx7 Immunology
BLG xx8 Pharmacology

Chemistry

CHY 213 Analytical Chemistry I
CHY 223 Analytical Chemistry II
CHY 330 Spectroscopy
CHY 331 Chromatography
CHY 337 Spectroscopy in Organic Chemistry
CHY 344 Inorganic Chemistry I
CHY 381 Physical Chemistry I
CHY 423 Environmental Science
CHY 431 Applied Analytical Chemistry
CHY 434 Analytical Chemistry of Complex Matrices
CHY 435 Chemical Instrumentation
CHY 436 Pharmaceutical Chemistry
CHY 437 Organic Chemistry III
CHY 445 Materials Chemistry
CHY 449 Inorganic Chemistry II
CHY xx1 Computational Chemistry
CHY xx3 Organic Reaction Mechanisms

Computer Science

CPS xx4 Bioinformatics
CPS xx6 Graphical Modelling

Mathematics

MTH xx5 Chaos Fractals and Dynamics
MTH xx7 Introduction to Stochastic Processes

Physics

PCS xx1 Biophysics
PCS xx7 Nuclear Physics with Radiation Interactions
PCS xx8 Photonics and Optical Devices
PCS x10 Radiation Biology

Psychology

PSY 102 Science of Psychology
PSY 202 Introduction to Applied Psychology
PSY 714 Visual Information Processing
PSY xx1 Drugs and Human Behaviour
PSY xx2 Brain and Behaviour 1
PSY xx3 Brain and Behaviour 2
PSY xx4 Evolutionary Psychology
PSY xx5 Memory and Cognition

Occupational Health

OHS 317 Health Effects of Radiation

A1.2. Biology – Specialization in Computational Biology

YEAR 1	
Semester 1	Semester 2
<i>BLG 143 Biology I</i> <i>CHY 103 Chemistry I</i> <i>CPS xx2 Intro. Prog. for Scientists – Note 1</i> <i>MTH xx3 Modern Mathematics I</i> <i>PCS 119a Physics I</i> <i>SCI xx1 – Note 2</i>	<i>BLG 144 Biology II</i> <i>CHY 113 Chemistry II</i> <i>MTH xx4 Modern Mathematics II</i> <i>PCS 119b Physics II</i> <i>Liberal Studies Elective 1 – Note 1</i>
YEAR 2	
Semester 3	Semester 4
<i>BLG 151 Microbiology I</i> <i>BLG xx3 Cell Biology</i> <i>CHY 142 Organic Chemistry I</i> <i>MTH 380 Statistics I</i> <i>Liberal Studies Elective 2</i>	<i>BLG xx1 Genetics</i> <i>CHY 242 Organic Chemistry II</i> <i>CHY 261 Biochemistry I</i> <i>MTH 480 Statistics II</i> <i>Liberal Studies Elective 3</i>
YEAR 3	
Semester 5	Semester 6
<i>BLG 307 Principles of Biotechnology</i> <i>CHY 213 Analytical Chemistry I</i> <i>CHY 361 Biochemistry II</i> <i>CPS xx1 Adv Programming for Scientists</i> <i>Liberal Studies Elective 4 – Note 3</i>	<i>CHY 362 Biochemistry III</i> <i>CMN xx1 Science, Commun. and Society</i> <i>CPS xx3 Data Structures for Scientists</i> <i>MTH 607 Graph Theory</i> <i>MTH xx7 Intro. to Stochastic Processes</i>
YEAR 4	
Semester 7	Semester 8
<i>BLG 040 Thesis</i> <i>CPS xx4 Bioinformatics</i> <i>CPS xx5 Database App. for Scientists</i> <i>Technical Elective 1 – Note 4</i> <i>Liberal Studies Elective 5</i>	<i>BLG 040 Thesis</i> <i>BLG xx6 Genomics and Proteomics</i> <i>CPS 815 Analysis of Algorithms</i> <i>Technical Elective 2</i> <i>Liberal Studies Elective 6</i>

NOTES:

1. *CPS xx2* and *Liberal Studies Elective 1* can be taken on either semester.
2. This course is graded on a pass/fail basis.
3. This is a designated liberal studies elective where the students must select from a thematic list of courses on history of science/impact of technology. This list includes the following courses: *ENG 507*, *GEO 702*, *HST 701*, *PHL 709*, *POL 507*.
4. All *Technical Elective* courses should be selected from **Table B2**.

TABLE B2: Elective Courses for Students Enrolled in the Biology Degree Program with Specialization in Computational Biology

Biology

BLG 010a Physiology
BLG 010b Anatomy
BLG 401 Ecotoxicology
BLG 402 Limnology
BLG 407b Biotechnology Laboratory
BLG xx2 Applied Ecology
BLG xx4 Current Topics in Biology
BLG xx5 Developmental Biology
BLG xx6 Genomics and Proteomics
BLG xx7 Immunology
BLG xx8 Pharmacology

Computer Science

CPS xx6 Graphical Modelling

Mathematics

MTH 710 Fourier Analysis
MTH xx6 Image Analysis

A1.3. Biology – Specialization in Biophysics

YEAR 1	
Semester 1	Semester 2
<i>BLG 143 Biology I</i> <i>CHY 103 Chemistry I</i> <i>CPS xx2 Intro. Prog. for Scientists – Note 1</i> <i>MTH xx3 Modern Mathematics I</i> <i>PCS 119a Physics I</i> <i>SCI xx1 – Note 2</i>	<i>BLG 144 Biology II</i> <i>CHY 113 Chemistry II</i> <i>MTH xx4 Modern Mathematics II</i> <i>PCS 119b Physics II</i> <i>Liberal Studies Elective 1 – Note 1</i>
YEAR 2	
Semester 3	Semester 4
<i>BLG 151 Microbiology I</i> <i>BLG xx3 Cell Biology</i> <i>CHY 142 Organic Chemistry I</i> <i>MTH 380 Statistics I</i> <i>Liberal Studies Elective 2</i>	<i>BLG xx1 Genetics</i> <i>CHY 242 Organic Chemistry II</i> <i>CHY 261 Biochemistry I</i> <i>MTH 480 Statistics II</i> <i>Liberal Studies Elective 3</i>
YEAR 3	
Semester 5	Semester 6
<i>BLG 307 Principles of Biotechnology</i> <i>CHY 361 Biochemistry II</i> <i>PCS xx7 Nuclear Physics with Rad. Interact.</i> <i>PCS x10 Radiation Biology</i> <i>Liberal Studies Elective 4 – Note 3</i>	<i>BLG 340 Environmental Biology</i> <i>CHY 362 Biochemistry III</i> <i>CMN xx1 Science, Commun. And Society</i> <i>PCS xx1 Biophysics</i> <i>Technical Elective 1, Group 2 – Note 4</i>
YEAR 4	
Semester 7	Semester 8
<i>BLG 040 Thesis</i> <i>Technical Elective 2, Group 1</i> <i>Technical Elective 3, Group 2</i> <i>Technical Elective 4, Group 2</i> <i>Liberal Studies Elective 5</i>	<i>BLG 040 Thesis</i> <i>Technical Elective 5, Group 1</i> <i>Technical Elective 6, Group 2</i> <i>Technical Elective 7, Group 2</i> <i>Liberal Studies Elective 6</i>

NOTES:

1. *CPS xx2* and *Liberal Studies Elective 1* can be taken on either semester.
2. This course is graded on a pass/fail basis.
3. This is a designated liberal studies elective where the students must select from a thematic list of courses on history of science/impact of technology. This list includes the following courses: *ENG 507*, *GEO 702*, *HST 701*, *PHL 709*, *POL 507*.
4. All *Technical Elective* courses should be selected from **Table B3**.

TABLE B3: Elective Courses for Students Enrolled in the Biology Degree Program with Specialization in Biophysics

GROUP 1

Biology

BLG 010a *Physiology*
BLG 010b *Anatomy*
BLG 251 *Microbiology II*
BLG 351 *Applied Microbiology*
BLG 401 *Ecotoxicology*
BLG 402 *Limnology*
BLG 407a *Applications of
Biotechnology*
BLG 407b *Biotechnology Laboratory*
BLG xx2 *Applied Ecology*
BLG xx5 *Developmental Biology*
BLG xx6 *Genomics and Proteomics*
BLG xx7 *Immunology*
BLG xx8 *Pharmacology*

Computer Science

CPS xx4 *Bioinformatics*
CPS xx6 *Graphical Modelling*

GROUP 2

Mathematics

MTH 710 *Fourier Analysis*
MTH xx5 *Chaos, Fractals and Dynamics*
MTH xx6 *Image Analysis*
MTH xx7 *Introduction to Stochastic
Processes*

Physics

PCS xx2 *Electricity and Magnetism*
PCS xx3 *Introduction to Medical Physics*
PCS xx4 *Medical Diagnostic Techniques*
PCS xx6 *Modeling in Medical Physics*
PCS xx8 *Photonics and Optical Devices*
PCS x11 *Radiation Protection /
Health Physics*
PCS x12 *Radiation Therapy*
PCS x13 *Thermodynamics and Statistical
Physics*

Occupational Health

OHS 317 *Health Effects of Radiation*

A1.4. Chemistry – Major

YEAR 1	
Semester 1	Semester 2
<i>BLG 143 Biology I</i> <i>CHY 103 Chemistry I</i> <i>CPS xx2 Intro. Prog. for Scientists – Note 1</i> <i>MTH xx3 Modern Mathematics I</i> <i>PCS 119a Physics I</i> <i>SCI xx1 – Note 2</i>	<i>BLG 144 Biology II</i> <i>CHY 113 Chemistry II</i> <i>MTH xx4 Modern Mathematics II</i> <i>PCS 119b Physics II</i> <i>Liberal Studies Elective 1 – Note 1</i>
YEAR 2	
Semester 3	Semester 4
<i>CHY 142 Organic Chemistry I</i> <i>CHY 213 Analytical Chemistry I</i> <i>CHY 381 Physical Chemistry I</i> <i>MTH xx1 Calculus and Geometry</i> <i>Liberal Studies Elective 2</i>	<i>CHY 223 Analytical Chemistry II</i> <i>CHY 242 Organic Chemistry II</i> <i>CHY 261 Biochemistry I</i> <i>CHY 382 Physical Chemistry II</i> <i>Liberal Studies Elective 3</i>
YEAR 3	
Semester 5	Semester 6
<i>CHY 331 Basic Chromatography – Note 3</i> <i>CHY 344 Inorganic Chemistry I</i> <i>MTH 380 Statistics I</i> <i>Technical Elective 1 – Note 4</i> <i>Liberal Studies Elective 4 – Note 5</i>	<i>CHY 330 Spectroscopy</i> <i>CMN xx1 Science, Commun. And Society</i> <i>PCS xx2 Electricity and Magnetism</i> <i>PCS xx9 Quantum Mechanics – Note 3</i> <i>Technical Elective 2</i>
YEAR 4	
Semester 7	Semester 8
<i>CHY 040 Thesis</i> <i>CHY 361 or CHY 431 or CHY xx3</i> <i>Technical Elective 3</i> <i>Technical Elective 4</i> <i>Liberal Studies Elective 5</i>	<i>CHY 040 Thesis</i> <i>CHY 423 Environmental Science</i> <i>Technical Elective 5</i> <i>Technical Elective 6</i> <i>Liberal Studies Elective 6</i>

