UNIVERSITY OF
TORONTO
SCARBOROUGH

FOR APPROVAL   **PUBLIC**   **OPEN SESSION**

TO: UTSC Academic Affairs Committee

SPONSOR: Prof. William Gough, Interim Vice-Principal Academic and Dean
CONTACT INFO: 416-208-7027, vpdean@utsc.utoronto.ca

PRESENTER: Prof. Mark Schmuckler, Vice-Dean, Undergraduate
CONTACT INFO: 416-208-2978, vicedean@utsc.utoronto.ca

DATE: Thursday, February 25, 2016

AGENDA ITEM: 4f

ITEM IDENTIFICATION:

Undergraduate Minor Modifications for Governance Approval

JURISDICTIONAL INFORMATION:

University of Toronto Scarborough Academic Affairs Committee (AAC) "is concerned with matters affecting the teaching, learning and research functions of the Campus" (*AAC Terms of Reference, Section 4*). Under section 5.6 of its terms of reference, the Committee is responsible for approval of "Major and minor modifications to existing degree programs." The AAC has responsibility for the approval of Major and Minor modifications to existing programs as defined by the University of Toronto Quality Assurance Process (*UTQAP, Section 3.1*).

GOVERNANCE PATH:

1. **UTSC Academic Affairs Committee [For Approval] (February 25, 2016)**

PREVIOUS ACTION TAKEN:

No previous action in governance has been taken on this item.

HIGHLIGHTS:

This package includes all minor modifications to undergraduate curriculum, submitted by all academic units, which require governance approval. Minor modifications to

curriculum are understood as those that do not have a significant impact on program or course learning outcomes. They require governance approval when they modestly change the nature of a program or course.

11 undergraduate academic units are proposing curricular changes that require governance approval:

1. Department of Anthropology
   - Major and Major Co-op in Health Studies – Health Policy (BA)
   - Major and Major Co-op in Health Studies – Population Health (BSc)
2. Department of Arts, Culture and Media
   - Specialist (Joint) program in Journalism (BA)
   - Major in Media Studies (BA)/ Minor in Media Studies (Arts)/ Specialist in Studio (BA)/ Major in Studio (BA)/ Minor in Theatre and Performance Studies (Arts)
   - Major in Theatre and Performances Studies (BA)
3. Department of Biological Sciences
   - Specialist and Specialist Co-op in Molecular Biology and Biotechnology (BSc)
4. Department of Computer and Mathematical Sciences
   - Specialist and Specialist Co-op in Computer Science (BSc)
   - Major and Major Co-op in Computer Science (BSc)
   - Minor in Computer Science (Science)
5. Centre for Critical Development Studies
   - Minor in International Development Studies (Arts) **(NEW)**
6. Centre for French and Linguistics
   - Minor in English to Chinese Translation (Arts)
7. Department of Management
   - Specialist Co-op in Management and International Business (BBA)
   - Specialist and Specialist Co-op in Management and Accounting (BBA)
8. Department of Physical and Environmental Sciences
   - Specialist/Specialist Co-op in Environmental Chemistry
   - Specialist Co-op in Environmental Physics
9. Department of Psychology
   - Specialist and Specialist Co-op in Mental Health Studies (BSc)
   - Specialist and Specialist Co-op in Psychology (BSc)
10. Department of Sociology
    - Specialist in Sociology (BA)
    - Major in Sociology (BA)

FINANCIAL IMPLICATIONS:

There are no net implications to the campus operating budget.

RECOMMENDATION:

Be It Resolved,

THAT the minor modifications to undergraduate programs, that require governance approval, submitted by UTSC undergraduate academic units, as described in the package dated February 3, 2016 and recommended by the Interim Vice-Principal Academic and Dean, Professor William Gough, be approved effective April 1, 2016 for the academic year 2016-17.

DOCUMENTATION PROVIDED:

1. 2016-17 Curriculum Cycle: Undergraduate Minor Modifications for Approval report, dated February 3, 2016

2016-17 Curriculum Cycle
Undergraduate Minor Modifications for Approval
February 3, 2016

Department of Anthropology

Item 1: Major and Major Co-op in Health Studies – Health Policy (BA)

Overview of Changes:
- The Calendar description has been restructured to clearly distinguish the core course requirements of the program from optional courses.
- HLTB15H3, HLTB16H3, HLTB40H3, HLTB50H3, and PHLB09H3 are changed from optional to required courses in the program.
- HLTB41H3 and ANTC67H3 are added as required courses in the program.
- HLTB11H3, HLTB20H3, HLTB42H3, HLTC23H3, GGRB28H3, ANTC24H3 and ANTC61H3 are added as optional courses in the program.
- HLTB05H3, HLTC40H3/MGEC34H3, and HLTC24H3 are deleted as options in the program.
- The bin of specified D-level courses given to complete requirement 6 – 0.5 credit at the D-level – has been removed, although the program will continue to require 0.5 credit at the D-level in HLT courses.

Calendar Copy Showing Changes:

MAJOR PROGRAM IN HEALTH STUDIES - Health Policy (BA)
MAJOR CO-OPERATIVE PROGRAM IN HEALTH STUDIES – Health Policy (BA)

This program requires the completion of 8.0 credits, as described below.

CORE (5.5 credits)

1. 1.0 credit at A-level:
HLTA02H3 Foundations of Health Studies I
HLTA03H3 Foundations of Health Studies II

~~2. 0.5 credit in Statistics~~
~~STAB22H3 Statistics I~~ *(moved to new requirement 2)*

3~~2~~. ~~3.0~~ 2.5 credits as follows: ~~at B-level from the following:~~
~~3.0 credits from the following:~~
HLTB16H3 Introduction to Public Health
HLTB41H3 Introduction to the Social Determinants of Health (new)
HLTB50H3 Introduction to Health Humanities
PHLB09H3 Biomedical Ethics

STAB22H3 Statistics I *(moved from former requirement 2)*
HLTB05H3 Introduction to Sport Management, Health and Environment
HLTB15H3 Introduction to Health Research Methodology *(moved to new requirement 3)*
HLTB17H3 Conceptual Models of Health *(moved to new requirement 6)*
HLTB40H3 Health Policy and Health Systems *(moved to new requirement 3)*
IDSB04H3 Introduction to International/Global Health* *(moved to new requirement 6)*
*NOTE: IDSB04H3 has prerequisites that are not part of this program.

43. 2.0 1.5 credits as follows at C-level from the following:
HLTB15H3 Introduction to Health Research Methodology *(moved from former requirement 3)*
HLTB40H3 Health Policy and Health Systems *(moved from former requirement 3)*
ANTC67H3 Foundations in Epidemiology
HLTC02H3 Women and Health: Past and Present *(moved to new requirement 7)*
HLTC05H3 Social Determinants of Health *(moved to new requirement 7)*
HLTC18H3 Determinants of Health, and Health Disparities *(moved to new requirement 7)*
[HLTC40H3 Introduction to Health Economics or MGEC34H3/(ECMC34H3) Economics of Health Care]
HLTC42H3 Emerging Health Issues and Policy Needs *(moved to new requirement 7)*
HLTC43H3 Politics of Canadian Health Policy *(moved to new requirement 7)*
HLTC50H3 The Human-Animal Interface *(moved to new requirement 7)*
IDSC11H3 Issues in Global and International Health* *(moved to new requirement 7)*
*NOTE: IDSC11H3 has prerequisites that are not part of this program.

5. 1.0 additional credit at the C-level from the following:
HLTC04H3 Critical Qualitative Health Research Methods *(moved to new requirement 7)*
HLTC22H3 Health, Aging and the Life Cycle *(moved to new requirement 7)*
HLTC24H3 Environment and Health
HLTC44H3 Comparative Health Policy Systems *(moved to new requirement 7)*
64. 0.5 credit at the D-level in HLT courses from the following:
HLTD01H3 Directed Readings in Health Studies
HLTD02H3 Health Research Seminar
HLTD04H3 Special Topics in Health
HLTD05H3 Directed Research on Health Services and Institutions
HLTD06H3 Special Topics in Migration and Public Health
HLTD11H3 Special Topics in Health**
HLTD21H3 Special Topics in Health**
HLTD22H3 Special Topics in Health**
HLTD50H3 Special Topics in Health Humanities

OPTIONS (2.5 credits)

5. 0.5 credit at B-level from the following:
HLTB11H3 Basic Human Nutrition
HLTB20H3 Contemporary Human Evolution and Variation

6. 0.5 credit at B-level from the following:
GGRB28H3 Geographies of Disease
HLTB11H3 Basic Human Nutrition (if not used towards requirement 5)
HLTB17H3 Conceptual Models of Health *(moved from former requirement 3)*

HLTB20H3 Contemporary Human Evolution and Variation (if not used towards requirement 5)
HLTB42H3 Foundations of Medical Anthropology
IDSB04H3 Introduction to International/Global Health* *(moved from former requirement 3)*
*NOTE: IDSB04H3 has prerequisites that are not part of this program.

7. 1.5 credits at C-level from the following:
ANTC24H3 Culture, Mental Illness, and Psychiatry
ANTC61H3 Medical Anthropology: Illness and Healing in Cultural Perspective
HLTC02H3 Gender and Health *(revised course title; moved from former requirement 4)*
HLTC04H3 Critical Qualitative Health Research Methods *(moved from former requirement 5)*
HLTC05H3 Society, Health and Illness *(revised course title; moved from former requirement 4)*
HLTC18H3 Determinants of Health, and Health Disparities *(moved from former requirement 4)*
HLTC22H3 Health, Aging and the Life Cycle *(moved from former requirement 5)*
HLTC23H3 Issues in Child Health and Development
HLTC42H3 Emerging Health Issues and Policy Needs *(moved from former requirement 4)*
HLTC43H3 Politics of Canadian Health Policy *(moved from former requirement 4)*
HLTC44H3 Comparative Health Policy Systems *(moved from former requirement 4)*
HLTC50H3 The Human-Animal Interface *(moved from former requirement 4)*
IDSC11H3 Issues in Global and International Health* *(moved from former requirement 4)*
*IDSC11H3 has prerequisites that are not part of this program.
**NOTE: Special Topics courses - topics will vary from instructor to instructor and will be posted on the Health Studies website.

Rationale:
As part of a recent academic planning exercise, the Health Studies faculty undertook a comprehensive review of the Health Studies programs, including an extensive discussion around the core course requirements necessary to ensure that students achieve the established learning outcomes for the programs. It was determined that the structure of the programs' course requirements should be modified to clearly establish which courses are key to this, and which can be optional.

In the BA programs (non Co-op and Co-op) depth of knowledge means understanding how social and political factors affect human health, and how cultural factors can mediate human behaviour and health outcomes. HLTB41H3 has been added as a requirement, and HLTB40H3 and HLTB50H3 have been changed from options to requirements, because these courses lay the foundations for such an understanding. In addition, we have found over the past 3 years that social determinants are so basic that they should be taught in second year, rather than in third year.

Health Studies students need to be conversant with a wide range of methodologies. STAB22H3, already a requirement in the BA programs, is the basic quantitative methods course. HLTB15H3, which discusses the nature of inquiry, research ethics, and the role of qualitative, empirical, and epidemiological research designs, is being changed from an optional to a required course, while ANTC67H3, which introduces the techniques of epidemiology, building on STAB22H3, is being added as a required course. PHLB09H3 is being changed from an optional to a required course because it gives students a framework in which to work with ethical issues in health.

The addition of HLTB41H3 and ANTC67H3 as requirements are the only truly substantive changes being made to the programs.

"Breadth of knowledge" means that students should become aware of the broad based nature of health studies. This is achieved through HLTB16H3, which gives an introduction to public health and is being changed from an optional to a required course, and also through the updated requirement 5 of the programs. HLTB11H3 and HLTB20H3, which have been added as optional courses in Requirement 5, strengthen students' understanding of the multi-disciplinary approach of the programs by including a course that further develops biological perspectives. The optional courses in requirement 6 are also focused on building breath into the programs at the B-level.

Courses in medical anthropology build further depth in the program, by showing how cultural factors (in the anthropological sense) influence health outcomes, through tradition, customs, ritual, and a perception of illness. For this reason, ANTC24H3 and ANTC61H3 have been added as options to the programs. HLTB42H3, also added as an optional course, is an introduction to medical anthropology, which serves as a prerequisite for these courses. HLTC23H3, which is a life cycle course, has been added as an option to the programs for breadth. GGRB28H3 has been added as an optional course because it also adds breadth by giving students a geographical perspective on disease.

HLTB05H3 has been deleted from the program because does not fit; moreover and has been deleted from the list of HLT courses. HLTC40H3/MGEC34H3 has been dropped because it has never been offered and there is little student interest. HLTC24H3 has been removed because it includes HLTB22H3 and BIOA11H3 as prerequisites and it is very unlikely that students in the BA program will have these prerequisites.

Finally, the bin of specified D-level courses has not worked well because there have been too many changes in suitable courses at the D-level. Simplifying the requirement to 0.5 credit at the D-level in HLT courses simply makes the program more flexible for students.

Consultation:
Within the Health Studies faculty, and Department of Anthropology. There has been consultation with the departmental student association, and their feedback has influenced the proposed changes. Approved by the Departmental Curriculum Committee. Reviewed by the Dean's Office.

Item 2: Major and Major Co-op in Health Studies – Population Health (BSc)

Overview of Changes:
- The Calendar description has been restructured to clearly distinguish the core course requirements of the program from optional courses.
- HLTB15H3, HLTB16H3, HLTB22H3, PHLB09H3, and ANTC67H3 are changed from optional to required courses in the program.
- BIOA11H3 and HLTB11H3 are added as required courses in the program.
- HLTB41H3, HLTB42H3 and HLTB50H3 are added as optional courses in the program.
- ANTC40H3, STAC32H3, and STAC50H3 are deleted as options in the program.
- The bin of specified D-level courses given to complete requirement 6 – 0.5 credit at the D-level – has been removed, however, the program will continue to require 0.5 credit at the D-level in HLT courses.

Calendar Copy Showing Changes:

MAJOR PROGRAM IN HEALTH STUDIES - Population Health (BSc)
MAJOR CO-OPERATIVE PROGRAM IN HEALTH STUDIES – Population Health (BSc)

This program requires the completion of 8.0 credits, as described below.

CORE (5.5 credits)

1. ~~1.0~~ 1.5 credit at A-level:
[BIOA11H3 Introduction to Biology of Humans or [BIOA01H3 and BIOA02H3]*]
HLTA02H3 Foundations of Health Studies I
HLTA03H3 Foundations of Health Studies II
*Note: Students completing [BIOA01H3 and BIOA02H3] instead of BIOA11H3 will receive only 0.5 credit towards the program.

~~2. 0.5 credit in Statistics:~~
~~STAB22H3 Statistics I~~ *(moved to new requirement 2)*

~~3~~2. ~~3.0~~ 2.5 credits at B-level:
~~HLTB15H3 Introduction to Health Research Methodology~~ *(moved to new requirement 3)*
~~HLTB17H3 Conceptual Models of Health~~ *(moved to new requirement 6)*
~~HLTB20H3 Contemporary Human Evolution and Variation~~ *(moved to new requirement 6)*
~~HLTB21H3 Infectious Diseases~~ *(moved to new requirement 6)*
~~STAB27H3 Statistics II~~ *(moved to new requirement 3)*
HLTB11H3 Basic Human Nutrition
HLTB16H3 Introduction to Public Health *(moved from former requirement 5)*
HLTB22H3 Biological Determinants of Health *(moved from former requirement 3)*
PHLB09H3 Biomedical Ethics *(moved from former requirement 3)*
STAB22H3 Statistics I *(moved from fromer requirement 2)*

~~4~~3. ~~2.0~~ 1.0 credit~~s~~:
~~ANTC40H3 Methods and Analysis in Anthropological Demography~~
~~ANTC68H3 Deconstructing Epidemics~~ *(moved to new requirement 7)*
~~HLTC18H3 Determinants of Health, Health Disparities~~ *(moved to new requirement 7)*
~~HLTC21H3 Patterns of Health, Disease, and Injuries~~ *(moved to new requirement 7)*
~~STAC32H3 Applications of Statistical Methods~~
~~STAC50H3 Data Collection~~
HLTB15H3 Introduction to Health Research Methodology *(moved from former requirement 3)*
ANTC67H3 Foundations in Epidemiology *(moved from former requirement 4)*

~~5. 1.0 credit from the following:~~
~~GGRB28H3 Geographies of Disease~~ *(moved to new requirement 6)*
~~HLTB16H3 Introduction to Public Health~~ *(moved to new requirement 2)*
~~HLTC04H3 Critical Qualitative Health Research Methods~~ *(moved to new requirement 7)*
~~HLTC22H3 Health, Aging and the Life Cycle~~ *(moved to new requirement 7)*
~~HLTC23H3 Issues in Child Health and Development~~ *(moved to new requirement 7)*
~~HLTC24H3 Environment and Health~~ *(moved to new requirement 7)*

~~6.~~ 4. 0.5 credit at the D-level in HLT courses ~~from the following:~~
~~ANTD16H3 Biomedical Anthropology~~
~~HLTD01H3 Directed Readings in Health Studies~~
~~HLTD02H3 Health Research Seminar~~
~~HLTD04H3 Special Topics in Health~~
~~HLTD05H3 Directed Research on Health Services and Institutions~~
~~HLTD11H3 Special Topics in Health*~~
~~HLTD21H3 Special Topics in Health*~~
~~HLTD22H3 Special Topics in Health*~~

OPTIONS (2.5 credits)

5. 0.5 credit at B-level from the following:
HLTB41H3 Introduction to the Social Determinants of Health (new)
HLTB42H3 Foundations of Medical Anthropology
HLTB50H3 Introduction to Health Humanities

6. 0.5 credit at B-level from the following:
GGRB28H3 Geographies of Disease *(moved from former requirement 5)*
HLTB17H3 Conceptual Models of Health *(moved from former requirement 3)*
HLTB20H3 Contemporary Human Evolution and Variation *(moved from former requirement 3)*
HLTB21H3 Infectious Diseases *(moved from former requirement 3)*
HLTB41H3 Introduction to the Social Determinants of Health (if not used towards requirement 5) (new)
HLTB50H3 Introduction to Health Humanities (if not used towards requirement 5)
STAB27H3 Statistics II *(moved from former requirement 3)*

7. 1.5 credits at C-level from the following:
ANTC68H3 Deconstructing Epidemics *(moved from former requirement 4)*
HLTC04H3 Critical Qualitative Health Research Methods *(moved from former requirement 4)*
HLTC18H3 Determinants of Health, and Health Disparities *(moved from former requirement 4)*
HLTC21H3 Patterns of Health, Disease and Injuries *(moved from former requirement 4)*
HLTC22H3 Health, Aging and the Life Cycle *(moved from former requirement 5)*
HLTC23H3 Issues in Child Health and Development *(moved from former requirement 5)*
HLTC24H3 Environment and Health *(moved from former requirement 5)*
~~*Note: Special Topics courses - topics will vary from instructor to instructor, and will be posted on the Health Studies website.~~

Rationale:
As part of a recent academic planning exercise, the Health Studies faculty undertook a comprehensive review of the Health Studies programs, including an extensive discussion around the core course requirements necessary to ensure students achieve the established learning outcomes for the programs. It was determined that the structure of the programs' course requirements should be modified to clearly establish which courses are key to this, and which can be optional.

In the BSc programs (non Co-op and Co-op) depth of knowledge means understanding how biological and genetic factors determine human health. HLTB11H3 has been added as a requirement, and HLTB22H3 has changed from an option to a requirement, because these courses lay the foundations for such an understanding. In addition, we discovered last year that students who had completed a first year

biology course flourished in B22, and those who had not, struggled; therefore in collaboration with Biological Sciences, we are introducing BIOA11H3 as a required course to provide a grounding for students who are otherwise not taking a first year biology course.

The addition of BIOA11H3 and HLTB11H3 as requirements are the only truly substantive changes being made in the programs.

Health Studies students need to be conversant with a wide range of methodologies. STAB22H3, already a requirement in the BSc programs, is the basic quantitative methods course. HLTB15H3, which discusses the nature of inquiry, research ethics, and the role of qualitative, empirical, and epidemiological research designs, and ANTC67H3, which introduces the techniques of epidemiology, building on STAB22, are being changed from options to requirements. PHLB09H3 has been changed from an option to a requirement because it gives students a framework in which to work with ethical issues in health.

"Breadth of knowledge" means that students should become aware of the broad based nature of health studies. This is achieved through HLTB16H3, which gives an introduction to public health and is being changed from an option to a requirement, and also through the optional courses given in the updated requirement 5 of the programs. HLTB41H3, HLTB42H3 and HLTB50H3, which have been added as optional courses in Requirement 5, strengthen students' understanding of the multi-disciplinary approach of the programs by given them the opportunity to focus on social science or humanistic perspectives. The optional courses in requirement 6 are also focused on building breath into the programs at the B-level.

ANTC40H3 has been removed as an option because it is offered infrequently. STAC32H3 and STAC50H3 have attracted very few students over the past 3 years, so they too are being removed as options.

Finally, the bin of specified courses at the D-level has not worked well because there have been too many changes. Simplifying the requirement to 0.5 credit at the D-level in HLT courses simply makes the program more flexible for students.

Consultation:
Within the Health Studies faculty, and Department of Anthropology. There has been consultation with the departmental student association, and their feedback has influenced the proposed changes. Approved by the Departmental Curriculum Committee. Reviewed by the Dean's Office.

Department of Arts, Culture and Media

Item 1: Specialist (Joint) program in Journalism (BA)

Overview of Changes:
- ACMB01H3 replaces ACMA01H3 in requirement 1.
- ACMB02H3 replaces ACMA02H3 in requirement 2.
- Course titles have been updated to reflect recent changes.

Calendar Copy Showing Changes:

SPECIALIST (JOINT) PROGRAM IN JOURNALISM (ARTS)
Program Director: J. Dvorkin (416-287-7163) *Email*: journalism@utsc.utoronto.ca

This program may be taken in fulfillment of the requirements of a four-year (20.0 credit) Honours B.A. Degree and requires four to five years to complete. In addition to completing the requirements for the degree, students will also qualify for the Advanced College Diploma from Centennial College.

Courses are taught at both U of T Scarborough and at Centennial College (The Story Arts Centre in East York). Centennial courses are taken during three consecutive college semesters starting in the third year of the program. Students must be registered on a full-time basis while at Centennial College. The course work may include evenings and weekends.

Students must maintain a Cumulative Grade Point Average (CGPA) of 2.0 or higher to remain in the program.

Guidelines for 1st year course selection
Students intending to complete the program should include the following in their first year course selection:
MDSA01H3 and JOUA01H3 & JOUA02H3 and ACMAB01H3 & other courses of interest.

Guidelines for computer and software selection
Students accepted in the Joint Program in Journalism are advised to purchase an industry standard laptop and obtain designated software and hardware.
Computer: 13-inch Apple MacBook Pro or laptop wiht Windows 7 or higher operating system which is capable of running the current version of Adobe software.

Software: Microsoft Office Suite (Word, Excel, Powerpoint), 2010 or more recent version, and Adobe Photoshop (most recent version).
For questions regarding camera equipment, please contact the Centennial College Program Coordinator.

The Journalism Study Guide is available at: www.utsc.utoronto.ca/~humdiv/prg_jo.html
Note: Many of the new media courses codes have changed from MDS to JOU. See course descriptions.

Program Admission
Limited enrolment. Applicants must fill out a joint program application form, which is available online at www.utsc.utoronto.ca/jtprogs

Program Requirements
This program requires the completion of at least 13.5 credits, as indicated below:

1. First Year
1. 2.0 credits as follows:
Introductory Journalism Courses (1.0 credit)
JOUA01H3 Introduction to Journalism I
JOUA02H3 Introduction to Journalism II

Introductory Media Studies Courses (0.5 credit)
MDSA01H3 Introduction to Media Studies

Introductory Humanities Courses (1.0 credit)
~~ACMA01H3 Exploring Key Questions in the Humanities~~
ACMAB01H3 Reading, Writing and Thinking for ACM Programs
~~ACMA02H3 Inquiry and Reasoning in the Humanities~~
ACMB02H3 Methods of Inquiry and Investigation for ACM Programs

~~2. 2.5 credits as follows:~~
2. Second Year
Journalism Core Courses (2.0 credits)
JOUB01H3 Covering Immigration and Transnational Issues
JOUB02H3 Critical Journalism
JOUB24H3 Journalism in the Age of Digital Media ~~New Media~~
JOUB39H3 Fundamentals of Journalistic Writing

3. Third Year
~~5. 2.0 credits as follows (Journalism Group I):~~
Journalism Application Courses (4.5 credits)

Centennial College Group 1:
*JOUA06H3 Journalism Law and Ethics
*JOUB11H3 News Reporting
*JOUB14H3 ~~Journalism~~ Multiplatform Design
*JOUB18H3 Imaging: Photography for Journalists
* A minimum grade of 60% is required in these particular courses to pass and maintain standing in the program.
[Note: students will be eligible to enrol in ~~these courses~~ Centennial College Group 1 courses after successfully completing at least 10.0 credits at the University of Toronto Scarborough (or obtaining permission of the Program Director), including MDSA01H3, JOUA01H3, JOUA02H3, JOUB24H3, JOUB01H3, JOUB02H3, JOUB39H3, ~~ACMA01H3~~ ACMB01H3, ~~ACMA02H3~~ ACMB02H3.]

~~6. 2.5 credits as follows (Journalism Group II):~~
Centennial College Group 2:
*JOUB03H3 Magazine/Freelance Journalism
*JOUB05H3 Advanced Interviewing Techniques
*JOUB10H3 News Laboratory I
*JOUB17H3 Radio News
*JOUB20H3 ~~Multiplatform~~ Interactive Journalism
* A minimum grade of 60% is required in these particular courses to pass and maintain standing in the program.
[Note: students will be eligible to enrol in ~~these~~ Centennial College Group 2 courses after successfully completing the courses from ~~Journalism Group I~~ Centennial College Group 1 above.]

4. Third/Fourth Year
~~3.~~ (a) 1.5 credits at the C- or D-level in JOU courses, of which at least 0.5 credit must be at the D-level. Selection of these courses may be made only after prior consultation with the Program Director.

6. (b) Courses that satisfy the requirements of one Minor Program. **Note**: Courses used to meet this requirement may also be applied to Requirements 1) through 3).

5. Fourth Year
7. 2.0 credits as follows (Journalism Group III)
Advanced Journalism Application Courses (2.0 credits)

Centennial College Group 3
*JOUC13H3 ~~Beat Reporting~~ Entrepreneurial Project
*JOUC16Y3 News Laboratory II
*JOUC17H3 Television News
* A minimum grade of 60% is required in these particular courses to pass and maintain standing in the program.
[Note: students will be eligible to enrol in ~~these~~ Centennial College Group 3 courses after successfully completing the courses from ~~Journalism Group II~~ Centennial College Group 2 above.]

D-level Journalism Courses (0.5 credit)
~~9.~~ JOUD10H3 Senior Seminar in Journalism
[Note: this course is held at the UTSC campus]

Journalism Field Placement (0.5 credit)
~~8.~~ **JOUC25H3 Field Placement
**A minimum of 60% in this course is required to pass and to maintain standing in the program. Students are also required to have completed a non-credit Career Management course prior to starting their field placement. No academic credit is given for the Career Management course and no fee is charged. Students must contact their Program Coordinator at Centennial College to enroll in the Career Management course, they cannot enroll in this course via ROSI.
[Note: students will be eligible to enrol in this course after successfully completing the courses from Centennial College Group 3 ~~Journalism Group III~~ above.]

~~* A minimum grade of C- is required in these particular courses to pass and maintain standing in the program.~~
~~Completion of a Career Management course is required to qualify for the Advanced College Diploma from Centennial College.~~

Rationale:
ACMB01H3 is replacing ACMA01H3 in all Specialist and Major programs offered by the Department of Arts, Culture and Media. ACMB01H3 is a writing intensive course designed to help students to develop the communication and analytical skills they will need to be successful in their upper-level courses both at UTSC and at Centennial. ACMB02H3 is replacing ACMA02H3 in the program because it will provide the foundation necessary for research-focused D-level courses. A further research-orientation is in line with the departmental plan for ACM and is also complementary to the increased emphasis on data journalism that is part of the Centennial Journalism curriculum. Course titles are being updated to reflect recent changes. The remaining changes are editorial, and are being made to clarify the structure of the program for students.

Consultation:
Within the academic unit. Approved by the Departmental Curriculum Committee. There has also been extensive consultation with Centennial College. Reviewed by the Dean's Office.

Item 2: Major in Media Studies (BA), and Minor in Media Studies (Arts)
Specialist in Studio (BA), and Major in Studio (BA)
Minor in Theatre and Performance Studies (Arts)

Overview of Changes:
•   Replace ACMA01H3 with ACMB01H3 in all programs.

Calendar Copy Showing Changes:

MAJOR PROGRAM IN MEDIA STUDIES (ARTS)
Undergraduate Advisor: *Email:* mds-undergrad-advisor@utsc.utoronto.ca

Program Requirements
Students must complete 8.0 full credits including 2.0 credits at the C- or D-level:

1. 1.5 credits:
~~ACMA01H3 Exploring Key Questions in the Humanities~~
ACMB01H3 Reading, Thinking, and Writing for ACM Programs
MDSA01H3 Introduction to Media Studies
MDSA02H3 History of Media

2. 0.5 credit from the following:
MDSB05H3 Media and Globalization
MDSB25H3 Political Economy of Media

3. 0.5 credit from the following:
MDSB61H3 Mapping New Media
MDSB62H3 Visual Culture and Communication
MDSB63H3 Sound and Visual Media

4. 1.0 credit from the following:
MDSC01H3 Theories in Media Studies
MDSC02H3 Media, Identities and Politics
MDSC53H3 Anthropology of Media and Publics

5. 0.5 credit from the following:
MDSD01H3 Senior Seminar: Topics in Media and Arts
MDSD02H3 Senior Seminar: Topics in Media and Society

6. 3.5 additional credits in MDS courses

7. 0.5 credit from the following:
ENGB70H3 Introduction to Cinema
ENGB75H3 Cinema and Modernity I
ENGB76H3 Cinema and Modernity II
ENGC56H3 Literature and Media: From Page to Screen
HISB12H3 The Classical World in Film

HISC08H3 Colonialism on Film
PSCA01H3 Communicating Science: Film, Media, Journalism, and Society
SOCC44H3 Media and Society
VPHB68H3 Art and the Everyday: Mass Culture and the Visual Arts
VPMB97H3 Film Music
VPMC97H3 Music, Technologies, Media
WSTB13H3 Gender, Media and Culture
WSTC16H3 Criminal Women: Gender, Justice and the Media
WSTC22H3 Women and Film
NOTE: Additional courses with a media focus offered by other programs and departments may be
eligible to meet this requirement (with permission of the program director).

MINOR PROGRAM IN MEDIA STUDIES (ARTS)
Undergraduate Advisor: Email: mds-undergrad-advisor@utsc.utoronto.ca
Program Requirements
Students must complete 4.0 credits including 1.0 credit at the C- or D-level:

1. 1.0 credit from the following:
ACMA01H3 Exploring Key Questions in the Humanities
ACMB01H3 Reading, Thinking, and Writing for ACM Programs
MDSA01H3 Introduction to Media Studies
2. 0.5 credit from the following:
MDSA02H3 History of Media
MDSB05H3 Media and Globalization
3. 0.5 credit from the following:
MDSB61H3 Mapping New Media
MDSB62H3 Visual Culture and Communication
MDSB63H3 Sound and Visual Media
4. 2.0 additional credit in MDS courses

SPECIALIST PROGRAM IN STUDIO (ARTS)
Undergraduate Advisor (General): Email: studio-program-supervisor@utsc.utoronto.ca
Program Advisor: Y. Brotman Email: ybrotman@utsc.utoronto.ca

Enrolment in the Specialist in Studio is limited. Students must apply to enter the program after
completing four credits including VPSA62H3 and VPSA63H3. Decisions are made on program
admissions only twice a year, in May and August, and are based on student requests submitted to the
registrar through ROSI. Admission is determined on the basis of a student's overall GPA and grades in
VPSA62H3 and VPSA63H3. For students applying after 8-10 credits, admission will be based on the
overall GPA and grades in VPS courses taken.

This program requires the completion of 14.0 credits, including 4 full credits at the C-or D-level of
which at least 1.0 credit must be at the D-level.

1. (3.5 credits)
ACMA01H3 Exploring Key Questions in the Humanities
ACMB01H3 Reading, Thinking, and Writing for ACM Programs
MDSA01H3 Introduction to Media Studies
VPSA62H3 Foundation Studies in Studio

VPSA63H3 But Why is it Art?
VPSA70H3 Drawing I
VPSB73H3 Curatorial Perspectives I
VPSB74H3 Drawing II

2. (0.5 credit)
One of the following:
VPSC66H3 Theory and Practice: Two Dimensional Work
VPSC68H3 Theory and Practice: Time-Based Work
VPSC69H3 Theory and Practice: Art in a Globalizing World
VPSC70H3 Theory and Practice: New Media in Studio

3. (6.0 credits)
6.0 additional credits from VPS of which at least 1.5 credits should be at the C- level and 1.0 credit at the D level.

4. (3.0 credits)
VPHA46H3 Ways of Seeing: Introduction to Art Histories
2.5 additional credits in art history of which 1 full credit should be at the C- level.

5. (1.0 credit)
1.0 credit from the following:
ENGB12H3 Life Writing
ENGB70H3 Intro to Cinema
ENGB75H3 Cinema and Modernity I
GASC42H3 Film and Popular Culture in South Asia
MDSA02H3 History of Media
MDSB05H3 Media and Globalization
MDSB61H3 Mapping New Media
MDSB62H3 Visual Culture and Communication

MAJOR PROGRAM IN STUDIO (ARTS)
Undergraduate Advisor (General): Email: studio-program-supervisor@utsc.utoronto.ca
Program Advisor: Y. Brotman Email: ybrotman@utsc.utoronto.ca

Enrolment in the Major in Studio is limited. Students must apply to enter the program after completing four credits including VPSA62H3 and VPSA63H3. Decisions are made on program admissions only twice a year, in May and August, and are based on student requests submitted to the registrar through ROSI. Admission is determined on the basis of a students overall GPA and grades in VPSA62H3 and VPSA63H3.