NOTES:

1. *CPS xx2* and *Liberal Studies Elective 1* can be taken on either semester.
2. This course is graded on a pass/fail basis.
3. All students majoring in Chemistry must take *CHY 331* or *PCS xx9* but can elect to take these courses either in their third or fourth year.
4. All *Technical Elective* courses should be selected from **Table C1**.
5. This is a designated liberal studies elective where the students must select from a thematic list of courses on history of science/impact of technology. This list includes the following courses: *ENG 507*, *GEO 702*, *HST 701*, *PHL 709*, *POL 507*.

TABLE C1: Elective Courses for Students Enrolled in the Chemistry Degree Program

Students wishing to complete a Minor in Biology should consult the requirements of the minor option in Biology.

Biology

BLG 010a Physiology
BLG 010b Anatomy
BLG 151 Microbiology I
BLG 251 Microbiology II
BLG 307 Principles of Biotechnology
BLG 351 Applied Microbiology
BLG 401 Ecotoxicology
BLG 402 Limnology
BLG 407a Applications of Biotechnology
BLG 407b Biotechnology Laboratory
BLG xx1 Genetics
BLG xx2 Applied Ecology
BLG xx3 Cell Biology
BLG xx4 Current Topics in Biology
BLG xx5 Developmental Biology
BLG xx6 Genomics and Proteomics
BLG xx7 Immunology
BLG xx8 Pharmacology

Chemistry

CHY 337 Spectroscopy in Organic Chemistry
CHY 361 Biochemistry II
CHY 362 Biochemistry III
CHY 431 Applied Analytical Chemistry
CHY 434 Analytical Chemistry of Complex Matrices

CHY 435 Chemical Instrumentation
CHY 436 Pharmaceutical Chemistry
CHY 437 Organic Chemistry III
CHY 445 Materials Chemistry
CHY 449 Inorganic Chemistry II
CHY xx1 Computational Chemistry
CHY xx3 Organic Reaction Mechanisms

Computer Science

CPS xx6 Graphical Modelling

Mathematics

MTH xx7 Introduction to Stochastic Processes

Physics

PCS xx1 Biophysics
PCS xx7 Nuclear Physics with Radiation Interactions
PCS xx8 Photonics and Optical Devices
PCS x10 Radiation Biology
PCS x13 Thermodynamics and Statistical Physics

A1.5. Chemistry – Specialization in Computational Chemistry

YEAR 1	
Semester 1	Semester 2
<i>BLG 143 Biology I</i> <i>CHY 103 Chemistry I</i> <i>CPS xx2 Intro. Prog. for Scientists – Note 1</i> <i>MTH xx3 Modern Mathematics I</i> <i>PCS 119a Physics I</i> <i>SCI xx1 – Note 2</i>	<i>BLG 144 Biology II</i> <i>CHY 113 Chemistry II</i> <i>MTH xx4 Modern Mathematics II</i> <i>PCS 119b Physics II</i> <i>Liberal Studies Elective 1 – Note 1</i>
YEAR 2	
Semester 3	Semester 4
<i>CHY 142 Organic Chemistry I</i> <i>CHY 213 Analytical Chemistry I</i> <i>CHY 381 Physical Chemistry I</i> <i>MTH xx1 Calculus and Geometry</i> <i>Liberal Studies Elective 2</i>	<i>CHY 223 Analytical Chemistry II</i> <i>CHY 242 Organic Chemistry II</i> <i>CHY 261 Biochemistry I</i> <i>CHY 382 Physical Chemistry II</i> <i>Liberal Studies Elective 3</i>
YEAR 3	
Semester 5	Semester 6
<i>CHY 344 Inorganic Chemistry I</i> <i>CPS xx1 Adv Programming for Scientists</i> <i>MTH 380 Statistics I</i> <i>Technical Elective 1 – Note 3</i> <i>Liberal Studies Elective 4 – Note 4</i>	<i>CHY 330 Spectroscopy</i> <i>CHY 337 Spectroscopy in Organic Chem.</i> <i>CMN xx1 Science, Commun. and Society</i> <i>CPS xx3 Data Structures for Scientists</i> <i>PCS xx9 Quantum Mechanics</i>
YEAR 4	
Semester 7	Semester 8
<i>CHY 040 Thesis</i> <i>CHY xx1 Computational Chemistry</i> <i>CPS xx5 Database App. for Scientists</i> <i>Technical Elective 2</i> <i>Liberal Studies Elective 5</i>	<i>CHY 040 Thesis</i> <i>CHY 436 Pharmaceutical Chemistry</i> <i>CPS 815 Analysis of Algorithms</i> <i>Technical Elective 3</i> <i>Liberal Studies Elective 6</i>

NOTES:

1. *CPS xx2* and *Liberal Studies Elective 1* can be taken on either semester.
2. This course is graded on a pass/fail basis.
3. All *Technical Elective* courses should be selected from **Table C2**.
4. This is a designated liberal studies elective where the students must select from a thematic list of courses on history of science/impact of technology. This list includes the following courses: *ENG 507*, *GEO 702*, *HST 701*, *PHL 709*, *POL 507*.

TABLE C2: Elective Courses for Students Enrolled in the Chemistry Degree Program with Specialization in Computational Chemistry

Chemistry

<i>CHY 331</i>	<i>Chromatography</i>
<i>CHY 361</i>	<i>Biochemistry II</i>
<i>CHY 362</i>	<i>Biochemistry III</i>
<i>CHY 423</i>	<i>Environmental Science</i>
<i>CHY 431</i>	<i>Applied Analytical Chemistry</i>
<i>CHY 437</i>	<i>Organic Chemistry III</i>
<i>CHY 445</i>	<i>Materials Chemistry</i>
<i>CHY 449</i>	<i>Inorganic Chemistry II</i>
<i>CHY 482</i>	<i>Selected Topics in Chemistry</i>
<i>CHY xx3</i>	<i>Organic Reaction Mechanisms</i>

Computer Science

<i>CPS xx4</i>	<i>Bioinformatics</i>
<i>CPS xx6</i>	<i>Graphical Modelling</i>

Mathematics

<i>MTH xx2</i>	<i>Dynamic Systems and Differential Equations</i>
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A1.6. Chemistry – Specialization in Applied Physics

YEAR 1	
Semester 1	Semester 2
<i>BLG 143 Biology I</i> <i>CHY 103 Chemistry I</i> <i>CPS xx2 Intro. Prog. for Scientists – Note 1</i> <i>MTH xx3 Modern Mathematics I</i> <i>PCS 119a Physics I</i> <i>SCI xx1 – Note 2</i>	<i>BLG 144 Biology II</i> <i>CHY 113 Chemistry II</i> <i>MTH xx4 Modern Mathematics II</i> <i>PCS 119b Physics II</i> <i>Liberal Studies Elective 1 – Note 1</i>
YEAR 2	
Semester 3	Semester 4
<i>CHY 142 Organic Chemistry I</i> <i>CHY 381 Physical Chemistry I</i> <i>MTH 380 Statistics I</i> <i>MTH xx1 Calculus and Geometry</i> <i>Liberal Studies Elective 2</i>	<i>CHY 242 Organic Chemistry II</i> <i>CHY 382 Physical Chemistry II</i> <i>MTH 480 Statistics II</i> <i>MTH xx2 Dyn. Sys. and Diff. Equations</i> <i>PCS xx8 Photonics and Optical Devices</i>
YEAR 3	
Semester 5	Semester 6
<i>CHY 344 Inorganic Chemistry I</i> <i>PCS xx7 Nuclear Phy. with Rad. Interactions</i> <i>Technical Elective 1, Group 1 – Note 3</i> <i>Liberal Studies Elective 3</i> <i>Liberal Studies Elective 4 – Note 4</i>	<i>CHY 449 Inorganic Chemistry II</i> <i>CMN xx1 Science, Commun. and Society</i> <i>PCS xx2 Electricity and Magnetism</i> <i>PCS xx9 Quantum Mechanics</i> <i>PCS x13 Thermodynamics and Stat. Physics</i>
YEAR 4	
Semester 7	Semester 8
<i>CHY 040 Thesis</i> <i>CHY 445 Materials Chemistry</i> <i>Technical Elective 2, Group 1 – Note 3</i> <i>Technical Elective 3, Group 2</i> <i>Liberal Studies Elective 5</i>	<i>CHY 040 Thesis</i> <i>CHY 423 Environmental Science</i> <i>Technical Elective 4, Group 2</i> <i>Technical Elective 5, Group 2</i> <i>Liberal Studies Elective 6</i>

NOTES:

1. *CPS xx2* and *Liberal Studies Elective 1* can be taken on either semester.
2. This course is graded on a pass/fail basis.
3. All *Technical Elective* courses should be selected from **Table C3**.
4. This is a designated liberal studies elective where the students must select from a thematic list of courses on history of science/impact of technology. This list includes the following courses: *ENG 507*, *GEO 702*, *HST 701*, *PHL 709*, *POL 507*.