Program Requirements
Students must complete eight full credits including:

1. VPSA62H3 Foundation Studies in Studio
    VPSA63H3 But Why Is It Art?

2. ~~ACMA01H3 Exploring Key Questions in the Humanities~~
    ACMB01H3 Reading, Thinking, and Writing for ACM Programs

3. VPHA46H3 Ways of Seeing: Introduction to Art Histories

4. VPSA70H3 Drawing I
    VPSB74H3 Drawing II

5. At least one-half credit from:
    VPSC66H3 Theory and Practice: Two-Dimensional Work
    VPSC68H3 Theory and Practice: Time-Based Work
    VPSC69H3 Theory and Practice: Art in a Globalizing World
    VPSC70H3 Theory and Practice: New Media in Studio

6. 3.5 additional credits from courses in VPS, at least one full credit of which must be at the C-level.

7. One full credit at the D-level in VPS

MINOR PROGRAM IN THEATRE AND PERFORMANCE STUDIES (ARTS)
Undergraduate Advisor: *Email*: taps-program-supervisor@utsc.utoronto.ca

Program Requirements: Students must complete 4.0 full credits as follows:

1. ~~ACMA01H3 Exploring Key Questions in the Humanities~~
    ACMB01H3 Reading, Thinking, and Writing for ACM Programs

2. VPDA10H3 Introduction to Theatre
    [VPDA11H3 Introduction to Performance *or* VPDA15H3 Introduction to the Fundamentals of Acting]
    and at least two of the following courses: [VPDB10H3, VPDB11H3, VPDB12H3, VPDB13H3]
    Note: Students who do not qualify for either VPDA11H3 or VPDA15H3 should take all of the following courses: VPDB10H3, VPDB11H3, VPDB12H3, VPDB13H3

3. 1.5 additional credits in VPD, one full credit of which must be at the C- or D-level.

Rationale:
A new course, ACMB01H3, has been developed specifically for ACM program students, and replaces ACMA01H3 which is a general course aimed at all students.

Consultation:
Within the academic unit. Approved by the Departmental Curriculum Committee. Reviewed by the Dean's Office.

Item 3: Major in Theatre and Performance Studies (BA)

Overview of Changes:
• Replace ACMA01H3 with ACMB01H3 in requirement 1.
• Delete VPMB79H3, VPMB93H3,VPMB97H3 as optional courses from requirement 7; add VPMC85H3, VPMC89H3 and VPMC97H3 as optional courses in requirement 7.

Calendar Copy Showing Changes:

MAJOR PROGRAM IN THEATRE AND PERFORMANCE STUDIES (ARTS)
Undergraduate Advisor: *Email*: taps-program-supervisor@utsc.utoronto.ca

Program Requirements: Students must complete 8.0 full credits as follows:

1. ~~ACMA01H3 Exploring Key Questions in Humanities~~
    ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs

2. VPDA10H3 Introduction to Theatre
    VPDA11H3 Introduction to Performance
    VPDB01H3 Intermediate Workshop in Performance I
    VPDB02H3 Intermediate Workshop in Performance II

3. VPDB04H3 Experiencing the Live Theatre
    VPDB15H3 The Actor and the Script

4. VPDB10H3 Theatre History I: From Ritual to Renaissance
    VPDB11H3 Theatre History II: Early Modern Popular Theatre
    VPDB12H3 Theatre History III: Modern Theatre in Global Context
    VPDB13H3 Theatre in Canada

5. VPDC20H3 Special Topics in Performance

6. VPDD50H3 Advanced Seminar in Theatre and Performance

7. 1.5 additional credits in VPD, one full credit of which must be at the C- or D-level.
    In fulfilling requirement #7, students may substitute one full credit from another discipline with the
    Program Director's written permission. The following courses are particularly recommended:
    VPSB77H3 Performance Art
    VPMC85H3 Movies, Music and Meaning
    VPMC89H3 Music and Politics
    VPMC97H3 Music, Technologies, Media
    ~~VPMB79H3 Performing Arts of Asia~~
    ~~VPMB93H3 Music for the Theatre~~
    ~~VPMB97H3 Film Music~~
    ENGB14H3 Twentieth-Century Drama
    ENGB32H3 Shakespeare in Context I
    ENGB33H3 Shakespeare in Context II
    ENGB70H3 Introduction to Cinema
    ENGC07H3 Canadian Drama
    ENGC26H3 Drama: Tragedy
    ENGC27H3 Drama: Comedy
    GASB15H3 The Arts of South Asia
    GASC42H3 Film and Popular Culture in South Asia
    GASC45H3 Film and Popular Cultures in East Asia

Rationale:
A new course, ACMB01H3, has been developed specifically for ACM program students, and replaces ACMA01H3 which is a general course aimed at all students.

VPMB79H3, B93H3 and B97H3 are removed because they are being deleted. VPMC85H3, VPMC89H3 and VPMC97H3 replace these deleted courses.

Consultation:
Within the academic unit. Approved by the Departmental Curriculum Committee. Reviewed by the Dean's Office.

Department of Biological Sciences

Item 1: Specialist in Molecular Biology & Biotechnology (BSc) and Specialist Co-op in Molecular Biology & Biotechnology (BSc)

Overview of Changes:
For both the Specialist and Specialist Co-op programs
- In First Year requirements: Replace MATA30H3 with MATA29H3 as a required course; delete MATA36H3 as an optional course – MATA35H3 changes from an optional to a required course.
- In Fourth Year requirements: add BIOD30H3 as an optional course.

For the Specialist Co-op program
- In the Program Admission requirements – course requirements: replace MATA30H3 with MATA29H3 as a required course; delete MATA36H3 as an optional course – MATA35H3 changes from an optional to a required course.
- In the Work Term Requirements – course requirements: replace MATA30H3 with MATA29H3 as a required course; delete MATA36H3 as an optional course – MATA35H3 changes from an optional to a required course.

Calendar Copy Showing Changes:

SPECIALIST PROGRAM IN MOLECULAR BIOLOGY AND BIOTECHNOLOGY (SCIENCE)
Supervisor: C. Hasenkampf *Email*: molecular-biology-biotechnology@utsc.utoronto.ca

The Molecular Biology and Biotechnology program strives to help students construct a broad foundation of knowledge across the major disciplines of biology in the first two years of study, and combine this knowledge with an increasingly analytical and reflective approach to learning. Upon this base, students deepen their knowledge of biological processes that occur at the cellular and molecular level through the course work of their third and fourth years. This is a laboratory-rich program that integrates an understanding of chemical and physical processes with our complex biological systems. Because of broad training in biology and rigorous cross training in cognate disciplines, graduates are well positioned to apply to professional and graduate schools or work in a broad range of government regulatory agencies, clinical or research-focused industries and other careers that require the union of strong analytical and technical skills.

NOTE: This program has been renamed. It was formerly known as the Specialist in Cell and Molecular Biology (B.Sc.).

Program Requirements
This program consists of 14.0 required credits.

First Year
1.0 Credit of Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

1.0 Credit of Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

1.0 Credit in Mathematics
~~Choose from:~~
[MATA30H3 ~~Calculus I for Biological and Physical Sciences &~~
MATA29H3 Calculus I for Life Sciences and Environmental Sciences
MATA35H3 Calculus II for Biological Sciences~~] or~~
~~[MATA30H3 Calculus I for Biological and Physical Sciences & MATA36H3 Calculus II for Physical Sciences]~~

1.0 Credit in Physics
Choose 0.5 credit from:
PHYA10H3 Introduction to Physics IA
PHYA11H3 Introduction to Physics IB

Choose 0.5 credit from:
PHYA21H3 Introduction to Physics IIA
PHYA22H3 Introduction to Physics IIB

0.5 Credit in Statistics
Choose from:
STAB22H3 Statistics I (this course could also be taken in second year)
PSYB07H3 Data Analysis in Psychology (this course could also be taken in second year)

Second Year
3.0 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
[BIOB34H3 Animal Physiology or (BIOB30H3) Mammalian Physiology I]
[BIOB38H3 Plants and Society or (BIOB31H3) Plant Physiology]
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

0.5 Credit of Biology Core Labs
BIOB12H3 Cell and Molecular Biology Laboratory

1.0 Credit of Organic Chemistry Courses
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II

Third Year
3.0 Credits of Biology C-level Courses
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
BIOC15H3 Genetics
BIOC17H3 Microbiology
BIOC23H3 Practical Approaches to Biochemistry
BIOC39H3 Immunology (can be completed in third or fourth year)

0.5 Credit in Computer Science
Choose from:
CSCA08H3 Introduction to Computer Science I (most appropriate course for computer science students)
CSCA20H3 Introduction to Programming (most appropriate course for non-computer science students)
PSCB57H3 Introduction to Scientific Computing
(computer science could also be taken in an earlier year)

Third/Fourth Year
0.5 Credit of Cognate Biology Courses
Choose from:
BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC14H3 Genes, Environment and Behaviour
BIOC19H3 Animal Developmental Biology
BIOC21H3 Vertebrate Histology: Cells and Tissues
(BGYC22H3) Vertebrate Histology: Organs
BIOC31H3 Plant Development and Biotechnology
BIOC40H3 Plant Physiology
BIOD37H3 Biology of Plant Stress

Fourth Year
0.5 Credit in Advanced Molecular Techniques
BIOD21H3 Advanced Molecular Biology Laboratory
0.5 credit of D-level Research-oriented "Cell & Molecular" Course Work
Choose from:
BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD22H3 Molecular Biology of the Stress Response
BIOD23H3 Special Topics in Cell Biology
BIOD25H3 Genomics
BIOD26H3 Fungal Biology and Pathogenesis
BIOD27H3 Molecular Endocrinology
BIOD29H3 Pathobiology of Human Disease
BIOD30H3 Plant Research and Biotechnology-Addressing Global Problems
BIOD95H3 Supervised Study in Biology
BIOD98Y3 Directed Research in Biology

Note: Any of these courses not used to satisfy this requirement may be used to fulfill the '0.5 Credit of Cognate Biology Courses'.

SPECIALIST (CO-OPERATIVE) PROGRAM IN MOLECULAR BIOLOGY AND BIOTECHNOLOGY (SCIENCE)
Supervisor: C. Hasenkampf *Email:* molecular-biology-biotechnology@utsc.utoronto.ca
Co-op Contact: askcoop@utsc.utoronto.ca

The Molecular Biology and Biotechnology program strives to help students construct a broad foundation of knowledge across the major disciplines of biology in the first two years of study, and combine this knowledge with an increasingly analytical and reflective approach to learning. Upon this base, students deepen their knowledge of biological processes that occur at the cellular and molecular level through course work of their third and fourth years. This is a laboratory-rich program that integrates an understanding of chemical and physical processes with our complex biological systems. Because of broad training in biology and rigorous cross training in cognate disciplines, graduates are well positioned to apply to professional and graduate schools or work in a broad range of government regulatory agencies, clinical or research-focused industries and other careers that require the union of strong analytical and technical skills. The co-op option of the Molecular Biology and Biotechnology program complements and punctuates academic course work with full-time work terms in research laboratories, government, health care, or in public or private industry. These placements help students define and refine their career and/or professional school goals. For information on admissions, fees, work terms and standing in the Program, please see the Co-operative Programs section of this *Calendar.*

NOTE: This program has been renamed. It was formerly known as the Specialist Co-operative in Cell and Molecular Biology (B.Sc.).

Program Admission
Prospective Applicants: For direct admission from secondary school or for students who wish to transfer to U of T Scarborough from another U of T faculty or from another post-secondary institution, see the Co-operative Programs section in this *Calendar*.

Current U of T Scarborough students: Application procedures can be found at the Registrar's Office website: www.utsc.utoronto.ca/registrar. The minimum qualifications for entry are 5.0 credits including BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, [(MATA20H3) & (MATA21H3)] or [~~MATA30H3~~ MATA29H3 & [MATA35H3] ~~or MATA36H3]]~~, [PHYA10H3 or PHYA11H3], plus a cumulative GPA of at least 2.75.

Program Requirements
This program consists of 14.0 required credits plus two work-terms.

A. Course Requirements

First Year
1.0 Credit of Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

1.0 Credit of Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry I: Reactions and Mechanisms

1.0 Credit in Mathematics
Choose from:
[MATA30H3 Calculus I for Biological and Physical Sciences &
MATA29H3 Calculus I for Life Sciences and Environmental Sciences
MATA35H3 Calculus II for Biological Sciences] or
[MATA30H3 Calculus I for Biological and Physical Sciences & MATA36H3 Calculus II for Physical Sciences

1.0 Credit in Physics
Choose 0.5 credit from:
PHYA10H3 Introduction to Physics IA
PHYA11H3 Introduction to Physics IB
Choose 0.5 credit from:
PHYA21H3 Introduction to Physics IIA
PHYA22H3 Introduction to Physics IIB

0.5 Credit in Statistics
Choose from:
STAB22H3 Statistics I (this course could also be taken in second year)
PSYB07H3 Data Analysis in Psychology (this course could also be taken in second year)

Second Year

3.0 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
[BIOB34H3 Animal Physiology or (BIOB30H3) Mammalian Physiology I]
[BIOB38H3 Plants and Society or (BIOB31H3) Plant Physiology]
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

0.5 Credit of Biology Core Labs
BIOB12H3 Cell and Molecular Biology Laboratory

1.0 Credit of Organic Chemistry Courses
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
Computer Science might be taken in this year and will enhance Co-op placement options.

Third Year

3.0 Credits of Biology C-level Courses
BIOC12H3 Biochemistry I: Proteins and Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism

BIOC15H3 Genetics
BIOC17H3 Microbiology
BIOC23H3 Practical Approaches to Biochemistry
BIOC39H3 Immunology (can be completed in third or fourth year)

0.5 Credit in Computer Science
Choose from:
CSCA08H3 Introduction to Computer Science I (most appropriate course for computer science students)
CSCA20H3 Introduction to Programming (most appropriate course for non-computer science students)
PSCB57H3 Introduction to Scientific Computing

Third/Fourth Year

0.5 Credit of Cognate Biology Courses
Choose from:
BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC14H3 Genes, Environment and Behaviour
BIOC19H3 Animal Developmental Biology
BIOC21H3 Vertebrate Histology: Cells and Tissues
(BGYC22H3) Vertebrate Histology: Organs
BIOC31H3 Plant Development and Biotechnology
BIOC40H3 Plant Physiology
BIOD37H3 Biology of Plant Stress

Fourth Year

0.5 Credit in Advanced Molecular Techniques
BIOD21H3 Advanced Molecular Biology Laboratory

0.5 Credit of D-level Research-Oriented "Cell & Molecular" Course Work
Choose from:
BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD22H3 Molecular Biology of the Stress Response
BIOD23H3 Special Topics in Cell Biology
BIOD25H3 Genomics
BIOD26H3 Fungal Biology and Pathogenesis
BIOD27H3 Molecular Endocrinology
BIOD29H3 Pathobiology of Human Disease
BIOD30H3 Plant Research and Biotechnology-Addressing Global Problems
BIOD95H3 Supervised Study in Biology
BIOD98Y3 Directed Research in Biology
Note: Any of these courses not used to satisfy this requirement can be used to fulfill the '0.5 Credit of Cognate Biology Courses.'

B. Work Term Requirements
The program requires eight four-month terms of study and two four-month work terms. Practical work experience in the fields of cell biology, genetics, molecular biology and biotechnology are alternated

with study terms to enhance academic studies and develop professional and personal skills. Students must submit both an oral and written report on each work term for evaluation, and will also complete a standardized form assessing the quality of their co-op work term. Students are expected to do at least one of their work placements in the fall or winter term.

To be eligible for their first work term, students must be in good standing in the program and have completed at least 10.0 credits, including BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, [(MATA20H3) & (MATA21H3)] or [~~MATA30H3~~ MATA29H3 & [MATA35H3] ~~or MATA36H3]~~], [PHYA10H3 or PHYA11H3], BIOB10H3, BIOB11H3, BIOB12H3, CHMB41H3, CHMB42H3. Students must also successfully complete Arts & Science Co-op Work Term Preparation Activities, which include multiple networking sessions, speaker panels and industry tours along with seminars covering resumes, cover letters, job interviews and work term expectations, prior to their first work term.

To be eligible for their second work term placement, students must have completed at least 12.5 credits which must include [BIOC12H3 & BIOC15H3] or [BIOC13H3 & BIOC17H3] and have received a satisfactory evaluation for their performance and for their reports on their first work term. Completion of Statistics and Computer Science course work, before the second placement, is highly recommended.

Rationale:
- The Department of Math and Computer Science is replacing MATA30H3 with MATA29H3 for Life Science and Environmental Science students. MATA36H3 has been deleted from our programs as it will no longer be open to Biological Sciences as requested by Math and Computer Sciences.
- BIOD30H3 (Plant Research & Biotechnology-Addressing Global Problems) provides an excellent option for students in Molecular Biology & Biotechnology to gain additional experience in the field of Biotechnology. Adding it to the bin of Research-Orientated Cell and Molecular course work provides students with an additional option to complete their D-level requirements. It gives students excellent flexibility to find D-level courses in their area of interest.
- Revisions to Admission Requirements and Work Term Requirements in Specialist Co-op to reflect changes to programs.

Consultation:
Within the academic unit. Approved by the Departmental Curriculum Committee. There has also been consultation with CMS and the Arts and Science Co-op Office. Reviewed by the Dean's Office.

Department of Computer and Mathematical Sciences

Item 1: Specialist in Computer Science (BSc), and Specialist Co-op in Computer Science (BSc)

Overview of Changes:
- Revise the existing GPA admission requirements so that it is based on a specific set of core courses rather than across all courses a student has taken.
- The minimum CGPA admission requirement for the Specialist Co-op in Computer Science will remain at 2.75.