TABLE C3: Elective Courses for Students Enrolled in the Chemistry Degree Program with Specialization in Computational Chemistry

GROUP 1

Chemistry

CHY 213 Analytical Chemistry I
CHY 330 Spectroscopy
CHY 331 Chromatography
CHY 434 Analytical Chemistry of Complex Matrices
CHY 435 Chemical Instrumentation
CHY xx3 Organic Reaction Mechanisms

GROUP 2

Physics

PCS 211 Mechanics
PCS 224 Solid State Physics
PCS xx1 Biophysics
PCS xx3 Introduction to Medical Physics
PCS xx4 Medical Diagnostic Techniques
PCS x10 Radiation Biology
PCS x13 Thermodynamics and Statistical Physics
PCS x14 Fundamentals of Astrophysics

APPENDIX 2 SOCIAL SCIENCE PROGRAMS

A2.1. Criminal Justice

Bachelor Of Arts (Criminal Justice)

FIRST SEMESTER (CRIM1)

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED:			
CONTEMPORARY STUDY: Learning and Development Strategies	ACS 102	1	3
CONTEMPORARY STUDY: Writing as a Cultural Act	ACS 205	1	3
CRIMINAL JUSTICE: Introduction to the Criminal Justice System	CRM 100	1	3
REQUIRED—GROUP 1: One one-term course required from Table 1.		1	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table A.		1	3

SECOND SEMESTER (CRIM2)

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED			
CONTEMPORARY STUDY: Informal Logic and Rational Discourse	ACS 105	1	3
CRIMINAL JUSTICE: Introduction to Crime and Justice	CRM 102	1	3
REQUIRED—GROUP 1: Two one-term courses required from Table 1.		2	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table A.		1	3

Bachelor Of Arts (Criminal Justice)

THIRD SEMESTER (CRIM3)

	<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED:				
CONTEMPORARY STUDY:	Research Design & Qualitative Methods	ACS 301	1	3
REQUIRED—GROUP 1: Two one-term courses from Table 1.			2	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table A.			1	3
PROFESSIONALLY-RELATED ELECTIVE GROUP B: One one-term course required from Table 2.			1	3

FOURTH SEMESTER (CRIM4)

	<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED				
CONTEMPORARY STUDY:	Introduction to Research and Statistics	ACS 401	1	3
REQUIRED—GROUP 1: Two one-term courses required from Table 1.			2	3
PROFESSIONALLY-RELATED ELECTIVE GROUP B: Two one-term courses required from Table 2.			2	3

Bachelor Of Arts (Criminal Justice)

FIFTH SEMESTER (CRIM5)

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED:			
CRIMINAL JUSTICE: Policing in Canada	CRM 300	1	3
CRIMINAL JUSTICE: Criminological Theories	CRM 302	1	3
CRIMINAL JUSTICE: Youth Justice in Canada	CRM 304	1	3
CRIMINAL JUSTICE: Criminal Law	*CRM 200	1	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table B.		1	3
PROFESSIONALLY-RELATED ELECTIVE GROUP B: One one-term course required from Table 2 or Table 3. *		1	3

* Students who have successfully completed CRM 200 must select one Professionally-Related Elective from Table 2 or Table 3. Students taking CRM 200 are *not* required to select a Professionally-Related Elective.

SIXTH SEMESTER (CRIM6)

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED:			
CRIMINAL JUSTICE: Corrections in Canada	CRM 306	1	3
CRIMINAL JUSTICE: Criminal Courts in Canada	CRM 308	1	3
CRIMINAL JUSTICE: Victims and the Criminal Process	*CRM 202	1	3
REQUIRED—GROUP 1: Select one course.			
CRIMINAL JUSTICE: Advanced Research Methods	CRM 310	1	3
CRIMINAL JUSTICE: Representing Crime	CRM 312	1	3
CRIMINAL JUSTICE: Criminal Justice and the Charter	CRM 314	1	3
CRIMINAL JUSTICE: International Perspectives on Crime and Justice	CRM 316	1	3
PSYCHOLOGY: Psychology and the Justice System	PSY 300	1	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table B.		1	3
PROFESSIONALLY-RELATED ELECTIVE GROUP B: One one-term course required from Table 2 or Table 3. *		1	3

* Students who have successfully completed CRM 202 *must* select one Professionally-Related Elective from Table 2 or Table 3. Students taking CRM 202 are *not* required to select a Professionally-Related Elective.

Bachelor Of Arts (Criminal Justice)

SEVENTH SEMESTER (CRIM7)

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED:			
CRIMINAL JUSTICE: Aboriginal Governance and Justice	CRM 400	1	3
CRIMINAL JUSTICE: Criminal Justice System & Social Inequality	CRM 402	1	3
CRIMINAL JUSTICE: Criminal Justice Policy	CRM 404	1	3
REQUIRED—GROUP 1: Select one course.			
CRIMINAL JUSTICE: Advanced Research Methods	CRM 310	1	3
CRIMINAL JUSTICE: Representing Crime	CRM 312	1	3
CRIMINAL JUSTICE: Criminal Justice and the Charter	CRM 314	1	3
CRIMINAL JUSTICE: International Perspectives on Crime and Justice	CRM 316	1	3
PSYCHOLOGY: Psychology and the Justice System	PSY 300	1	3
CRIMINAL JUSTICE: Independent Study I	CRM 410	1	3
PSYCHOLOGY: Psychology and the Justice System	PSY 300	1	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table B.		1	3

EIGHTH SEMESTER (CRIM8)

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED:			
CRIMINAL JUSTICE: Seminar in Criminal Justice	CRM 406	1	3
REQUIRED—GROUP 1: Select two courses.			
CRIMINAL JUSTICE: Advanced Research Methods	CRM 310	1	3
CRIMINAL JUSTICE: Representing Crime	CRM 312	1	3
CRIMINAL JUSTICE: Criminal Justice and the Charter	CRM 314	1	3
CRIMINAL JUSTICE: International Perspectives on Crime and Justice	CRM 316	1	3
CRIMINAL JUSTICE: Independent Study I	CRM 410	1	3
CRIMINAL JUSTICE: Independent Study II	CRM 412	1	3
PSYCHOLOGY: Psychology and the Justice System	PSY 300	1	3
PROFESSIONALLY-RELATED ELECTIVE GROUP B: Two one-term courses required from Table 2 or Table 3.		2	3

BACHELOR OF ARTS (Criminal Justice)

PROFESSIONAL AND PROFESSIONALLY-RELATED ELECTIVES

TABLE 1

NOTE:

In Years 1 and 2, SEVEN one-term courses must be selected from this table. Of them,

- No more than four one-term courses may be taken in any one of the disciplines listed below
 - Note: INP900 is considered to be a Politics and Governance (POG) course
- Students planning to pursue a degree in Criminal Justice should select:
 - CRM 200 CRIMINAL JUSTICE: Criminal Law
 - CRM 202 CRIMINAL JUSTICE: Victims and the Criminal Process

CRM 200	CRIMINAL JUSTICE: Criminal Law
CRM 202	CRIMINAL JUSTICE: Victims and the Criminal Process
ECN 104	ECONOMICS: Introductory Microeconomics
ECN 204	ECONOMICS: Introductory Macroeconomics
ECN 301	ECONOMICS: Intermediate Macroeconomics I
ECN 504	ECONOMICS: Intermediate Microeconomics I
GEO 111	GEOGRAPHY: Environmental Analysis
GEO 141	GEOGRAPHY: Geography and GIS
GEO 151	GEOGRAPHY: Urban Analysis
GEO 231	GEOGRAPHY: Principles of Recreation and Demography
INP 900	NONPROFIT: Understanding the Nonprofit and Voluntary Sector
POG 100	POLITICS: Introduction to Governance
POG 110	POLITICS: Canadian Politics
POG 210	POLITICS: Canadian Government
POG 225	POLITICS: Global Governance
PSY 040	PSYCHOLOGY: Psychological Disorders
PSY 102	PSYCHOLOGY: The Science of Psychology: Basic Principles
PSY 124	PSYCHOLOGY: Social Psychology
PSY 202	PSYCHOLOGY: The Science of Psychology: Applications
SOC 104	SOCIOLOGY: Understanding Society
SOC 107	SOCIOLOGY: Sociology of Everyday Life
SOC 470	SOCIOLOGY: Toronto: The Changing City
SOC 525	SOCIOLOGY: Media and Images of Inequality

BACHELOR OF ARTS (Criminal Justice)

PROFESSIONALLY-RELATED ELECTIVES

TABLE 2*

ACC 100	ACCOUNTING: Introductory Financial Accounting
ACC 406	ACCOUNTING: Introductory Management Accounting
ACC 414	ACCOUNTING: Intermediate Accounting I
BLG xxx	BIOLOGY: Biology of a Living City
CHY xxx	CHEMISTRY: Modern Chemistry – Applications to Living Systems
CMN 279	COMMUNICATION: Introduction to Business Communication
CMN 313	COMMUNICATION: Report Writing
CMN 314	COMMUNICATION: Oral Communication
INP 901	NONPROFIT: Developing Effective Nonprofit Organizations
INP 902	NONPROFIT: Effectiveness and Accountability Through Evaluation
INP 910	NONPROFIT: Strategic Planning and Communication for Nonprofit Organizations
INT 900	INTERDISC. STUDIES: Program Planning and Evaluation
INT 905	INTERDISC. STUDIES: Conflict Resolution and Dispute Negotiation
INT 908	INTERDISC. STUDIES: Homelessness in Canadian Society
ITM 100	INFO. TECH. MGT.: Business and Information Systems
ITM 101	INFO. TECH. MGT.: Personal Productivity
ITM 102	INFO. TECH. MGT.: Business Information Systems I
ITM 305	INFO. TECH. MGT.: Systems Analysis and Design
ITM 310	INFO. TECH. MGT.: Introduction to Network Technology
LAW 122	LAW: Business Law
LAW 525	LAW: Law of the Marketplace
LAW 529	LAW: Labour Law
MHR 405	HUMAN RESOURCES: Org. Behaviour and Interpersonal Skills
MHR 505	HUMAN RESOURCES: Organizational Behaviour II
MHR 522	HUMAN RESOURCES: Industrial Relations
MKT 100	MARKETING: Marketing I
MKT 200	MARKETING: Marketing II
MKT 403	MARKETING: Marketing Communications I
MTH xxx	MATHEMATICS: Chaos and Fractals
OHS 208	OCCUPATIONAL HEALTH: Occupational Health & Safety Law
OHS 508	OCCUPATIONAL HEALTH: Occupational Health
OHS 777	OCCUPATIONAL HEALTH: Worker=s Compensation Management
PCS xxx	PHYSICS: Physics Answers for Everyday Questions

*** Common to Criminal Justice, Politics and Governance, and Sociology Programs.**

BACHELOR OF ARTS (Criminal Justice)

PROFESSIONALLY-RELATED ELECTIVES
TABLE 3

NOTE: Professionally-related courses other than those listed in the following table may be selected subject to School and Teaching Department approval, space availability, and requisite requirements.