Calendar Copy Showing Changes:

SPECIALIST PROGRAM IN COMPUTER SCIENCE (SCIENCE)
Supervisor of Studies: R. Pancer (416-287-7679) *Email*: pancer@utsc.utoronto.ca

Program Objectives
This program provides a working knowledge of the foundations of computer science: modern computer software and hardware, theoretical aspects of computer science, and relevant areas of mathematics and statistics. It also imparts an appreciation of the discipline's transformative impact on science and society. The program prepares students for further study and for careers in the computing industry. It comprises four streams with different emphases:

The Comprehensive Stream provides a broad and balanced exposure to the discipline. It is the stream best-suited for students planning to pursue graduate study in computer science, but it is also suitable for other career paths.

The Software Engineering Stream places a greater emphasis on the engineering side of the discipline, including computer systems and core applications.

The Information Systems Stream has a similar focus as the Software Engineering Stream, but it provides additional exposure to certain aspects of business management. It is of special interest to students wishing to pursue careers in technical management but who have a deep interest in the technology.

The Health Informatics Stream provides a broad perspective of the discipline and exposure to additional subjects, including statistics and social sciences, that are useful for a career as a computer scientist in the health sector.
The structure of the program requirements allows one to easily switch streams until relatively late in the program. Consequently, these streams should not be viewed as rigidly separated channels feeding students to different career paths, but as a flexible structure that provides computer science students guidance in their course selection based on their broad (but possibly fluid) interests.

Program Admission
~~Students may apply to a Computer Science Specialist stream after completing first year. An applicant must have passed all of the first-year computer science and mathematics courses required for their program. A CGPA of 2.5 or greater guarantees admission. Admission for students with a CGPA less than 2.5 will depend on their CGPA and the available space in the program.~~
Enrolment in the Specialist in Computer Science (all streams) is limited.

Students may apply to enter the program after completing 5.0 credits, and must have passed all of the A-level CSC and MAT courses required in the program. Students with a CGPA of 2.5 or greater across the core A-level courses (CSCA08H3, CSCA4H38, CSCA67H3, MATA23H3, MATA31H3, and MATA37H3) are guaranteed admission.

Students who are not admitted as above, may apply after completing at least 7.5 credits, including CSCA08H3, CSCA48H3, CSCA67H3, MATA23H3, MATA31H3, MATA37H3, CSCB07H3, CSCB09H3, CSCB36H3, CSCB63H3, and [one of MATB24H3 or STAB52H3]. The CGPA will be calculated across these 11 courses, and a CGPA of 2.5 or greater guarantees admission to the Specialist. Admission for students with a CGPA that is less than 2.5 will depend on their CGPA, and

Program Requirements

To remain in the program, a student must maintain a CGPA of 2.0 or higher throughout the program. To complete the program, a student must meet the course requirements described below. (One credit is equivalent to two courses). The program requirements comprise a core of 18 courses (9.0 credits), common to all streams and additional requirements which depend on the stream, for a total of 27 courses (13.5 credits) for the Comprehensive and Software Engineering Streams, 29 courses (14.5 credits) for the Information Systems Stream, and 30 courses (15.0 credits) for the Health Informatics Stream.

Note: Many Computer Science courses are offered both at U of T Scarborough and at the St. George campus. When a course is offered at both campuses in a given session, U of T Scarborough students are expected to take that course at U of T Scarborough. The Department of Computer Science at the St. George campus cannot guarantee space for U of T Scarborough students in their courses, especially those offered at both campuses.

Core (9.0 credits)

1. Writing Requirement (0.5 credit) (*)
One of: ANTA01H3, ANTA02H3, (CLAA02H3), (CTLA19H3), CTLA01H3, ENGA10H3, ENGA11H3, ENGB06H3, ENGB07H3, ENGB08H3, ENGB09H3, ENGB17H3, ENGB19H3, ENGB50H3, (ENGB51H3), GGRA02H3, GGRA03H3, GGRB05H3, (GGRB06H3), (HISA01H3), (HLTA01H3), ACMA01H3, (HUMA01H3), (HUMA11H3), (HUMA17H3), (LGGA99H3), LINA01H3, PHLA10H3, PHLA11H3, WSTA01H3.
(*) It is recommended that this requirement be satisfied by the end of the second year.

2. A-level courses (3.0 credits)
CSCA08H3 Introduction to Computer Science I
CSCA48H3 Introduction to Computer Science II
CSCA67H3 Discrete Mathematics
MATA23H3 Linear Algebra I
MATA31H3 Calculus I for Mathematical Sciences
MATA37H3 Calculus II for Mathematical Sciences

3. B-level courses (3.5 credits)
CSCB07H3 Software Design
CSCB09H3 Software Tools and Systems Programming
CSCB36H3 Introduction to the Theory of Computation
CSCB58H3 Computer Organization
CSCB63H3 Design and Analysis of Data Structures
MATB24H3 Linear Algebra II
STAB52H3 Introduction to Probability

4. C-level courses (1.5 credits)
CSCC43H3 Introduction to Databases
CSCC69H3 Operating Systems
CSCC73H3 Algorithm Design and Analysis

5. D-level courses (0.5 credit)
CSCD03H3 Social Impact of Information Technology

A. Comprehensive Stream
This stream requires a total of 27 courses (13.5 credits). In addition to the core requirements 1-5 common to all streams, 9 other distinct courses (4.5 credits) must be chosen satisfying all of the following requirements:

6. Additional required courses (2.5 credits)
MATB41H3 Techniques of the Calculus of Several Variables I
CSCC24H3 Principles of Programming Languages
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
CSCC63H3 Computability and Computational Complexity
CSCD37H3 Analysis of Numerical Algorithms for Computational Mathematics

7. Electives from courses on computers systems and applications (1.0 credit)
Two of:
    CSCC01H3 Introduction to Software Engineering
    CSCC09H3 Programming on the Web
    CSCC11H3 Introduction to Machine Learning and Data Mining
    CSCC85H3 Introduction to Embedded Systems
    CSCD01H3 Engineering Large Software Systems
    CSCD18H3 Computer Graphics
    CSCD27H3 Computer and Network Security
    CSCD43H3 Database System Technology
    CSCD58H3 Computer Networks
    CSCD84H3 Artificial Intelligence
    CSC318H Design of Interactive Computational Media
    CSC320H Visual Computing
    CSC321H Introduction to Neural Networks and Machine Learning
    CSC401H Natural Language Computing
    CSC469H Operating Systems Design and Implementation
    CSC485H Computational Linguistics
    CSC488H Compilers and Interpreters

8. Electives from courses related to the theory of computing (0.5 credit)
One of:
    MATC09H3 Introduction to Mathematical Logic
    MATC16H3 Coding Theory and Cryptography
    MATC32H3 Graph Theory and Algorithms for its Applications
    MATC44H3 Introduction to Combinatorics
    CSC438H Computability and Logic
    CSC448H Formal Languages and Automata
    CSC465H Formal Methods in Software Design

9. CSC, MAT, or STA elective (0.5 credit)
One of:
    Any C- or D-level CSC, MAT, or STA course, excluding MATC82H3, MATC90H3, and

STAD29H3.

B. Software Engineering Stream
This stream requires a total of 27 courses (13.5 credits). In addition to the core requirements 1-5 common to all streams, 9 other distinct courses (4.5 credits) must be chosen satisfying all of the following requirements:

6. Additional required courses (3.0 credits)
MATB41H3 Techniques of the Calculus of Several Variables I
CSCC01H3 Introduction to Software Engineering
CSCC24H3 Principles of Programming Languages
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
CSCC63H3 Computability and Computational Complexity
CSCD01H3 Engineering Large Software Systems

7. Electives from courses on computer systems and applications (1.5 credits)
Three of:
   CSCC09H3 Programming on the Web
   CSCC11H3 Introduction to Machine Learning and Data Mining
   CSCC85H3 Introduction to Embedded Systems
   CSCD18H3 Computer Graphics
   CSCD27H3 Computer and Network Security
   CSCD43H3 Database System Technology
   CSCD58H3 Computer Networks
   CSCD84H3 Artificial Intelligence
   CSC318H Design of Interactive Computational Media
   CSC320H Visual Computing
   CSC321H Introduction to Neural Networks and Machine Learning
   CSC401H Natural Language Computing
   CSC469H Operating Systems Design and Implementation
   CSC485H Computational Linguistics
   CSC488H Compilers and Interpreters

C. Information Systems Stream
This stream requires a total of 29 courses (14.5 credits). In addition to the core requirements 1-5 common to all streams, 11 other distinct courses (5.5 credits) must be chosen satisfying all of the following requirements:

6. Required management courses (1.5 credits)
MGTA01H3/(MGTA03H3) Introduction to Management I
MGTA02H3/(MGTA04H3) Introduction to Management II
MGHB02H3 Managing People and Groups in Organizations

7. Additional required mathematics and computer science courses (3.0 credits)
MATB41H3 Techniques of the Calculus of Several Variables I
CSCC01H3 Introduction to Software Engineering
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
CSCC63H3 Computability and Computational Complexity
CSCD01H3 Engineering Large Software Systems

CSCD43H3 Database System Technology

8. Electives from courses on computer systems and applications (1.0 credit)
Two of:
    CSCC09H3 Programming on the Web
    CSCC11H3 Introduction to Machine Learning and Data Mining
    CSCC85H3 Introduction to Embedded Systems
    CSCD18H3 Computer Graphics
    CSCD27H3 Computer and Network Security
    CSCD58H3 Computer Networks
    CSCD84H3 Artificial Intelligence
    CSC318H Design of Interactive Computational Media
    CSC320H Visual Computing
    CSC321H Introduction to Neural Networks and Machine Learning
    CSC401H Natural Language Computing
    CSC469H Operating Systems Design and Implementation
    CSC485H Computational Linguistics
    CSC488H Compilers and Interpreters

D. Health Informatics Stream
This stream requires a total of 30 courses (15.0 credits). In addition to the core requirements 1-5 common to all streams, 12 other distinct courses (6.0 credits) must be chosen satisfying all of the following requirements:

6. Additional courses related to health studies (2 credits)
PHLB09H3 Biomedical Ethics
MGTA06H3 Introduction to Health Management*
One of: (courses on health policy and politics)
    HLTB16H3 Introduction to Public Health
    HLTB17H3 Conceptual Models of Health
    HLTB40H3 Health Policy and Health Systems
    HLTC40H3 Introduction to Health Economics
One of: (other courses on health studies)
    HLTB22H3 Biological Determinants of Health
    HLTC05H3 Social Determinants of Health*
(*) These courses have prerequisites not included in this program's requirements.

7. Additional required computer science and statistics courses (1.5 credits)
CSCC01H3 Introduction to Software Engineering
STAB57H3 Introduction to Statistics
STAC50H3 Data Collection

8. Additional CSC, MAT and STA courses (2.5 credits)
MATB41H3 Techniques of the Calculus of Several Variables I
Four of:
    any other C- or D-level CSC or STA courses, excluding STAD29H3 **†
NOTE: Of the five courses taken to satisfy this requirement, at least one must be a D-level course, and at least three must be CSC courses.

** Some C- and D-level CSC and STA courses have prerequisites that are not included among the required courses for this stream. Review the prerequisites carefully before selecting courses for this requirement. One or more courses taken to satisfy this requirement can be prerequisites for other courses also taken to satisfy this requirement.

† Among the CSC courses that can be used to satisfy this requirement there are two categories of courses that are particularly well aligned with the goals of the Health Informatics stream: software engineering and systems, and computer science applications. Courses in the category of software engineering and systems include: CSCC09H3, CSCC85H3, CSCD01H3, CSCD43H3, and CSCD58H3. Courses in the category of computer science applications include: CSCC11H3, CSCD18H3, and CSCD84H3.

SPECIALIST (CO-OPERATIVE) PROGRAM IN COMPUTER SCIENCE (SCIENCE)
Supervisor of Studies: R. Pancer (416-287-7679) *Email*: pancer@utsc.utoronto.ca
Co-op Contact: askcoop@utsc.utoronto.ca

Program Objectives
This program combines the coursework of the Specialist Program in Computer Science described above with paid work terms in public and private enterprises. It shares the goals and structure of the Specialist Program in Computer Science, including its four streams (Comprehensive, Software Engineering, Information Systems, and Health Informatics), but complements study of the subject with considerable work experience.

Program Admission
Refer to the Program Admission requirements for the Specialist Program in Computer Science described above and the Co-operative Programs section in this *Calendar*. Students entering this program after first year must have a CGPA of at least 2.75.

Program Requirements
To remain in the program, a student must maintain a CGPA of 2.5 or higher throughout the program. To complete the program, a student must meet the work term and course requirements described below.

Work Term Requirements
Students must successfully complete three work terms, at most one of which can be during the summer. In addition, prior to their first work term, students must successfully complete the Arts & Science Co-op Work Term Preparation Activities. These include networking sessions, speaker panels and industry tours along with seminars covering resumes, cover letters, job interviews and work term expectations.

Course Requirements
The Co-operative Program can be taken in conjunction with any of the streams in the Specialist Program in Computer Science. For the course requirements of each stream, please refer to the description of the Specialist Program in Computer Science.

Rationale:
The current admission requirements rely on the GPA calculated across all courses a student has taken. However, we find that the GPA calculated across only the core program courses is a better indicator of a student's potential to successfully complete the program.

Consultation:
Within the academic unit. Approved by the Departmental Curriculum Committee. Reviewed by the Dean's Office.

Item 2: Major in Computer Science (BSc), and Major Co-op in Computer Science (BSc)

Overview of Changes:
- Revise the existing CGPA admission requirements so that it is based on a specific set of core courses rather than across all courses a student has taken, and to establish that students must have a minimum of 2.5 for guaranteed admission to the program.
- The minimum CGPA admission requirement for the Major Co-op in Computer Science will remain at 2.75.

Calendar Copy Showing Changes:

MAJOR PROGRAM IN COMPUTER SCIENCE (SCIENCE)
Supervisor of Studies: R. Pancer (416-287-7679) *Email*: pancer@utsc.utoronto.ca

Program Objectives
This program provides basic knowledge of the foundations of computer science: modern computer software and hardware, theoretical aspects of computer science, and relevant areas of mathematics and statistics. This program is intended to be combined with other programs, typically a major program in another discipline.

Program Admission
~~Students are admitted to the second year of the program. All A-level courses required for the program must have been completed (see requirement 1 below). Admission is based on CGPA and grades in computer science and mathematics courses that the student has taken. The minimum CGPA for admission is calculated annually.~~
Enrolment in the Major in Computer Science is limited.

Students may apply to enter the program after completing 5.0 credits, and must have passed all of the A-level CSC and MAT courses required for the Major. Students with a CGPA of 2.5 or greater across the core A-level courses (CSCA08H3, CSCA48H3, CSCA67H3, MATA23H3, MATA31H3, and MATA37H3) are guaranteed admission.

Students who are not admitted as above, may apply after completing at least 7.5 credits, including CSCA08H3, CSCA48H3, CSCA67H3, MATA23H3, MATA31H3, MATA37H3, CSCB07H3, CSCB09H3, CSCB36H3, CSCB63H3, and [one of MATB24H3 or STAB52H3]. The CGPA will be calculated across these 11 courses, and a CGPA of 2.5 or greater guarantees admission to the Major. Admission for students with a CGPA that is less than 2.5 will depend on their CGPA, and the space available in the program.

Program Requirements
This program requires a total of 16 distinct courses (8 credits) satisfying all of the requirements listed below.
Note: Many Computer Science courses are offered both at U of T Scarborough and at the St. George campus. When a course is offered at both campuses in a given session, U of T Scarborough students are expected to take that course at U of T Scarborough. The Department of Computer Science at the St.

George campus cannot guarantee space for U of T Scarborough students in their courses, especially those offered at both campuses.

1. A-level courses (3 credits)
CSCA08H3 Introduction to Computer Science I
CSCA48H3 Introduction to Computer Science II
CSCA67H3 Discrete Mathematics
MATA23H3 Linear Algebra I
MATA31H3 Calculus I for Mathematical Sciences
MATA37H3 Calculus II for Mathematical Sciences

2. B-level courses (3 credits)
CSCB07H3 Software Design
CSCB09H3 Software Tools and Systems Programming
CSCB36H3 Introduction to the Theory of Computation
CSCB58H3 Computer Organization
CSCB63H3 Design and Analysis of Data Structures
One of: (*)
   MATB24H3 Linear Algebra II
   STAB52H3 Introduction to Probability
(*) In making this choice, students should consider the prerequisites of courses they plan to take to satisfy requirements 3-4.

3. C-level courses in numerical computation and theory of computing (1 credit)
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
One of:
   CSCC63H3 Computability and Computational Complexity
   CSCC73H3 Algorithm Design and Analysis

4. CSC electives (1 credit)
Two of:
   Any C- or D-level CSC courses.
Writing Recommendation:
Students are urged to take a course from the following list of courses by the end of their second year:
ANTA01H3, ANTA02H3, (CLAA02H3), (CTLA19H3), CTLA01H3, ENGA10H3, ENGA11H3, ENGB06H3, ENGB07H3, ENGB08H3, ENGB17H3, ENGB19H3, ENGB50H3, (ENGB51H3), GGRA02H3, GGRA03H3, GGRB05H3, (GGRB06H3), (HISA01H3), (HLTA01H3), (HUMA01H3), (HUMA11H3), (HUMA17H3), (LGGA99H3), LINA01H3, PHLA10H3, PHLA11H3, WSTA01H3.