BLG 143	BIOLOGY: Biology I
BLG 144	BIOLOGY: Biology II
CHY 103	CHEMISTRY: Chemistry I
CHY 113	CHEMISTRY: Chemistry II
ECN 104	ECONOMICS: Introductory Microeconomics
ECN 204	ECONOMICS: Introductory Macroeconomics
ECN 321	ECONOMICS: Introduction to Law & Economics
ECN 703	ECONOMICS: Public Finance I
ECN 803	ECONOMICS: Public Finance II
GEO 111	GEOGRAPHY: Environmental Analysis
GEO 141	GEOGRAPHY: Geography and GIS
GEO 151	GEOGRAPHY: Urban Analysis
GEO 231	GEOGRAPHY: Principles of Recreation and Demography
GEO 714	GEOGRAPHY: GIS for the Municipal Professional I
GEO 724	GEOGRAPHY: GIS for the Municipal Professional II
INP 900	NONPROFIT: Understanding the Nonprofit/Voluntary Sector
INP 911	NONPROFIT: Advocacy: Public-Governmental Relations
INP 914	NONPROFIT: Issues of Diversity: Building Collaborative Relationships
INP 915	NONPROFIT: Financial Management in the Nonprofit Sector
INT 902	INTERDISC. STUDIES: Disabilities Issues
INT 907	INTERDISC. STUDIES: Team Work for Community Services
LAW 603	LAW: Advanced Business Law
LAW 723	LAW: Issues in Information Technology Law
MHR 523	HUMAN RESOURCES: Human Resources Administration I
MHR 600	HUMAN RESOURCES: Equal Opportunity Management
MHR 623	HUMAN RESOURCES: Human Resources Administration II
MHR 700	HUMAN RESOURCES: Cross-Cultural Dimensions of Organizational Behaviour
PHL 400	PHILOSOPHY: Human Rights and Justice
PHL 449	PHILOSOPHY: Issues in the Philosophy of Punishment
PLE 535	PLANNING: Housing
POG 100	POLITICS: Introduction to Governance
POG 110	POLITICS: Canadian Politics
POG 210	POLITICS: Canadian Government
POG 310	POLITICS: Provincial Governance
POG 312	POLITICS: Public Administration in Canada
POG 314	POLITICS: Controversial Topics in Public Policy
POG 315	POLITICS: Human Rights and Governance
POG 316	POLITICS: Politics and Social Policy in Canada
POG 320	POLITICS: Social Identity and Citizenship
POG 322	POLITICS: Social Movements and Civil Society
POG 410	POLITICS: Urban Government in Canada
POG 412	POLITICS: How Governments Spend
POG 442	POLITICS: Women and Governance

BACHELOR OF ARTS (Criminal Justice)

PROFESSIONALLY-RELATED ELECTIVES -- TABLE 3 (CONTINUED)

PSY 040	PSYCHOLOGY: Psychological Disorders
PSY 102	PSYCHOLOGY: The Science of Psychology: Basic Principles
PSY 124	PSYCHOLOGY: Social Psychology
PSY 202	PSYCHOLOGY: The Science of Psychology: Applications
PSY 602	PSYCHOLOGY: Developmental Psychopathology
PSY 806	PSYCHOLOGY: Behaviour Modification
PSY 808	PSYCHOLOGY: Community Psychology
PSY 940	PSYCHOLOGY: Prejudice and Discrimination
SOC 104	SOCIOLOGY: Understanding Society
SOC 300	SOCIOLOGY: Sociology of Diversity
SOC 402	SOCIOLOGY: The City and Social Problems
SOC 472	SOCIOLOGY: Sociology of Work and Organizations
SOC 479	SOCIOLOGY: Communities and Social Networks
SOC 500	SOCIOLOGY: Youth and Society
SOC 502	SOCIOLOGY: Violence and the Family
SOC 609	SOCIOLOGY: The Social Control of Women
SOC 941	SOCIOLOGY: Race, Ethnic, and Aboriginal Studies
SOC 942	SOCIOLOGY: Women and Structural Change
SOC 943	SOCIOLOGY: Poverty Issues
SWP 903	SOCIAL WORK: Crisis Intervention
SWP 919	SOCIAL WORK: Addictions I
SWP 920	SOCIAL WORK: Addictions II

A2.2. Politics and Governance

Bachelor Of Arts (Politics and Governance)

FIRST SEMESTER (POGV1)

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED:			
CONTEMPORARY STUDY: Learning and Development Strategies	ACS 102	1	3
CONTEMPORARY STUDY: Writing as a Cultural Act	ACS 205	1	3
POLITICS: Introduction to Governance	POG 100	1	3
REQUIRED—GROUP 1: One one-term course required from Table 1.		1	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table A.		1	3

SECOND SEMESTER (POGV2)

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED			
CONTEMPORARY STUDY: Informal Logic and Rational Discourse	ACS 105	1	3
POLITICS: Canadian Politics	POG 110	1	3
REQUIRED—GROUP 1: Two one-term courses required from Table 1.		2	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table A.		1	3

Bachelor Of Arts (Politics and Governance)

THIRD SEMESTER (POGV3)

	<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED:				
CONTEMPORARY STUDY:	Research Design & Qualitative Methods	ACS 301	1	3
REQUIRED—GROUP 1: Two one-term courses from Table 1.			2	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table A.			1	3
PROFESSIONALLY-RELATED ELECTIVE GROUP B: One one-term course required from Table 2.			1	3

FOURTH SEMESTER (POGV4)

	<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED				
CONTEMPORARY STUDY:	Introduction To Research And Statistics	ACS 401	1	3
REQUIRED—GROUP 1: Two one-term courses required from Table 1.			2	3
PROFESSIONALLY-RELATED ELECTIVE GROUP B: Two one-term courses required from Table 2.			2	3

Bachelor Of Arts (Politics and Governance)

FIFTH SEMESTER (POGV5)

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED:			
POLITICS: Canadian Government	*POG 210	1	3
POLITICS: Global Governance	*POG 225	1	3
POLITICS: Social Identity & Citizenship	POG 320	1	3
POLITICS: Social and Political Thought	POG 330	1	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table B		1	3
PROFESSIONALLY-RELATED ELECTIVE GROUP B: Two one-term courses required from Table 2 or Table 3. *		2	3

* Students who have successfully completed POG 210 and/or POG 225 must fill the slot(s) with Professionally-Related Elective(s) from Table 2 or Table 3. Students taking POG 210 and POG 225 are *not* required to select a Professionally-Related Elective.

SIXTH SEMESTER (POGV6)

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED:			
POLITICS: Controversial Topics in Public Policy	POG 314	1	3
POLITICS: Human Rights and Governance	POG 315	1	3
NONPROFIT: Understanding the Voluntary/Nonprofit Sector	*INP 900	1	3
PROFESSIONAL ELECTIVE: One one-term course from Table 4		1	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table B		1	3
PROFESSIONALLY-RELATED ELECTIVE GROUP B: One one-term course required from Table 2 or Table 3. *		1	3

* Students who have successfully completed INP 900 *must* select one Professionally-Related Elective from Table 2 or Table 3. Students taking INP 900 are *not* required to select a Professionally-Related Elective.

Bachelor Of Arts (Politics and Governance)

SEVENTH SEMESTER(POGV7)

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
PROFESSIONAL ELECTIVE: Three one-term courses from Table 4		3	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table B.		1	3
PROFESSIONALLY-RELATED ELECTIVE GROUP B One one-term course required from Table 2 or Table 3.		1	3

EIGHTH SEMESTER (POGV8)

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
PROFESSIONAL ELECTIVE: Four one-term courses from Table 4		4	3
PROFESSIONALLY-RELATED ELECTIVE GROUP B: One one-term course required from Table 2 or Table 3.		1	3

BACHELOR OF ARTS (Politics and Governance)

PROFESSIONAL AND PROFESSIONALLY-RELATED ELECTIVES

TABLE 1

NOTE:

In Years 1 and 2, SEVEN one-term courses must be selected from this table. Of them,

- No more than four one-term courses may be taken in any one of the disciplines listed below
 - Note: INP900 is considered to be a Politics and Governance (POG) course
- Students planning to pursue a degree in Politics and Governance should select two of:
 - POG 210 POLITICS: Canadian Government
 - POG 225 POLITICS: Global Governance
 - INP 900 NONPROFIT: Understanding the Nonprofit and Voluntary Sector

CRM 100	CRIMINAL JUSTICE: Introduction to the Criminal Justice System
CRM 102	CRIMINAL JUSTICE: Introduction to Crime and Justice
CRM 200	CRIMINAL JUSTICE: Criminal Law
CRM 202	CRIMINAL JUSTICE: Victims and the Criminal Process
ECN 104	ECONOMICS: Introductory Microeconomics
ECN 204	ECONOMICS: Introductory Macroeconomics
ECN 301	ECONOMICS: Intermediate Macroeconomics I
ECN 504	ECONOMICS: Intermediate Microeconomics I
GEO 111	GEOGRAPHY: Environmental Analysis
GEO 141	GEOGRAPHY: Geography and GIS
GEO 151	GEOGRAPHY: Urban Analysis
GEO 231	GEOGRAPHY: Principles of Recreation and Demography
INP 900	NONPROFIT: Understanding the Nonprofit and Voluntary Sector
POG 210	POLITICS: Canadian Government
POG 225	POLITICS: Global Governance
PSY 040	PSYCHOLOGY: Psychological Disorders
PSY 102	PSYCHOLOGY: The Science of Psychology: Basic Principles
PSY 124	PSYCHOLOGY: Social Psychology
PSY 202	PSYCHOLOGY: The Science of Psychology: Applications
SOC 104	SOCIOLOGY: Understanding Society
SOC 107	SOCIOLOGY: Sociology of Everyday Life
SOC 470	SOCIOLOGY: Toronto: The Changing City
SOC 525	SOCIOLOGY: Media and Images of Inequality

BACHELOR OF ARTS (Politics and Governance)

PROFESSIONALLY-RELATED ELECTIVES

TABLE 2*

ACC 100	ACCOUNTING: Introductory Financial Accounting
ACC 406	ACCOUNTING: Introductory Management Accounting
ACC 414	ACCOUNTING: Intermediate Accounting I
BLG xxx	BIOLOGY: Biology of a Living City
CHY xxx	CHEMISTRY: Modern Chemistry – Applications to Living Systems
CMN 279	COMMUNICATION: Introduction to Business Communication
CMN 313	COMMUNICATION: Report Writing
CMN 314	COMMUNICATION: Oral Communication
INP 901	NONPROFIT: Developing Effective Nonprofit Organizations
INP 902	NONPROFIT: Effectiveness and Accountability Through Evaluation
INP 910	NONPROFIT: Strategic Planning and Communication for Nonprofit Organizations
INT 900	INTERDISC. STUDIES: Program Planning and Evaluation
INT 905	INTERDISC. STUDIES: Conflict Resolution and Dispute Negotiation
INT 908	INTERDISC. STUDIES: Homelessness in Canadian Society
ITM 100	INFO. TECH. MGT.: Business and Information Systems
ITM 101	INFO. TECH. MGT.: Personal Productivity
ITM 102	INFO. TECH. MGT.: Business Information Systems I
ITM 305	INFO. TECH. MGT.: Systems Analysis and Design
ITM 310	INFO. TECH. MGT.: Introduction to Network Technology
LAW 122	LAW: Business Law
LAW 525	LAW: Law of the Marketplace
LAW 529	LAW: Labour Law
MHR 405	HUMAN RESOURCES: Org. Behaviour and Interpersonal Skills
MHR 505	HUMAN RESOURCES: Organizational Behaviour II
MHR 522	HUMAN RESOURCES: Industrial Relations
MKT 100	MARKETING: Marketing I
MKT 200	MARKETING: Marketing II
MKT 423	MARKETING: Marketing Research
MTH xxx	MATHEMATICS: Chaos and Fractals
OHS 208	OCCUPATIONAL HEALTH: Occupational Health & Safety Law
OHS 508	OCCUPATIONAL HEALTH: Occupational Health
OHS 777	OCCUPATIONAL HEALTH: Worker=s Compensation Management
PCS xxx	PHYSICS: Physics Answers for Everyday Questions

*** Common to Criminal Justice, Politics and Governance, and Sociology Programs.**

BACHELOR OF ARTS (Politics and Governance)

PROFESSIONALLY-RELATED ELECTIVES
TABLE 3

NOTE: Professionally-related courses other than those listed in the following table may be selected subject to School and Teaching Department approval, space availability, and requisite requirements.

BLG 143	BIOLOGY: Biology I
BLG 144	BIOLOGY: Biology II
CHY 103	CHEMISTRY: Chemistry I
CHY 113	CHEMISTRY: Chemistry II
CMN 315	COMMUNICATION: Business Correspondence
CMN 413	COMMUNICATION: Corporate Communication
CMN 414	COMMUNICATION: Interpersonal Communication in Management
CRM 100	CRIMINAL JUSTICE: Introduction to the Criminal Justice System
CRM 102	CRIMINAL JUSTICE: Introduction to Crime and Justice
CRM 200	CRIMINAL JUSTICE: Criminal Law
CRM 202	CRIMINAL JUSTICE: Victims and the Criminal Process
CRM 300	CRIMINAL JUSTICE: Policing in Canada
CRM 306	CRIMINAL JUSTICE: Corrections in Canada
CRM 308	CRIMINAL JUSTICE: Criminal Courts in Canada
CRM 314	CRIMINAL JUSTICE: Criminal Justice and the Charter
CRM 402	CRIMINAL JUSTICE: Criminal Justice System & Social Inequality
CRM 404	CRIMINAL JUSTICE: Criminal Justice Policy
ECN 104	ECONOMICS: Introductory Microeconomics
ECN 204	ECONOMICS: Introductory Macroeconomics
ECN 301	ECONOMICS: Intermediate Macroeconomics I
ECN 321	ECONOMICS: Introduction to Law & Economics
ECN 504	ECONOMICS: Intermediate Microeconomics I
ECN 510	ECONOMICS: Environmental Economics
ECN 605	ECONOMICS: Labour Economics
ECN 703	ECONOMICS: Public Finance I
ECN 803	ECONOMICS: Public Finance II
ENG 520	ENGLISH: The Language of Persuasion
ENH 121	ENVIRONMENTAL HEALTH: Environmental Health Law
ENH 721	ENVIRONMENTAL HEALTH: Public Health Law
GEO 111	GEOGRAPHY: Environmental Analysis
GEO 141	GEOGRAPHY: Geography and GIS
GEO 151	GEOGRAPHY: Urban Analysis
GEO 231	GEOGRAPHY: Principles of Recreation and Demography
GEO 518	GEOGRAPHY: Internal Structure of the City
GEO 618	GEOGRAPHY: City and Region
GEO 714	GEOGRAPHY: GIS for the Municipal Professional I
GEO 721	GEOGRAPHY: Project Management
GEO 724	GEOGRAPHY: GIS for the Municipal Professional II
GEO 793	GEOGRAPHY: The Geography of Toronto
INP 911	NONPROFIT: Advocacy: Public-Governmental Relations
INP 912	NONPROFIT: Marketing and Fundraising in the Nonprofit and Voluntary Sector
INP 913	NONPROFIT: Leading Nonprofit Organizations Through Change
INP 914	NONPROFIT: Issues of Diversity: Building Collaborative Relationships
INP 915	NONPROFIT: Financial Management in the Nonprofit Sector
INP 916	NONPROFIT: Challenge, Crisis & Change: Public Policy
INP 920	NONPROFIT: Critical Issues in the Voluntary and NonProfit Sector
ITM 350	INFO. TECH. MGT.: Concepts of ebusiness
ITM 400	INFO. TECH. MGT.: Telecommunications Technology and Applications
ITM 500	INFO. TECH. MGT.: Database Analysis and Design
ITM 505	INFO. TECH. MGT.: Managing Information Systems and Telecommunications

BACHELOR OF ARTS (Politics and Governance)

PROFESSIONALLY-RELATED ELECTIVES -- TABLE 3 (CONTINUED)

ITM 515	INFO. TECH. MGT.: Canadian Telecommunications Market
ITM 715	INFO. TECH. MGT.: Strategic Issues in Telecommunications and I/T
ITM 725	INFO. TECH. MGT.: Privacy Issues
LAW 603	LAW: Advanced Business Law
LAW 723	LAW: Issues in Information Technology Law
MHR 523	HUMAN RESOURCES: Human Resources Administration I
MHR 600	HUMAN RESOURCES: Equal Opportunity Management
MHR 623	HUMAN RESOURCES: Human Resources Administration II
MHR 700	HUMAN RESOURCES: Cross Cultural Dimensions of Organizational Behaviour
MHR 721	HUMAN RESOURCES: Collective Bargaining
MHR 741	HUMAN RESOURCES: Managing Interpersonal Dynamics
MHR 841	HUMAN RESOURCES: Organization Design
OHS 508	OCCUPATIONAL HEALTH: Occupational Health
PCS xxx	PHYSICS: Measurement and Its Limitations
PCS xxx	PHYSICS: Physics I
PCS xxx	PHYSICS: Physics II
PHL 400	PHILOSOPHY: Human Rights and Justice
PHL 621	PHILOSOPHY: Beyond the Western Academic Tradition
PLE 525	PLANNING: Urban Transportation Planning
PLE 535	PLANNING: Housing
PLE 545	PLANNING: History of City Development
PLE 565	PLANNING: Community Sustainable Development
PLE 855	PLANNING: Social Planning and Strategic Management
PSY 102	PSYCHOLOGY: The Science of Psychology: Basic Principles
PSY 124	PSYCHOLOGY: Social Psychology
PSY 202	PSYCHOLOGY: The Science of Psychology: Applications
PSY 300	PSYCHOLOGY: Psychology and the Justice System
PSY 805	PSYCHOLOGY: Adjustment, Stress and Coping
PSY 806	PSYCHOLOGY: Behaviour Modification
PSY 808	PSYCHOLOGY: Community Psychology
PSY 940	PSYCHOLOGY: Prejudice and Discrimination
SOC 104	SOCIOLOGY: Understanding Society
SOC 107	SOCIOLOGY: Sociology of Everyday Life
SOC 300	SOCIOLOGY: Sociology of Diversity
SOC 302	SOCIOLOGY: The City and Society
SOC 402	SOCIOLOGY: The City and Social Problems
SOC 470	SOCIOLOGY: Toronto: The Changing City
SOC 472	SOCIOLOGY: Sociology of Work and Organizations
SOC 479	SOCIOLOGY: Communities and Social Networks
SOC 600	SOCIOLOGY: Globalization and Health
SOC 606	SOCIOLOGY: Work and Families in the 21 st Century
SOC 706	SOCIOLOGY: Sociology of the Global Economy
SOC 941	SOCIOLOGY: Race, Ethnic, and Aboriginal Studies
SOC 943	SOCIOLOGY: Poverty Issues
THF 406	THEATRE: Performance Entrepreneurship I
THF 407	THEATRE: Performance Entrepreneurship II

BACHELOR OF ARTS (Politics and Governance)

**PROFESSIONAL ELECTIVES
TABLE 4**

NOTE:

In Years 3 and 4, NINE one-term courses must be selected from this table. Of them, no more than TWO one-term courses may be selected from Group B.