MAJOR (CO-OPERATIVE) PROGRAM IN COMPUTER SCIENCE (SCIENCE)
Supervisor of Studies: R. Pancer (416-287-7679) *E-mail*: pancer@utsc.utoronto.ca
Co-op Contact: askcoop@utsc.utoronto.ca

Program Objectives
This program combines the coursework of the Major Program in Computer Science described above with paid work terms in public and private enterprises. It shares the objectives of the Major Program in Computer Science, but complements study of the subject with considerable work experience. This program must be combined with a major program in another discipline.

Program Admission
Refer to the Program Admission requirements for the Major Program in Computer Science described above and the Co-operative Programs section in this *Calendar*. Students entering this program must have a CGPA of at least 2.75.

Program Requirements
To remain in the program, a student must maintain a CGPA of 2.5 or higher throughout the program. To complete the program, a student must meet the work term and course requirements described below.

Work Term Requirements
Students must successfully complete three work terms, at most one of which can be during the summer. In addition, prior to their first work term, students must successfully complete the Arts & Science Co-op Work Term Preparation Activities. These include networking sessions, speaker panels and industry tours along with seminars covering resumes, cover letters, job interviews and work term expectations.

Course Requirements
The course requirements of the Co-operative Major Program in Computer Science are identical to those of the Major Program in Computer Science described above.

Rationale:
The proposed changes will help alleviate the enrolment pressure on our B, C and D-level computer science courses, which has arisen from a dramatic increase in the number of students in Computer Science programs. This increase in enrolment has created a number of problems. First, many of the students with lower GPAs lack the aptitude and background to keep up with the pace of the challenging course requirements, forcing instructors to either lower course expectations (which is contrary to our mission to provide a top computer science education) or leave many students behind. Moreover, our resources, in particular space in our lab facilities, are limited and at this point seriously overstretched. Teaching the practical aspects of computer science is only possible if we can provide students with adequate access to lab space to work on their course assignments. Current enrolment numbers already make this difficult, but if numbers increase further, we will be unable to effectively teach core components of the computer science curriculum.

The same pressures also exist at the St. George campus, which has instituted similar measures.

Consultation:
Approved by the Departmental Curriculum Committee. Reviewed by the Dean's Office.

Item 3: Minor in Computer Science (Sciences)

Overview of Changes:
• Adds admission requirements for the first time.

Calendar Copy Showing Changes:

MINOR PROGRAM IN COMPUTER SCIENCE (SCIENCE)
Supervisor of Studies: R. Pancer (416-287-7679) *Email*: pancer@utsc.utoronto.ca

Program Objectives

This program provides a basic introduction to the tools and methodologies of computer science and equips students with the knowledge necessary to use the tools and methodologies as they relate to other subjects. The program is intended to complement programs in other disciplines.

Program Admission

Enrolment in the Minor in Computer Science is limited.

Students may apply to enter the program after completing 5.0 credits, and must have passed all of the A-level CSC and MAT courses required for the Minor. Students with a CGPA of at least 2.5 across CSCA48H3 and their chosen MAT course (MATA23H3, MATA30H3, MATA31H3, MATA32H3, or CSCA67H3/MATA67H3) are guaranteed admission. Admission for students with a CGPA that is less than 2.5 will depend on their CGPA, and the space available in the program. Students in the Minor may take a maximum of 3 CSC elective courses (1.5 credits) at the C-level and D-level.

Program Requirements

This program may not be combined with any Major or Specialist Program in Computer Science, Mathematics or Statistics. It requires 4.0 credits as follows:

1. Introductory programming courses (1.0 credit)
CSCA08H3 Introduction to Computer Science I (*)
CSCA48H3 Introduction to Computer Science II
(*) CSCA20H3 may be substituted for CSCA08H3 with permission of the Supervisor of Studies.

2. Basic mathematics courses (0.5 credit)
One of:
    CSCA67H3/MATA67H3 Discrete Mathematics
    MATA23H3 Linear Algebra I
    MATA30H3 Calculus I for Biological and Physical Sciences
    MATA31H3 Calculus I for Mathematical Sciences
    MATA32H3 Calculus for Management I
    PHLB50H3 Symbolic Logic I

3. Intermediate programming, systems, and theory courses (1.5 credits)
Three of:
    CSCB07H3 Software Design
    CSCB09H3 Software Tools and Systems Programming
    CSCB20H3 Introduction to Databases and Web Applications
    CSCB36H3 Introduction to the Theory of Computation(**)
    CSCB58H3 Computer Organization
    CSCB63H3 Design and Analysis of Data Structures(***)
(**) CSCB36H3 requires CSCA67H3
(***) CSCB63H3 requires CSCB36H3

4. CSC electives (1.0 credit)
Two of:
    Any C- or D-level CSC courses (*)
(*) Some C- or D-level courses have prerequisites that would have to be taken *in addition* to the 4

credits required for this program. Check the prerequisites carefully before selecting courses to satisfy this requirement.

Rationale:
The proposed changes will help alleviate the enrolment pressure on our B, C and D-level computer science courses, which has arisen from a dramatic increase in the number of students in Computer Science programs. This increase in enrolment has created a number of problems. First, many of the students with lower GPAs lack the aptitude and background to keep up with the pace of the challenging course requirements, forcing instructors to either lower course expectations (which is contrary to our mission to provide a top computer science education) or leave many students behind. Moreover, our resources, in particular space in our lab facilities, are limited and at this point seriously overstretched. Teaching the practical aspects of computer science is only possible if we can provide students with adequate access to lab space to work on their course assignments. Current enrolment numbers already make this difficult, but if numbers increase further, we will be unable to effectively teach core components of the computer science curriculum.

The same pressures also exist at the St. George campus, which has instituted similar measures.

Finally, the added constraint on the number of C and D-level electives students in the Minor can take serves to ensure they do not take all the courses students in the Specialist or Major might take, while avoiding deregulated fees.

Consultation:
Within the academic unit. Approved by the Departmental Curriculum Committee. Reviewed by the Dean's Office.

Centre for Critical Development Studies

Item 1: New Minor in International Development Studies (Arts)

1. Executive Summary

This is a proposal to introduce a new Minor in International Development Studies (Arts) to be housed in the Centre for Critical Development Studies (CCDS) at the University of Toronto Scarborough (UTSC).

The CCDS currently offers the following programs in International Development Studies:
- Specialist, BSc
- Specialist Co-operative, BSc
- Specialist, BA
- Specialist Co-operative, BA
- Major, BA
- The unit also offers a Major (BSc) in International Development Studies, which is currently suspended to new enrolment while it undergoes a review.

The CCDS is proposing a __new__ Minor at this time to give students majoring in other programs across the UTSC campus the opportunity to include a global and multidisciplinary component in their

undergraduate education. The proposed Minor will have more substance and rigour than the previous Minor since it includes courses focused on International Development Studies at the foundational (A-level), intermediate (B-level) and upper levels (C- and D-level).

A Minor (Arts) in International Development Studies, which was housed in the omnibus Department of Social Sciences, was closed in 2010-11 because it lacked overall coherence and academic rigour; a description of the closed Minor is given in Appendix A below.

2. Rationale

This is a proposal to introduce a new Minor in International Development Studies (Arts) to be housed in the Centre for Critical Development Studies (CCDS) at the University of Toronto Scarborough (UTSC).

Following upon an extensive review of the curriculum, beginning with an external review of the undergraduate programs in 2013-14, and culminating with the development of the CCDS Academic Plan in 2014-2015, we believe this is an opportune time to re-introduce the Minor in International Development Studies (Arts). The goal of the new proposed Minor is to give students in other programs across the UTSC campus the opportunity to include a global component in their undergraduate education, and offer an integrated approach through which they can fulfil their degree breadth requirements.

A Minor (Arts) in International Development Studies, which was housed in the omnibus Department of Social Sciences, was closed in 2010-11 because it was not sufficiently rigorous. Specifically, the offering did not include foundational courses in International Development Studies, and students often struggled to complete the requirements. In the intervening years, we have developed a foundational A-level course – IDSA01H3, in which students learn the history, theory and practice of development studies, and we have also expanded our B-level offerings. These new courses ensure that students develop a wide range of knowledge and understanding of fundamental concepts in development studies that will allow them to specify their interests when selecting their more specialized upper-level courses.

Feedback from students in our introductory course in International Developments Studies (IDSA01H3) indicates there is strong interest in a Minor offering. We anticipate the proposed Minor will result in increased program enrolments in IDS more generally, and we believe the proposed Minor will positively impact enrolments in the Major in International Development Studies since it will provide an introduction and a pathway for students who might initially shy away from pursuing a Major program.

Table 1: Undergraduate Enrolment Projections
Provide details regarding the anticipated yearly in-take and projected steady-state enrolment target including a timeline for achieving it. (Please adjust the table as necessary)

Level of study	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
1st year	4	5	6	8	10	12*	13
2nd year	21	23	25	30	36	43*	45
3rd year	14	16	18	21	25	30*	32
4th year	17	19	21	25	30	36*	38
Total enrolment	56	63	70	84	101	121	128

*Program should reach a steady rate by year 2021-22

The above projected numbers are based on our current enrolment numbers for the Major Program in International Development Studies. We estimated one third of our Major Program population would be our initial enrolment for the Minor with a growth of 10% in the first 3 years and 20% once established for the next two years, thereby reaching a steady rate in the 6th year.

3. Program Requirements

Admission Requirements
None.

Calendar Description

MINOR PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (ARTS)

The Minor in International Development Studies (IDS) will provide students with an introduction to a critical understanding of international development issues, and the academic building blocks for greater awareness of the world around them, as well as an entry point into greater academic study of international development itself. 2.0 credits are in 'core' courses at the first and second year level, the other 2.0 credits will be electives from cognate fields, allowing students to take courses that might have synergies with their Major or Specialist programs.

Program Requirements
This program requires 4.0 credits, of which at least 1.0 credit must be at the C- or D-level.

1. Introduction to International Development Studies (0.5 credit)
   IDSA01H3 Introduction to International Development Studies

2. Core courses in International Development (1.5 credits)
   Choose from the following:
   IDSB01H3 Political Economy of International Development*
   IDSB02H3 Development and Environment
   IDSB04H3 Introduction to International/Global Health
   IDSB06H3 Equity, Ethics and Justice in International Development
   POLB90H3 Comparative Development in International Perspective

   *Students interested in IDSB01H3 are cautioned that it contains prerequisites not included in this offering.

3. Specialized Courses (2.0 credits)
   2.0 credits from the courses listed in Requirement 5 of the Specialist BA in IDS, of which at least 1.0 credit must be at the C- or D-level. POLB91H3 may be counted toward this requirement.

Complete List of Courses Associated With the Program, Including Full Calendar Copy

IDSA01H3   Introduction to International Development Studies
History, theory and practice of international development, and current approaches and debates in international development studies. The course explores the evolution of policy and practice in international development and the academic discourses that surround it. Lectures by various faculty and guests will explore the multi-disciplinary nature of international development studies. This course

is a prerequisite for all IDS B-level courses.
Breadth Requirement: Social & Behavioural Sciences

IDSB01H3   Political Economy of International Development
Introduces students to major development problems, focusing on international economic and political
economy factors. Examines trade, aid, international institutions such as the World Bank, the IMF and
the WTO. Examines both conventional economic perspectives as well as critiques of these
perspectives. This course can be counted for credit in ECM Programs.
Prerequisite: [MGEA01H3/(ECMA01H3) and MGEA05H3/(ECMA05H3)] or
[MGEA02H3/(ECMA04H3) and MGEA06H3/(ECMA06H3)] and IDSA01H3
Exclusion: ECO230Y
Enrolment Limits: 170
Breadth Requirement: Social & Behavioural Sciences

IDSB02H3   Development and Environment
The environmental consequences of development activities with emphasis on tropical countries.
Environmental change in urban, rainforest, semi-arid, wetland, and mountainous systems. The
influences of development on the global environment; species extinction, loss of productive land,
reduced access to resources, declining water quality and quantity, and climate change.
Prerequisite: IDSA01H3 or EESA01H3
Breadth Requirement: Natural Sciences

IDSB04H3   Introduction to International/Global Health
This course offers an introduction to the institutional, social, economic, epidemiological, ideological,
and political forces in the field of international/global health. While considerable reference will be
made to "high-income" countries, the major emphasis will be on the health conditions of "low-income"
countries -- as well as the interaction of these conditions with the international aid system. After setting
the historical and political economy context, the course will explore key topics and themes in
international/global health including: international health agencies and activities; data on health;
epidemiology and the global distribution of health and disease; the societal determinants of health and
social inequalities in health; health economics and the organization of health care systems in
comparative context; globalization, trade, work, and health; health and the environment; the ingredients
of healthy societies across the world; and Canada's/your/civil society's role in global health policy-
making.
Prerequisite: 5.0 full credits including IDSA01H3
Breadth Requirement: Social & Behavioural Sciences

IDSB06H3   Equity, Ethics and Justice in International Development
What constitutes equitable, ethical as well as socially and environmentally just processes and outcomes
of development? This course explores these questions with particular emphasis on their philosophical
and ideological foundations and on the challenges of negotiating global differences in cultural, political
and environmental values in international development.
Prerequisite: IDSA01H3
Breadth Requirement: History, Philosophy & Cultural Studies

POLB90H3   Comparative Development in International Perspective
This course examines the historical and current impact of the international order on the development
prospects and politics of less developed countries. Topics include colonial conquest, multi-national
investment, the debt crisis and globalization. The course focuses on the effects of these international

factors on domestic power structures, the urban and rural poor, and the environment.
Area of Focus: Comparative Politics
Prerequisite: Any 4.0 credits
Exclusion: POL201Y
Breadth Requirement: Social & Behavioural Sciences

4. Program Structure, Learning Outcomes, and Degree Level Expectations

Degree Level Expectations	Program Learning Outcomes – e.g. what students will know or be able to do at the completion of the program [Clearly describe how the Program Learning Outcomes will support the degree level expectations]	How the program design / structure supports the degree level expectations [Clearly describe how the program design/structure will support the degree level expectations]
1. Depth and Breadth of Knowledge Depth of Knowledge: is attained through a progression of introductory, core and specialized courses. Specialized courses will normally be at the C and D levels. Breadth of Knowledge: students will gain an appreciation of the variety of modes of thinking, methods of inquiry and analysis, and ways of understanding the world that underpin different intellectual fields.	Students will learn about the roots of inequality and their material consequences (poverty, poor health, inadequate nutrition, exposure to environmental pollution, poor access to land and secure livelihoods. They will be exposed to a variety of theories and analytical perspectives relevant to International Development Studies and gain an understanding of the complex and multi-dimensional nature of development. They will also gain some insight into the need for critical assessment of main-stream development processes.	Breadth of knowledge about development processes and challenges will be obtained in the first two years of the IDS Minor, the result of completion of the introductory courses in IDS (IDSA01H3) and 1.5 credits at the B-level (requirement 2) that introduce students to the breadth of policy areas in the field – political economy, health, sustainable development and ethics of development. Depth of knowledge is achieved at the third and fourth years when students have an opportunity to take 2 FCEs in electives, including at C or D level. Students are encouraged to take elective courses that allow them to build on the IDS foundational courses but are also complementary to the student's major program.
2. Knowledge of Methodologies Students have a working knowledge of different	IDS is a highly interdisciplinary program and through the variety of required core courses, students will be exposed to methods and tools with which to	Although there are no specific methodology requirements, students will be exposed to a variety of methodological approaches common to research

methodologies and approaches relevant to their area of study. They are able to evaluate the efficacy of different methodologies in addressing questions that arise in their area of study.	analyze and understand processes that contribute to the production and reproduction of inequality, and to appreciate the diversity of external and internal factors that shape development outcomes.	in international development through the required core courses and the upper year courses. The vast majority of IDS courses, including IDSA01H3, the B-level courses, and the C- and D-level courses, have in-built components that teach students about how to critically evaluate development programs.
3. Application of Knowledge Students are able to frame relevant questions for further inquiry. They are familiar with, or will be able to seek the tools with which, they can address such questions effectively.	Upon completion of the Minor, students will be able to understand how development scholars frame relevant questions for further inquiry. They will have some familiarity with or be able to seek support for the tools for critical social and political inquiries and be able to engage in scholarly and public debates in a critical and constructive manner. Students will also be able to identify, and be able to differentiate between, development plans that have high chances of failure or success. They will also to make judgments that are ethical and are based on principles of equity and justice..	The program is designed to provide a set of increasingly challenging tools and research approaches, culminating in independent or group projects that focus on critical reading and evaluation of development projects. In particular, in addition to critical reading and writing requirement in all our courses, as well as our promotion of values such as justice, equity and ethics, courses such as IDSA01H3, IDSB01H3, IDSB04H3, IDSB06H3 and POLB90H3 present content that equips students with practical examples on which their general knowledge from the program can be applied.
4. Awareness of Limits of Knowledge Students gain an understanding of the limits of their own knowledge and an appreciation of the uncertainty, ambiguity, and limits to our collective knowledge and how these might influence analyses and interpretations.	IDS is a complex and evolving field. Students who complete the Minor will appreciate the diversity of issues, actors, modes of inquiries, and the often contested nature of development debates. They will learn to question "accepted wisdom" and the critical approach will have spillover effect on their other academic programs.	All IDS core courses emphasize the historically contingent nature of development discourses and practices and so students will be keenly aware of the limitation and contestation of claims pertaining to theories and practices of development.
5. Communication Skills Students are able to communicate information, arguments, and analyses	Students will be able to clearly communicate complex ideas in both written and oral forms. Students will also be able to articulate research plans and	All IDS core courses require students to take part in a variety of assignments and exercises that support reading, writing, research, and participation skills.

accurately and reliably, both orally and in writing. They learn to read and to listen critically.	expected results to a variety of audience.	Additionally, the students are often required to sharpen their communication skills through group and seminar presentations, particularly in the C- and D-level courses.
6. Autonomy and Professional Capacity The education students receive achieves the following broad goals: • It gives students the skills and knowledge they need to become informed, independent and creative thinkers • It instils the awareness that knowledge and its applications are influenced by, and contribute to, society • It lays the foundation for learning as a life-long endeavour	IDS's critical interdisciplinary thinking encourages students to address questions from diverse perspectives and to synthesize problem solving approaches.	The core courses in the Minor program actively encourage students to understand the historical socioeconomic and political contexts in which development issues are contested and placed in the domain of policy making (e.g. IDSB01H3, IDSB02H3, IDSB04H3, and IDSB06H3). Through these courses, students gain an understanding of the complexity of knowledge production and circulation in society.

5. Assessment of Teaching and Learning

Students in the program will be assessed in a variety of methods relative to the course and interdisciplinary area they are studying. Methods of assessment will involve a combination of student participation, presentations, essays and term tests. These methods are appropriate because they will allow students to actively engage in the course material through class discussions and further develop their research skills with papers that make an original contribution to the field of development. Term tests are appropriate as they will test the students' comprehension of course material and their ability to apply these concepts to relevant applications within the field. Students who so choose may also develop more professionally-oriented skills by taking courses in such areas as project management, media and communication, and research methodologies.

6. Resources

Faculty requirements
There are sufficient faculty to support the Minor, including 3 faculty members that will actively participate in the delivery of the core courses for the program by teaching IDSA01H3, IDSB01H3 and IDSB04H3 with three other cross-appointed faculty teaching the remaining core courses; IDSB02H3, IDSB06H3 and POLB90H3. If there is any increased need for TA hours to support the courses in the offering, this will come from the unit's existing budgets.

Space/Infrastructure
There are no space implications of this proposal.

7. Consultation
 The proposed Minor has been discussed within the CCDS and all faculty, including those cross-appointed to the CCDS, are supportive. In addition, we have consulted with the Departments of Anthropology, Sociology, Human Geography and Political Science as many of their courses are listed as optional courses in our curriculum. These departments have expressed their support of the reintroduction of the Minor.

Appendix A: Description of Minor in International Development Studies (Arts) Closed in 2010-11

MINOR PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (B.A.)

Program Requirements: Students must complete 4 full credits for the Minor Program in International Development Studies, as follows:
1. Economics (1 full credit)
   [ECMA01H Introduction to Microeconomics *or* ECMA04H Introduction to Microeconomics: A Mathematical Approach]
   [ECMA05H Introduction to Macroeconomics *or* ECMA06H Introduction to Macroeconomics: A Mathematical Approach]
2. Development Studies (1 full credit)
   IDSB01H International Development Studies: Political Economy
   IDSB02H International Development Studies: Development and Environment
3. Environmental Science (0.5 full credit)
   EESA01H Introduction to Environmental Science
4. 1.5 credits from among courses listed under Requirement 4 for the Major Program, which must include 1 full credit at the C- or D-level. Although POLB90H & POLB91H are very useful complementary courses, only 0.5 credit (one of them) can be counted as a requirement for the Minor Program.

Centre for French and Linguistics

Item 1: Minor in English to Chinese Translation (Arts)

Overview of Changes:
• Add ECTC61H3 as an optional course; ECTD68H3 and ECTD69H3 are changed from requirements to options.

Calendar Copy Showing Changes:

MINOR PROGRAM IN ENGLISH TO CHINESE TRANSLATION (ARTS)

This program is designed for students, fluent in both English and Chinese, who are interested in English to Chinese translation. It will equip students with the fundamental theoretical knowledge and practical skills required in this profession.

Program Requirements
Students are required to complete a total of 4.0 credits.

1. ~~3~~2.0 credits as follows:
LINA01H3 Introduction to Linguistics
LINB06H3 Syntax
LINB60H3 Structure of Chinese
ECTB61H3 English to Chinese Translation: Theory and Practice
~~ECTD68H3 Translation for Business and Media~~
~~ECTD69H3 Translation for Government and Public Administration~~

2. 1.0 credit from the following:
ECTC61H3 Translation Studies in Literature
ECTD68H3 Translation for Business and Media *(moved from requirement 1)*
ECTD69H3 Translation for Government and Public Administration *(moved from requirement 1)*

~~2.~~3 1.0 credit from the following:
LGGC64H3 Reading Chinese: China from the Inside Out
LGGC65H3 Reading Chinese: Global Perspectives
LGGC66H3 Classical Chinese
LGGC67H3 Literary Chinese

Rationale:
EXTC61H3 has been designed to fill a gap in the English to Chinese Translation Minor. Literary translation is an indispensable skill in the translation profession. It is being added as an option to the offering. To accommodate this change, and keep the offering to 4.0 credits in total, two D-level course requirements will become options. In this way, the Minor becomes more flexible since, in addition to the mandatory ECTB61H3, students will be given a chance to choose two courses out of ECTC61H3, ECTD68H3, and ECTD69H3.

Consultation:
Within the academic unit. Approved by the Departmental Curriculum Committee. Reviewed by the Dean's Office.

Department of Management

Item 1: Specialist Co-operative in Management and International Business (BBA)

Overview of Changes:
- Reduce the total credits to complete the program by 1.5.
- In requirement 1: delete MGIC14H3, MGSC30H3 and MGFC50H3 as requirements.
- Delete requirement 4 (0.5 additional credit in Economics).
- Add informal "Routes to Specialization" to guide students in course selection.

Calendar Copy Showing Changes:

SPECIALIST CO-OPERATIVE PROGRAM IN MANAGEMENT AND INTERNATIONAL BUSINESS (BACHELOR OF BUSINESS ADMINISTRATION)
Academic Director: Hugh Laurence Email: mibss@utsc.utoronto.ca

Program Requirements:
The Program requires the completion of ~~16~~ 14.5 to ~~17~~ 15.0 credits as part of a twenty-credit B.B.A. degree.
Note: A single course may only be used once to fulfill one of the following requirements:

1. ~~10.0~~ 8.5 to ~~10.5~~ 9.0 credits in Management as follows:
MGIA01H3/(MGTB07H3) Principles of International Marketing
MGTA05H3 Foundations of Business Management or [(MGTA01H3/MGTA03H3) and (MGTA02H3/MGTA04H3)]
MGTA36H3 Management Communications for Co-op [or (MGTC36H3)]
MGAB01H3/(MGTB05H3) Introductory Financial Accounting l
MGIB01H3/(MGTD19H3) Global Marketing
MGAB02H3/(MGTB06H3) Introductory Financial Accounting ll
MGIB02H3/(MGTB25H3) International Organizational Behaviour
MGAB03H3/(MGTB03H3) Introductory Management Accounting
MGFB10H3/(MGTB09H3) Principles of Finance
MGIB12H3/(MGTB22H3) International Human Resources
MGIC01H3/(MGTD48H3) International Corporate Strategy
MGIC02H3/(MGTC91H3) International Leadership Skills
MGOC10H3/(MGTC74H3) Analysis for Decision-Making
MGFC10H3/(MGTC09H3) Intermediate Finance
~~MGIC14H3/(MGTD01H3) International Business Ethics~~
MGOC20H3/(MGTC75H3) Operations Management: A Mathematical Approach
~~MGSC30H3/(MGTC31H3) The Legal Environment of Business l~~
~~MGFC50H3/(MGTC76H3) International Financial Management~~
MGID40H3/(MGTD21H3) Introduction to International Business Law
MGID79H3/(MGTD79H3) International Capstone Case Analysis

2. 1.0 credit in Calculus from:
[MATA32H3 and MATA33H3] strongly recommended, or
[MATA30H3/A31H3 and MATA35H3/A36H3/A37H3]

3. 3.0 credits in Economics for Management Studies as follows:
MGEA02H3/(ECMA04H3) Introduction to Microeconomics: A Mathematical Approach
MGEA06H3/(ECMA06H3) Introduction to Macroeconomics: A Mathematical Approach
MGEB02H3/(ECMB02H3) Price Theory: A Mathematical Approach
MGEB06H3/(ECMB06H3) Macroeconomic Theory and Policy: A Mathematical Approach
MGEB11H3/(ECMB11H3) Quantitative Methods in Economics I
MGEB12H3/(ECMB12H3) Quantitative Methods in Economics II

~~4. 0.5 additional credit in Economics for Management Studies from:~~
~~MGEC61H3/(ECMC61H3) International Economics: Finance or~~
~~MGEC62H3/(ECMC62H3) International Economics: Trade Theory~~

~~5~~4. 2.0 credits (four H-courses) of Languages (LGG) or French (FRE) courses:
At least three courses must be in the same language (either LGG or FRE); the fourth course may follow that same language or may be a different language. Please note that your language skill will be assessed by the FRENCH and LANGUAGES areas before being formally placed in a given section.

Routes to Specialization:

The following routes to specialization are optional; students interested in concentrating in a specific area of study may choose from one of the following:

Accounting

Students interested in obtaining their accreditation in Accounting will require an additional semester to fulfill all of the requirements of an Accounting Specialist. Students should select courses for the CPA by referencing the Specialist in Management and Accounting program in the online Calendar.

Economics

Students interested in Economics should take MGEC61H3 and MGEC62H3 and [an additional 1.0 credit in MGE courses at the C- or D-level, with the exception of MGEC91H3, MGEC92H3 and MGEC93H3]

Finance

Students interested in Finance should take MGFC50H3 in the Fall semester of Year 4 of their study, and an additional 2.0 credits in MGF courses. Taking one more course in Finance allows interested students to acquire a better understanding of the fundamental principles of the area.

Human Resources/Organizational Behaviour

Students interested in Human Resources and Organizational Behaviour should take 2.0 credits in MGH courses.

Marketing

Students interested in Marketing should take 2.0 credits in MGM courses, including 0.5 credit at the D-level.

Strategy & Entrepreneurship

- Students interested in Management Strategy should take either MGSC03H3 or MGSC05H3 and an additional 1.0 credit in MGS courses.

Students interested in Entrepreneurship should take 2.0 credits in MGS courses that are focused on Entrepreneurship.

Rationale:

When the Specialist Co-operative program in Management and International Business program (MIB) was created, it included the full core course requirements of the wider BBA program, as well as a large number of internationally-themed courses; as a consequence, the program is both highly restrictive and, at between 16.5 to 17.0 credits to complete, a very heavy workload.

The Department established a working group to explore the MIB curriculum and offer recommendations to the Departmental Curriculum Committee. The working group, comprised of representatives from all seven disciplines of Management, examined the course offerings and considered their importance for achieving the program's learning outcomes. In addition, in the three years since the program was first launched, the Department has received feedback from students pointing to a strong interest in a more flexible program that offers the opportunity for them to take courses and complete a stream in other subject areas of interest to them, for example: Accounting, Finance, and Human Resources/Organizational Behaviour.

Following upon the working group's extensive and thorough discussion, in which it considered the core learning outcomes of the program, and the courses necessary to ensure these outcomes are achieved, three core courses are being eliminated as requirements in the program: MGIC14H3, MGSC30H3 and MGFC50H3; these courses will still be available to students as options. MGIC14H3 is being eliminated because MIB students receive very similar content on ethics from other required courses: for example, MGID40H3 is an international law course in which several weeks are devoted to ethics of international business; and MGIB02H3 covers cultural differences and ethics in depth. MGSC30H3 is being eliminated because the content of this course is covered in MGID40H3, and MGFC50H3 is being eliminated because it is an advanced Finance course that is only required for those students wishing to stream in that area. Finally, since the program already requires 3.0 credits in Economics for Management Studies, we are removing a requirement for an additional 0.5 credit in this area.

The revised course requirements will allow students much more flexibility, and consequently greater opportunity, to focus on a specific area of Management; thus, students will be able to complete the MIB, and also take courses of interest to them in any one of the seven different disciplines in Management. For example, students in the MIB who are also interested in Human Resources & Organizational Behaviour (HR/OB), can now take all of the required courses for the MIB program and up to four courses in HR/OB. Because the current program requirements are so restrictive, our students have been forced to take a number of equivalent business courses when on their study term abroad. This has proven to be challenging as some students have encountered difficulty gaining entry into required business courses at other universities. By offering greater flexibility at home, students have greater latitude in opting to take elective courses while they are on a study term at a university abroad.

These changes to the course requirements do not alter the overarching learning outcomes of the MIB program.

Consultation:
Within the academic unit. Approved by the Departmental Curriculum Committee. Reviewed by the Dean's Office.

Item 2: Specialist in Management and Accounting (BBA), and Specialist Co-op in Management and Accounting (BBA)

Overview of Changes:
- Increase the total credits required to complete the programs by 0.5 to bring the program in line with the CPA requirements.
- In requirement 4: (i) Increase the title credits requirement to complete requirement 4 by 0.5; (ii) Update the course code for MGAD10H3 (course level change to C submitted; new course code is MGAC10H3).
- In requirement 5: (i) Delete MGAD30H3; (ii) Add MGAD45H3 as an optional course; (iii) Update the course code for MGAC60H3 (course level change to D; new course code is MGAD65H3); (iv) Move MGAD70H3 to requirement 4.

Calendar Copy Showing Changes:

SPECIALIST PROGRAM IN MANAGEMENT AND ACCOUNTING (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: S. Ahmed *Email*: mgmtss@utsc.utoronto.ca

The Accounting Specialist program is designed for the student who is interested in acquiring a concentrated core of accounting and related knowledge that is required to become a professional accountant. It provides a solid foundation to prepare students to become Chartered Professional Accountants after graduation. In addition, the Specialist program provides students with the personal and professional attributes necessary to build a successful career in senior management. This program also includes a Co-operative option.

The Accounting Specialist program encompasses topics such as introductory to advanced financial and managerial accounting, assurance, taxation, economics, and finance. There is also a range of more advanced electives which cover topics and competencies that incorporate critical thinking and ethical decision making.

Program Requirements
The Program requires the completion of 16.0 16.5 to 17.0 17.5 credits as part of a twenty-credit B.B.A. degree.

Note: A single course may only be used once to fulfill one of the following requirements:

1. (7.0 to 8.0 credits, depending on the combination of courses completed):
MGMA01H3/(MGTB04H3) Principles of Marketing
MGTA05H3 Foundations of Business Management or [(MGTA01H3/MGTA03H3) and (MGTA02H3/MGTA04H3)]
[MGTA35H3 Management Communications for non Co-op or MGTA36H3 Management Communications for Co-op or (MGTC36H3)]
MGAB01H3/(MGTB05H3) Introductory Financial Accounting l
MGAB02H3/(MGTB06H3) Introductory Financial Accounting ll
MGAB03H3/(MGTB03H3) Introductory Management Accounting
MGFB10H3/(MGTB09H3) Principles of Finance
[MGHB02H3 Managing People and Groups in Organizations or [(MGTB23H3) and (MGTB29H3)] or (MGTB27Y3)]
MGHB12H3/(MGTC22H3) Human Resource Management
MGMB01H3/(MGTC05H3) Marketing Management
MGFC10H3/(MGTC09H3) Intermediate Finance
MGHC02H3/(MGTC90H3) Management Skills
MGOC10H3/(MGTC74H3) Analysis for Decision Making
MGOC20H3/(MGTC75H3) Operations Management: A Mathematical Approach

2. (1.0 credit):
[MATA32H3 and MATA33H3] strongly recommended, or
[MATA30H3/A31H3 and MATA35H3/A36H3/A37H3]

3. (4.0 credits):
MGEA02H3/(ECMA04H3) Introduction to Microeconomics: A Mathematical Approach
MGEA06H3/(ECMA06H3) Introduction to Macroeconomics: A Mathematical Approach
MGEB02H3/(ECMB02H3) Price Theory: A Mathematical Approach
MGEB06H3/(ECMB06H3) Macroeconomic Theory and Policy: A Mathematical Approach
MGEB11H3/(ECMB11H3) Quantitative Methods in Economics l

MGEB12H3/(ECMB12H3) Quantitative Methods in Economics ll and
1 full credit of C-level Economics for Management Studies courses [excluding
MGEC91H3/(ECMC91H3), MGEC92H3/(ECMC92H3), MGEC93H3/(ECMC93H3)]

4. (3.5 4.0 credits):
MGAC01H3/(MGTC07H3) Intermediate Financial Accounting l
MGAC02H3/(MGTC08H3) Intermediate Financial Accounting ll
MGAC03H3/(MGTC06H3) Intermediate Management Accounting
MGSC30H3/(MGTC31H3) The Legal Environment of Business l
MGAC50H3/(MGTC16H3) Canadian Income Taxation l
MGAC70H3/(MGTC11H3) Management Information Systems
MGAC10H3 or (MGAD10H3)/(MGTD60H3) Auditing
MGAD70H3/(MGTD56H3) Advanced Accounting Case Analysis: A Capstone Course

5. At least one D-level course (0.5 credit) from:
MGAD20H3/(MGTD61H3) Advanced Auditing
MGAD30H3/(MGTD62H3) Auditing in a Computer Environment
MGAD40H3/(MGTD54H3) Management Control Systems
MGAD45H3/(MGSC40H3) Corporate Governance and Strategy: CPA Perspective
MGAD50H3/(MGTD50H3) Advanced Financial Accounting
MGAD65H3 or (MGAC60H3)/(MGTC17H3) Canadian Income Taxation ll
MGAD70H3 (MGTD56H3) Advanced Accounting Case Analysisto

Rationale:
The Accounting Area reviewed the Specialist/Specialist Co-op programs in Management and
Accounting in light of the new Chartered Professional Accountant (CPA) designation requirements and
the new CPA accreditation requirements that we have with the Master of Management & Professional
Accounting (MMPA) program. It was agreed that the capstone course, MGAD70H3, should be made a
required course in the programs since it is a required course in other Accounting Specialist programs.