GROUP A

POG 310	POLITICS: Provincial Politics
POG 312	POLITICS: Canadian Public Administration
POG 322	POLITICS: Social Movements and Civil Society
POG 410	POLITICS: Urban Government in Canada
POG 412	POLITICS: How Governments Spend
POG 413	POLITICS: Restructuring
POG 415	POLITICS: Policy Challenges
POG 420	POLITICS: Urban Governance
POG 425	POLITICS: Comparative Political Economy
POG 440	POLITICS: Aboriginal Governance and Justice
POG 442	POLITICS: Women and Governance
POG 444	POLITICS: Politics, Media and Technology

GROUP B

POG 316	POLITICS: Politics and Social Policy in Canada
POG 317	POLITICS: Political Issues in Early Childhood Education
POG 318	POLITICS: Aging, Politics and Public Policy
POG 319	POLITICS: Labour, the State and the Politics of Work

A2.3. Sociology

Bachelor of Arts (Sociology)

FIRST SEMESTER (BASS1)

Commencing Fall 2005

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED:			
CONTEMPORARY STUDY: Learning and Development Strategies	ACS 102	1	3
CONTEMPORARY STUDY: Writing as a Cultural Act	ACS 205	1	3
SOCIOLOGY: Understanding Society	SOC 104	1	3
REQUIRED—GROUP 1: One one-term course required from Table 1.		1	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table A.		1	3

SECOND SEMESTER (BASS2)

Commencing Winter 2006

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED			
CONTEMPORARY STUDY: Informal Logic and Rational Discourse	ACS 105	1	3
SOCIOLOGY: Sociology of Everyday Life	SOC 107	1	3
REQUIRED—GROUP 1: Two one-term courses required from Table 1.		2	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table A.		1	3

Bachelor of Arts (Sociology)

THIRD SEMESTER (BASS3) Commencing Fall 2006

	<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED:				
CONTEMPORARY STUDY:	Research Design & Qualitative Methods	ACS 301	1	3
REQUIRED—GROUP 1: Two one-term courses from Table 1.			2	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table A.			1	3
PROFESSIONALLY-RELATED ELECTIVE GROUP B: One one-term course required from Table 2.			1	3

FOURTH SEMESTER (BASS4) Commencing Winter 2007

	<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED				
CONTEMPORARY STUDY:	Introduction to Research and Statistics	ACS 401	1	3
REQUIRED—GROUP 1: Two one-term courses required from Table 1.			2	3
PROFESSIONALLY-RELATED ELECTIVE GROUP B: Two one-term courses required from Table 2.			2	3

Bachelor of Arts (Sociology)

FIFTH SEMESTER (BASS5) Commencing Fall 2007

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED:			
SOCIOLOGY: Toronto: The Changing City	*SOC 470	1	3
SOCIOLOGY: Classical Sociological Theory	SOC 473	1	3
SOCIOLOGY: Survey Design and Analysis	SOC 481	1	3
REQUIRED-GROUP 1: One one-term course required from Table 4		1	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table B		1	3
PROFESSIONALLY-RELATED ELECTIVE GROUP B: One one-term course required from Table 2 or Table 3. *		1	3

* Students who have successfully completed SOC470 *must* fill the slot with a Professionally-Related Elective from Table 2 or Table 3. Students taking SOC470 are *not* required to select a Professionally-Related Elective from Table 2 or Table 3 in this slot.

SIXTH SEMESTER (BASS6) Commencing Winter 2008

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
REQUIRED:			
SOCIOLOGY: Media and Images of Inequality	*SOC 525	1	3
SOCIOLOGY: Sociological Methods of Media Research	SOC 482	1	3
SOCIOLOGY: Advanced Research and Statistics	SOC 483	1	3
REQUIRED-GROUP 1: One one-term course required from Table 4		1	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table B		1	3
PROFESSIONALLY-RELATED ELECTIVE GROUP B: One one-term course required from Table 2 or Table 3. *		1	3

* Students who have successfully completed SOC525 *must* select one Professionally-Related Elective from Table 2 or Table 3. Students taking SOC525 are *not* required to select a Professionally-Related Elective from Table 2 or Table 3.

Bachelor of Arts (Sociology)

SEVENTH SEMESTER(BASS7)

Commencing Fall 2008

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
SOCIOLOGY: Contemporary Sociological Theory	SOC 475	1	3
SOCIOLOGY: Sociological Practice I (Research Proposal)	SOC 490	1	3
REQUIRED-GROUP 1: One one-term course required from Table 4		1	3
LIBERAL STUDIES ELECTIVE-GROUP A: One one-term course required from Table B.		1	3
PROFESSIONALLY-RELATED ELECTIVE GROUP B One one-term course required from Table 2 or Table 3.		1	3

EIGHTH SEMESTER (BASS8)

Commencing Winter 2009

<i>Course Title</i>	<i>Course Number</i>	<i>Duration in Terms</i>	<i>Lecture</i>
SOCIOLOGY: Sociological Practice II (Thesis)	SOC 491	1	3
REQUIRED-GROUP 1: Three one-term courses required from Table 4		3	3
PROFESSIONALLY-RELATED ELECTIVE GROUP B: One one-term course required from Table 2 or Table 3.		1	3

BACHELOR OF ARTS (Sociology)

PROFESSIONAL AND PROFESSIONALLY-RELATED ELECTIVES

TABLE 1

NOTE:

In Years 1 and 2, SEVEN one-term courses must be selected from this table. Of them,

- No more than four one-term courses may be taken in any one of the disciplines listed below
 - Note: INP900 is considered to be a Politics and Governance (POG) course

CRM 100	CRIMINAL JUSTICE: Introduction to the Criminal Justice System
CRM 102	CRIMINAL JUSTICE: Introduction to Crime and Justice
CRM 200	CRIMINAL JUSTICE: Criminal Law
CRM 202	CRIMINAL JUSTICE: Victims and the Criminal Process
ECN 104	ECONOMICS: Introductory Microeconomics
ECN 204	ECONOMICS: Introductory Macroeconomics
ECN 301	ECONOMICS: Intermediate Macroeconomics I
ECN 504	ECONOMICS: Intermediate Microeconomics I
GEO 111	GEOGRAPHY: Environmental Analysis
GEO 141	GEOGRAPHY: Geography and GIS
GEO 151	GEOGRAPHY: Urban Analysis
GEO 231	GEOGRAPHY: Principles of Recreation and Demography
INP 900	NONPROFIT: Understanding the Nonprofit and Voluntary Sector
POG 100	POLITICS: Introduction to Government
POG 110	POLITICS: Canadian Government
POG 215	POLITICS: Controversial Topics in Public Policy
POG 225	POLITICS: Global Governance
PSY 040	PSYCHOLOGY: Psychological Disorders
PSY 102	PSYCHOLOGY: The Science of Psychology: Basic Principles
PSY 124	PSYCHOLOGY: Social Psychology
PSY 202	PSYCHOLOGY: The Science of Psychology: Applications
SOC 470	SOCIOLOGY: Toronto: The Changing City
SOC 525	SOCIOLOGY: Media and Images of Inequality

BACHELOR OF ARTS (Sociology)

PROFESSIONALLY-RELATED ELECTIVES

TABLE 2*

ACC 100	ACCOUNTING: Introductory Financial Accounting
ACC 406	ACCOUNTING: Introductory Management Accounting
ACC 414	ACCOUNTING: Intermediate Accounting I
BLG xxx	BIOLOGY: Biology of a Living City
CHY xxx	CHEMISTRY: Modern Chemistry – Applications to Living Systems
CMN 279	COMMUNICATION: Introduction to Business Communication
CMN 313	COMMUNICATION: Report Writing
CMN 314	COMMUNICATION: Oral Communication
INP 901	NONPROFIT: Developing Effective Nonprofit Organizations
INP 902	NONPROFIT: Effectiveness and Accountability Through Evaluation
INP 910	NONPROFIT: Strategic Planning and Communication for Nonprofit Organizations
INT 900	INTERDISC. STUDIES: Program Planning and Evaluation
INT 905	INTERDISC. STUDIES: Conflict Resolution and Dispute Negotiation
INT 908	INTERDISC. STUDIES: Homelessness in Canadian Society
ITM 100	INFO. TECH. MGT.: Business and Information Systems
ITM 101	INFO. TECH. MGT.: Personal Productivity
ITM 102	INFO. TECH. MGT.: Business Information Systems I
ITM 305	INFO. TECH. MGT.: Systems Analysis and Design
ITM 310	INFO. TECH. MGT.: Introduction to Network Technology
LAW 122	LAW: Business Law
LAW 525	LAW: Law of the Marketplace
LAW 529	LAW: Labour Law
MHR 405	HUMAN RESOURCES: Org. Behaviour and Interpersonal Skills
MHR 505	HUMAN RESOURCES: Organizational Behaviour II
MHR 522	HUMAN RESOURCES: Industrial Relations
MKT 100	MARKETING: Marketing I
MKT 200	MARKETING: Marketing II
MKT 423	MARKETING: Marketing Research
MTH xxx	MATHEMATICS: Chaos and Fractals
OHS 208	OCCUPATIONAL HEALTH: Occupational Health & Safety Law
OHS 508	OCCUPATIONAL HEALTH: Occupational Health
OHS 777	OCCUPATIONAL HEALTH: Worker=s Compensation Management
PCS xxx	PHYSICS: Physics Answers for Everyday Questions

*** Common to Criminal Justice, Politics and Governance, and Sociology Programs.**

BACHELOR OF ARTS (Sociology)

PROFESSIONALLY-RELATED ELECTIVES

TABLE 3

ACC 514	ACCOUNTING: Intermediate Accounting II
ACC 605	ACCOUNTING: Public Sector Accounting
ACS 403:	CONTEMPORARY STUDY: Structural Issues in Equity/Diversity
CMN 315	COMMUNICATION: Business Correspondence
CMN 413	COMMUNICATION: Corporate Communication
CMN 443	COMMUNICATION: International Business Communication
CRM 100	CRIMINAL JUSTICE: Introduction to the Criminal Justice System
CRM 102	CRIMINAL JUSTICE: Introduction to Crime and Justice
CRM 402	CRIMINAL JUSTICE: Criminal Justice System & Social Inequality
ECN 104	ECONOMICS: Introductory Microeconomics
ECN 204	ECONOMICS: Introductory Macroeconomics
ECN 605	ECONOMICS: Labour Economics
ENG 520	ENGLISH: The Language of Persuasion
ENH 121	ENVIRONMENTAL HEALTH: Environmental Health Law
ENH 721	ENVIRONMENTAL HEALTH: Public Health Law
GEO 141	GEOGRAPHY: Geography and GIS
GEO 618	GEOGRAPHY: City and Region
GEO 793	GEOGRAPHY: The Geography of Toronto
INP 900	NONPROFIT: Understanding the Nonprofit/Voluntary Sector
INP 911	NONPROFIT: Advocacy: Public-Governmental Relations
INP 914	NONPROFIT: Issues of Diversity: Building Collaborative Relationships
INT 902	INTERDISC. STUDIES: Disabilities Issues
INT 910	INTERDISC. STUDIES: First Nations Issues
ITM 400	INFO. TECH. MGT.: Telecommunications Technology and Applications
ITM 505	INFO. TECH. MGT.: Managing Information Systems and Telecommunications
LAW 603	LAW: Advanced Business Law
LAW 723	LAW: Issues in Information Technology Law
MHR 523	HUMAN RESOURCES: Human Resources Administration I
MHR 600	HUMAN RESOURCES: Equal Opportunity Management
MHR 700	HUMAN RESOURCES: Cross Cultural Dimensions of Organizational Behaviour
MKT 403	MARKETING: Communications I
MKT 502	MARKETING: Consumer Behaviour
PHL 400	PHILOSOPHY: Human Rights and Justice
PHL 621	PHILOSOPHY: Beyond the Western Academic Tradition
PLE 565	PLANNING: Community Sustainable Development
PLE 855	PLANNING: Social Planning and Strategic Management
PLE 895	PLANNING : Conflict Resolution and Dispute Negotiation
POG 100	POLITICS : Introduction to Governance
POG 110	POLITICS : Canadian Government
POG 410	POLITICS : Urban Government in Canada
POG 442	POLITICS : Women and Governance
PSY 102	PSYCHOLOGY: The Science of Psychology: Basic Principles
PSY 124	PSYCHOLOGY: Social Psychology
PSY 808	PSYCHOLOGY: Community Psychology
SWP 905	SOCIAL WORK: Anti-Oppression & Human Diversity
SWP 910	SOCIAL WORK: Queer Theory and Identities
SWP 911	SOCIAL WORK: Values and Intercultural Communication

NOTE: Other Professionally-Related courses may be taken with departmental approval. Please consult with the Department of Sociology.

BACHELOR OF ARTS (Sociology)

**PROFESSIONAL ELECTIVES
TABLE 4**

NOTE:

In Years 3 and 4, SIX one-term courses must be selected from this table.

SOC025	SOCIOLOGY: Media and Society
SOC300	SOCIOLOGY: Sociology of Diversity
SOC302	SOCIOLOGY: The City and Society
SOC402	SOCIOLOGY: The City and Social Problems
SOC472	SOCIOLOGY: Sociology of Work and Occupations
SOC473	SOCIOLOGY: Classical Sociological Theory
SOC474	SOCIOLOGY: Immigration, Minorities, and Citizenship
SOC475	SOCIOLOGY: Contemporary Sociological Theory
SOC476	SOCIOLOGY: Sociology of Fear
SOC477	SOCIOLOGY: Sociology of Advertising
SOC478	SOCIOLOGY: Sociology of Fun
SOC479	SOCIOLOGY: Communities and Social Networks
SOC481	SOCIOLOGY: Survey Design and Analysis
SOC482	SOCIOLOGY: Sociological Methods of Media Research
SOC483	SOCIOLOGY: Advanced Research and Statistics
SOC500	SOCIOLOGY: Youth and Society
SOC502	SOCIOLOGY: Violence and the Family
SOC504	SOCIOLOGY: Children and Society
SOC605	SOCIOLOGY: Canadian Families: Myth and Legal Reality
SOC606	SOCIOLOGY: Work and Families in the 21 st Century
SOC608	SOCIOLOGY: Feminism and Society
SOC609	SOCIOLOGY: The Social Control of Women
SOC700	SOCIOLOGY: Men and Masculinities in the 21 st Century
SOC706	SOCIOLOGY: Sociology of the Global Economy
SOC903	SOCIOLOGY: Action Film and Consumer Society
SOC904	SOCIOLOGY: Women and Popular Culture
SOC931	SOCIOLOGY: Western Perspectives on Consumerism
SOC932	SOCIOLOGY: The Entertainment Industry
SOC941	SOCIOLOGY: Race, Ethnic, and Aboriginal Studies
SOC942	SOCIOLOGY: Women and Structural Change
SOC943	SOCIOLOGY: Poverty Issues

REPORT OF THE ACADEMIC STANDARDS COMMITTEE

Report #W2004–5–Addendum; May 2004

In this addendum we bring to Council our recommendation on the new program proposal in *Contemporary Science*.

SECTION C: NEW PROGRAMS

2. Contemporary Science

Undergraduate science programs are undergoing a transformation and are no longer focusing solely on the classical aspects of science. In general, contemporary studies focus on the relationships between disciplines and examine convergence in ideas to address contemporary issues. The *Contemporary Science Program* has been designed to prepare students intellectually to understand the relationships among the basic sciences and to work within a multidisciplinary framework. Ryerson is in the unique position to build upon its strengths in the development of programs which apply science in a very modern context.

Program Objectives

The *Faculty of Engineering and Applied Science Working Group on New Science Programs* has identified the following objectives in formulating the new program proposal.

- *Broaden and expand general science options.*
- *Create a common first year* that will allow students to explore various science-based paths to degree completion.
- *Enhance science education and research* that will ensure the University's ability to attract and retain the best students and faculty.

Curriculum

The proposed *Contemporary Science Program* has been designed to provide a broad and flexible path to science education while also serving as a portal to other science programs (*Biology, Chemistry*) at Ryerson. Following the first-year common science platform, students can choose to remain in the *Contemporary Science Program* or opt to pursue *Biology* or *Chemistry* programs.

To receive a broad based science education, students in the *Contemporary Science Program* must complete three streams: a minimum of one stream from list A and no more than two streams from list B as shown in the table below. Because of the similarity of

subject matter and the corresponding course requirements, students will not be allowed to take the combination of the *Biology* and *Environmental Sciences* streams.

Program	Degree	Stream A	Stream B
Contemporary Science	Bachelor of Science (Contemporary Science)	Computational Sciences	Biology
		Informatics	Chemistry
		Physics	Environmental Sciences
			Psychology

Degree requirements include completion of a minimum of six courses in each of three streams. Brief descriptions of the streams are given below.

- **Informatics:** This stream includes subject areas associated with information management (storage, retrieval, database management, computing technologies, and applications).
- **Biological & Molecular Sciences (Biology, Chemistry, Physics, Psychology):** This stream incorporates basic sciences including biochemistry, biology, chemistry and physics. The well-developed programs offered by the *Department of Chemistry and Biology* support these streams.
- **Environmental Sciences:** The *Environmental Sciences* stream incorporates the basic sciences, including biology and chemistry, and specific courses in biotechnology, ecology, limnology, ecotoxicology, microbiology, and environmental science.
- **Computational Sciences:** This stream incorporates mathematics and applications of computing in solving complex mathematical problems (e.g. statistics and modeling) associated with contemporary science.

The curriculum consists of 41 one-semester courses including an orientation course, 6 liberal studies and one technical communications course. Appendix 3 presents the curriculum and provides full listing of the required and elective courses for each stream.

Practicum: Co-operative and internship options will be available to qualified students (normally having a GPA of 3.00 or greater following the end of second year). Students will have to complete a minimum of three of the five work terms to be eligible for a co-op degree. Alternatively, students can opt to complete a 16-month industrial internship placement following the completion of the third year of study.

Optional Designation in Management Science: The recently introduced option in Management Sciences will be available to all students enrolled in science programs. The designation in Management Science will require that students complete a total of six additional courses beyond their regular program.

Admission, Enrollment, Implementation: The admission requirements for the *Contemporary Science* program is an OSSD or equivalent with six Grade 12 U/M courses including Grade 12 U English (ENG4U/EAE4U is the preferred English), Chemistry (SCH4U), Biology (SB14U) and Advanced Functions and Introductory Calculus (MCB4U) with a minimum of 60% or higher in each of the courses. Students are encouraged to include Grade 12 U Physics in their high school studies. Subject to competition, candidates may be required to present averages/grades above the minimum.

The enrollment target is 250 first-year students including students expressing an interest in the *Biology* and *Chemistry* programs which will share the common first-year science platform with the *Contemporary Science Program*.

The projected implementation date is Fall 2005.

Peer Review Assessment

In accordance with the University policy on *The Development, Review and Approval of New Undergraduate Programs*, a peer review team³ assessed the program. The peer review team concluded that the "... proposed common entry science courses, and the *Contemporary Science Program*, are significant positive proposals" and recommended their implementation at Ryerson University.

ASC Evaluation

The ASC recognizes that the proposed new program in *Contemporary Science* represents an important step in the evolution of the University and specifically, of the science programs at Ryerson. The proposed new program in conjunction with the new *Biology* and *Chemistry* degree paths will significantly broaden the science options available and will educate prospective science students within a multidisciplinary framework.

Recommendation

Having satisfied itself of the merit of this proposal, the Academic Standards Committee recommends:

That Academic Council approve the program in Contemporary Science leading to the Bachelor of Science (Contemporary Science).

³ Profs. D. Wardlaw (Queen's), U. Krull (Toronto) and D. Rousseau (Ryerson).