MGAD30H3 is being deleted from the program because it is no longer a course requirement of the
CPA program.

MGAD45H3 is being added to the program because it is a new course requirement of the CPA
program.

Consultation:
Within the academic unit. Approved by the Departmental Curriculum Committee. Reviewed by the
Dean's Office.

Department of Physical and Environmental Sciences

*Item 1: Specialist in Environmental Chemistry (BSc), and Specialist Co-operative in Environmental
Chemistry (BSc)*

Overview of Changes:
- In Second Year requirements: delete EESB50H3 from the list of required courses; move CHMB21H3 from the list of required courses to the list of optional courses; delete EESB19H3 from the list of optional courses; increase the total credits in optional courses from 0.5 to 1.0.
- In Third Year requirements: move CHMB16H3 to Second Year requirements.
- In Fourth Year requirements: move CHMC11H3 to Third Year requirements; add CHMD16H3 (new) as a required course.

Calendar Copy Showing Changes:

SPECIALIST PROGRAM IN ENVIRONMENTAL CHEMISTRY (SCIENCE)
Supervisor of Studies: Myrna Simpson (416) 287-7234 *Email*: myrna.simpson@utoronto.ca

Program Requirements
Total requirements: 15.0 full credits

First Year:
EESA01H3 Introduction to Environmental Science
EESA06H3 Introduction to Planet Earth
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
MATA30H3 Calculus I for Biological and Physical Sciences
MATA36H3 Calculus II for Physical Sciences
PHYA10H3 Introduction to Physics IA

Second Year:
~~BIOB50H3 Ecology~~
CHMB16H3 Techniques in Analytical Chemistry
CHMB20H3 Chemical Thermodynamics and Elementary Kinetics
~~CHMB21H3 Chemical Structure and Spectroscopy~~
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
CHMB55H3 Environmental Chemistry
EESB15H3 Earth History
STAB22H3 Statistics I
and
~~0.5~~ 1.0 full credit from the following:
CHMB21H3 Chemical Structure and Spectroscopy
EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science
~~EESB19H3 Mineralogy~~

Third Year:
EESC03H3 Geographic Information Systems and Remote Sensing
EESC07H3 Groundwater

EESC13H3 Environmental Impact Assessment and Auditing
EESC20H3 Geochemistry
~~CHMB16H3 Techniques in Analytical Chemistry~~
CHMB31H3 Introduction to Inorganic Chemistry
CHMC11H3 Principles of Analytical Instrumentation
PSCB57H3 Introduction to Scientific Computing

Fourth Year:
~~CHMC11H3 Principles of Analytical Instrumentation~~
CHMD16H3 Environmental and Analytical Chemistry
1.0 credit from the following:
EESD02H3 Contaminant Hydrogeology
EESD13H3 Environmental Law and Ethics
EESD15H3 Cleaning Up Our Mess: Remediation of Terrestrial and Aquatic Environments
and
1.0 credit from the following:
CHMC21H3 Topics in Biophysical Chemistry
CHMC31Y3 Intermediate Inorganic Chemistry
CHMC41H3 Organic Reaction Mechanisms
CHMC42H3 Organic Synthesis
CHMC47H3 Bio-Organic Chemistry
CHMD59H3 Topics in Environmental Chemistry
CHMD89H3 Introduction to Green Chemistry
CHMD90Y3 Directed Research in Chemistry
CHMD91H3 Directed Research in Chemistry
CHMD92H3 Advanced Chemistry Laboratory Course

Rationale:
The proposed changes are a result of a detailed review and evaluation of this program. The review was lead by Prof. M. Simpson (Program Supervisor) in consultation with two other Environmental Chemistry faculty at UTSC (Prof. A. Simpson and Prof. F. Wania). Prof. Simpson also received feedback about this program from the Environmental Science Program Advisory Committee as well as consultation with former students.

The review found that our program is very rigorous but lacked depth in some of the fundamental environmental sciences courses. To correct this, 1.0 FCE in the B level EES courses will be required. These B level courses are considered as foundational courses and will provide students with more depth in basic environmental sciences.

The review also found that our program was lacking in hands on experience with analytical chemistry. Furthermore, CHMB16 and CHMC11, which are analytical chemistry courses, were required in years 3 and 4 respectively. However, analytical chemistry is strongly linked to environmental chemistry and to better prepare the students for CO-OP and summer placements, it is recommended that these courses be required in years 2 and 3 in the program.

To fill the gap with respect to depth in environmental chemistry and experience with analytical insturmentaiton, the new course CHMD16H3 Environmental and Analytical Chemistry will be required in year 4. This course will help prepare students for post-graduation opportunities and make them more competitive for their subsequent careers.

CHMD90Y3, D91H3 and D92H3 are being added to the options in the Fourth Year requirements to provide students with additional opportunities to pursue their interests in various chemistry offerings.

Consultation:
Within the academic unit. Approved by the Departmental Curriculum Committee. There has also been consultation with the Department of Biological Sciences. Reviewed by the Dean's Office.

Item 2: Specialist Co-operative in Environmental Physics (BSc)

Overview of Changes:
- Delete EESA01H3 as an admission requirement; update the total number of credits from 4.5 to 3.5. Note: the total number of credits prior to this change was actually 4.0, not 4.5.

Calendar Copy Showing Changes:

Co-operative Program Offerings
Co-op Supervisors of Studies: ~~Mandy Meriano(416-208-2775)~~ ~~Email: mmeriano@utsc.utoronto.ca~~ *Julian Lowman (416 208 4880), Email: lowman@utsc.utoronto.ca - and Tanzina Mohsin (416 287 7245), tanzina.mohsin@utoronto.ca*
Co-op Contact: askcoop@utsc.utoronto.ca

Eligible Programs of Study
The following Co-operative (Co-op) programs in Environmental Science are available at UTSC:
- Specialist in Environmental Biology
- Specialist in Environmental Chemistry
- Specialist in Environmental Geoscience
- Specialist in Environmental Physics (see Physics and Astrophysics for more information)
- Major in Environmental Science

The Co-op Programs in Environmental Science allow students to combine their chosen academic program with an integrated and complementary work experience. Students are required to complete the program requirements of any one of the above listed non-Co-op Specialist Programs, or non-Co-op Major Program within their 20-credit degree program. They will also complete three work terms of four months each, as well as a specially designed series of enhancement seminars. The overall purpose of these Co-op Programs is to provide students with an educational milieu that will allow them to develop as highly qualified scientists, and with excellent experience in both the academic and workplace environments. Students who are admitted to Co-op Sciences from secondary school with an interest in studying Environmental Science will choose their specific Co-op offering toward the end of their first year of study.

For information on fees, work terms, and studying in the program, please see the Co-operative Programs section of this *Calendar*.

Prospective Applicants: For direct admission from secondary school or for students who wish to transfer to U of T Scarborough from another U of T faculty or from another post-secondary institution, see the Co-operative Programs section in this *Calendar*.

Current U of T Scarborough students: Application procedures can be found at the Registrar's Office website at: www.utsc.utoronto.ca/subjectpost. The minimum qualifications for entry are a cumulative GPA of at least 2.50 and the completion of all course prerequisites as noted in the Program Admission section below.

Program Admission
Students must meet the following requirements to gain entry into their desired program area:
1. Environmental Biology (Specialist): 4.5 full credits as follows: BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, EESA01H3, EESA06H3, MATA30H3, [MATA35H3 or MATA36H3 or MATA37H3] & PHYA10H3
2. Environmental Chemistry (Specialist): 4.5 full credits as follows: BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, EESA01H3, EESA06H3, MATA30H3, [MATA35H3 or MATA36H3 or MATA37H3] & PHYA10H3
3. Environmental Geoscience (Specialist): 4.5 full credits as follows: BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, EESA01H3, EESA06H3, MATA30H3, [MATA35H3 or MATA36H3 or MATA37H3] & PHYA10H3
4. Environmental Physics (Specialist): ~~4.5~~ 3.5 full credits as follows: CHMA10H3, CHMA11H3, ~~EESA01H3~~, EESA06H3, MATA30H3, [MATA36H3 or MATA37H3], PHYA10H3 & PHYA21H3
5. Environmental Science (Major): 4.0 full credits including BIOA01H3, BIOA02H3, EESA06H3

Work Terms
To be eligible for their first work term, students must have completed at least 7.0 full credits. Students must also successfully complete Arts & Science Co-op Work Term Preparation Activities, which include multiple networking sessions, speaker panels and industry tours along with seminars covering resumes, cover letters, job interviews and work term expectations, prior to their first work term.

Rationale:
EESA01H3 is not a requirement in the Specialist in Environmental Physics so it should not be included in the course admission requirements.

Consultation:
Within the academic unit. Approved by the Departmental Curriculum Committee. Reviewed by the Dean's Office.

Department of Psychology

Item 1: Specialist in Mental Health Studies (BSc), and Specialist Co-operative in Mental Health Studies (BSc)

Overview of Changes:
Specialist in Mental Health Studies (BSc)
- Add PSYC09H3 as an option to requirement 2; PSYC08H3 changes from a requirement to an option.
- Delete PSYC84H3 from requirement 5; PSYC85H3 changes from an option to a requirement.

- Add IDSB04H3, IDSC11H3, HLTC05H3, HLTC42H3, SOCB22H3, SOCB49H3 and PHLB81H3 as options to requirement 10; delete MGTA06H3, SOCB48H3 and SOCC30H3 from requirement 10.

Specialist Co-op in Mental Health Studies (BSc)
- Revise program admission requirements for current UTSC students to state that students who have completed 10.0 credits are not eligible to apply to the program.
- Add PSYC09H3 as an option to requirement 2; PSYC08H3 changes from a requirement to an option.
- Delete PSYC84H3 from requirement 5; PSYC85H3 changes from an option to a requirement
- Add PSYD32H3 as an option to requirement 8.
- Add IDSB04H3, IDSC11H3, HLTC05H3, HLTC42H3, SOCB22H3, SOCB49H3 and PHLB81H3 as options to requirement 10; delete MGTA06H3, SOCB48H3 and SOCC30H3 from requirement 10.

Calendar Copy Showing Changes:

SPECIALIST PROGRAM IN MENTAL HEALTH STUDIES (SCIENCE)

Program Requirements
The program requires completion of 12.5 credits as follows, including at least 4.0 credits at the C- or D-level, of which at least 1.0 must be at the D-level:

1. PSYA01H3 Introductory Psychology: Part I
   and
   PSYA02H3 Introductory Psychology: Part II
   (1.0 credit)
2. Statistical Methods (1.0 credit)
   1. PSYB07H3 Data Analysis in Psychology
      and
   2. [PSYC08H3 Advanced Data Analysis in Psychology *or* PSYC09H3 Applied Multiple Regression in Psychology]
3. Laboratory Methods (1.0 credit)
   1. PSYB01H3 Psychological Research Laboratory
      and
   2. PSYC37H3 Psychological Assessment
4. PSYC02H3 Scientific Communication in Psychology
   (0.5 credit)
5. ~~History & Approaches~~ (0.5 credit)
   1. ~~PSYC84H3 Psychology & the Scientific Mind~~
      ~~or~~
   2. PSYC85H3 History of Psychology
6. PSYB30H3 Personality
   and
   PSYB32H3 Abnormal Psychology
   (1.0 credit)
7. Students are required to take 2.0 credits from either the psycho-social grouping or the psycho-biological grouping listed below, as well as 1.0 credit from the other grouping (3.0 credits):

1. Psycho-Social Grouping
      PSYB45H3 Behaviour Modification: Origins and Applications
      PSYC18H3 The Psychology of Emotion
      PSYC35H3 Advanced Personality Psychology
      PSYC36H3 Psychotherapy
      PSYC39H3 Psychology and the Law
   2. Psycho-Biological Grouping
      PSYB64H3 Physiological Psychology
      PSYB65H3 Human Brain & Behaviour
      PSYC31H3 Clinical Neuropsychology
      PSYC33H3 Neuropsychological Rehabilitation
      PSYC62H3 Drugs and the Brain
8. Students are required to take 1.0 D-level credit, with at least 0.5 from the following list (1.0 credit)
   PSYD30H3 Current topics in Personality Psychology
   PSYD32H3 Personality Disorders
   PSYD33H3 Current topics in Abnormal Psychology
   PSYD35H3 Clinical Psychopharmacology
9. Additional credits in Psychology (1.5 credits)
10. Students must select 2.0 credits from the following courses:
    HLTB17H3 Conceptual Models of Health
    HLTB40H3 Health Policy and Health Systems
    HLTC05H3 Social Determinents of Health
    HLTC22H3 Health, Aging, and the Life Cycle
    HLTC23H3 Issues in Child Health and Development
    HLTC42H3 Emerging Health Issues and Policy Needs
    IDSB04H3 Introduction to International/Global Health
    IDSC11H3 Issues in Global and International Health
    LINB20H3 Sociolinguistics
    ~~MGTA06H3 Introduction to Health Management~~
    PHLA11H3 Introduction to Ethics
    PHLB07H3 Ethics
    PHLB09H3 Biomedical Ethics
    PHLB81H3 Theories of Mind
    SOCB22H3 Sociology of Gender
    SOCB49H3 Sociology of Family
    ~~(SOCB48H3) Family and Society~~
    SOCB50H3 Deviance and Normality I
    SOCB51H3 Deviance and Normality II
    ~~SOCC30H3 Criminal Behaviour~~

SPECIALIST CO-OP PROGRAM IN MENTAL HEALTH STUDIES (SCIENCE)

Program Admission
Prospective Applicants: For direct admission from secondary school or for students who wish to transfer to U of T Scarborough from another U of T faculty or from another post secondary institution, see the Co-operative Programs section in this *Calendar*.

Current U of T Scarborough students: Application procedures can be found at the Registrar's Office website at: www.utsc.utoronto.ca/subjectpost. The minimum qualifications for entry are 4.0 credits

including PSYA01H3 & PSYA02H3 plus a cumulative GPA of at least 2.75. Students who have completed 10.0 credits, or more, are not eligible to apply to the program. Students currently enrolled in the Specialist Co-op in Mental Health Studies, who have completed 10.0 credits, or more, are not elgible to transfer to the Specialst Co-op in Psychology, or vice-versa.

Program Requirements

Work Terms
The program requires eight four month terms of study and two four month work terms over a four year period. To be eligible for their first work term, students must have completed at least 10.0 credits, including PSYB01H3, PSYB07H3, PSYB32H3, PSYB65H3, PSYC02H3, PSYC08H3, and PSYC32H3. Students must also successfully complete Arts & Science Co-op Work Term Preparation Activities, which include multiple networking sessions, speaker panels and industry tours along with seminars covering resumes, cover letters, job interviews and work term expectations, prior to their first work term. Certain other courses specified below, are to be taken before the first work term.
To be eligible for their second work term, students must have completed at least 12.5 credits, including certain courses specified below, and have received satisfactory evaluation for their performance and for their report on their first work term.

Course Requirements
The program requires 12.5 credits as follows, including at least 4.0 credits at the C- or D-level, of which at least 1.0 credit must be at the D-level:

1. PSYA01H3 Introductory Psychology: Part I
   and
   PSYA02H3 Introductory Psychology: Part II
   (1.0 credit)
2. Statistical Methods (1.0 credit)
   1. PSYB07H3 Data Analysis in Psychology*
      and
   2. [PSYC08H3 Advances Data Analysis in Psychology *or* PSYC09H3 Applied Multiple Regression in Psychology *]
3. Laboratory Methods (1.5 credits)
   1. PSYB01H3 Psychological Research Laboratory*
      and
   2. PSYC32H3 Clinical Neuropsychology Laboratory*
      and
   3. PSYC37H3 Psychological Assessment**
4. PSYC02H3 Scientific Communication in Psychology*
   (0.5 credit)
5. ~~History & Approaches~~ (0.5 credit)
   1. ~~PSYC84H3 Psychology & the Scientific Mind~~
      ~~or~~
   2. PSYC85H3 History of Psychology
6. PSYB30H3 Personality
   and
   PSYB32H3 Abnormal Psychology*
   (1.0 credit)

7. Students are required to take 2.0 credits from either the psycho-social grouping or the psycho-biological grouping listed below, as well as 1.0 credit from the other grouping (3.0 credits):
   1. Psycho-Social Grouping
      PSYB45H3 Behaviour Modification
      PSYC18H3 The Psychology of Emotion
      PSYC35H3 Advanced Personality Psychology
      PSYC36H3 Psychotherapy
      PSYC39H3 Psychology and the Law
   2. Psycho-Biological Grouping
      PSYB64H3 Physiological Psychology
      PSYB65H3 Human Brain & Behaviour*
      PSYC33H3 Neuropsychological Rehabilitation**
      PSYC62H3 Drugs and the Brain
8. Students are required to take 1.0 D-level credit, with at least 0.5 credit from the following list:
   PSYD30H3 Current topics in Personality Psychology
   PSYD32H3 Personality Disorders
   PSYD33H3 Current topics in Abnormal Psychology
   PSYD35H3 Clinical Psychopharmacology
9. Additional credits in Psychology (1.0 credits)
10. Students must select 2.0 credits from the following courses:
    HLTB17H3 Conceptual Models of Health
    HLTB40H3 Health Policy and Health Systems
    HLTC05H3 Social Determinents of Health
    HLTC22H3 Health, Aging, and the Life Cycle
    HLTC23H3 Issues in Child Health and Development
    HLTC42H3 Emerging Health Issues and Policy Needs
    IDSB04H3 Introduction to International/Global Health
    IDSC11H3 Issues in Global and International Health
    LINB20H3 Sociolinguistics
    ~~MGTA06H3 Introduction to Health Management~~
    PHLA11H3 Introduction to Ethics
    PHLB07H3 Ethics
    PHLB09H3 Biomedical Ethics
    PHLB81H3 Theories of Mind
    SOCB22H3 Sociology of Gender
    SOCB49H3 Sociology of Family
    ~~(SOCB48H3) Family and Society~~
    SOCB50H3 Deviance and Normality I
    SOCB51H3 Deviance and Normality II
    ~~SOCC30H3 Criminal Behaviour~~

* These credits must be successfully completed before the first work term.
** These credits must be successfully completed before the second work term.