Respectfully submitted by

Errol Aspevig,
for the 2003/2004 Academic Standards Committee

K. Alnwick (Registrar)	B. Murray (Philosophy)
Z. Fawaz (Aerospace)	K. Penny (Hospitality and Tourism Management)
K. Gates (Nursing)	D. Phelan (Library)
D. Glynn (Continuing Education)	D. Schulman (Secretary of Academic Council; ex-officio)
R. Keeble (Urban and Regional Planning)	D. Snyder (Image Arts)
C. Livett (student, Geographic Analysis)	R. Stagg (History)
L. McCarthy (Chemistry and Biology)	D. Sydor (Business Management)
A. Mitchell (Interior Design)	M. Zeytinoglu (Electrical and Computer Engineering)
H. Moreau (student, BusinessManagement)	

APPENDIX 3 CONTEMPORARY SCIENCE CURRICULUM

YEAR 1

Semester 1

BLG 143 Biology I
CHY 103 Chemistry I
CPS xx2 Intro. Prog. for Scientists – Note 1
MTH xx3 Modern Mathematics I
PCS 119a Physics I
SCI xx1– Note 2

Semester 2

BLG 144 Biology II
CHY 113 Chemistry II
MTH xx4 Modern Mathematics II
PCS 119b Physics II
Liberal Studies Elective 1 – Note 1

YEAR 2

Semester 3

BLG xx3 Cell Biology
CHY 142 Organic Chemistry I
MTH 380 Statistics I
Technical Elective 1, Stream I / II / III -Note 3
Liberal Studies Elective 2

Semester 4

MTH 480 Statistics II
PCS xx8 Photonics and Optical Devices
Technical Elective Stream 2, I / II / III
Technical Elective Stream 3, I / II / III
Liberal Studies Elective 3

YEAR 3

Semester 5

Technical Elective 4, Stream I / II / III
Technical Elective 5, Stream I / II / III
Technical Elective 6, Stream I / II / III
Technical Elective 7, Stream I / II / III
Liberal Studies Elective 4 – Note 4

Semester 6

CHY 423 Environmental Science
CMN xx1 Science, Comm. and Society
Technical Elective 8, Stream I / II / III
Technical Elective 9, Stream I / II / III
Technical Elective 10, Stream I / II / III

YEAR 4

Semester 7

Technical Elective 11, Stream I / II / III
Technical Elective 12, Stream I / II / III
Technical Elective 13, Stream I / II / III
Technical Elective 14, Stream I / II / III
Liberal Studies Elective 5

Semester 8

Technical Elective 15, Stream I / II / III
Technical Elective 16, Stream I / II / III
Technical Elective 17, Stream I / II / III
Technical Elective 18, Stream I / II / III
Liberal Studies Elective 6

Notes:

1. *CPS xx2* and *Liberal Studies Elective 1* can be taken in either semester.
2. This course is graded on a pass/fail basis.
3. For Technical Electives see **Table CS1**. Students will take courses in each of three selected streams. Six courses from each of the three selected streams must be taken to satisfy the requirements for the *Contemporary Science* degree. One of the three streams must either be Informatics, Computational Sciences or Physics. See **Table CS2** for specific course requirements for each the available streams. Students are excluded from taking both Biology and Environment in order to satisfy requirements for the *Contemporary Science* Degree.
4. This is a designated liberal studies elective where the students must select from a thematic list of courses on history of science/impact of technology. This list includes the following courses: *ENG 507*, *GEO 702*, *HST 701*, *PHL 709*, *POL 507*.

TABLE CS1 Elective Courses for Students Enrolled in the Contemporary Science Degree Program

BIOLOGY

BLG 010a Physiology
BLG 151 Microbiology I
BLG 251 Microbiology II
BLG 307 Principles of Biotechnology
BLG 340 Environmental Biology
BLG 351 Applied Microbiology
BLG 401 Ecotoxicology
BLG 402 Limnology
BLG 407b Biotechnology Laboratory
BLG xx1 Genetics
BLG xx2 Applied Ecology

Computational Sciences

MTH 110 Discrete Mathematics
MTH 501 Numerical Analysis I
MTH 503 Operations Research I
MTH 607 Graph Theory
MTH 710 Fourier Analysis
MTH xx3 Calculus and Geometry
MTH xx5 Chaos Fractals and Dynamics
MTH xx6 Image Analysis
MTH xx7 Introduction to Stochastic Processes
MTH xx8 Dynamical Systems and Differential Equations

Chemistry

CHY 213 Analytical Chemistry I
CHY 223 Analytical Chemistry II
CHY 242 Organic Chemistry II
CHY 261 Biochemistry I
CHY 330 Spectroscopy
CHY 331 Chromatography
CHY 344 Inorganic Chemistry I
CHY 361 Biochemistry II
CHY 362 Biochemistry III
CHY 381 Physical Chemistry I
CHY 434 Analytical Chemistry of Complex Matrices
CHY 435 Chemical Instrumentation

Physics

PCS 211 Mechanics
PCS 224 Solid State Physics
PCS 510 Fundamentals of Astrophysics
PCS xx1 Biophysics
PCS xx2 Electricity and Magnetism
PCS xx3 Introduction to Medical Physics
PCS xx7 Nuclear Physics with Radiation Interactions
PCS x10 Radiation Biology
PCS x11 Radiation Protection/Health Physics
PCS x13 Thermodynamics and Statistical Physics
PCS x14 Quantum Mechanics

Informatics

CPS 520 Computer Assisted Instruction/Learning
CPS 721 Artificial Intelligence
CPS 815 Analysis of Algorithms
CPS xx1 Advanced Programming for Scientists
CPS xx3 Data Structures for Scientists
CPS xx4 Bioinformatics
CPS xx5 Database Applications for Scientists
CPS xx6 Graphical Modeling

Psychology

PSY 102 Science of Psychology
PSY 202 Introduction to Applied Psychology
PSY 217 Environmental Psychology
PSY 607 Drugs and Human Behavior
PSY 714 Visual Information Processing
PSY 806 Behavioural Psychology
PSY xx1 Advanced Human Neuropsychology
PSY xx2 Evolutionary Psychology
PSY xx3 Fundamentals of Human Neuropsychology
PSY xx4 Memory and Cognition

NOTE: The *Environmental Sciences* stream is composed of biology, chemistry and physics courses. Therefore, no separate courses are listed under this heading.

TABLE CS2 Stream Requirements

BIOLOGY

Required

BLG xx1 Genetics
BLG 151 Microbiology I
CHY 261 Biochemistry I

Electives (3 of 8)

BLG 010a Physiology
BLG 251 Microbiology II
BLG 307 Principles of Biotechnology
BLG 340 Environmental Biology
BLG 351 Applied Microbiology
BLG 407b Biotechnology Laboratory
CHY 361 Biochemistry II
CHY 362 Biochemistry III

CHEMISTRY

Required

CHY 213 Analytical Chemistry I
CHY 242 Organic Chemistry II
CHY 330 Spectroscopy

Electives (3 of 8)

CHY 223 Analytical Chemistry II
CHY 261 Biochemistry I
CHY 331 Chromatography
CHY 344 Inorganic Chemistry I
CHY 361 Biochemistry II
CHY 381 Physical Chemistry I
*CHY 434 Analytical Chemistry of
Complex Matrices*
CHY 435 Chemical Instrumentation

COMPUTATIONAL SCIENCES

Required

MTH xx3 Calculus and Geometry

Electives (Lower Level; 1 of 2)

MTH 501 Numerical Analysis I
*MTH xx8 Dynamical Systems and
Differential Equations*

Electives (Upper Level)

(1 of 2)

MTH 503 Operations Research I
MTH 607 Graph Theory

(1 of 2)

MTH xx6 Image Analysis
*MTH xx7 Introduction to Stochastic
Processes*

(2 of 4)

CPS 721 Artificial Intelligence
CPS xx6 Graphical Modeling
MTH 710 Fourier Analysis
*MTH xx5 Chaos, Fractals and
Dynamics*

ENVIRONMENTAL SCIENCES

Required

BLG xx2 Applied Ecology
CHY 213 Analytical Chemistry I

Electives (Lower Level; 1 of 2)

BLG 151 Microbiology I
CHY 261 Biochemistry I

Electives (Upper Level; 3 of 9)

BLG 251 Microbiology II
BLG 307 Principles of Biotechnology
BLG 340 Environmental Biology
BLG 401 Ecotoxicology
BLG 402 Limnology
CHY 223 Analytical Chemistry II
PCS xx1 Biophysics
PCS x10 Radiation Biology
PCS x13 Thermodynamics and

INFORMATICS

Electives (Lower Level; 2 of 3)

<i>CPS xx1</i>	<i>Advanced Programming for Scientists</i>
<i>CPS xx3</i>	<i>Data Structures for Scientists</i>
<i>MTH 110</i>	<i>Discrete Mathematics</i>

Electives (Upper Level; 4 of 7)

<i>CPS 520</i>	<i>Computer Assisted Instruction/Learning *</i>
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CPS 721 Artificial Intelligence *

<i>CPS 815</i>	<i>Analysis of Algorithms *</i>
<i>CPS xx4</i>	<i>Bioinformatics</i>
<i>CPS xx5</i>	<i>Database Applications for Scientists</i>
<i>CPS xx6</i>	<i>Graphical Modeling</i>
<i>MTH 607</i>	<i>Graph Theory</i>

- * Present calendar prerequisites will be modified to allow students to enroll in these courses.

PHYSICS

Required

<i>PCS 211</i>	<i>Mechanics</i>
<i>PCS xx3</i>	<i>Introduction to Medical Physics</i>

Electives (Upper Level; 4 of 9)

<i>PCS 224</i>	<i>Solid State Physics</i>
<i>PCS 510</i>	<i>Fundamentals of Astrophysics</i>
<i>PCS xx1</i>	<i>Biophysics</i>
<i>PCS xx2</i>	<i>Electricity and Magnetism</i>
<i>PCS xx7</i>	<i>Nuclear Physics with Radiation Interactions</i>
<i>PCS xx9</i>	<i>Quantum Mechanics</i>
<i>PCS x10</i>	<i>Radiation Biology</i>
<i>PCS x11</i>	<i>Radiation Protection / Health Physics</i>
<i>PCS x13</i>	<i>Thermodynamics and Statistical Physics</i>

PSYCHOLOGY

Required

<i>PSY 102</i>	<i>Science of Psychology</i>
<i>PSY 202</i>	<i>Introduction to Applied Psychology</i>

Electives (Upper Level; 4 of 8)

<i>PSY 217</i>	<i>Environmental Psychology</i>
<i>PSY 806</i>	<i>Behavior Modification</i>
<i>PSY 607</i>	<i>Drugs and Human Behavior</i>
<i>PSY 714</i>	<i>Visual Information Processing</i>
<i>PSY xx1</i>	<i>Advanced Human Neuropsychology</i>
<i>PSY xx2</i>	<i>Evolutionary Psychology</i>
<i>PSY xx3</i>	<i>Fundamentals of Human Neuropsychology</i>
<i>PSY xx4</i>	<i>Memory and Cognition</i>