Rationale:
Adding PSYC09H3 as an option to requirement 2:
Will provide students in Specialist programs, who focus on non-experimental and applied areas of study, an alternative PSYC08H3 to meet program requirements.

Deleting PSYC84H3 as an option in requirement 5:

PSYC84H3 is no longer being offered, and is being deleted.

Adding PSYD32H3 to requirement 8 of Specialist Co-op:
Provides greater breadth of options for students to meet their D-level program requirements.

Adding IDSB04H3, IDSC11H3, HLTC05H3, HLTC42H3, SOCB22H3, SOCB49H3, PHLB81H3 to
and removing MGTA06H3, SOCB48H3, SOCC30H3 from requirement 10:
The course list has been updated to incorporate new courses that are complimentary to the discipline
and are at an appropriate level of study as not to be barriers to course selection due to prerequisite
requirements. Courses being removed either have been deleted (MGTA06H3, SOCB48H3) or have too
may prerequisite requirements above those required to be suitable for these Specialist programs.

The admission requirements for the Specialist Co-op are being revised to ensure that students are
qualified, and have completed the course work necessary, for successful work term placements. The
changes also prevent students in upper years from transferring programs late and requesting that
coursework be waived so that they can proceed with work terms – both the Department and the Arts
and Science Co-op Office have increasingly experienced pressure from students to make these types of
exceptions. In addition, the Art and Science Co-op Office has noted that a subset of students are
transferring programs so that they can gain access to particular placements and/or courses, yet they
have no intention of completing the program in its entirety. When students transfer from program to
program in this way, they artificially inflate enrolments, which creates challenges at the Departmental
level in terms of course planning, and in the Arts and Science Co-op Office in terms of planning
work/study sequencing. It also creates unnecessary competition among students for placement
opportunities, which may cause students to drop out of co-op. The proposed change will help to ensure
that students thoroughly think through their co-op options, and keep them focused on meeting their
program requirements and completing work terms in a timely fashion. Finally, it will help to keep
access to placements opportunities fair.

Consultation:
Within the academic unit. Approved by the Departmental Curriculum Committee. There has also been
consultation with the Arts and Science Co-op Office, and with the Departments of Philosophy and
Sociology, with the Centre for Critical Development Studies, and with the Health Studies faculty.
Reviewed by the Dean's Office.

Item 2: Specialist in Psychology (BSc), and Specialist Co-operative in Psychology (BSc)

Overview of Changes:
Specialist in Psychology (BSc)
- Add PSYC09H3 as an option to requirement 2; PSYC08H3 changes from a requirement to an
  option.
- Delete PSYC84H3 from requirement 5; PSYC85H3 changes from an option to a requirement.
- Add PSYD14H3 as an option in requirement 7; move PSYD34H3 from Group 1 to Group 2 in
  requirement 7; delete PSYD58H3 as an option in requirement 7.

Specialist Co-op in Psychology (BSc)
- Revise program admission requirements for current UTSC students to state that students who have
  completed 10.0 credits are not eligible to apply to the program.

- Add PSYC09H3 as an option to requirement 2; PSYC08H3 changes from a requirement to an option.
- Delete PSYC84H3 from requirement 5; PSYC85H3 changes from an option to a requirement
- Add PSYD11H3, PSYD12, and PSYD14H3 as options in requirement 7; move PSYD34H3 from Group 1 to Group 2 in requirement 7; delete PSYD58H3 as an option in requirement 7.
- Revise requirement 8 – now students must ensure they complete 1.0 credit at the C-level, rather than at the C- or D-level.

Calendar Copy Showing Changes:

SPECIALIST PROGRAM IN PSYCHOLOGY (SCIENCE)

Program Requirements
The Program requires completion of 12.5 credits, including at least 4.0 credits at the C- or D-level, of which at least 1.0 credit must be at the D-level:

1. PSYA01H3 Introductory Psychology: Part I
   and
   PSYA02H3 Introductory Psychology: Part II
   (1.0 credit)
2. Statistical Methods (1.0 credit)
     1. PSYB07H3 Data Analysis in Psychology
        and
     2. [PSYC08H3 Advanced Data Analysis in Psychology *or* PSYC09H3 Applied Multiple Regression in Psychology]
3. Laboratory Methods (1.0 credit)
     1. PSYB01H3 Psychological Research Laboratory
        and
     2. 0.5 credit from among the following:
        PSYC04H3 Brain Imaging Laboratory
        PSYC05H3 Human Movement Laboratory
        PSYC06H3 Psychophysiology Laboratory
        PSYC11H3 Social Psychology Laboratory
        PSYC26H3 Developmental Psychology Laboratory
        PSYC58H3 Cognitive Psychology Laboratory
        NROC63H3 Neuroscience Laboratory
4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)
5. ~~History and Approaches~~ (0.5 credit)
     1. ~~PSYC84H3 Psychology and the Scientific Mind~~
        ~~*or*~~
     2. ~~2.~~ PSYC85H3 History of Psychology
6. Credits at the B-level and C-level (5.0 credits)
   Students are required to take 3.0 credits at the B-level or C-level from one of the two content groups listed below and 2.0 credits from the other group:
     1. Social and Developmental (courses listed in the 10- and 20-series);
     2. Perception, Cognition and Physiology (courses listed in the 50- and 60-series)
7. Credits at the D-level (1.0 credit)
   Students must take a 0.5 credit from each of the groupings listed below:

1. Group One
   PSYD11H3 Psychology of Interpersonal Relationships
   PSYD12H3 Social Psychology of the Self
   PSYD14H3 Psychology of Morality
   PSYD15H3 Current Topics in Social Psychology
   PSYD16H3 Critical Analysis in Social Psychology
   PSYD18H3 Psychology of Gender
   PSYD20H3 Current Topics in Developmental Psychology
   PSYD22H3 Socialization Processes
   PSYD34H3 Human Intelligence
2. Group Two
   PSYD34H3 Human Intelligence
   PSYD50H3 Current Topics in Memory and Cognition
   PSYD51H3 Current Topics in Perception
   PSYD58H3 The Scientific Study of Conscious and Unconscious Influences
   PSYD66H3 Current Topics in Human Brain and Behaviour
8. Additional credits in Psychology (2.5 credits)
   Students must choose 2.5 further credits from any of the remaining courses in Psychology. In selecting the 2.5 credits, 1.0 credit must be at the C- or D-level. Supervised study or thesis courses may be used to fulfill a maximum of 0.5 credit.

SPECIALIST CO-OP PROGRAM IN PSYCHOLOGY (SCIENCE)

Program Admission
Prospective Applicants: For direct admission from secondary school or for students who wish to transfer to U of T Scarborough from another U of T faculty or from another post secondary institution, see the Co-operative Programs section in this *Calendar*.

Current U of T Scarborough students: Application procedures can be found at the Registrar's Office website at: www.utsc.utoronto.ca/subjectpost. The minimum qualifications for entry are 4.0 credits including PSYA01H3 & PSYA02H3 plus a cumulative GPA of at least 2.75. Students who have completed 10.0 credits, or more, are not eligible to apply to the program. Students currently enrolled in the Specialist Co-op in Psychology, who have completed 10.0 credits, or more, are not elgible to transfer to the Specialst Co-op in Mental Health Studies, or vice-versa.

Program Requirements

Work Terms
The program requires eight four month terms of study and two four month work terms over a four year period. To be eligible for their first work term, students must have completed at least 10.0 credits, including PSYB01H3, PSYB07H3, PSYB32H3, PSYB65H3, PSYC02H3, PSYC08H3, and PSYC32H3. Students must also successfully complete Arts & Science Co-op Work Term Preparation Activities, which include multiple networking sessions, speaker panels and industry tours along with seminars covering resumes, cover letters, job interviews and work term expectations, prior to their first work term. Certain other courses specified below, are to be taken before the first work term.
To be eligible for their second work term, students must have completed at least 12.5 credits, including certain courses specified below, and have received satisfactory evaluation for their performance and for their report on their first work term.

Program Requirements

The Program requires completion of 12.5 credits, including at least 4.0 credits at the C- or D-level, of which at 1.0 credit must be at the D-level:

1. PSYA01H3 Introductory Psychology: Part I
   and
   PSYA02H3 Introductory Psychology: Part II
   (1.0 credit)
2. Statistical Methods (1.0 credit)
   1. PSYB07H3 Data Analysis in Psychology*
      and
   2. [PSYC08H3 Advanced Data Analysis in Psychology *or* PSYC09H3 Applied Multiple Regression in Psychology *]
3. Laboratory Methods (1.0 credit)
   1. PSYB01H3 Psychological Research Laboratory*
      and
   2. 0.5 credit from among the following:
      PSYC04H3 Brain Imaging Laboratory
      PSYC05H3 Human Movement Laboratory
      PSYC06H3 Psychophysiology Laboratory
      PSYC11H3 Social Psychology Laboratory
      PSYC26H3 Developmental Psychology Laboratory
      PSYC58H3 Cognitive Psychology Laboratory
      NROC63H3 Neuroscience Laboratory
4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)*
5. ~~History and Approaches~~ (0.5 credit)
   1. ~~PSYC84H3 Psychology and the Scientific Mind~~
      ~~*or*~~
   2. ~~PSYC85H3~~ History of Psychology
6. Credits at the B-level and C-level (5.0 credits)
   Students are required to take 3.0 credits at the B-level or C-level from one of the two content groups listed below and 2.0 credits from the other group:
   1. Social and Developmental (courses listed in the 10- and 20-series);
   2. Perception, Cognition and Physiology (courses listed in the 50- and 60-series);
7. Credits at the D-level (1.0 credit)
   Students must take 0.5 credit from each of the groupings listed below:
   1. **Group One**
      PSYD11H3 Psychology of Interpersonal Relationships
      PSYD12H3 Social Psychology of the Self
      PSYD14H3 Psychology of Morality
      PSYD15H3 Current Topics in Social Psychology
      PSYD16H3 Critical Analysis in Social Psychology
      PSYD18H3 Psychology of Gender
      PSYD20H3 Current Topics in Developmental Psychology
      PSYD22H3 Socialization Processes
      ~~PSYD34H3 Human Intelligence~~
   2. **Group Two**
      PSYD34H3 Human Intelligence

       PSYD50H3 Current Topics in Memory and Cognition
       PSYD51H3 Current Topics in Perception
       ==PSYD58H3 The Scientific Study of Conscious and Unconscious Influences==
       PSYD66H3 Current Topics in Human Brain and Behaviour

8. Additional credits in Psychology (2.5 credits)
   Students must choose 2.5 further credits from any of the remaining courses in Psychology. In selecting the 2.0 credits, 1.0 credit must be at the C- ~~or D~~ level. Supervised study or thesis courses may be used to fulfill a maximum of 0.5 credit.

(*) These credits must be successfully completed before the first work term.

Rationale:

Adding PSYC09H3 as an option to requirement 2:
Will provide students in Specialist programs, who focus on non-experimental and applied areas of study, an alternative PSYC08H3 to meet program requirements.

Deleting PSYC84H3 as an option in requirement 5 and PSYD58H3 in requirement 7:
These courses are longer being offered, and are being deleted.

Addition of PSYD11H3, PSYD12H3, and PSYD14H3 as options in requirement 7:
Provides greater breadth of options for students to meet their D-level program requirements.

Moving PSYD34H3 in requirement 7:
This course is more appropriately housed amongst the 50-series/cognitive psychology courses as there is heavy emphasis in the course on computation and statistical analysis. Moving the course also provides a better balance in course offerings between the 2 D-level groupings for Psychology Specialists.

Removal of optional D-level in requirement 8:
The Department has not have enough available space in D-level course offerings to allow students to take more than the minimum required to meet program requirements (ie. 1.0FCE) and does not aniticapte this changing in future.

The admission requirements for the Specialist Co-op are being revised to ensure that students are qualified, and have completed the course work necessary, for successful work term placements. The changes also prevent students in upper years from transferring programs late and requesting that coursework be waived so that they can proceed with work terms – both the Department and the Arts and Science Co-op Office have increasingly experienced pressure from students to make these types of exceptions. In addition, the Art and Science Co-op Office has noted that a subset of students are transferring programs so that they can gain access to particular placements and/or courses, yet they have no intention of completing the program in its entirety. When students transfer from program to program in this way, they artificially inflate enrolments, which creates challenges at the Departmental level in terms of course planning, and in the Arts and Science Co-op Office in terms of planning work/study sequencing. It also creates unnecessary competition among students for placement opportunities, which may cause students to drop out of co-op. The proposed change will help to ensure that students thoroughly think through their co-op options, and keep them focused on meeting their program requirements and completing work terms in a timely fashion. Finally, it will help to keep access to placements opportunities fair.

Consultation:
Within the academic unit. Approved by the Departmental Curriculum Committee. There has also been consultation with the Arts and Science Co-op Office. Reviewed by the Dean's Office.

Department of Sociology

Item 1: Specialist in Sociology (BA)

Overview of Changes:
- STAB23H3 replaces STAB22H3 as a requirement
- Add 0.5 credit in a C-level writing intensive course to the program

Calendar Copy Showing Changes:

SPECIALIST PROGRAM IN SOCIOLOGY (ARTS)

Program Requirements
The Program requires completion of 12.0 full credits as described below. No more than 14.0 full credits in Sociology may be included in a four-year degree.

1. SOCA01H3 Introduction to Sociology I
   SOCA02H3 Introduction to Sociology II
2. SOCB05H3 Logic of Social Inquiry
3. ~~STAB22H3 Statistics I~~ STAB23H3 Introduction to Statistics for the Social Sciences
4. SOCB42H3 Classical Sociological Theory I
5. SOCB43H3 Classical Sociological Theory II
6. 3.0 full credits at the B-level in Sociology
7. SOCC40H3 Contemporary Sociological Theory
8. SOCC23H3 Practicum in Qualitative Research Methods
   or
   SOCC31H3 Practicum in Quantitative Research Methods
9. One C-level SOC course (0.5 credit) that has been designated as an Applied Writing Skills Course
10. ~~5.0 full~~ 4.5 additional credits in ~~Sociology~~ at the C- or D- level, at least 1.0 ~~0.5~~ credit of which must be at the D-level
    Note: Students may substitute courses from cognate disciplines with the prior approval of the program supervisor.

Rationale:
Replacing STAB2H3 with STAB23H3:
In response to feedback from the social science units, CMS designed STAB23H3, which is geared towards students in social science programs. The new course is focused more on teaching students how to identify and answer sociological issues using quantitative data, and less on the mathematics behind the use of statistics for the analysis of social life.

Addition of 0.5 credit in a C-level intensive writing course:

Responds to the recommendations of the recent external review of the undergraduate programs in Sociology, and ensures the structure of the program supports the UTSC Degree Level Expectations.

Consultation:
Within the academic unit. Approved by the Departmental Curriculum Committee. Reviewed by the Dean's Office.

Item 2: Major in Sociology (BA)

Overview of Changes:
- STAB23H3 replaces STAB22H3 as a requirement
- Add 0.5 credit in a C-level writing intensive course to the program

Calendar Copy Showing Changes:

MAJOR PROGRAM IN SOCIOLOGY (ARTS)

Program Requirements
The Program requires completion of 7.0 full credits in Sociology including:

1. SOCA01H3 Introduction to Sociology I
   SOCA02H3 Introduction to Sociology II
2. SOCB05H3 Logic of Social Inquiry
3. ~~STAB22H3 Statistics I~~ STAB23H3 Introduction to Statistics for the Social Sciences
4. SOCB42H3 Classical Sociological Theory I
5. SOCB43H3 Classical Sociological Theory II
6. One C-level SOC course (0.5 credit) that has been designated as an Applied Writing Skills Course

~~4~~3.5 ~~full~~ additional credits in SOC courses ~~Sociology~~, at least ~~2.0~~ 1.5 credits of which must be at the C- or D-level

Rationale:
Replacing STAB2H3 with STAB23H3:
In response to feedback from the social science units, CMS designed STAB23H3, which is geared towards students in social science programs. The new course is focused more on teaching students how to identify and answer sociological issues using quantitative data, and less on the mathematics behind the use of statistics for the anyalysis of social life.

Addition of 0.5 credit in a C-level intensive writing course:
Responds to the recommendations of the recent external review of the undergraduate programs in Sociology, and ensures the structure of the program supports the UTSC Degree Level Expectations.

Consultation:
Within the academic unit. Approved by the Departmental Curriculum Committee. Reviewed by the Dean's Office.